

DOCUMENTATION OF STORMWATER CONCEPT DESIGN NEW DEVELOPMENT

12-14 ROCK BATH ROAD PALM BEACH NSW

JAMES TAYLOR AND ASSOCIATES

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STORMWATER DRAWING LIST	
Sheet Number	Sheet Name
SW1	STORMWATER CONCEPT DESIGN COVER SHEET
SW2	EXISTING SERVICES PLAN
SW3	STORMWATER DRAINAGE PLAN - GROUND FLOOR
SW4	STORMWATER DRAINAGE PLAN - LEVEL 1
SW5	STORMWATER DRAINAGE PLAN - LEVEL 2
SW6	STORMWATER DRAINAGE PLAN - LEVEL 3
SW7	STORMWATER DRAINAGE PLAN - ROOF

STORMWATER NOTES

- SW1. STORMWATER DRAINS TO BE RUN TO SUIT THE LOCAL SEWERAGE AND DRAINAGE BOARD, FROM THE STORMWATER DRAINS WITH PIPES AND FITTINGS SET NOT LESS THAN MINIMUM FALLS RECOMMENDED BY THE GOVERNING AUTHORITY, WITH MATERIALS AND LEVELS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION.
- SW2. ALL PIPES SHALL BE UPVC 100mm DIAMETER U.N.O. IN ACCORDANCE WITH AS3500.3 NATIONAL PLUMBING AND DRAINAGE CODE, PART 3: STORMWATER DRAINAGE.
- SW3. ALL PIPES TO BE UPVC OR CONCRETE AS NOTED AND IN ACCORDANCE WITH AS3500.3 NATIONAL PLUMBING AND DRAINAGE CODE, PART 3: STORMWATER DRAINAGE.
- SW4. ALL UPVC PIPES TO BE INSTALLED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS2032.
- SW5. ALL PIPES SHALL BE LAID AT A MINIMUM GRADE OF 1 IN 100 U.N.O.
- SW6. ARROWS INDICATE THE DIRECTION OF GRADE.
- SW7. ALL FOOTPATH AND DRIVEWAY CROSSINGS SHALL BE TO LOCAL COUNCIL REQUIREMENTS.
- SW8. ALL LEVELS ARE APPROXIMATE ONLY AND SHALL NEED TO BE CONFIRMED PRIOR TO CONSTRUCTION.
- SW9. ALL EXISTING LEVELS ARE SHOWN AS A SPOT LEVEL OR A CONTOUR WITHOUT ANY PREFIX OR DESCRIPTION.
LEVEL DESCRIPTIONS ARE AS FOLLOWS:
FL - FLOOR LEVEL
SL - SURFACE LEVEL
IL - INVERT LEVEL
ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD) U.N.O.
- SW10. MINIMUM COVER TO UPVC STORMWATER PIPES SHALL BE: TRAFFICABLE AREAS - 450 mm
LANDSCAPE AREAS - 300 mm
COVER IS MEASURED VERTICALLY FROM THE TOP OF THE PIPE TO THE FINISHED SURFACE LEVEL.
PIPES TO BE PROTECTED BY CONCRETE ENCASEMENT TO ENGINEERS APPROVAL IF MINIMUM COVER CANNOT BE ACHIEVED.
- SW11. CONNECTION OF UPVC TO PRECAST PITS TO BE BY TREATING THE PIPE WITH PVC GLUE AND SEAL WITH A 3:1 SAND CEMENT MORTAR.
- SW12. ALL CONCRETE PIPES AND ASSOCIATED ELEMENTS SHALL BE MANUFACTURED AND PROVIDED WITH A STRENGTH CLASSIFICATION IN ACCORDANCE WITH AS4058, PRECAST CONCRETE PIPES (PRESSURE AND NON-PRESSURE).
- SW13. ALL CONCRETE PIPES AND ASSOCIATED ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AS3729, LOADS ON BURIED CONCRETE PIERS AND AS3500.3 NATIONAL PLUMBING AND DRAINAGE CODE, PART 3: STORMWATER DRAINAGE.
- SW14. "K" ON PLAN DENOTES KERB AS DETAILED WITH "T.O.K" DENOTING LEVEL FOR TOP OF KERB FOR DATUM INDICATED.
- SW15. PITS SHALL BE OF A SIZE AS SHOWN OR NOTED WITH GALVANISED GRATED COVERS OR AN APPROVED EQUIVALENT. ALL PITS IN BARKED OR WOODCHIP LANDSCAPED AREAS SHALL HAVE COVERS OR STANDARD COVERS MODIFIED TO ENSURE DEBRIS DOES NOT ENTER STORMWATER SYSTEM.

