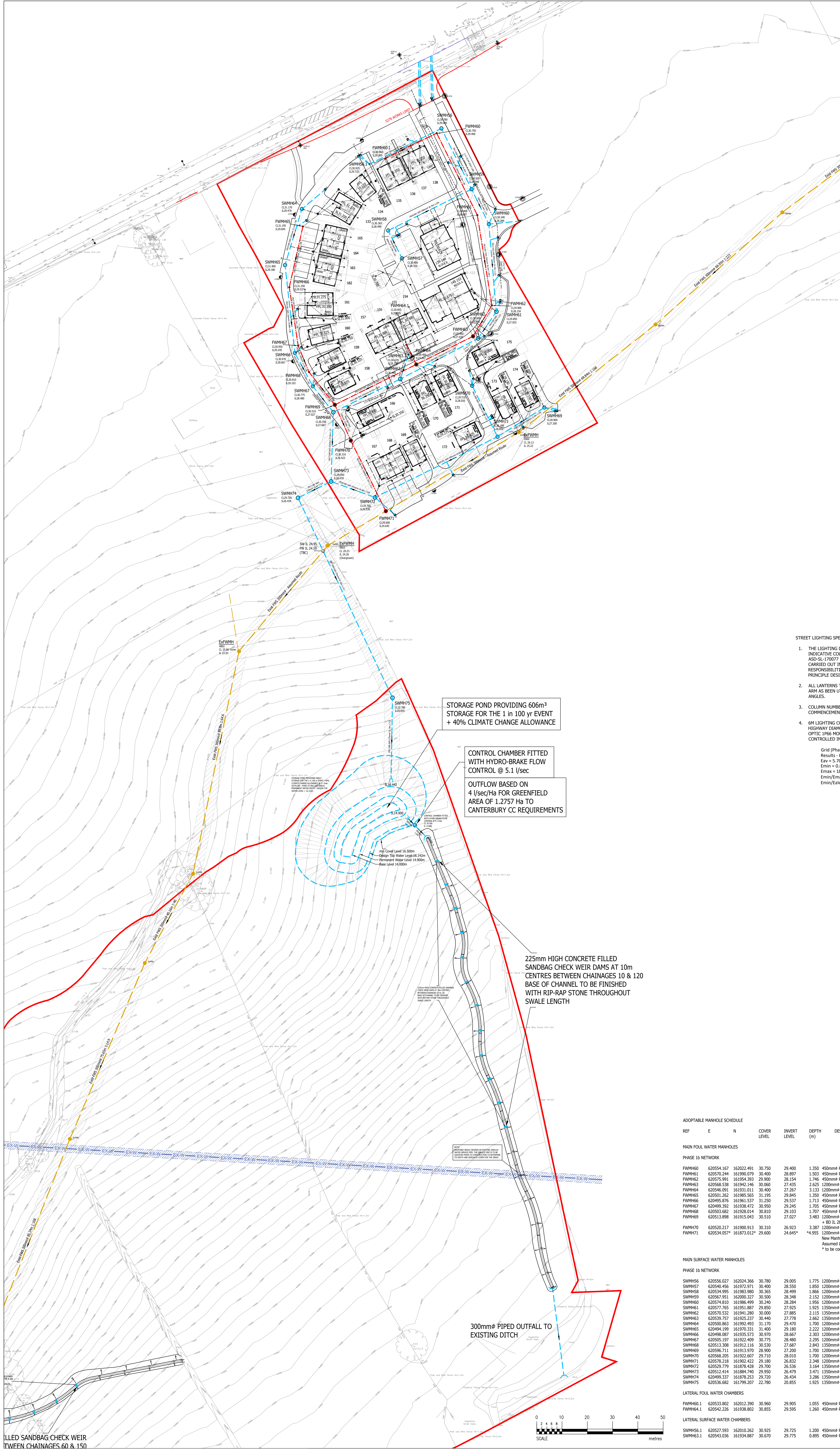


APPENDIX B – SITE DRAINAGE LAYOUTS

- 2655-21-06-506 - Road and Main Sewer Layout – Phase 1a
- 2655-21-06-507 - Road and Main Sewer Layout – Phase 1b
- 2655-21-06-508 - Catchments Plan – Phase 1a
- 2655-21-06-509 - Catchments Plan – Phase 1b



