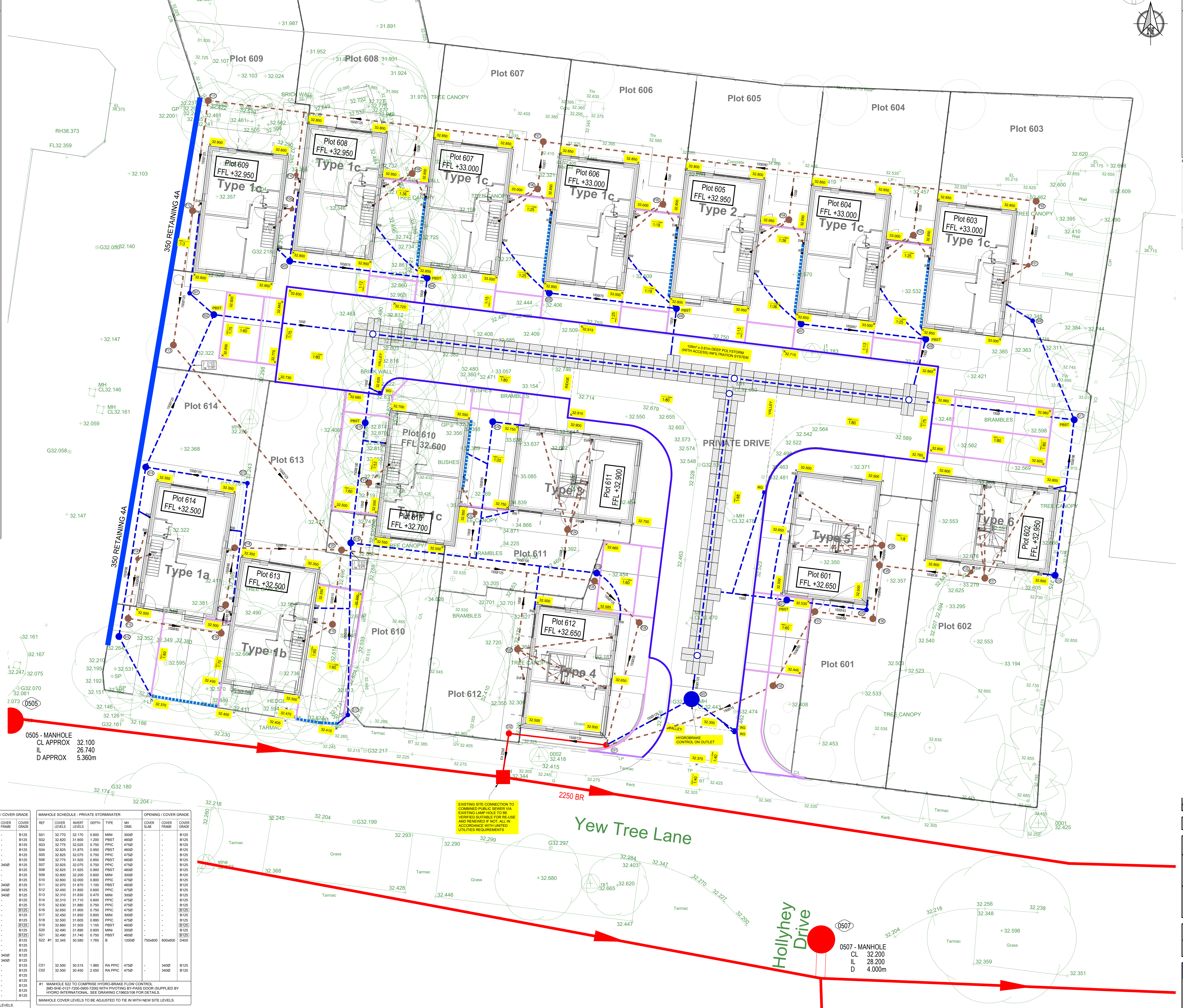


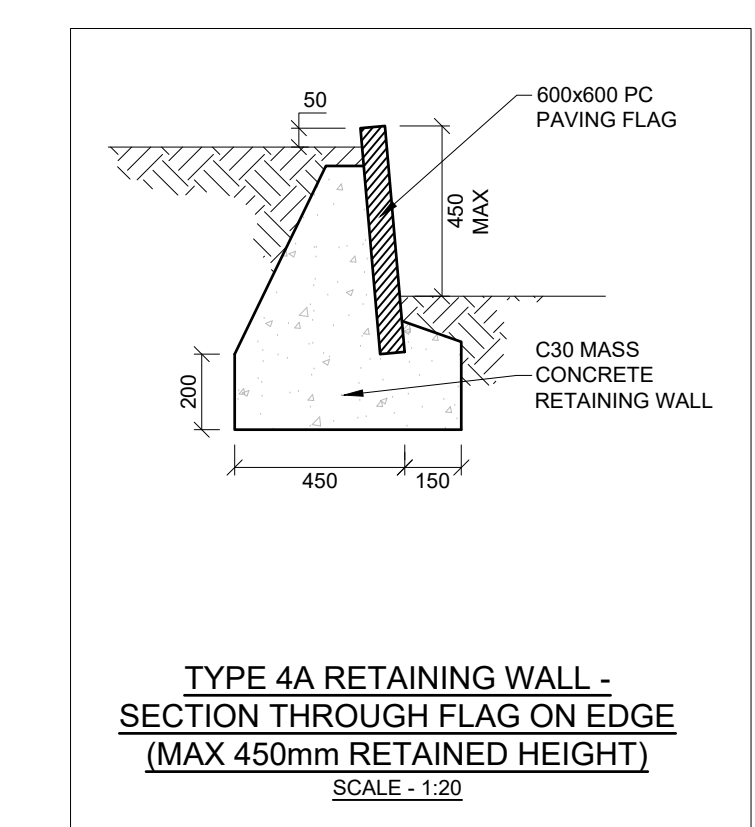
- NOTES -
- 1.0 GENERAL
- 1.1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS & SPECIFICATIONS.
- 1.2 WORK TO BE CARRIED OUT IN ACCORDANCE WITH CURRENT GOOD PRACTICE, BUILDING REGULATIONS AND SUBSEQUENT AMENDMENTS. THE PROJECT SPECIFICATION, RELEVANT BRITISH STANDARDS AND CODES OF PRACTICE, MATERIALS AND COMPONENTS TO BE SUITABLE FOR THEIR INTENDED USE.
- 1.3 FOR SETTING OUT REFER TO ARCHITECTS DRAWINGS.
- 2.0 EXISTING SERVICES
- 2.1 SERVICE MEDIA INDICATED IS BASED ON INFORMATION AVAILABLE TO DATE & IS REPRODUCED IN GOOD FAITH. NO RESPONSIBILITY CAN BE ACCEPTED FOR THE LOCATION OF UNKNOWN SERVICES NOT INDICATED.
- 2.2 STATUTORY SERVICES INDICATED PRIOR TO ANY WORKS TAKING PLACE ARE FOR INFORMATION PURPOSES ONLY AND MUST BE CONFIRMED.
- 2.3 IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT EXISTING SERVICE MEDIA AFFECTED BY THE PROPOSED WORKS.
- 2.4 ANY EXISTING DRAINAGE ON SITE IS TO BE INVESTIGATED, SURVEYED AND AS FOUND TO BE NECESSARY EITHER, MAINTAINED, DIVERTED OR ABANDONED (SUBJECT TO APPROVAL OF THE SEWAGE UNDERTAKER).
- 3.0 PRIVATE DRAINAGE
- 3.1 VITRIFIED CLAY DRAINAGE GOODS TO BE HEPWORTH SUPERSLAVE OR SIMILAR TO BS EN 285 - 1. ASHTIC DRAINAGE GOODS TO BE HEPWORTH PLASTODRAIN/VEVERDRAN OR SIMILAR. STRENGTH CLASS & BEDDING TO BE AS INDICATED ON THE TYPICAL DRAINAGE DETAILS DRAWING.
- 3.2 DRAINAGE BENEATH SOFT LANDSCAPING WITH LESS THAN 0.6m COVER TO BE CONCRETE ENCASED. DRAINAGE BENEATH ROADSPAVING WITH LESS THAN 1.5m COVER TO BE CONCRETE ENCASED.
- 3.3 DRAINS WHICH ARE CONCRETE ENCASED TO HAVE 18mm FIBREGLASS OR POLYSTYRENE JOINTS AT 5m MAX CENTRES.