GENERAL COMPACTION NOTES

1. FOUNDATION MATERIAL DEEMED BY THE SUPERINTENDENT AS UNSUITABLE TO BE REMOVED AS DIRECTED BY THE SUPERINTENDENT AND REPLACED WITH APPROVED MATERIAL SATISFYING THE REQUIREMENTS LISTED BELOW.
2. UNLESS OTHERWISE APPROVED OR SPECIFIED, ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING:
A) FREE FROM ORGANIC AND PERISHABLE MATTER
B) MAXIMUM PARTICLE SIZE 75MM
C) PLASTICITY INDEX BETWEEN 2% AND 20%
D) CBR > 10
3. THE PAVEMENT AREAS SHALL BE PROOF ROLLED WITH AN STROLLER PRIOR TO COMPACTION. LOOSE OR SOFT AREAS SHALL BE REMOVED & REPLACED WITH ENGINEERED FILL MATERIAL.
SELECT FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200MM LOOSE THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS1289E3.1 OF NOT LESS THAN THE FOLLOWING STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289E1.1:
LOCATION STANDARD DRY DENSITY
- AREAS OF SERVICE TRENCHES 98%
- EMBANKMENTS 100%
- LANDSCAPED AREAS 90%
- CONCRETE FOUNDATIONS 100%
- PAVEMENT SLABS 100%
4. MINIMUM SUBGRADE THICKNESS WHERE NOT ON ROCK SHALL BE 450mm
5. THE CONTRACTOR SHALL PROGRAMME THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS. ROLLER MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED BY THE CONTRACTOR AT HIS COST.
6. COMPACTION CONTROL TESTING SHALL BE CARRIED OUT BY AND AT THE COST OF THE CONTRACTOR TO CONFORM WITH LEVEL 1, AS DEFINED IN AS3798 (LATEST EDITION).

SERVICES NOTES:

1. THE LOCATION OF ALL EXISTING SERVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND HAVE BEEN TAKEN FROM SURVEY (REFERENCE DOCUMENT 1)
2. EXISTING PITS GRL, SL & RL ARE TAKEN FROM SURVEY (REFERENCE DOCUMENT 1).
3. IT IS THE CONSTRUCTORS RESPONSIBILITY TO NOTIFY THE RELEVANT SERVICES AUTHORITIES OF THE WORKS AND VERIFY THE LOCATIONS OF ALL EXISTING SERVICES PRIOR TO ANY CONSTRUCTION ACTIVITIES COMMENCING.
4. THE CONTRACTOR SHALL LIAISE AND COORDINATE THE TIMING OF THE CONSTRUCTION OF THE WORKS WITH THE RELEVANT SERVICES AUTHORITIES AND/OR OTHER CONSTRUCTORS INSTALLING SERVICES CONCURRENTLY AT THIS SITE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED TO EXISTING SERVICES AS A RESULT OF THE CONSTRUCTION WORKS.
6. PRIOR TO COMMENCEMENT CONTRACTOR SHALL ACCURATELY LOCATE EXISTING SERVICES TO IDENTIFY THEIR POSITION, DEPTH AND CONDITION. POTENTIAL CLASHES SHALL BE IDENTIFIED AND SERVICES RELOCATED OR CAPPED OFF AS REQUIRED.

REFERENCE DOCUMENTS

1. SURVEY DRAWING PREPARED BY:
TSS TOTAL SURVEYING SOLUTIONS
JOB No: 220083
PLAN No: 220083-1
DATE: 02/03/2022



HL	R.Y.	FOR DA	16.02.2023	A
BY	CHKD	DESCRIPTION	DATE	REV

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12-14 ROCK BATH ROAD PALM BEACH NSW

STORMWATER CONCEPT DESIGN COVER SHEET				
DESIGN RY	DRAWN HL	PROJECT NO.		
		6458		
CHKD.		DRAWING NO. REV		
		SW1		A
A1	SCALE As indicated	DATE		



LEGEND

+ xx.xx	EXISTING LEVEL FROM SURVEY
+ xx.xx	PROPOSED RLS
ESMH	EXISTING SEWER MANHOLE
---	EXISTING SEWER PIPE
---	EXISTING STORMWATER PIPE
---	EXISTING WATER MAIN PIPE
---	PROPOSED STORMWATER PIPE
○ DP	PROPOSED DOWNPIPE
○ RWO	PROPOSED RAINWATER OUTLET
▬ GD	PROPOSED GRATED DRAIN
RWT	RAINWATER TANK
PP	PROPOSED PIT

