

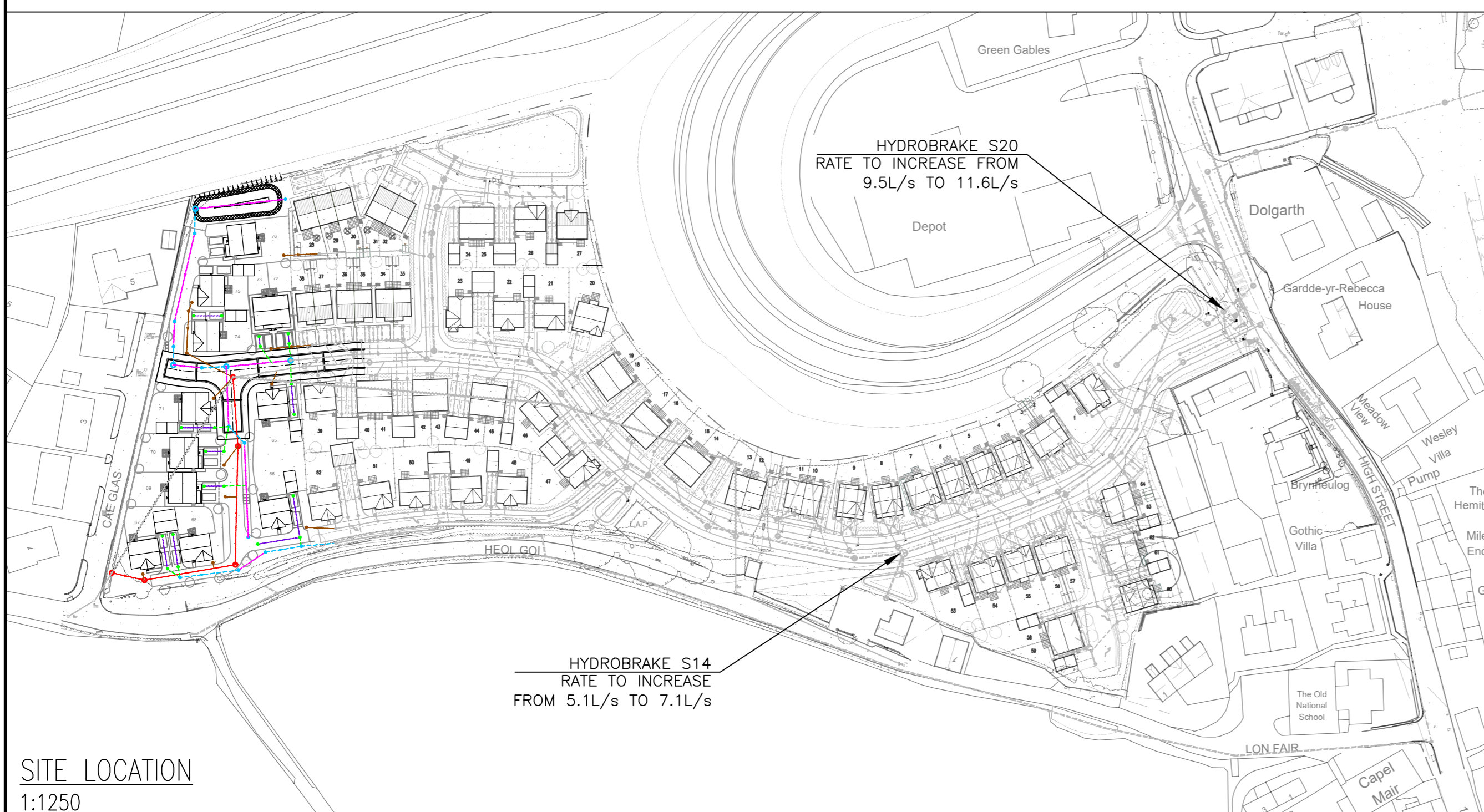
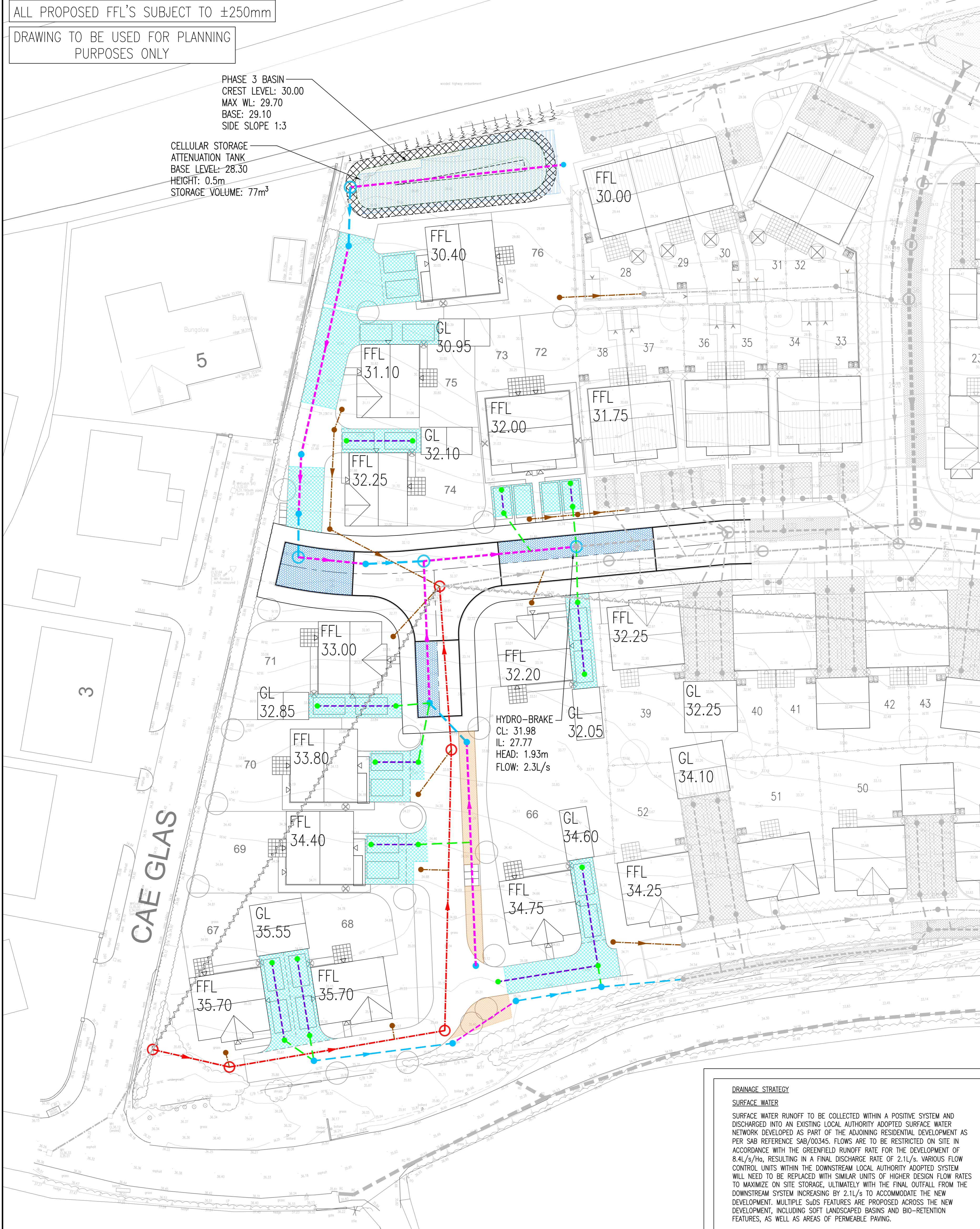
ALL PROPOSED FFL'S SUBJECT TO ±250mm

