

FOUL WATER MANHOLE SCHEDULE							
MH REFERENCE	INVERT LEVELS	COVER LEVELS	DEPTH TO INVERT	TYPE	SIZE	COVER TYPE	COORDINATES
FW1	1500 - 57.432	59.082	1.650	1	1.200	D400	E300665.531 N510371.413
FW2	1500 - 56.282	57.632	1.388	4	1.350	D400	E300674.999 N510349.359

SURFACE WATER MANHOLE SCHEDULE							
MH REFERENCE	INVERT LEVELS	COVER LEVELS	DEPTH TO INVERT	TYPE	SIZE	COVER TYPE	COORDINATES
SW1	1500 - 60.736	62.816	2.080	1	1.500	D400	E300605.466 N510402.188
SW2	1500 - 58.450 12000 - 56.500 BACKDROP	61.676	5.176	2	2.100	D400	E300626.526 N510421.390
SW3	12000 - 56.407 12000 - 56.407 3000 - 58.720 OVERFLOW	60.308	3.901	2	2.100	D400	E300649.098 N510396.633
SW4	12000 - 56.375 12000 - 56.375	59.798	3.423	2	2.100	D400	E300655.246 N510385.635
SW5FC	12000 - 56.335 3000 - 56.335 3000 - 56.335	59.159	2.824	FLOW CONTROL	2.100	D400	E300665.557 N510374.467
SW6	3000 - 55.824	57.634	1.810	1	1.350	D400	E300677.787 N510349.280

MANHOLE SW2 TO 4TO BE  
INSTALLED WITH ALTERNATIVE  
PLATFORM MANHOLE SYSTEM  
(AMPS) SUBJECT TO APPROVAL

SW5FC HYDROBRAKE DETAILS		
REFERENCE: MD-0090-5000-2100-5000		
DESIGN HEAD: 2.1m		
ORIFICE SIZE: 90mm		
DESIGN FLOW: 5.0 l/s		
INVERT LEVEL: 56.335m		
TECHNICAL SPECIFICATION		
CONTROL POINT	HEAD (m)	FLOW (l/s)
PRIMARY DESIGN	2.100	5.000
FLUSH - FLO	0.397	4.000
KICK - FLO	0.808	3.200
MEAN FLOW		3.9

