PRIVATE SURFACE WATER

REF	COVER LEVEL(m)	INVERT LEVEL(m)	DEPTH TO INVERT(m)	MAIN PIPE DIA (mm)		MANHOLE TYPE	COVER TYPE	
F7	128.55	127.65	0.90	100		IC		
F6	127.96	126.96	1.00	100		IC		
F5	127.50	126.30	1.20	100		IC		
F4	127.00	125.80	1.20	100		IC		
F3	125.50	124.30	1.20	100		IC		
F1	124.50	123.30	1.20	100		IC		TO PACKAGE TREATMENT PLANT
F2	124.68	123.58	0.90	100		IC		
F9	124.85	123.95	0.90	100		IC		
F8	124.85	123.85	1.00	100		IC		

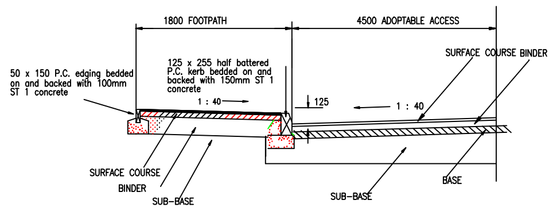
PRIVATE SURFACE WATER

REF	COVER LEVEL(m)	INVERT LEVEL(m)	DEPTH TO INVERT(m)	MAIN PIPE DIA (mm)		MANHOLE TYPE	COVER TYPE	
S6A	128.43	127.73	0.70	100		IC	LIGHT	
S6	128.00	127.20	0.80	100		IC	HEAVY	
S5	127.75	126.65	1.00	150		IC	HEAVY	CONCRETE SURROUND
S4	126.97	125.97	1.00	150		IC	HEAVY	CONCRETE SURROUND
S3	124.60	123.01	1.59	225		PCC	HEAVY	
S2	124.25	122.87	1.38	225		PCC	HEAVY	
S1	123.83	122.63	1.20	225		PCC	HEAVY	NEW MANHOLE ON EXISTING
S7	124.48	123.10	1.38	150		PCC	HEAVY	
S8	124.48	123.22	1.26	150		PCC	HEAVY	
S9	124.88	124.18	0.70	100		IC	LIGHT	
S10	124.88	124.08	0.80	100		IC	LIGHT	
S11	124.40	123.70	0.70	100		IC	LIGHT	

IC = POLYPROPYLENE INSPECTION CHAMBER

PCC = 1200mm DIAM PRECAST RINGS UNDER MAIN ACCESS ROAD

ALL COVER LEVELS (FOUL AND SURFACE WATER) TO BE CONFIRMED ON SITE
PROPOSED INVERTS MAY BE ADJUSTED ON SITE TO SUIT LOCAL CONDITIONS



TYPICAL SECTION THROUGH ADOPTABLE ACCESS (CROSSFALL)

ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH WREXHAM C.B.C. GUIDELINES ON ADOPTABLE HIGHWAYS

ADOPTABLE ACCESS ROAD CONSTRUCTION DETAILS

	MATERIAL	B.S. EN 13108 Section REF.	NOMINAL AGGREGATE SIZE	THICKNESS OF LAYER (mm)	PSV
SURFACE COURSE	STONE MASTIC ASPHALT (SMA) surface 40/60	SECTION 5	10mm	40mm	60
OR	HOT ROLLED ASPHALT SEE NOTE 5	SECTION 4	14mm	45mm	60
BINDER COURSE	ASPHALT CONCRETE BINDER 100/150	SECTION 1	20mm	60mm	
BASE	ASPHALT CONCRETE BINDER 100/150	SECTION 1	32mm	100mm	
SUB-BASE	Granular Type 1	D.O.T. Clause 803	–	320mm	
CAPPING LAYER	Type 6F2	D.O.T.	–	240mm	
TOTAL THICKNESS (mm)				760/765mm	*

