FOUL DRAINAGE MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
F1	5.60	3.470	1.980	1200 diameter	2	D400
F2	5.96	4.370	1.440	450 diameter	3	D400
F3	6.07	4.459	1.461	450 diameter	3	D400
F4	6.22	4.649	1.421	450 diameter	3	D400
F5	6.45	4.900	1.400	450 diameter	3	D400
F6	6.70	5.375/5.325	1.225	450 diameter	3	B125
F7	6.60	5.45	1.050	450 diameter	3	B125
F8	6.60	5.70	0.800	450 diameter	3	B125
F9	6.35	5.30	0.950	450 diameter	3	B125
F10	6.35	5.50	0.750	450 diameter	3	B125
F11	6.80	5.50	1.200	450 diameter	3	B125
F12	6.75	5.40	1.250	450 diameter	3	B125
F13	6.60	5.40	1.100	450 diameter	3	B125
F14	6.60	5.50	1.000	450 diameter	3	B125
F1/1	6.35	5.75	0.500	250 diameter	4	B125
F2/1	6.35	5.75	0.500	250 diameter	4	B125
F2/2	6.35	5.75	0.500	250 diameter	4	B125
F3/1	6.35	5.75	0.500	250 diameter	4	B125
F3/2	6.35	5.75	0.500	250 diameter	4	B125
F6/1	6.40	5.80	0.500	250 diameter	4	B125
F6/2	6.40	5.80	0.500	250 diameter	4	B125
F7/1	6.40	5.80	0.500	250 diameter	4	B125
F7/2	6.40	5.80	0.500	250 diameter	4	B125
F8/1	6.40	5.80	0.500	250 diameter	4	B125
F8/2	6.40	5.80	0.500	250 diameter	4	B125
F9/1	6.25	5.65	0.500	250 diameter	4	B125
F9/2	6.25	5.65	0.500	250 diameter	4	B125
F11/1	6.45	5.85	0.500	250 diameter	4	B125
F12/1	6.45	5.85	0.500	250 diameter	4	B125

SURFACE WATER DRAINAGE MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
S1	6.40	5.970	0.330	450 diameter	3	B125
S2	6.30	5.770	0.430	450 diameter	3	B125
S3	6.25	5.670	0.480	450 diameter	3	B125
S4	6.60	5.805	0.695	450 diameter	3	B125
S5	6.60	5.835	0.665	450 diameter	3	B125
S6	6.60	5.900	0.600	450 diameter	3	B125
S7	6.60	5.840	0.660	450 diameter	3	B125
S8	6.45	5.840	0.510	450 diameter	3	B125
S9	6.35	5.768	0.482	450 diameter	3	B125
S10	6.35	5.668/5.718	0.532	450 diameter	3	B125
S11	6.35	5.616/5.666	0.584	450 diameter	3	B125
ST1	6.70	5.560/5.610	1.040	450 diameter	5	B125
ST2	6.50	5.685/5.735	0.665	450 diameter	5	B125
ST3	6.50	5.680/5.730	0.670	450 diameter	5	B125
ST4	6.50	5.680/5.730	0.670	450 diameter	5	B125
ST5	6.25	5.530	0.570	450 diameter	5	B125
HB1	6.300	5.300	1.000	1240x1013	5	Hydro Brake
R1	6.40	6.10	0.200		RE	B125
R2	6.25	5.90	0.250		RE	B125
R3	6.25	5.90	0.250		RE	B125
R4	6.60	6.035	0.465		RE	B125
R5	6.60	5.950	0.550		RE	B125
R6	6.60	6.00	0.500		RE	B125
R7	6.45	5.85	0.500		RE	B125
R8	6.45	5.97	0.380		RE	B125
R9	6.35	5.85	0.400		RE	B125
R10	6.35	5.918	0.332		RE	B125
R11	6.40	5.81	0.480		RE	B125

DITCH CONNECTIONS SCHEDULE

REFERENCE	Invert Level (m)	Ditch base level (m)	Type
D1	5.470	5.40	H4
D2	5.625	5.39	H4
D3	5.610	5.37	H4
D4	5.600	5.36	H4
D5	5.480	5.34	H4
O1	5.646	5.39	H4
O2	5.670	5.37	H4
O3	5.467	5.34	H4
O4	5.320	5.00	H4
O5	5.40	N/A	HB1
HW1	5.000	4.54	H1
HW2	4.730	4.730	WSCC S278/38/24 Headwall outfall to end of ditch with A393 mesh incorporated
HW3	4.828	4.828	
HW4	4.800	4.55	WSCC S276/38/24 Headwall outfall to side of ditch with A393 mesh incorporated 150Ø connection from gully
HW5	5.200	5.10	

Notes:

1. All levels are in metres above Ordnance Datum.
2. All Highway work's on or adjacent to existing public highway shall be executed in accordance with the Traffic Safety Code for Roadwork's and Chapter 8 of the Traffic Signs Manual.
3. At the commencement of works on site the contractor is to carry out trial pits and liaise with Utility Companies in order to establish the exact position of all existing statutory utility plant in the vicinity of works and take adequate precautions or their protection.
4. The Contractor is to comply fully with the CDM Regulations in the course of constructing the works.
5. Any highway or drainage works constructed prior to issue of Technical Approval is entirely at the risk of the Contractor/Client.
6. Highways in the vicinity of the works must be kept free from mud, debris and dust falling from vehicles or the wheels of vehicles connected with the works.
7. The Contractor shall ascertain the CBR of the subgrade in order to determine the required sub-base / capping thickness.
8. Prior to laying any material the subgrade must be inspected and any soft spots removed and filled with 6F2 capping material.
9. Prior to construction of any drainage works, the Contractor is to confirm the invert levels of existing foul sewer. Any variations from the designed levels shown on the drawings shall be reported to the Engineer in advance of construction works commencing.
10. All excavation and backfilling work in the existing highway to be in accordance with the provisions of the New Street Works Act 1991 or that specified within the Working Drawings.
11. All adoptable drainage works must comply with 'Sewers for Adoption 7th Edition' and to the satisfaction of Southern Water.
12. All adoptable drainage pipes shall have 360° Class S granular bed and surround. However, any pipes below the adoptable carriageway with less than 1.2m of cover (900mm in verge and untrafficked areas), shall be Class Z surrounded with 150mm of ST4 concrete with flexible joints.
13. All drain and sewer pipes to be laid soffit to soffit, unless shown otherwise.
14.Sewer trench backfill to be in accordance with the Adoptable Drainage Details.
15. Minimum gradient for 100Ø SW is 1:100 and 100Ø FW is 1:80 with one WC connected otherwise 1:40. Bedding for domestic drainage Class B. All pipe runs near buildings to comply with the Building Regulations 2002 Part H1.
16. All sewers shall be 100mmØ unless shown otherwise.
17. Position of soil pipes, standing wastes, wc outlets etc. are shown on the Architect's working drawings. Rainwater downpipe positions are to be checked against Architects details to ensure compatibility. Rainwater downpipes to have rodding access facilities where surface water drainage passes under buildings.
18. All concrete and concrete products to be in accordance with BRE 363 for sulphates.
19. Do not scale from this drawing, work only from stated dimensions or setting out details.
20. All front entrance doors to have ACO drainage channe installed and connected to surface water drainage system as directed.
21. All connections to drainage runs that do not discharge to a manhole or inspection chamber are to be via oblique 45° junctions.
22. This drawing is to read in conjunction will all relevant Kazys Narbutas Consulting drawings and specifications.
23. All domestic drainage to be 'Vision Drainage' pipework in accordance with their specificaion and details

Legend:

- Existing foul water sewer
- F1 Type 2 manhole - 1200mm Ø
- S4 Domestic surface water drain.
- F4 Domestic foul water drainage
- Type 3 manhole - 450Ø
- F4/1 Type 4 shallow PPIC inspection chamber - 250Ø
- ST1 Silt trap inspection chamber - 450Ø
- CF1 Controflow 300 series flow control limiting discharge to 0.4lits/sec
- Unadopted highway gully
- Polypipe High Performance Permavoid Diffuser
- Unadopted highway gully with Polypipe Permavoid Diffuser to discharge surface water into the sub grade
- HW3 Piped ditch headwall
- Aco drainage channel with collection gully silt trap (installed prior to adopted entrance) pipe connection to be Class CS
- HB1 Discharge headwall structure with Hydro Brake limiting discharge to 2.0lits/sec (subject to agreement with ADC)
- Formpave findrain
- Sub surface 'baffles' under carriageway surfacing.
- +6.385 Proposed levels
- FFL 6.75 Proposed Finished Floor Level
- Carriageway crossfall
- Type 3 Permeable bock paved parking court. Sub base designed to provide full attenuation storage for nil infiltration (porosity >0.35)
- Type 4 Permeable bock paved parking and drive. Sub base designed to provide full attenuation storage for nil infiltration (porosity >0.35)
- *E Electric vehicle charging point
- 525mm high knee rail fence
- Site boundary

Rev.	Date	Details	Initials
M	28.09.20	Ditch/Pond section A-A note added	KN
L	08.09.20	Drainage Note 23 and discharge pipe details added	KN
K	03.09.20	Plot 9 drainage amended	KN
J	28.08.20	Plot 8 substituted, 6,7,8 & 9 floor levels amended	KN
I	21.08.20	WSCC headwall mesh note added	KN
H	21.08.20	Headwall schedule amended, gully discharge pipe diameter added	KN
G	04.08.20	Drainage amended after ADC comments	KN
F	30.07.20	Inspection chambers F3/2,F6/2,F7/2.F11/1 & F12/1 added	KN
E	21.07.20	RE's and drain run information added	KN
D	18.06.20	Limit of adoption adjusted	KN
C	09.06.20	Drainage redesigned to remove infiltration proposals	KN
B	30.04.20	Outfall level amended, notes added	KN
A	14.04.20	First issue	KN

SAFETY, HEALTH & ENVIRONMENTAL INFORMATION
CDM Regulations 2015

In addition to the hazards/risks normally associated with the type of work detailed on this drawing note should be made of the following:

- Working in vicinity of live highway
- Services to be located prior to any excavation work being undertaken
- Working on live foul sewers
- Deep excavations

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement. Contractor is not relieved of any of his obligations under all applicable health and safety regulations.

RISK ANALYSIS KEY:

- Indicates a residual risk requiring a compulsory action
- Indicates a residual risk for information
- Indicates a residual risk requiring a a prohibitive action
- Indicates a residual risk as a Warning

Drawing Status
FOR CONSTRUCTION

Project
LANGFORD
HORSEMERE GREEN LANE, CLIMPING

Client
MICHAEL HARTNETT EXECUTIVE HOMES

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Drawing Title
Engineering Details
Drainage Layout

Drawn	Checked	Scales	Paper Size	Date
KN		1:250	A1	04.20

Job No.	Drawing No.	Revision
KNC1933	502-01	M

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Dimensions should be checked and verified on site and any discrepancies should be reported to Kazys Narbutas Consulting as soon as possible.

ARUN DISTRICT COUNCIL CM/38/20/DOC