- 3.4 FOR TRADITIONAL FOUNDATION CONSTRUCTION
- 3.4.1 ANY DRAINAGE WHOSE EXCAVATION IS LOWER THAN THE UNDERSIDE OF ADJACENT FOUNDATION & GREATER THAN 1.5m FROM THE FOUNDATION IS TO BE CONCRETE ENCASED UP TO THE LEVEL OF THE UNDERSIDE OF THE FOUNDATION.
- 3.4.2 ANY DRAINAGE WHOSE EXCAVATION IS LOWER THAN THE UNDERSIDE OF ADJACENT FOUNDATION & GREATER THAN 1.5m FROM THE FOUNDATION IS TO BE CONCRETE ENCASED UP TO A LEVEL 150mm BELOW THE UNDERSIDE OF THE FOUNDATION (WHERE X IS THE HORIZONTAL DISTANCE FROM THE FACE OF FOUNDATION TO THE EDGE OF THE DRAINAGE EXCAVATION).
- 3.5 FOR VIBRO RAMPED GROUND SUPPORTING STRIP FOOTINGS
- 3.5.1 WHERE DRAINAGE IS LOCATED LESS THAN 1.5m FROM AN ADJACENT FOUNDATION AND AT A GREATER DEPTH THE VIBRO FORMATION LEVEL, THE ADJACENT FOUNDATION IS TO BE EXTENDED DOWN TO THE INVERT OF THE DRAINAGE.
- 3.5.2 WHERE DRAINAGE IS LOCATED MORE THAN 1.5m FROM AN ADJACENT FOUNDATION AND AT A GREATER DEPTH THE VIBRO FORMATION LEVEL, THE ADJACENT FOUNDATION IS TO BE EXTENDED DOWN TO A LEVEL (X - 100mm) ABOVE THE INVERT OF THE DRAINAGE (WHERE X IS THE HORIZONTAL DISTANCE FROM THE FACE OF FOUNDATION TO THE EDGE OF THE DRAINAGE EXCAVATION).
- 3.6 ALL SURFACE WATER DRAINS TO BE MINIMUM 100mm x 110mm GRADIENT U.N.G. ALL FOUL WATER DRAINS TO BE MINIMUM 100mm x 110mm GRADIENT U.N.G. UNLESS A TOILET IS LOCATED UPSTREAM WHERE MINIMUM GRADIENT SHOULD BE 1:80.
- 3.7 COVER LEVELS ARE APPROPRIATE AND TO BE VERIFIED ON SITE.
- 3.8 INTERNAL INSPECTION CHAMBERS TO BE PROVIDED WITH DOUBLE SEAL AIR TIGHT SCREW DOWN COVERS.
- 3.9 POLYPROPYLENE ICS TO INCLUDE 100mm (MIN) CONCRETE SURROUND WHEN LOCATED IN HARDCASTINGS (SEE DETAILS).