- GENERAL NOTES**
- The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non-intrusive observations, record drawings or the like. The contractor shall verify any and all existing services, their locations and depths prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. Any discrepancies shall be notified to the client prior to commencement of work.
 - Prior to commencement of work the contractor shall provide co-ordinated and dimensioned installation drawings and calculations and allow 10 working days for the client's checking procedure prior to proceeding with the work or the ordering of materials.
 - Tender or bill of materials shall not be used for construction or the ordering of materials.
 - Do not scale. All dimensions and levels to be confirmed.
 - This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&M requirements.
 - Copyright: This drawing must not be copied, amended or reproduced without the prior written agreement of gta.
 - All drawings, specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Client's risk. gta hold no responsibility for resulting abortive works or costs.

- GENERAL NOTES**
- ALL ADAPTABLE HIGHWAY CONSTRUCTION WORKS SHALL BE CARRIED OUT TO THE STANDARD LAD DOWN IN THE WEST COUNTY COUNCIL SPECIFICATIONS, WITH A VIEW TO ADOPTION UPON COMPLETION.
 - ALL ADAPTABLE SEWERS AND SHALL BE CONSTRUCTED TO THE STANDARD LAD DOWN BY "SEWERS FOR ADOPTION" TO THE LOCAL AND SOUTHERN WATER SPECIFICATIONS, WITH A VIEW TO ADOPTION UPON COMPLETION.
 - BEFORE CONNECTIONS ARE MADE TO EXISTING DRAINAGE, ITS LEVEL IS TO BE CHECKED AND COMPARED AGAINST LEVELS SHOWN ON THIS DRAWING AND THIS OFFICE. REPORTED OF ANY SIGNIFICANT DIFFERENCE. NO CONNECTIONS ARE TO BE MADE TO THE EXISTING PUBLIC SEWERS PRIOR TO A S106 AGREEMENT WITH SOUTHERN WATER.
 - ALL SEWERS WITH LESS THAN 12m OF COVER WHEN LAID BENEATH THE ROADS, OR 0.9m OF COVER IN OTHER AREAS, SHALL BE PROTECTED WITH CONCRETE IN ACCORDANCE WITH ETHERS OF THE DETAILS SHOWN ON THE STANDARD DRAWING PROVIDED (FOR BEDDING TYPE LOCATIONS, REFER TO SEWER SECTIONS).
 - THE MINIMUM SIZE OF PIPE CONNECTIONS TO THE DRAINAGE SYSTEM SHALL BE 150mm DIA. LAID AT A MINIMUM GRADIENT OF 1 IN 80.
 - IN ORDER TO MAINTAIN THE SATISFACTORY FUNCTIONING OF THE DRAINAGE SYSTEM, ALL ROAD AND ROAD GULLIES ARE TO BE "TRAPPED".
 - ALL NON ADAPTABLE LATERALS BENEATH THE HIGHWAY SHALL BE BACKFILLED WITH LEAN MIX CONCRETE UNLESS OTHERWISE AGREED WITH THE HIGHWAYS ENGINEER.
 - THE DESIGN IS SUCH THAT WATER FROM PRIVATE AREAS DOES NOT SHED TO ADAPTABLE AREAS AND VICA VERSA.
 - 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.
 - THE CONTRACTOR SHOULD CHECK ALL DIMENSIONS ON SITE.
 - IT IS THE SUBCONTRACTORS RESPONSIBILITY TO ENSURE COMPLIANCE WITH CURRENT BUILDING REGULATIONS AND CODES OF PRACTICE.

