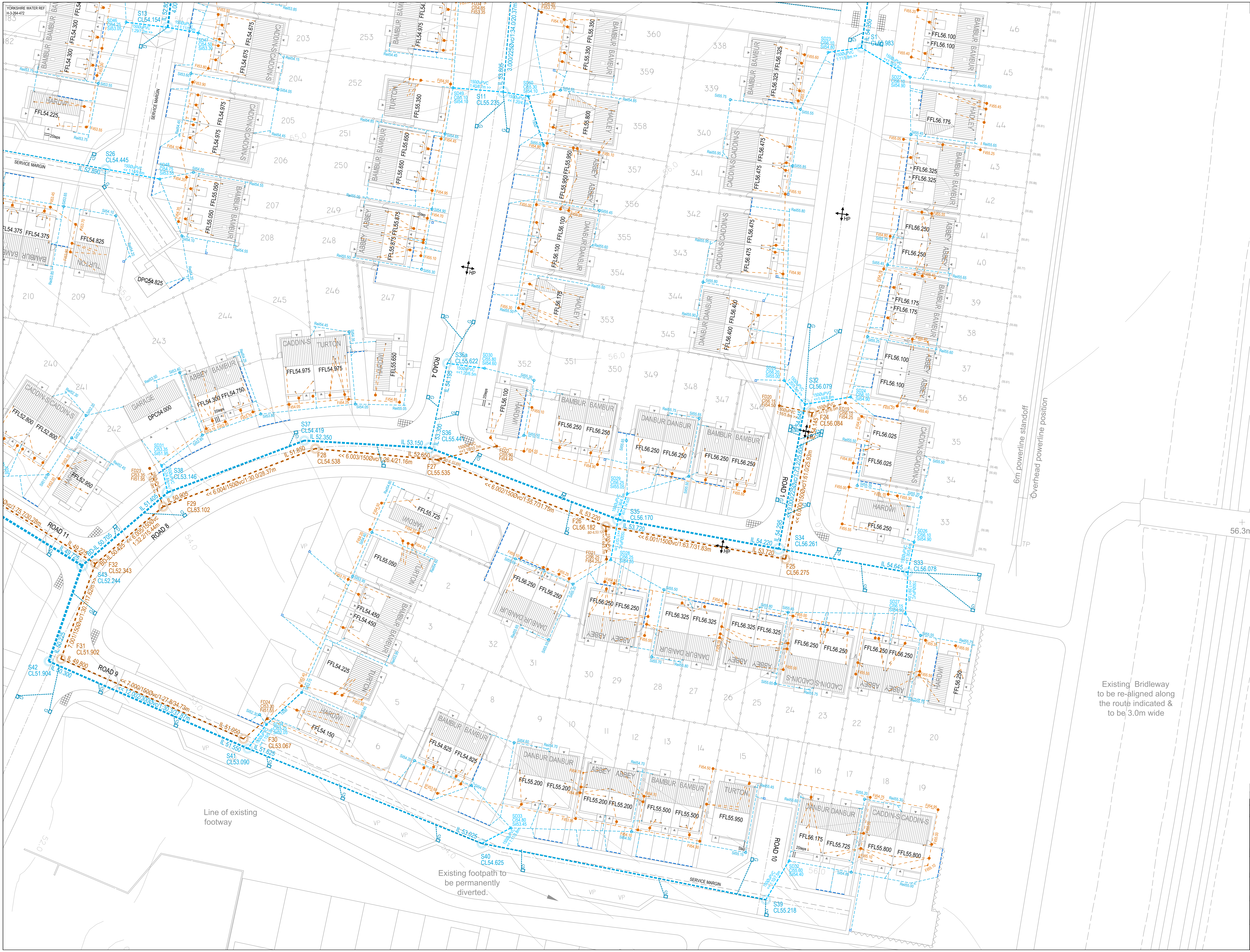

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GENERAL NOTES:-

1. DO NOT USE THIS DRAWING IN ISOLATION. THIS DRAWING HAS BEEN PREPARED AS PART OF A SET, AND MUST THEREFORE BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING WORKS.
2. THIRD PARTY INFORMATION IS USED TO PREPARE THE ENGINEERING DESIGN (INCLUDING, ARCHITECTURAL LAYOUT, GROUND INVESTIGATION, EXISTING UTILITIES RECORDS, AND SPECIALIST DESIGN ITEMS). THE ENGINEERING DESIGN MUST THEREFORE BE READ IN CONJUNCTION WITH ALL THIRD PARTY INFORMATION PRIOR TO COMMENCING WORK. QUEENSBERRY DESIGN LTD ARE NOT RESPONSIBLE FOR ANY THIRD PARTY INFORMATION OR DETAILS.
3. HOUSE TYPE WORKING DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE PLOT SETTING OUT DRAWING.
4. DRAWING STATUS WILL REMAIN PRELIMINARY UNTIL FULL TECHNICAL APPROVAL IS RECEIVED FROM LOCAL AUTHORITY AND SEWERAGE UNDERTAKER. WORKS COMMENCED PRIOR TO TECHNICAL APPROVAL ARE DONE SO AT RISK AND MAY BE SUBJECT TO CHANGE.
5. THE CONTRACTOR IS EXPECTED TO PREPARE APPROPRIATE CONSTRUCTION METHOD STATEMENTS FOR ALL ASPECTS OF APPOINTED WORK. THIS SHOULD INCLUDE ANY TEMPORARY PROTECTION / WORKS.
6. LAND DRAINAGE IS NOT PERMITTED TO DISCHARGE INTO THE PUBLIC SEWER NETWORK. ANY NEED FOR LAND DRAINAGE SHOULD BE ASSESSED BY THE GROUND WORKER AND LANDSCAPER DURING CONSTRUCTION AND PLACEMENT OF GARDENS ON AN INDIVIDUAL PLOT BASIS. IF LAND DRAINAGE DESIGNS ARE REQUIRED, THEY SHOULD BE APPOINTED PRIOR TO PLOT COMPLETION.
7. THE CONTRACTOR IS EXPECTED TO CROSS CHECK ALL DRAINAGE INVERTS PRIOR TO COMMENCING WORK, THIS MAY INVOLVE COMPLETION OF TRIAL HOLES IF INVERT LEVELS HAVE BEEN INTERPOLATED. THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
8. THE CONTRACTOR MUST MONITOR THE "AS BUILT" PROGRESS OF EACH CONSTRUCTION STAGE (ROADS/SEWERS/PLOT WORKS ETC), TO ENABLE THE NEXT STAGES OF CONSTRUCTION TO BE CHECKED BEFORE INSTALLATION.

HIGHWAYS

1. ALL HIGHWAY WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY DESIGN GUIDE AND SPECIFICATION
2. ALL EXCAVATIONS BELOW PROPOSED AND EXISTING HIGHWAYS TO BE BACK FILLED WITH GRANULAR TYPE 1 SUB BASE AND WELL COMPACTED IN LAYERS NOT EXCEEDING 150MM, UNLESS OTHERWISE AGREED.
3. HIGHWAY AUTHORITY TO BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.

ADOPTABLE DRAINAGE

1. ALL ADOPTABLE DRAINAGE WORKS AND MATERIALS TO BE IN ACCORDANCE WITH - "SEWERS FOR ADOPTION 6TH EDITION", THE RELEVANT BRITISH / EUROPEAN AND YORKSHIRE WATER'S STANDARD/REQUIREMENTS/ADDENDUM AND KITMARKED
2. MANHOLE COVERS SHALL / MUST HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS.
3. FILLED GROUND MUST BE FILLED AND CONSILDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATERS BEFORE ANY SEWER WORKS ARE CARRIED OUT.
4. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN / LAND DRAINAGE RUNOFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUNOFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIASE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION WITH REGARDS TO THE DISPOSAL OF THE FILTER DRAIN / LAND DRAINAGE RUNOFF.
5. COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600X600MM FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA) 'TECHNICAL BULLETIN' ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.
6. 600 X 600MM ACCESS COVER SLABS ARE NOW AVAILABLE WHICH MUST BE KITEMARKED FOR USE ON YORKSIHRE WATERS NETWORK.
7. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
8. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.5M FROM KERB FACES AND SERVICE MARGINS.
8. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES, REFER TO SFA FIGURE 2.3 FOR FURTHER RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS.
9. SEWERS LAID IN CLASS "S" BEDDING (150MM GRANULAR BED AND SURROUND). WHERE DEPTH OF COVER TO TOP OF SEWER IS LESS THAN 1.2M IN HIGHWAY AND VERGES (OR LESS THAN 900MM IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
10. ALL ADOPTABLE SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-3501).
11. ADOPTABLE SEWER PIPES TO BE LAID IN MAXIMUM 3M LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. 12. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
12. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNEL IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
13. THE CHAMBER SIZE OF MANHOLES WITH MORE THAT ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
14. YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 1050MM Ø MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200MM Ø OR 1500MM Ø RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE IS 1 - 1.5M
15. CONCRETE PIPES SHOULD BE CLASS 120 TO EN 1916 / BS 5911-1 : 2002
16. THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PORIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
17. THE CONNECTION OF FOUL AND SURFACE WATER DRAINAGE TO THE EXISTING PUBLIC SEWER SYSTEM SHALL BE SUBJECT TO THE APPROVAL OF THE LOCAL SEWERAGE UNDERTAKER. THE CONTRACTOR IS EXPECTED TO APPLY FOR RELEVANT PERMITS PRIOR TO COMMENCING THE WORK.
18. 1350Ø CHAMBER RINGS ARE ALLOWED ON THE ADOPTABLE NETWORK AND ARE TO BE KITEMARKED.
19. THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PORIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
20. THE CONNECTION OF FOUL AND SURFACE WATER DRAINAGE TO THE EXISTING PUBLIC SEWER SYSTEM SHALL BE SUBJECT TO THE APPROVAL OF THE LOCAL SEWERAGE UNDERTAKER. THE CONTRACTOR IS EXPECTED TO APPLY FOR RELEVANT PERMITS PRIOR TO COMMENCING THE WORK.