DRAWING TO BE USED FOR PLANNING PURPOSES ONLY

PHASE 3 BASIN
CREST LEVEL: 30.00
MAX WL: 29.70
BASE: 29.10
SIDE SLOPE 1:3

CELLULAR STORAGE
ATTENUATION TANK
BASE LEVEL: 28.30
HEIGHT: 0.5m
STORAGE VOLUME: 77m³

CAE GLAS



SITE LOCATION
1:1250

GENERAL NOTES
1. DO NOT SCALE THIS DRAWING.
2. CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
3. ANY DISCREPANCY TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.

- KEY
- DCNW ADOPTABLE FOUL DRAINAGE SYSTEM PHASE 3
 - DCNW ADOPTED COMBINED SEWER TO BE DIVERTED VIA S185.
 - LA ADOPTABLE STORM DRAINAGE SYSTEM
 - LA ADOPTABLE PERFORATED STORM DRAINAGE SYSTEM
 - PRIVATELY MAINTAINABLE STORM DRAINAGE SYSTEM
 - PRIVATELY MAINTAINABLE PERFORATED STORM DRAINAGE SYSTEM
 - HIGHWAY ADOPTABLE POROUS ASPHALT SURFACE
 - PRIVATELY MAINTAINABLE POROUS DRIVEWAY SURFACE
 - SAB ADOPTABLE CELLULAR STORAGE ATTENUATION TANK
 - SAB ADOPTABLE DETENTION BASINS
 - SAB ADOPTABLE BIO-RETENTION SYSTEM COLLECTING HIGHWAY RUNOFF

