



**LEGEND**

FOUL WATER SEWER	
SURFACE WATER SEWER	
FOUL WATER MANHOLE	
FOUL WATER INSPECTION CHAMBER (PPIC)	
FOUL CONNECTION	
FOUL BACK DROP	
SURFACE WATER MANHOLE	
SURFACE WATER INSPECTION CHAMBER	
SURFACE WATER CONNECTION	
SURFACE WATER DISHED CHANNEL	
YARD GULLY	
ROAD GULLY	
GEOCELLULAR CRATE ATTENUATION	
100mm DIAMETER PERFORATED PIPE	
DRAINAGE SHOWN IN BLACK DETAILED IN SEPARATE PHASE OF WORKS/DRAWINGS	
CP	
EXISTING DRAINAGE	
LAND DRAIN WITH 100mm DIAMETER PERFORATED PIPE	

DRAINAGE DESIGN SUBJECT TO CONSTRUCTION PHASING

DRAINAGE DESIGN AND LAYOUT SUBJECT TO CHANGE FOLLOWING COORDINATION WITH FOUNDATIONS, SERVICES, RWPS AND FOUL POP UPS.

NOTE: REVISION T1 IS NUMBERED FNF-MS-GA-440-0101

Rev	Date	Description	By	Ckd
T3	06.09.18	REVISED LOCATION OF MARKETING SUITE	AB	JH
T2	05.07.18	REVISED LAYOUT	AB	JH
T1	06.04.18	TENDER ISSUE	GW	JH

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Client :  
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Project Title:  
**FORMER NESTLÉ SITE HAYES**

Drawing Title:  
**MARKETING SUITE DRAINAGE LAYOUT SHEET 1**

Drawing Status:  
**TENDER ISSUE**

Hydrock Job No:  
**C151867**

Drawn	Checked	Scale @ A1	Date	Issue Date
AB	JH	1:200	06.04.18	06.09.18

Drawing Number:	Revision:
<b>FNF-C-MS-HYD-DR-01-200</b>	<b>T3</b>

**NOTES:**

- THIS DRAWING IS NOT TO BE SCALED.
- THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.
- 'MARKED UP' DRAWINGS ARE TO BE PROVIDED TO THE ENGINEER UPON COMPLETION TO ENABLE PRODUCTION OF 'AS BUILT' DRAWING IN ACCORDANCE WITH CONSTRUCTION (DESIGN & MANAGEMENT): 2015 REGULATIONS 22(j).
- THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY, TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE PUBLIC UTILITIES.
- THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN-OFF INTO EXCAVATION AND FROM GROUNDWATER BY MEANS OF SUMPS, PUMPING AND DE-WATERING AS APPROPRIATE, IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.
- ALL EXTERNAL DRAINAGE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH

'CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY' 7th EDITION FOR ADOPTABLE DRAINAGE, AND TO THE RELEVANT PROJECT SPECIFICATION AS DIRECTED BY THE ENGINEER FOR PRIVATE DRAINAGE.

PIPE MATERIAL SHALL BE AS FOLLOWS:  
1000 TO 2250 - CLAYWARE TO BS EN 295

N.B PVCu PIPES TO BE EN 1401-1:1998 MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER. PIPES OF LESS THAN 400MM DIAMETER TO HAVE A RESISTANCE OF 270 BAR.

ALL FOUL PIPES ARE TO BE 1000 UNLESS STATED OTHERWISE OR TO SUIT ABOVE GROUND PIPEWORK. SURFACE WATER PIPE DIAMETERS ARE AS INDICATED

PIPE GRADIENTS UNLESS SHOWN ARE:  
FOUL:  
MINIMUM GRADIENT WITHOUT W.C. TO BE 1:40.

- MINIMUM GRADIENT WITH W.C. TO BE 1:80.
- CLAY PIPES SHALL BE BEDDED ON CLASS S BEDDING UNLESS COVER IS LESS THAN 1.2m IN TRAFFICKED AREAS, THEN CLASS Z BEDDING.
  - UPVC PIPES SHALL BE BEDDED ON CLASS P BEDDING UNLESS COVER IS LESS THAN 1.2m IN TRAFFICKED AREAS, THEN CLASS Q OR Z BEDDING.
  - BACKFILL TO TRENCHES MAY BE SUITABLE EXCAVATED MATERIAL IN LANDSCAPED AREAS & UNDER DRIVEWAYS, PATIOS ETC. TYPE 1 GRANULAR MATERIAL TO BE USED UNDER HARDSTANDINGS AND ROADS.
  - ROAD GULLY CONNECTIONS SHALL BE 150mm DIAMETER AND WITH CLASS Z BEDDING.
  - ROAD GULLIES SHALL BE TRAPPED 450mm DIAMETER x 900mm DEEP WITH CLASS D400 FRAME AND GRATING TO BS EN 124.
  - ALL MANHOLE COVERS SHALL COMPLY WITH BS EN 124. FOR DETAILS OF COVER TYPE & LOCATION, PLEASE REFER TO THE MANHOLE SCHEDULE. MANHOLE COVERS WITHIN BLOCK PAVED AREAS & BUILDINGS SHALL BE

- RECESSED, DOUBLE SEALED WITHIN BUILDING.
- ROCKER PIPES TO BE PROVIDED WHERE PIPEWORK EXITS FOUNDATION.
  - VENTILATION SHALL BE PROVIDED AT THE HEAD OF FOUL DRAINAGE RUNS. FOR SETTING OUT OF SOIL AND RAINWATER PIPES, SEE ARCHITECT'S LAYOUT.
  - ACCESS FOR RODDING/ JETTING SHALL BE PROVIDED TO ALL SOIL AND RAINWATER DOWNPIPES ABOVE FINISHED FLOOR LEVEL.
  - COVER LEVELS SHOWN ARE APPROXIMATE. COVER LEVELS FOR MANHOLES WITHIN LANDSCAPED AREAS SHOULD BE CHECKED WITH THE LANDSCAPE ARCHITECTS. COVERS SHOULD BE ADJUSTED TO MATCH SURROUNDING FINISH LEVELS.
  - THE CONTRACTOR IS TO PROTECT EXISTING BURIED PIPES (PARTICULARLY SHALLOW PIPES) AND TREE ROOTS FROM DAMAGE CAUSED BY LOADS IMPOSED BY CONSTRUCTION.
  - VENTILATION TO BE PROVIDED TO BELOW GROUND ATTENUATION AS REQUIRED BY MANUFACTURER.

CONTINUED ON FOLLOWING SHEET