- KEY**
- Site Boundary
 - Existing Foul Drainage
 - Existing Surface Water Drainage
 - Existing SW Drainage to be Removed
 - Proposed Surface Water Drainage
 - Proposed Foul Drainage
 - Main Foul Sewer Manhole - Type 2
 - Main Surface Water Manhole - Type 2
 - Main Surface Water Manhole - Type 3
 - Road Gully
 - Direction of Fall
 - Sewer Easement
 - Street Nameplate
 - Adjustable Lighting Column
 - Adjustable Manhole Cover

- STREET LIGHTING SPECIFICATION**
- THE LIGHTING DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH BS5489:2015 TO PROVIDE INDICATIVE COLUMN POSITIONS, FOR TRANSPARENCY AND THE AVOIDANCE OF DOUBT DRAWING NO. ASD-SL-170077 IS NOT TO BE USED AS CONSTRUCTION DRAWING AS A SITE SURVEY HAS NOT BEEN CARRIED OUT IN ACCORDANCE WITH CDM 2015 AND HEA GUIDELINES. THEREFORE THE RESPONSIBILITIES OF ELIMINATING AND REDUCING RISK WILL NEED TO BE MITIGATED BY A COMPETENT PRINCIPLE DESIGNER.
 - ALL LANTERNS TO BE MOUNTED AT 0 DEGREES TILT UNLESS OTHERWISE SPECIFIED. IF A BRACKET ARM HAS BEEN UTILISED THE APPOINTED CONTRACTOR WILL BE RESPONSIBLE FOR THE OVERALL TILT ANGLES.
 - COLUMN NUMBERING TO BE CONFIRMED BY THE LOCAL AUTHORITY/CONTRACTOR BEFORE WORKS COMMENCEMENT.
 - 6M LIGHTING COLUMN TO SPECIFICATION WITH 4K POST TOP MOUNTED HWDKLED1250-S4 : ASD HIGHWAY DIAMOND OYSTER 4000K AUTO DISCONNECT 12 LED 500mA CLO 7PIN NEMA SOCKET S4 OPTIC 1966 MOUNTED AT 0 DEGREES TILT UNLESS OTHERWISE STATED. LANTERNS TO BE CONTROLLED IN LINE WITH THE SPECIFICATION.
- Grid (Phase 1b)
Results - Horizontal Illuminance (lux)
Eav = 5.70
Emin = 0.80
Emax = 18.88
Emin/Emax = 0.04
Emin/Eav = 0.14

STORAGE POND PROVIDING 606m³ STORAGE FOR THE 1 in 100 yr EVENT + 40% CLIMATE CHANGE ALLOWANCE

CONTROL CHAMBER FITTED WITH HYDRO-BRAKE FLOW CONTROL @ 5.1 l/sec

OUTFLOW BASED ON 4 l/sec/Ha FOR GREENFIELD AREA OF 1.2757 Ha TO CANTERBURY CC REQUIREMENTS

225mm HIGH CONCRETE FILLED SANDBAG CHECK WEIR DAMS AT 10m CENTRES BETWEEN CHAINAGES 10 & 120 BASE OF CHANNEL TO BE FINISHED WITH RIP-RAP STONE THROUGHOUT SWALE LENGTH

