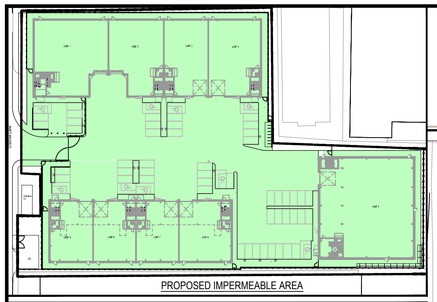
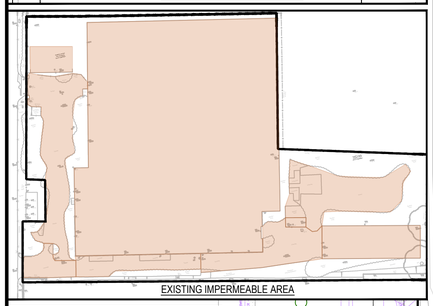




AREAS:

SITE AREA	0.910 ha
EXISTING IMPERMEABLE AREA	0.703 ha
PROPOSED IMPERMEABLE AREA	0.832 ha

EXCEEDANCE ROUTE IN THE EVENT OF A FAILURE OF THE DRAINAGE SYSTEM OR STORM EVENT IN EXCESS OF THE 1 IN 100 + 45%CC

COMBINED DISCHARGE

- FORM NEW Ø225 CONNECTIONS TO EXISTING PUBLIC MANHOLE.
- LOCATION AND LEVEL OF CONNECTION POINT BASED ON CCTV SURVEY BY LANES GROUP DATED 30/09/2025.
- S106 REQUIRED FOR DIRECT CONNECTION PRIOR TO MAKING CONNECTION.

DRAINAGE

1. REFER TO CIVIL AND STRUCTURAL SPECIFICATION REPORT - PART R.
2. CONTRACTOR SHOULD ENSURE THE LOCAL PLANNING AUTHORITY HAVE APPROVED THE DRAINAGE PROPOSALS PRIOR TO ORDERING MATERIAL OR INSTALLATION.

HYDRAULIC DESIGN:

3. THE SURFACE WATER NETWORK, FLOW CONTROL AND ATTENUATION HAS BEEN DESIGNED USING MICRODRAINAGE SOFTWARE WITH FSR RAINFALL DATA.

STRATEGY:

4. DISCHARGE RATE RESTRICTED AT 20.20 l/s SUBJECT TO LLFA APPROVAL.THIS IS BASED ON 50% REDUCTION OF THE EXISTING M1-30 STORM EVENT.
5. TOTAL ATTENUATION FOR 100YR+45% CLIMATE CHANGE BELOW GROUND = 353m³

FINAL DRAINAGE CONNECTIONS:

6. WHERE THIRD PARTY APPROVAL IS REQUIRED THESE ARE NOTED AGAINST EACH DISCHARGE POINT ON THE DRAWING.
7. NO CONNECTION OR DISCHARGE SHOULD BE MADE UNTIL APPROVAL HAS BEEN RECEIVED. CHECK STATUS OF APPLICATION WITH ENGINEER.
8. CONTRACTOR SHOULD INVESTIGATE AND INSTALL FINAL DRAINAGE CONNECTIONS PRIOR TO INSTALLING ANY UPSTREAM DRAINAGE TO AVOID POTENTIAL LEVEL ISSUES.
9. EVERY EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION. HOWEVER, THE CONTRACTOR IS ADVISED TO CHECK ACTUAL CONDITIONS. I.E. THE LOCATION, ACCESSIBILITY, UNDERGROUND ROUTE, LEVELS, SIZES, CONDITION OF EXISTING SEWERS TO BE RE-USED AND/OR CONNECTED INTO.