- DRAINAGE NOTES
1. THE DEVELOPER MUST SELF-VET AND CERTIFY THAT THE DESIGN CRITERIA, MATERIAL STANDARDS AND WORKMANSHIP SPECIFICATIONS FOR THE PROPOSED ADOPTABLE SEWERS ARE IN ACCORDANCE WITH THOSE SET OUT IN SEWERS FOR ADOPTION 7TH EDITION AND THE WELSH MINISTERS STANDARDS.
 2. CONTRACTOR TO ALLOW FOR ALL NECESSARY STREET WORKS LICENSES ASSOCIATED WITH DRAINAGE SERVICE INSTALLATION IN EXISTING PUBLIC HIGHWAY.
 3. ALL WORK TO BE CARRIED OUT IN CONNECTION WITH SEWERS AND MANHOLES TO BE IN ACCORDANCE WITH THE HEALTH AND SAFETY GUIDELINE NO. 2 'SAFE WORKING IN SEWERS AND SEWAGE WORKS'.
 4. THE COVER AND INVERT LEVELS OF ANY EXISTING MANHOLES ARE TO BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ALSO TO INCLUDE VERIFICATION OF MANHOLE AND PIPE DIAMETERS.
 5. ALL ADOPTABLE SEWERS OR LATERAL DRAINS ARE TO BE LAID AT A MINIMUM GRADIENT OF 1:80 FOR 100mm DIA PIPES, 1:150 FOR 150mm DIA PIPES AND A MAXIMUM GRADIENT OF 1:5. WHERE SITE LAYOUT DICTATES A RAMPED BACKDROP MAY BE UTILISED, ALTHOUGH STEEPER GRADIENTS ARE PREFERRED, AND SHOULD BE PROVIDED WHERE PRACTICABLE.
 6. LATERAL PIPEWORK WITHIN 1.2m TO THE FACE OF PROPOSED BUILDING TO COMPLY WITH THE REQUIREMENT OF CLAUSE B3.1.4 AND FIGURE B.1.
 7. MINIMUM CLEAR OPENING OF MANHOLE COVERS TO BE 600 X 600MM FOR FOUL WATER AND 675 X 675MM FOR SURFACE WATER.
 8. PRIOR TO LAYING ANY MATERIAL THE SUBGRADE MUST BE INSPECTED AND ANY SOFT SPOTS REMOVED AND FILLED WITH TYPE 1 MATERIAL TO SHW CLAUSE 803-14.
 9. RAINWATER BUTTS REQUIRED AT SELECTED RAINWATER DOWN PIPES TO EACH INDIVIDUAL PLOT. ARCHITECT TO CONFIRM PREFERRED LOCATIONS.

DRAINAGE STRATEGY
SURFACE WATER
SURFACE WATER RUNOFF TO BE COLLECTED WITHIN A POSITIVE SYSTEM AND DISCHARGED INTO AN EXISTING LOCAL AUTHORITY ADOPTED SURFACE WATER NETWORK DEVELOPED AS PART OF THE ADJOINING RESIDENTIAL DEVELOPMENT AS PER SAB REFERENCE SAB/00345. FLOWS ARE TO BE RESTRICTED ON SITE IN ACCORDANCE WITH THE GREENFIELD RUNOFF RATE FOR THE DEVELOPMENT OF 8.4L/s/Ha, RESULTING IN A FINAL DISCHARGE RATE OF 2.1L/s. VARIOUS FLOW CONTROL UNITS WITHIN THE DOWNSTREAM LOCAL AUTHORITY ADOPTED SYSTEM WILL NEED TO BE REPLACED WITH SIMILAR UNITS OF HIGHER DESIGN FLOW RATES TO MAXIMIZE ON SITE STORAGE, ULTIMATELY WITH THE FINAL OUTFALL FROM THE DOWNSTREAM SYSTEM INCREASING BY 2.1L/s TO ACCOMMODATE THE NEW DEVELOPMENT. MULTIPLE SUDS FEATURES ARE PROPOSED ACROSS THE NEW DEVELOPMENT, INCLUDING SOFT LANDSCAPED BASINS AND BIO-RETENTION FEATURES, AS WELL AS AREAS OF PERMEABLE PAVING.
IN ACCORDANCE WITH THE SAB STANDARDS