ILLED SANDBAG CHECK WEIR BETWEEN CHAINAGES 60 & 150

ADOPTABLE MANHOLE SCHEDULE

REF	E	N	COVER LEVEL	INVERT LEVEL	DEPTH (m)	DESCRIPTION	COVER TYPE
MAIN FOUL WATER MANHOLES							
PHASE 1b NETWORK							
FWMH60	620554.167	162022.491	30.750	29.400	1.350	450mm PCC Type 3 (R.18)	D400
FWMH61	620570.244	161990.079	30.400	28.897	1.503	450mm PCC Type 3 (R.18)	D400
FWMH62	620575.991	161954.393	29.900	28.154	1.746	450mm PCC Type 3 (R.18)	D400
FWMH63	620568.538	161940.146	30.060	27.435	2.625	1200mm PCC Type 2	D400
FWMH64	620546.091	161931.011	30.400	27.267	3.133	1200mm PCC Type 2	D400
FWMH65	620501.262	161985.565	31.195	29.845	1.350	450mm PCC Type 3 (R.18)	D400
FWMH66	620495.876	161961.537	31.250	29.517	1.733	450mm PCC Type 3 (R.18)	D400
FWMH67	620499.392	161938.472	30.950	29.245	1.705	450mm PCC Type 3 (R.18)	D400
FWMH68	620503.682	161928.014	30.810	29.103	1.707	450mm PCC Type 3 (R.18)	D400
FWMH69	620513.896	161915.043	30.510	27.027	3.483	1200mm PCC Type 1	D400
FWMH70	620520.217	161900.911	30.310	26.923	3.387	1200mm PCC Type 1	D400
FWMH71	620534.057*	161873.012*	29.600	24.645*	*4.955	1200mm PCC Type 1	B125
* New Manhole on Existing 300mm FWS Assumed Location and Depth * to be confirmed on site							
MAIN SURFACE WATER MANHOLES							
PHASE 1b NETWORK							
SWMH56	620556.027	162024.366	30.780	29.005	1.775	1200mm PCC Type 2	D400
SWMH57	620540.456	161972.971	30.400	28.550	1.850	1200mm PCC Type 2	D400
SWMH58	620534.995	161983.980	30.365	28.499	1.866	1200mm PCC Type 2	D400
SWMH59	620561.951	162000.327	30.500	28.348	2.152	1200mm PCC Type 2	D400
SWMH60	620574.810	161986.499	30.240	28.284	1.956	1200mm PCC Type 2	D400
SWMH61	620577.765	161951.887	29.850	27.935	1.915	1350mm PCC Type 2	D400
SWMH62	620570.532	161941.280	30.000	27.885	2.115	1350mm PCC Type 2	D400
SWMH63	620539.757	161925.237	30.440	27.778	2.662	1350mm PCC Type 2	D400
SWMH64	620500.863	161993.493	31.170	29.470	1.700	1200mm PCC Type 2	D400
SWMH65	620494.199	161970.331	31.400	29.180	2.220	1200mm PCC Type 2	D400
SWMH66	620498.087	161935.573	30.970	28.667	2.303	1200mm PCC Type 2	D400
SWMH67	620505.197	161922.469	30.775	28.480	2.295	1200mm PCC Type 2	D400
SWMH68	620513.396	161911.116	30.530	27.687	2.843	1350mm PCC Type 2	D400
SWMH69	620596.711	161913.970	28.900	27.200	1.700	1200mm PCC Type 2	D400
SWMH70	620568.205	161922.607	29.710	28.010	1.700	1200mm PCC Type 2	D400
SWMH71	620578.219	161902.422	29.180	26.832	2.348	1200mm PCC Type 2	D400
SWMH72	620529.779	161878.428	29.700	26.536	3.164	1350mm PCC Type 2	B125
SWMH73	620512.414	161884.740	29.950	26.479	3.471	1350mm PCC Type 1	B125
SWMH74	620495.337	161878.253	29.720	26.434	3.286	1350mm PCC Type 2	B125
SWMH75	620536.682	161799.207	27.780	20.855	1.925	1350mm PCC Type 2	B125
LATERAL FOUL WATER CHAMBERS							
FWMH4.1	620533.802	162012.290	30.960	29.905	1.055	450mm Plastic Type 3 (R.16)	A15
FWMH4.1	620542.226	161938.802	30.855	29.955	1.260	450mm Plastic Type 3 (R.16)	A15
LATERAL SURFACE WATER CHAMBERS							
SWMH56.1	620527.593	162010.262	30.925	29.725	1.200	450mm PCC Type 3 (R.18)	B125
SWMH56.1	620543.036	161934.887	30.670	29.775	0.895	450mm PCC Type 3 (R.18)	B125