- 3.10 PPICs DEEPER THAN 1.2m TO HAVE REDUCED ACCESS (RA) COVER <3000.
- 4.0 LINEAR DRAINAGE SYSTEM
- 4.1 THE LINEAR DRAINAGE SYSTEM SHALL BE BROCO (SEE DRAWING FOR DETAILS) MANUFACTURED IN PRE-CAST CONCRETE, WITH THE EXCEPTION OF CERTAIN FITMENTS MANUFACTURED IN STEEL OR CAST IRON, AND INSTALLED IN ACCORDANCE WITH MARSHALLS STANDARD DETAIL SHEETS.
- 4.2 THE LINEAR DRAINAGE SHALL BE A TWO PART SYSTEM CONSISTING OF STEEL OR CAST IRON GRATINGS OR COVERS BOLTED TO PRECAST CONCRETE DRAINAGE CHANNELS. DRAINAGE CHANNELS TO COMMAHRE CONSTANT DEPTH AND INBUILT FALL UNITS AS REQUIRED TO SATISFY THE HYDRAULIC DESIGN.
- 4.3 ALL COMPONENTS OF THE MARSHALLS BROCO SYSTEM SHALL COMPLY WITH LOAD CLASSIFICATION 4000 IN ACCORDANCE WITH BS EN 1435:2002.
- 4.4 THE LINEAR DRAINAGE SYSTEM COMPRISING GRATINGS, COVERS, CONSTANT DEPTH AND INBUILT FALL CHANNELS, OUTFALLS, T-JUNCTIONS, CHANNELS, END CAPS, COW OUTLETS, AND SEAWATS SHALL BE INSTALLED TO THE LINE AND LEVELS INDICATED IN THE CONTRACT DOCUMENTS AND IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND STANDARD DETAILS.
- 4.5 BROCO OUTFALLS TO BE 100mm x 110mm (U.N.G.) SUPPLIED IN TWO SECTIONS WITH UNIVERSAL FIT SEAL AND STOPPER INCLUDED. OUTFALL SECTIONS TO BE REDDED USING MARSHALLS POLYSULPHIDE SEALANT.
- 4.6 MARSHALLS VERTICAL JOINT SEALANT, M-SEAL, SHALL BE APPLIED TO ALL VERTICAL JOINTS OF THE CHANNEL.
- 5.0 ATTENUATION TANKS
- 5.1 SYSTEM TO COMMAHRE 100% OF 15min BELOW GROUND STORAGE TANK, TO BE FORMED USING POLYPROPYLENE POLYSTORM 1.0 x 0.5 x 0.2m BLOCKS OVER 1.0 x 1.5 x 1.4m BLOCKS. SEE DRAWING C19603/106 - POLYSTORM ATTENUATION TANK FOR DETAILS.