GENERALLY:

10. DO NOT SCALE FROM THIS DRAWING, WORK TO DIMENSIONS OR CO-ORDINATES PROVIDED.
11. REPORT CONFLICTS TO ENGINEER IMMEDIATELY.
12. EVERY EFFORT HAS BEEN MADE TO ASCERTAIN TYPE, LOCATION AND DEPTH OF BURIED SERVICES AND/OR OBSTRUCTIONS. HOWEVER, THE CONTRACTOR IS ADVISED TO CARRY OUT OWN INVESTIGATIONS TO ENSURE THERE ARE NO CLASHES WITH THE PROPOSED WORKS.
13. CONTRACTOR IS RESPONSIBLE FOR PROTECTING RETAINED SERVICES AND MAKING CONTACT WITH OWNERS OF APPARATUS TO OBTAIN NECESSARY CONSENT FOR EXCAVATION, PROTECTION AND/OR DIVERTING.
14. BURIED OBSTRUCTIONS ENCOUNTERED DURING EXCAVATION THAT CONFLICT WITH PROPOSED WORKS SHOULD BE BROKEN OUT AND REMOVED. RESIDUAL VOIDS TO BE BACKFILLED AND COMPACTED AS PER SPECIFICATION.

NEW DRAINAGE:

15. INTERNAL FOUL POINTS ARE LOCATED AND SET OUT BY THE ARCHITECT.
16. TRADITIONAL RAINWATER DOWNPIPES ARE PROVIDED BY THE CLADDING CONTRACTOR AND COORDINATED WITH THE ARCHITECT.
17. DESIGN ASSUMES THAT ALL WORKS ARE NOT TO BE ADOPTED.
18. GRADIENTS OF PIPES ARE AVERAGED. PIPE CONNECTIONS SHOULD BE INSTALLED TO THE STATED INVERT LEVELS.
19. COVER LEVELS OF THE MANHOLES ARE AVERAGED. COVER AND FRAME SHOULD BE SET TO SUIT FINISHED GROUND LEVELS.
20. ALL PIPEWORK WITHIN MANHOLES ARE TO BE LAID SOFFIT TO SOFFIT (U.N.O), INCLUDING BACKDROP PIPEWORK, WHERE THE RODDING ACCESS LEVEL IS SPECIFIED.
21. FLAT LATERAL CONNECTION TO BE 135° "Y" JUNCTIONS (IE 45° OBLIQUE JUNCTIONS) RELATIVE TO MAIN RUN. TO BE USED ON FOUL OR SURFACE WATER RUNS. 90° OR 87½° SQUARE JUNCTIONS SUITABLE FOR SURFACE WATER CONNECTIONS ONLY.
22. SADDLE CONNECTIONS TO LARGER PIPES SHOULD BE MADE SO THAT THE INVERT LEVEL OF THE SMALLER PIPE DOES NOT ADJOIN BELOW MID HEIGHT OF THE LARGER PIPE.
23. PIPES CROSSING WITHIN 200MM OF EACH OTHER ARE TO BE ISOLATED BY CONCRETE FOR A MINIMUM DISTANCE OF 1M BEYOND CROSSING POINT IN ALL DIRECTIONS.
24. A CCTV DRAINAGE SURVEY TO BE CARRIED OUT ON COMPLETION TO PROVE THE INTEGRITY OF THE AS-BUILT DRAINAGE SYSTEMS.

ANCILLARY ITEMS:

25. WHERE PROPOSED CONTRACTOR MUST PROVIDE PROPOSALS FOR SUPPLY OF LINEAR DRAINAGE CHANNELS, KERB DRAINS, INTERCEPTORS, ATTENUATION, PUMPS, HYDROBRAKE, FILTER UNITS.
26. WHERE PROPOSED ALLOWANCE SHOULD BE MADE FOR POWER SUPPLY TO INTERCEPTORS AND PUMPS AND FOR INSTALLING CONTROL PANELS.

LEGEND

- NEW FOUL WATER PIPE
- IC 0.45 — NEW FOUL WATER INSPECTION CHAMBER
- F000 1.20 — NEW FOUL WATER MANHOLE
- EXISTING COMBINED WATER PIPE
- NEW STORM WATER PIPE
- S000 0.45 — NEW STORM WATER INSPECTION CHAMBER
- S000 1.20 — NEW STORM WATER MANHOLE
- S000 1.35 (CP) — NEW STORM WATER CATCHPIT MANHOLE
- (HB) NEW HYDROBRAKE
- (PI) PETROL INTERCEPTOR
- AB/OB — LINEAR DRAINAGE CHANNEL (ACCESS BOX/ OUTLET BOX)
- AB/OB — KERB CHANNEL (ACCESS BOX/ OUTLET BOX)
- LAND DRAIN
- GU — GULLY
- PROPOSED CELLULAR STORAGE
- SITE BOUNDARY

LINEAR DRAINAGE CHANNEL (LDC) SCHEDULE.