DISCLAIMER NOTE REVISION

1	DISCLAIMER NOTE REVISION	06.11.18	ONS	NS
2	SWALE CROSSING OF EXISTING WATER MAIN REPLACED	31.10.18	ONS	NS
3	PLAN LAYOUT STORAGE POND REDRAWN IN ACCORDANCE WITH HCC SPECIFICATIONS	03.09.18	ONS	NS
4	MAIN DRAINAGE UPDATED TO SUIT CURRENT SITE LAYOUT STORAGE POND REDRAWN IN ACCORDANCE WITH HCC SPECIFICATIONS	18.08.18	ONS	NS
5	PLANNING CONDITIONS ISSUE	22.02.18	ONS	NS
6	DRAWING NUMBER UPDATED	18.08.18	ONS	NS
7	PLANNING ISSUE	01.03.18	ONS	NS
8	DRAWING NUMBER		ONS	NS
9	PLANNING ISSUE		ONS	NS
10	PLANNING ISSUE		ONS	NS

Status: PRELIMINARY

Client: **REDROW HOMES**

Project: **PHASE 1b, HOPLANDS FARM HERSDEN, KENT**

Title: **ROAD AND MAIN SEWER LAYOUT**

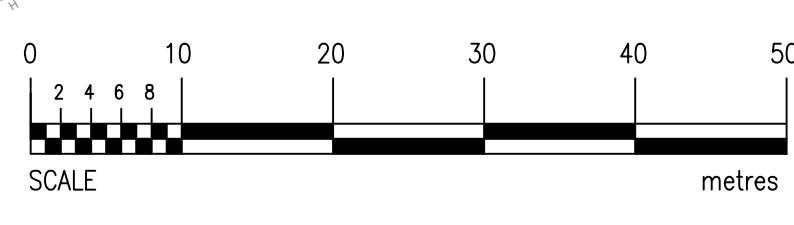
Date: FEBRUARY 2018 Scale: 1:500

Client Ref: CAD File ref. 2665