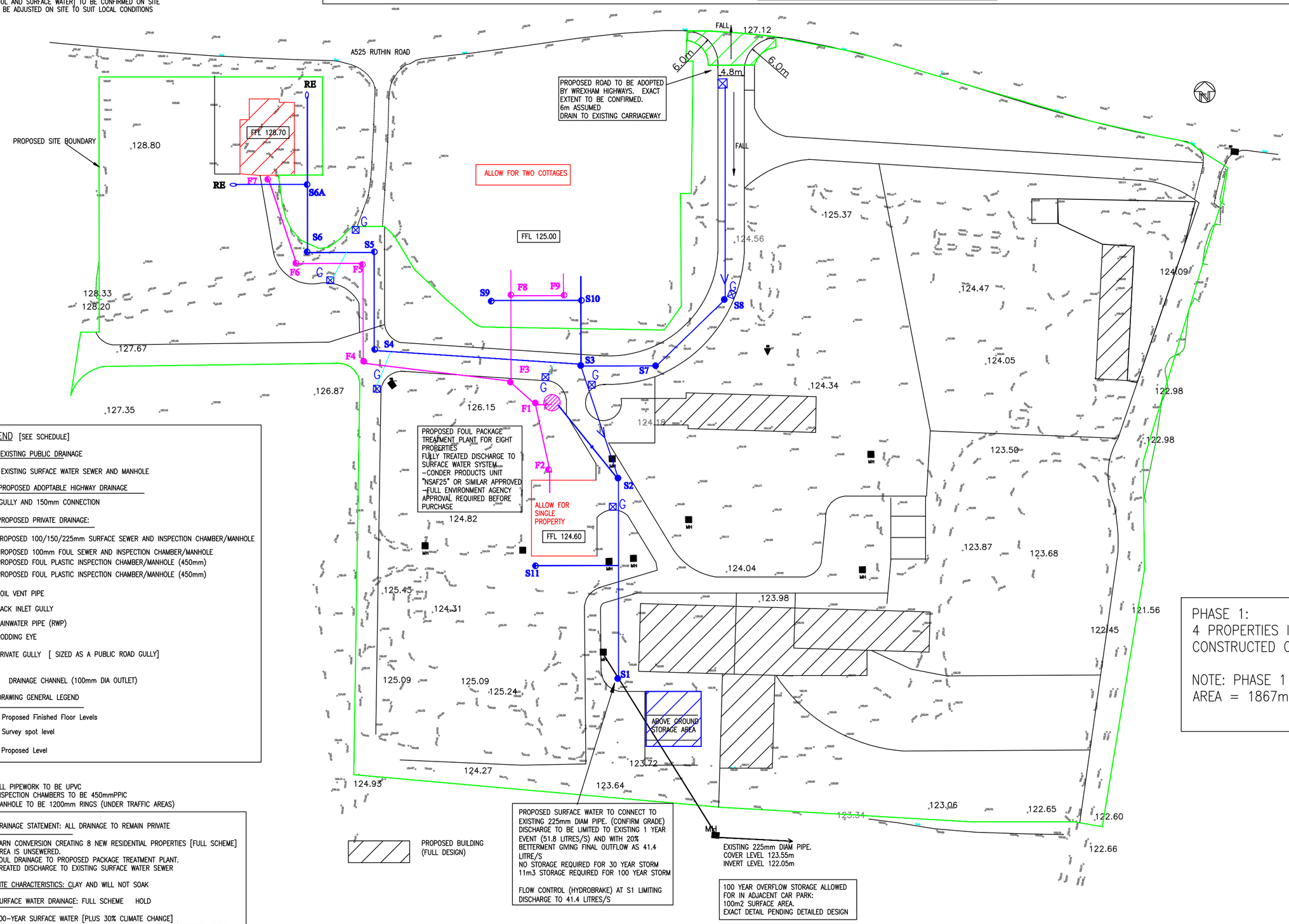
* If CBR value is LESS than 2% , subbase thickness = 150mm capping layer = 600mm
If CBR value is GREATER than 5%, subbase thickness = 245mm. no capping layer

Based upon a CBR value at road formation level of 3%
CBR TO BE CONFIRMED

FOOTPATH CONSTRUCTION DETAILS: 1.8m WIDTH

LAYER	MATERIAL	B.S. EN 13108 Section REF.	NOMINAL AGGREGATE SIZE	THICKNESS OF LAYER (mm) FOOTPATH	THICKNESS OF LAYER (mm) VEHICLE CROSSOVERS
SURFACE COURSE	ASPHALT CONCRETE BINDER 160/220	SECTION 1	6mm	20mm	20mm
BINDER COURSE	ASPHALT CONCRETE BINDER 160/220	SECTION 1	20mm	40mm	60mm
SUB-BASE	Granular Type 1	D.O.T. Clause 803	–	100mm	150mm
TOTAL THICKNESS (mm)				160mm	230mm

Note : 3 No. minimum dropped kerbs to be used at vehicular crossings.



DRAINAGE LEGEND [SEE SCHEDULE]

- EXISTING PUBLIC DRAINAGE
- MH — EXISTING SURFACE WATER SEWER AND MANHOLE
- PROPOSED ADOPTABLE HIGHWAY DRAINAGE
- G — GULLY AND 150mm CONNECTION
- PROPOSED PRIVATE DRAINAGE:
- S1 — PROPOSED 100/150/225mm SURFACE SEWER AND INSPECTION CHAMBER/MANHOLE
- F1 — PROPOSED 100mm FOUL SEWER AND INSPECTION CHAMBER/MANHOLE
- PROPOSED FOUL PLASTIC INSPECTION CHAMBER/MANHOLE (450mm)
- PROPOSED FOUL PLASTIC INSPECTION CHAMBER/MANHOLE (450mm)
- SOIL VENT PIPE
- BACK INLET GULLY
- RAINWATER PIPE (RWP)
- RB — RODDING EYE
- G1 — PRIVATE GULLY [SIZED AS A PUBLIC ROAD GULLY]
- DRAINAGE CHANNEL (100mm DIA OUTLET)
- DRAWING GENERAL LEGEND
- FFL 153.00 — Proposed Finished Floor Levels
- 124.82 — Survey spot level
- ^82.80 — Proposed Level