CHANNELS TO BE DESIGNED BY SPECIALIST BASED ON 50mm/hr RAINFALL INTENSITY, A 5yr RETURN PERIOD AND THE FOLLOWING PARAMETERS:

CHANNEL REFERENCE	LOCATION	AREA DRAINED	LENGTH	GROUND LEVEL BOX	OUTLET	PIPE	DUTY	PREFERENCE
A	FOOTPATH	259m²	130.00m	84.206	2NO.	150Ø	B125	NARROW
B	FOOTPATH	214m²	99.00m	85.056/85.020	1NO.	150Ø	B125	NARROW
C	FOOTPATH	43m²	20.00m	84.525	1NO.	150Ø	B125	NARROW
D	FOOTPATH	123m²	57.00m	84.527	2NO.	150Ø	B125	NARROW
E	ACCESS ROAD	712m²	26.00m	84.445/84.442	2NO.	225Ø	D400	KERB DRAIN
F	SERVICE YARD	235m²	14.00m	84.741/84.783	1NO. END	150Ø	D400	SLOT
G	ACCESS ROAD	541m²	10.00m	83.517/83.446	1NO. END	225Ø	D400	SLOT
H	ACCESS ROAD	1,963m²	49.50m	83.432	2NO.	300Ø	D400	SLOT

NUMBER & SPACING OF ACCESS BOXES TO BE SPECIFIED BY SUPPLIER OUTLET BOXES TO BE SILT TRAP DEEP HEAVY DUTY. OUTFALL BOXES TO HAVE SUMP AS FIRST STAGE OF TREATMENT

PETROL INTERCEPTOR 1 (PI)

SUPPLIER	SPEL PETROL INTERCEPTOR - 1
SPECIFICATIONS	P065/1CSC
AREA DRAINED	3,398m²
MAX FLOW RATE	45.4 l/s
IL IN	Ø375 @ 82.222m
IL OUT	Ø375 @ 82.122m

ALLOW FOR CONCRETE SURROUND, POWER SUPPLY, CONTROL PANEL, VENTING AND HIGH LEVEL ALARM.

ATTENUATION TANK - 1

PRODUCT	HYDRO TANK - 1
AREA DRAINED	8,324m²
SIZE	32.0 x 8.0 x 1.44m (368.64m³)
WATER VOLUME	353.89m³ (96% POROSITY)
GROUND LEVEL	84.263m-84.464m
TANK TOP	82.990m
TANK BASE	81.550m

ALLOW FOR VENTING, BEDDING & SURROUND, MEMBRANE WITH WELDED JOINTS
ALL CONNECTIONS INTO TANKS TO BE VIA MANIFOLD/REDUCERS TO SUIT MIN. 150 PIPE CONNECTION.
HIGH GROUND WATER LEVEL NOTED. DEWATERING MEASURE MAYBE REQUIRED DURING INSTALLATION.
FLOATATION CALCULATIONS FOR PERMANENT CASE CHECKED.

HYDROBRAKE - 1 (HB)

SUPPLIER	HYDRO INT OR SIMILAR APPROVED HB1
CHAMBER DIA	Ø1.50m
CHAMBER CL	84.449m
CHAMBER IL	81.533m
DESIGN FLOW	20.20 l/s
DESIGN HEAD	1.44m

Rev.	Date	Description	Technician	Reviewer
P4	02.09.26	ISSUED FOR LLFA	NM	IL
P3	15.05.24	UPDATED TO SUIT LATEST SITE LAYOUT	NM	IL
P2	18.09.24	UPDATED TO SUIT LATEST SITE LAYOUT	SH	IL
P1	12.12.23	PRELIMINARY ISSUE	RM	IL

I&L CONSULTING Ltd
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Project: CRABTREE LANE, CLAYTON
Drawing: DRAINAGE PLANNING STRATEGY

Drawing Set	Drawing Status	Scale	Project Number	Drawing Number	Revision
DRAINAGE	PRELIMINARY	1:200 @ A1 1:400 @ A3	23-026-I&L	D00	P4