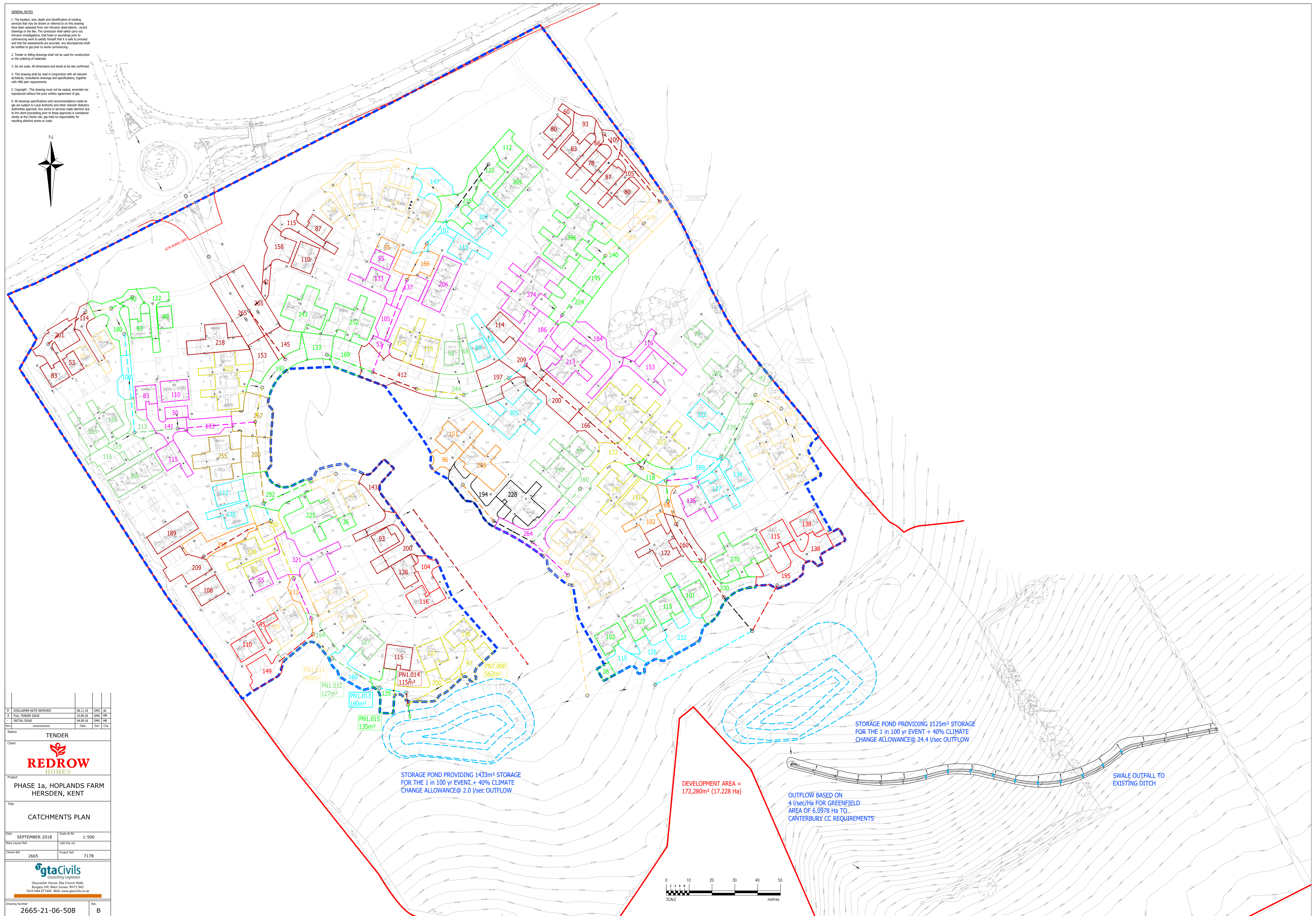
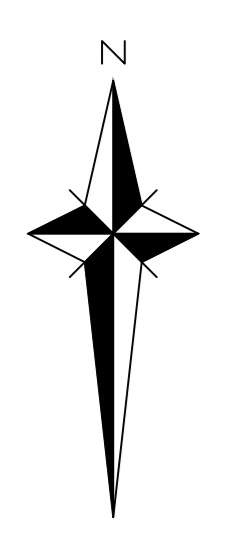
Project Ref: 7178

gta Civils Consulting Engineers Gloucester House 66a Church Walk Burgess Hill, West Sussex, RH15 9AS Tel: 01444 871444 Web: www.gta-civils.co.uk

Drawing Number: 2665-21-06-507 Rev: F



- GENERAL NOTES**
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PN1.011
450m²

PN1.012
1277m²

PN1.013
160m²

PN1.015
135m²

PN1.014
115m²

PN7.000
562m²

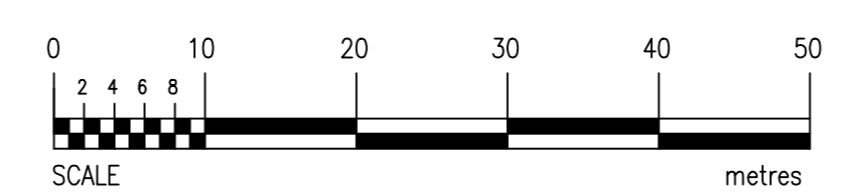
STORAGE POND PROVIDING 1433m³ STORAGE FOR THE 1 in 100 yr EVENT + 40% CLIMATE CHANGE ALLOWANCE@ 2.0 l/sec OUTFLOW

STORAGE POND PROVIDING 1125m³ STORAGE FOR THE 1 in 100 yr EVENT + 40% CLIMATE CHANGE ALLOWANCE@ 24.4 l/sec OUTFLOW

DEVELOPMENT AREA = 172,280m² (17.228 Ha)