- KEY
- SURFACE WATER DRAIN
● FOWL WATER DRAIN
● COMBINED WATER DRAIN SEWER
- POLYSTORM ACCESS
- ACO DRAINAGE CHANNEL
- ROAD GULLY
- PROPOSED LEVEL
- PROPOSED GRADIENT

- KERB TYPES
- 125x255 Half Batten Kerb (HB2) - 100/125mm
■ 125x150 Bullnose Kerb (BN) - 25mm
■ 125x150 Bullnose Kerb (BN) - 0.6mm
■ 50x200 Flat Top Edging (EF)
■ Drop Kerb (18:1:2 gradient)

- KEY
- FLAG ON EDGE
■ AS TYPICAL DETAILS PROVIDED
■ MAX 0.45m UTILIZING 600mm FLAG



- KEY TO MANHOLE SCHEDULE
- WHERE PPICs OR REDUCED ACCESS PRIVATE DRAINAGE THE MANHOLE IS TO BE ENCASED IN CONCRETE AS DETAIL ON DRAWING C19603/108 IN THE MANHOLE SCHEDULE. THOSE MANHOLES AFFECTED ARE DESIGNATED: [B125]
- PRST INDICATES POLYSTORM BASIC SLT TRAP

MANHOLE SCHEDULE - PRIVATE FOUWATER				OPENING / COVER GRADE			
REF	COVER LEVELS	DEPTH	TYPE	MH DIMS	COVER SLAB	COVER FRAME	COVER GRADE
F01	32.825	32.225	0.600	MNI 3000	-	-	B125
F02	32.825	31.995	0.830	PPIC 4750	-	-	B125
F03	32.860	32.100	0.750	PPIC 4750	-	-	B125
F04	32.825	32.075	0.750	PPIC 4750	-	-	B125
F05	32.825	32.075	0.750	PPIC 4750	-	-	B125
F06	32.860	32.100	0.750	PPIC 4750	-	-	B125
F07	32.825	31.130	RA PPIC	4750	-	-	3400
F08	32.825	32.075	0.750	PPIC 4750	-	-	B125
F09	32.860	32.250	0.550	MNI 3000	-	-	B125
F10	32.860	32.200	0.600	MNI 3000	-	-	B125
F11	32.750	31.285	1.465	RA PPIC	4750	-	3400
F12	32.775	31.215	1.560	RA PPIC	4750	-	3400
F13	32.650	31.125	1.525	RA PPIC	4750	-	3400
F14	32.335	31.735	0.600	MNI 3000	-	-	B125
F15	32.475	31.675	0.800	PPIC 4750	-	-	B125
F16	32.475	31.675	0.800	PPIC 4750	-	-	B125
F17	32.460	31.545	0.915	PPIC 4750	-	-	B125
F18	32.350	31.445	0.965	PPIC 4750	-	-	B125
F19	32.375	31.625	0.750	PPIC 4750	-	-	B125
F20	32.470	30.555	1.515	RA PPIC	4750	-	3400
F21	32.370	31.620	0.750	PPIC 4750	-	-	B125
F22	32.615	32.015	0.600	MNI 3000	-	-	B125
F23	32.475	31.725	0.750	PPIC 4750	-	-	B125
F24	32.775	31.975	0.750	PPIC 4750	-	-	B125
F25	32.620	30.790	1.830	RA PPIC	4750	-	3400
F26	32.615	30.750	1.765	RA PPIC	4750	-	3400
F27	32.775	31.625	0.800	PPIC 4750	-	-	B125
F28	32.475	31.725	0.750	PPIC 4750	-	-	B125
F29	32.475	31.700	0.775	PPIC 4750	-	-	B125
F30	32.475	31.645	0.830	PPIC 4750	-	-	B125
F31	32.475	31.585	0.880	PPIC 4750	-	-	B125
F32	32.390	31.000	0.880	PPIC 4750	-	-	B125
F33	32.785	32.185	0.600	MNI 3000	-	-	B125