- STANDARD 1
- REUSE - SURFACE WATER RUN-OFF TO BE COLLECTED WITHIN SOFT LANDSCAPED AREAS, REUSED BY THE HYDRATION OF PLANTING. WATER BUTTS ARE PROPOSED AT EACH INDIVIDUAL PROPERTY.
 - INFILTRATION - INFILTRATION TESTING WAS CARRIED OUT IN NOVEMBER 2019 (REPORT REF. S1294). 7 TESTS PITS AT VARIOUS LOCATIONS/DEPTHS WERE INVESTIGATED WITH NEGLECTABLE REDUCTIONS IN WATER LEVELS OBSERVED. THE REPORT CONFIRMS THAT INFILTRATION IS NOT VIABLE FOR THE PROPOSED DEVELOPMENT SITE.
 - WATER BODY - NO SUITABLE WATERCOURSES COULD BE IDENTIFIED WITHIN THE DIRECT VICINITY OF THE PROPOSED DEVELOPMENT FOR A DIRECT CONNECTION TO BE MADE.
 - SURFACE WATER SEWER - A CONNECTION IS PROPOSED TO THE EXISTING LOCAL AUTHORITY ADOPTED SURFACE WATER DRAINAGE SYSTEM WHICH ULTIMATELY DISCHARGES TO A LOCAL WATERCOURSE TO THE EAST OF HIGH STREET, AS OUTLINED IN SAB APPROVAL SAB/00345 FOR THE ADJACENT DEVELOPMENT.
 - COMBINED SEWER - NOT REQUIRED FOR THIS DEVELOPMENT
- STANDARD 2
- FIRST 5mm OF RAINFALL FROM THE IMPERMEABLE AREAS WILL BE INTERCEPTED AND STORED WITHIN A VARIETY OF SUDS FEATURES, INCLUDING BIO-RETENTION AREAS, POROUS PAVING AND DETENTION BASINS.
 - SURFACE WATER SYSTEM TO BE DESIGNED FOR A RETURN PERIOD OF 100YRS + 30% CLIMATE CHANGE.
 - GIVEN SITE LEVELS, SHOULD THE FLOW CONTROL DEVICES BLOCK, RUNOFF WILL BE DIRECTED TOWARDS EXISTING HIGHWAYS AND NOT PROPOSED DWELLINGS.
 - GREENFIELD RUNOFF RATES FOR THE SITE HAVE BEEN DETERMINED AS 8.4L/s/Ha. THE SUGGESTED SOIL INDEX FOR THE DEVELOPMENT SITE IS 2, HOWEVER DUE TO THE NEGLECTABLE INFILTRATION RESULTS ACHIEVED ON SITE, IT IS PROPOSED TO INCREASE THE SOIL INDEX TO 4 TO CLOSELY REPRESENT ON SITE CONDITIONS.
- STANDARD 3
- WATER QUALITY WILL BE ACHIEVED VIA VARIOUS SUDS TECHNIQUES, INCLUDING BIO-RETENTION AREAS, PERMEABLE HARD SURFACES & DETENTION BASINS.
- STANDARD 4
- DETENTION BASINS, BIO-RETENTION AREAS AND SOFT LANDSCAPED AREAS ARE AN IMPORTANT PART OF THE LANDSCAPE DESIGN. THESE FEATURES WILL BE PLANTED AS PER THE LANDSCAPE ARCHITECTS SPECIFICATION AND WILL PROVIDE AMENITY CONTRIBUTION.
- STANDARD 5
- BIO-RETENTION AREAS, DETENTION BASINS AND SOFT LANDSCAPE AREAS WILL BE PLANTED WITH NATIVE PLANT SPECIES TO PROVIDE DENSE AND DURABLE COVER OF VEGETATION THAT CREATES APPROPRIATE HABITAT FOR INDIGENOUS SPECIES.
- STANDARD 6
- THE SUDS FEATURES SERVING THE PROPOSED ADOPTABLE ACCESS ROAD WILL BE PROPOSED FOR ADOPTION INCLUDING THE PROPOSED DETENTION BASIN AND CELLULAR STORAGE TANK.
- FOUL WATER**
- A S185 AGREEMENT WILL BE REQUIRED TO DIVERT THE EXISTING COMBINED SEWER BISECTING THE SITE.
 - A GRAVITY FOUL SYSTEM IS PROPOSED FOR THE DEVELOPMENT SITE DISCHARGING INTO THE ADJACENT DCNW ADOPTABLE FOUL NETWORK LOCATED WITHIN THE ADJACENT DEVELOPMENT

Rev.	Detail	By	Date

Revisions

Reinforcement schedules nos.

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Client: **OBSIDIAN DEVELOPMENT LTD**
Project: **RESIDENTIAL DEVELOPMENT AT LON FAIR ST CLEARS**

Drawing Title: **PHASE 3 DRAINAGE STRATEGY**

INFORMATION

Project No. C1832	Drawing No. C-SK15
Scales: 1:250	Date: 07.08.24
Drawn: TE	Checked: JH
Sheet Size: A1	Revision: —

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