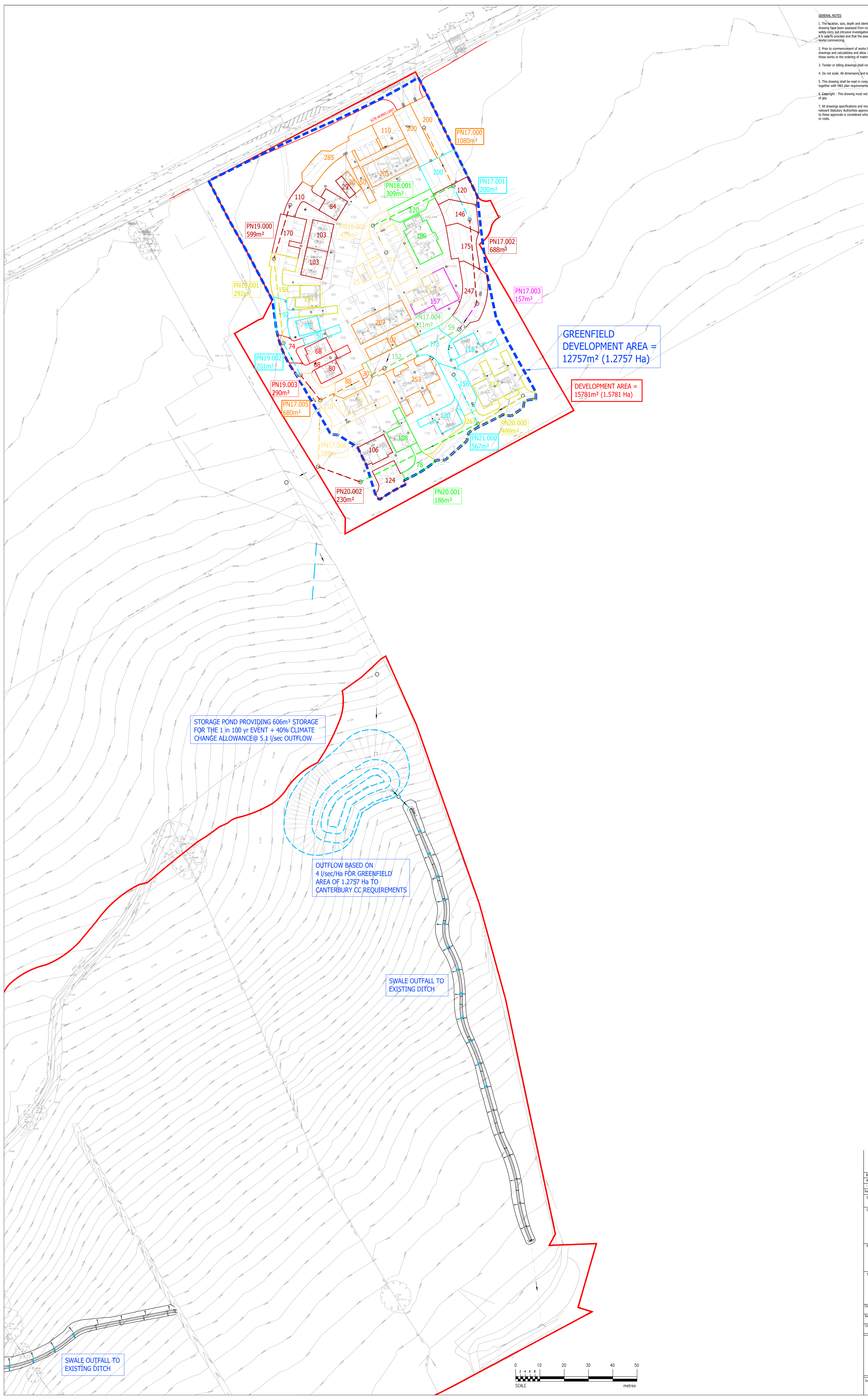
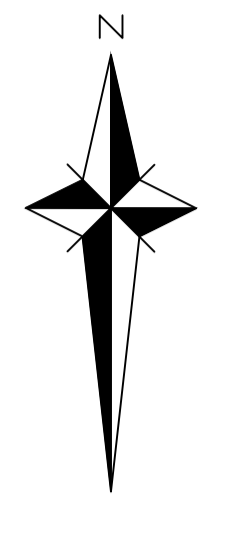
OUTFLOW BASED ON 4 l/sec/ha FOR GREENFIELD AREA OF 6.0978 Ha TO CANTERBURY CC REQUIREMENTS