MANHOLE SCHEDULE - PRIVATE STORMWATER				OPENING / COVER GRADE			
REF	COVER LEVELS	DEPTH	TYPE	MH DIMS	COVER SLAB	COVER FRAME	COVER GRADE
S01	32.770	32.170	0.600	MNI 3000	-	-	B125
S02	32.820	31.600	1.200	PRST 4600	-	-	B125
S03	32.775	32.025	0.750	PPIC 4750	-	-	B125
S04	32.825	31.875	0.950	PRST 4600	-	-	B125
S05	32.865	32.075	0.750	PPIC 4750	-	-	B125
S06	32.775	31.925	0.850	PRST 4600	-	-	B125
S07	32.825	32.075	0.750	PPIC 4750	-	-	B125
S08	32.825	31.925	0.900	PRST 4600	-	-	B125
S09	32.860	32.200	0.600	MNI 3000	-	-	B125
S10	32.860	32.200	0.600	PPIC 4750	-	-	B125
S11	32.970	31.870	1.100	PRST 4600	-	-	B125
S12	32.450	31.850	0.600	PPIC 4750	-	-	B125
S13	32.310	31.830	0.470	MNI 3000	-	-	B125
S14	32.310	31.710	0.600	PPIC 4750	-	-	B125
S15	32.630	31.880	0.750	PPIC 4750	-	-	B125
S16	32.650	31.900	0.750	PPIC 4750	-	-	B125
S17	32.450	31.850	0.600	MNI 3000	-	-	B125
S18	32.350	31.695	0.655	PPIC 4750	-	-	B125
S19	32.660	31.505	1.155	PRST 4600	-	-	B125
S20	32.450	31.880	0.600	MNI 3000	-	-	B125
S21	32.450	31.740	0.710	PRST 4600	-	-	B125
S22	32.345	30.580	1.765	B	12000	750x600	CH400

#1 MANHOLE S22 TO COMPRISE HYDRO-BRAKE FLOW CONTROL (NDSHE0127-7200-0900-7200) WITH PIVOTING BY-PASS DOOR (SUPPLIED BY HYDRO INTERNATIONAL. SEE DRAWING C19603/109 FOR DETAILS)

MANHOLE COVER LEVELS TO BE ADJUSTED TO THE IN WITH NEW SITE LEVELS

MANHOLE COVER LEVELS TO BE ADJUSTED TO THE IN WITH NEW SITE LEVELS

EXISTING SITE CONNECTION TO COMBINED PUBLIC SEWER. EXISTING MANHOLE TO BE VERIFIED SUITABLE FOR RE-USE AND RENEWED IF NOT ALL IN ACCORDANCE WITH UNITED UTILITIES REQUIREMENTS.

2250 BR

Yew Tree Lane

Hollyhey Drive

0507 - MANHOLE
CL 32.200
IL 28.200
D 4.000m

0505 - MANHOLE
CL APPROX 32.100
IL 26.740
D APPROX 5.360m

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