EXISTING SERVICES

PRIOR TO THE COMMENCEMENT OF ANY WORKS UNDER GROUND MAPPING SURVEYS AND CONSTRAINTS PLAN IS TO BE REFERED TO ANY DISCREPANCIES ARE TO BE REPORTED TO ENGINEER.

ANY EXISTING SERVICES WHICH MAY BE AFFECTED BY THE PROPOSED WORKS SHOULD BE LOCATED BY MEANS OF A HAND DIG IN CLOSE LIAISON WITH THE STATUTORY SERVICE AUTHORITIES. THE CONTRACTOR SHALL INFORM THE DEVELOPER OF ANY SERVICES THAT MAY AFFECT THE PROPOSED DESIGN. CONTRACTOR TO NOTIFY STATUTORY SERVICE AUTHORITIES PRIOR TO COMMENCEMENT OF WORK. AS CONSTRUCTED INFORMATION IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE THE FOLLOWING AS CONSTRUCTED DRAWINGS TO THE DEVELOPER UPON THE COMPLETION OF THE WORKS COVERED BY THE CONTRACT :-
1. POSITION/CO-ORDINATES OF ALL ADOPTABLE MANHOLES.
2. INVERT AND COVER LEVELS OF ALL ADOPTABLE MANHOLES.
3. NEW GULLY POSITIONS AND CONNECTIONS.
4. POSITION AND DEPTH OF SERVICE DUCTS FOR WATER, GAS, ELECTRIC, BT, CABLE AND STREET LIGHTING, STATING SIZE AND NUMBER OF DUCTS.

LEGEND

Adoptable Drainage

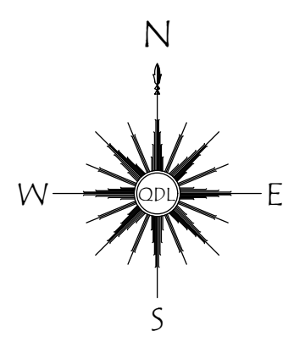
Proposed adoptable Foul manhole	F1
Proposed adoptable Storm manhole	S1
Existing adopted Foul manhole	ex.mh
Existing adopted Storm manhole	ex. mh
Existing adopted Combined manhole	ex. mh

Private Drainage

Private storm rodding eye	
300mm dia. private inspection chamber. To be used where depth to invert is 600mm or less	
450mm dia. private inspection chamber. To be used where depth to invert is 3000mm or less. Reduced access fitting required at depths greater than 1200mm OR 1050mm dia. Inspection manhole where depth to invert is 1000 - 3000mm Cover to have a 600mm opening	
Private Gully	G
Drainage Channel	

All private drainage to be 100mm rigid pipe or 110mm flexible pipe unless otherwise shown Where 5 or more properties connect to the same private storm run the pipe(s) should be upsized to 150mm dia. after the fifth property. Please refer to layout to see pipes that maybe affected. All private drainage to have a minimum fall of 1:70 Bedding should be granular material to BS 882 : Part 2 of 10mm nominal single sized aggregate. Rigid pipes of nominal size 150mm and 160mm flexible pipes should have granular material bedding to BS 882 : Part 2 of 10mm or 14mm nominal sized aggregate or 14mm to 5mm graded aggregate.

COVER LEVELS PROVIDE ARE FOR GUIDANCE AND ARE SUBJECT TO FINISHED GROUND LEVELS



Rev.	Date	Revision Details	Drawn	Checked
A	10.11.20	UPDATED TO LAYOUT REV P	ND	ND
-	17.09.20	FIRST ISSUE	ND	ND

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Client
KEEPMOAT HOMES

Project
THURNSCOE PHASE 3

Title
PRIVATE DRAINAGE
SHEET 4

Drawn	Checked	Date
CS	ND	15.09.2020

Drawing Number
QD1386-04-12

Drawing Status	Scale	Rev.
TENDER	1:200 - A0	A