SWALE OUTFALL TO EXISTING DITCH



Rev	Amendments	Date	DSH	CHK	
B	DISCLAIMER NOTE REMOVED	06.11.18	DMS	DS	
A	FULL TENDER ISSUE	25.09.18	DMS	DS	
-	INITIAL ISSUE	04.09.18	DMS	DS	
Rev	Amendments	Date	DSH	CHK	
Status: TENDER					
Client: REDROW HOMES					
Project: PHASE 1a, HOPLANDS FARM HERSDEN, KENT					
Title: CATCHMENTS PLAN					
Date	SEPTEMBER 2018	Scale @ A0	1:500		
Base Layout Ref.	2665	CAD File ref.	7178		
Client's Ref.	2665	Project Ref.	7178		
 Consulting Engineers Gloucester House, Old Church Walk, Burgess Hill, West Sussex, BN15 9AS Tel: 01444 871444 Web: www.gtaCivils.co.uk					
Drawing Number:	2665-21-06-508			Rev:	B

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GREENFIELD DEVELOPMENT AREA = 12757m² (1.2757 Ha)

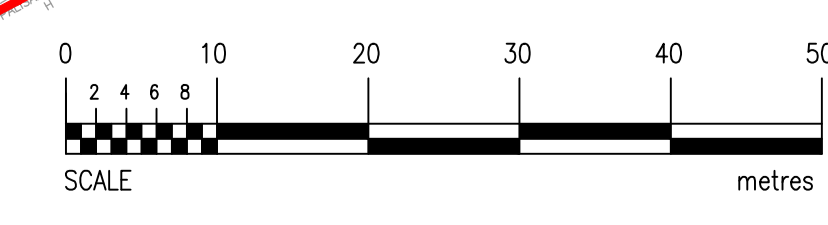
DEVELOPMENT AREA = 15781m² (1.5781 Ha)

STORAGE POND PROVIDING 606m³ STORAGE FOR THE 1 in 100 yr EVENT + 40% CLIMATE CHANGE ALLOWANCE @ 5.1 l/sec OUTFLOW

OUTFLOW BASED ON 4 l/sec/Ha FOR GREENFIELD AREA OF 1.2757 Ha TO CANTERBURY CC REQUIREMENTS

SWALE OUTFALL TO EXISTING DITCH

SWALE OUTFALL TO EXISTING DITCH



Rev	Amendments	Date	Des	CHK
1	DISCLAIMER NOTE REMOVED	06.11.18	DNM	CB
2	INITIAL ISSUE	04.09.18	DNM	NR
3	INITIAL ISSUE	04.09.18	DNM	NR

Status: **TENDER**

Client: **REDROW HOMES**

Project: **PHASE 1b, HOPLANDS FARM HERSDEN, KENT**

Title: **CATCHMENTS PLAN**

Date: **SEPTEMBER 2018** Scale @ A3: **1:500**

Base Layout Ref: **2665** CAD File Ref: **7178**

Client Ref: **2665** Project Ref: **7178**

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Burgess Hill, West Sussex, RH15 9AS
Tel: 01444 871444 Web: www.gtaCivils.co.uk

Drawing Number: **2665-21-06-509** Rev: **B**