ALL PIPEWORK TO BE UPVC
INSPECTION CHAMBERS TO BE 450mmPPIC
MANHOLE TO BE 1200mm RINGS (UNDER TRAFFIC AREAS)

DRAINAGE STATEMENT: ALL DRAINAGE TO REMAIN PRIVATE

BARN CONVERSION CREATING 8 NEW RESIDENTIAL PROPERTIES [FULL SCHEME]
AREA IS UNSEWERED.
FOUL DRAINAGE TO PROPOSED PACKAGE TREATMENT PLANT.
TREATED DISCHARGE TO EXISTING SURFACE WATER SEWER

SITE CHARACTERISTICS: CLAY AND WILL NOT SOAK

SURFACE WATER DRAINAGE: FULL SCHEME HOLD

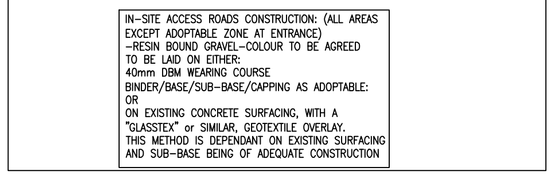
100-YEAR SURFACE WATER [PLUS 30% CLIMATE CHANGE]
APPROX. 100m3: TO BE STORED IN SITE IN LOW AREAS / BUNDED AREAS

HIGHWAY STATEMENT:
FIRST 6m (APPROX.) TO BE ADOPTED BY WREXHAM COUNTY COUNCIL.
REMAINDER TO BE PRIVATE

PHASE 1:
4 PROPERTIES IN RED TO BE CONSTRUCTED ONLY

NOTE: PHASE 1 IMPERMEABLE AREA = 1867m2

INTERNAL ROAD DETAIL



IN-SITE ACCESS ROADS CONSTRUCTION: (ALL AREAS EXCEPT ADOPTABLE ZONE AT ENTRANCE)
--RESIN BOUND GRAVEL-COLOUR TO BE AGREED
TO BE LAID ON EITHER:
40mm DBM WEARING COURSE
BINDER/BASE/SUB-BASE/CAPPING AS ADOPTABLE:
OR
ON EXISTING CONCRETE SURFACING, WITH A "GLASSTEX" or SIMILAR, GEOTEXTILE OVERLAY.
THIS METHOD IS DEPENDANT ON EXISTING SURFACING AND SUB-BASE BEING OF ADEQUATE CONSTRUCTION

PROPOSED ROADS, FOUL AND SURFACE WATER LAYOUT: PRELIMINARY

POSTCODE LL11 3BP

NOTES:
ALL INFORMATION (AREAS, LAYOUT, EXISTING MANHOLES,) APPROXIMATE.

ALL DRAINAGE TO REMAIN PRIVATE

SOME EXISTING IN-SITE DRAINAGE MAY BE RE-USABLE. CURRENT DESIGN ONLY ALLOWS FOR RE-USING LAST LENGTH

DRAINAGE NOTE:
ALL PROPOSED RAINWATER RUN-OFF TO BE COLLECTED BY THE PROPOSED DRAINAGE SYSTEM

REFER TO CALCULATIONS
"1292-SURFACE WATER RUN-OFF"
"1292-SURFACE WATER STORAGE"

NOTE:

SHOULD THE FULL DEVELOPMENT PROCEED, A LARGER STORAGE/ATTENATION SYSTEM AND FLOW CONTROL WILL BE REQUIRED.
WREXHAM COUNCIL DRAINAGE APPROVAL WILL BE REQUIRED FOR THIS SCHEME

LAYOUT, GULLY LOCATIONS, FINISHED FLOOR LEVELS, AND OUTFALL TO BE CONFIRMED

PRELIMINARY

Rev	Description	Date	Drwn	Chkd
D	OUTFALL DISCHARGE AMENDED	29:3:16	AK	AK
C	SCHEDULE ADDED	16:3:16	AK	AK
B	ADOPTABLE AREA, GULLY REVISED	11:3:16	AK	AK
A	INTERNAL ROAD DETAIL ADDED	2:3:16	AK	AK

KANE DESIGN
Civil Engineering Design
15 Winchester Way
Gresford
Wrexham
LL12 8HH
Tel: 01 978 855888

Client
STRUTT and PARKER

Project
PROPOSED DEVELOPMENT at PLAS POWER ESTATE, WREXHAM

Title
DRAINAGE FEASIBILITY SMALLER SCHEME

DRAWING NUMBER	SCALE	1:500	@ A1
1292/101	DATE	01:03.16	REVISION D
	DRAWN	AK	
	CHECKED	A.K	