- DRAINAGE SPECIFICATIONS**
- ALL ADOPTABLE DRAINAGE WORKS AND MATERIALS TO BE IN ACCORDANCE WITH 'SEWERS FOR ADOPTION' 6TH EDITION, THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATERS STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
  - FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
  - ALL ADOPTABLE SEWERS TO BE KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS EN13476).
  - PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND THE WATER AUTHORITY PREFER GLASSWARE CHANNEL IN MANHOLES. PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
  - THE WATER AUTHORITY IS NOT OBLIGED TO ACCEPT FILTER DRINKLAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY. LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRINKLAND DRAINAGE RUN-OFF.
  - SULPHATE RESISTANT CEMENT (C50-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
  - THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.9M FROM KERB FACES AND SERVICE MARGINS.
  - 'SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES (PLEASE ALSO REFER TO FIGURE 2.3 ON PAGE 59 IN 'SEWERS FOR ADOPTION' 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS)'.  
SEWERS TO BE LAD IN CLASS 'B' BEDDING (150MM GRANULAR BED AND SURROUND), WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2M IN HIGHWAYS AND VERGES (OR LESS THAN 300MM IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
  - CLASS 2 BEDDING DETAIL SHALL BE PROVIDED WHERE COVER TO THE PIPE BARREL IS LESS THAN 1.2M IN VEHICULAR TRAFFICKED AREAS AND 0.9M ELSEWHERE. TO ALL ROAD GULLY CONNECTIONS AND WITHIN AREAS OF DEEP ROOTING VEGETATION.
  - WHERE CLASS 2 TRENCH BEDDING DETAIL IS USED, THE CONCRETE BED AND SURROUND SHALL BE DISCONTINUED AT EACH PIPE JOINT OVER THE FULL CROSS SECTION BY MEANS OF A SHARED COMPRESSIBLE FILLER.
  - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-8-92 (TABLE A2).
  - THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
  - ALL PRIVATE DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BUILDING REGULATIONS 2002 EDITION.
  - CONTRACTOR TO ESTABLISH POSITION SIZE AND DEPTH OF ALL EXISTING SEWERS AND SERVICES PRIOR TO COMMENCEMENT ON SITE.
  - THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT, AND TEMPORARY AND PERMANENT DIVERSION WORKS, AS NECESSARY TO ALL EXISTING SERVICES.
  - THE CONTRACTOR SHALL ALLOW FOR ALL TRAFFIC MANAGEMENT IN CONNECTION WITH ROAD AND SEWER WORKS.
  - THE CONTRACTOR SHALL ALLOW FOR KEEPING SEWER TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DE WATERING AS APPROPRIATE. THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY.
  - FOR PIPE SPECIFICATION PLEASE REFER TO ADDITIONAL NOTES.
  - VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN295 AND BS 65 RESPECTIVELY AND BE KITEMARKED. ALL PIPES SHALL BE EXTRA STRENGTH TO BS 65 OR EQUIVALENT BS EN295 PIPE CRUSHING STRENGTH.
  - STRUCTURED WALL PLASTIC PIPES TO WIS 4-35-01 MAY BE USED FOR FOUL & SURFACE WATER DRAINAGE, SUBJECT TO ADOPTING AUTHORITY APPROVAL.
  - PRECAST CONCRETE PRODUCTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911 AND BE KITEMARKED. CONCRETE PIPES TO BE CLASS 120 UNLESS NOTED OTHERWISE.
  - GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124 AND BE OF A NON-ROCKING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITEMARKED. LOAD CLASS D400 FOR ROADS AND SERVICE YARD AREAS. CLASS C250 TO BE USED IN CAR PARKING AREAS.
  - BACKFILLING AND REINSTATEMENT TO TRENCHES IN PUBLIC HIGHWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE ADOPTING AUTHORITY, OR IN THE ABSENCE OF SUCH, IN ACCORDANCE WITH THE REQUIREMENTS OF 'THE STREET WORKS REGULATIONS 1992' AND RELEVANT PROVISIONS OF H.A.U.C. 'SPECIFICATION FOR THE REINSTATEMENT OF OPENINGS IN HIGHWAYS' JUNE 1992, BOTH UNDER SECTION 71 OF THE NEW ROADS AND STREET WORKS ACT 1991.
  - ALL TRADITIONAL RAINWATER PIPE DOWN COMERS TO DISCHARGE TO TRAPPED GULLIES.
  - ALL SIPHONIC DRAINAGE DOWN COMERS TO MANUFACTURER SPECIFICATION.
  - ALL ROAD GULLIES ARE TO BE TRAPPED GULLIES.
  - ALL GULLY LEADS TO BE 150mm DIAMETER.
  - ALL ROAD GULLIES & LEADS TO BE CLEARED OF DEBRIS UPON COMPLETION OF WORKS.
  - THE CONTRACTOR MUST ENSURE THAT ANY OF THE EXISTING DRAINAGE WHICH IS LIVE IS KEPT CLEAR OF DEBRIS AND SHOULD ALLOW FOR JETTING THROUGH THE NEW & EXISTING DRAINAGE UPON COMPLETION.
  - CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
  - CONTRACTOR TO APPLY FOR SEWER PERMITS AND ROAD OPENING PERMITS AS NECESSARY FROM THE APPROPRIATE AUTHORITIES, PRIOR TO COMMENCING WORKS.
  - ADOPTABLE PLASTIC SEWER PIPES TO BE LAD IN MAXIMUM 3m LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.
  - WHERE PLASTIC PIPES ARE INSTALLED PRIOR TO GETTING APPROVAL, THEN A LIGHT LINE CCTV SURVEY AND REPORT ARE REQUIRED PRIOR TO APPROVAL.

**NOTE**


- CO-ORDINATES RELATE TO THE INTERSECTION OF MAIN INLET & OUTLET RUNS.
- REFER TO PLAN D701 FOR DRAINAGE CONSTRUCTION DETAILS & INFORMATION.

**SUBJECT TO LOCAL AUTHORITY & WATER AUTHORITY APPROVAL**

06/04/2020	AMENDED TO SUIT IUI COMMENTS.	KRS	AE	3
10/03/2020	STATUS AMENDED	AE	AE	2
26/09/2019	FIRST ISSUE	AE	AE	1
Date	Revisions	Drawn	Checked	Rev

Dwg Status: **CONSTRUCTION**

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Client: **GLEESON HOMES**

Project: **FELL VIEW DRIVE, EGREMONT**

Title: **MANHOLE SCHEDULE**

DO NOT SCALE	Scale @ A1: 1:250	Drawn: KS	Checked: AE	Date: 26/09/2019
Job No: <b>18184</b>	Dwg No: <b>D201</b>	Rev: <b>3</b>		