NOTE: ALL EXISTING SERVICES LOCATIONS ARE APPROXIMATE

REFERENCE DOCUMENTS

- SURVEY DRAWING PREPARED BY:
TSS TOTAL SURVEYING SOLUTIONS
JOB No: 220083
PLAN No: 220083-1
DATE: 02/03/2022

GEOTECHNICAL REPORT



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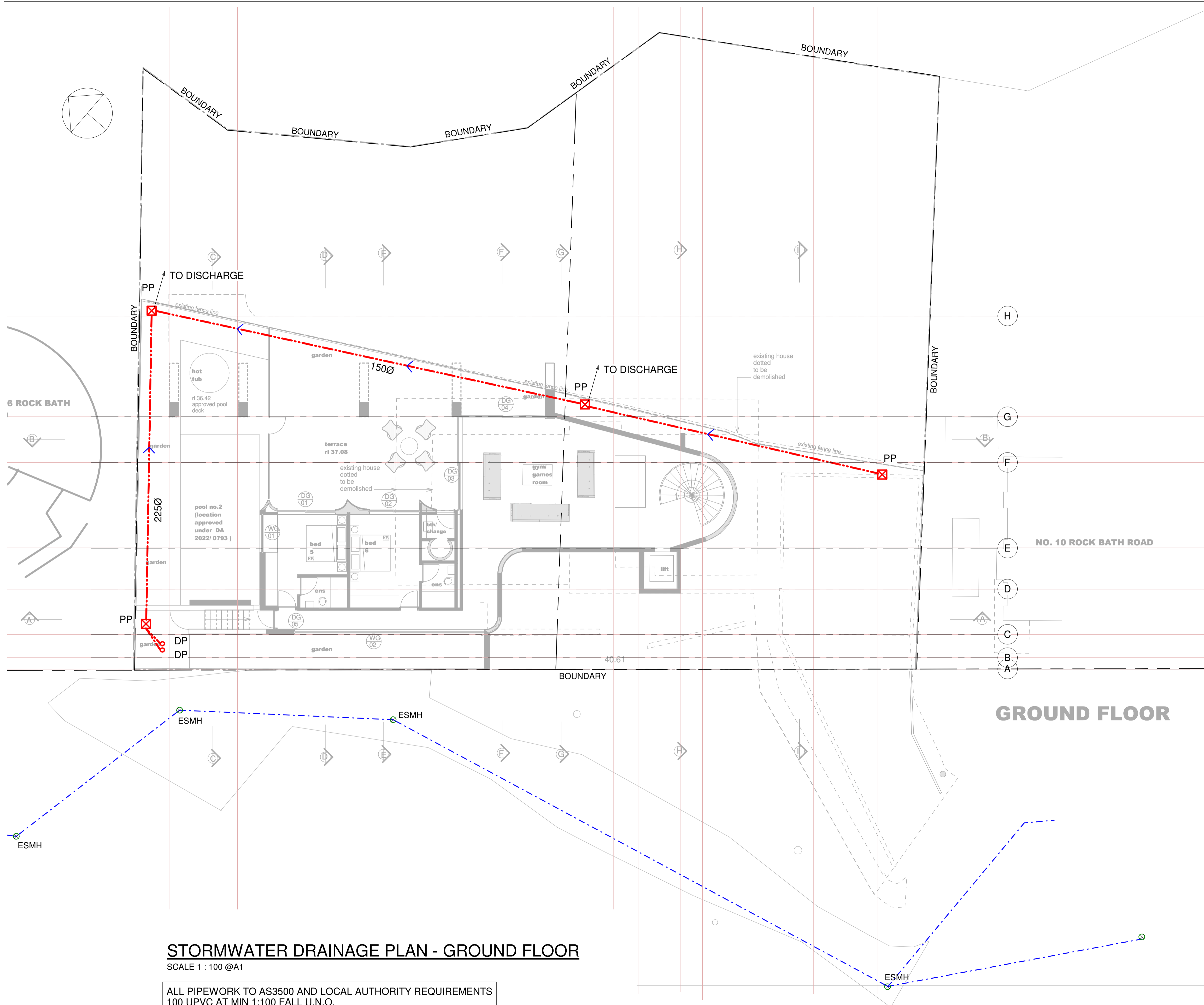
EXISTING SERVICES PLAN

DESIGN RY	DRAWN HL	PROJECT NO.
CHKD.		6458
APPRD.		DRAWING NO. REV
A1	SCALE 1 : 100	DATE
		SW2 B

EXISTING SERVICES PLAN
SCALE 1 : 100 @A1

LEGEND	
+ xx.xx	EXISTING LEVEL FROM SURVEY
+ xx.xx	PROPOSED RLS
ESMH	EXISTING SEWER MANHOLE
---	EXISTING SEWER PIPE
---	EXISTING STORMWATER PIPE
-w-w-	EXISTING WATER MAIN PIPE
---	PROPOSED STORMWATER PIPE
○ DP	PROPOSED DOWNPIPE
○ RWO	PROPOSED RAINWATER OUTLET
▬ GD	PROPOSED GRATED DRAIN
RWT	RAINWATER TANK
PP	PROPOSED PIT
NOTE: ALL EXISTING SERVICES LOCATIONS ARE APPROXIMATE	

ALL PITS 600x600 U.N.O.



STORMWATER DRAINAGE PLAN - GROUND FLOOR

SCALE 1 : 100 @A1

ALL PIPEWORK TO AS3500 AND LOCAL AUTHORITY REQUIREMENTS
100 UPVC AT MIN 1:100 FALL U.N.O.

FINAL PIT LOCATIONS SUBJECT TO
COORDINATION WITH ARCHITECT



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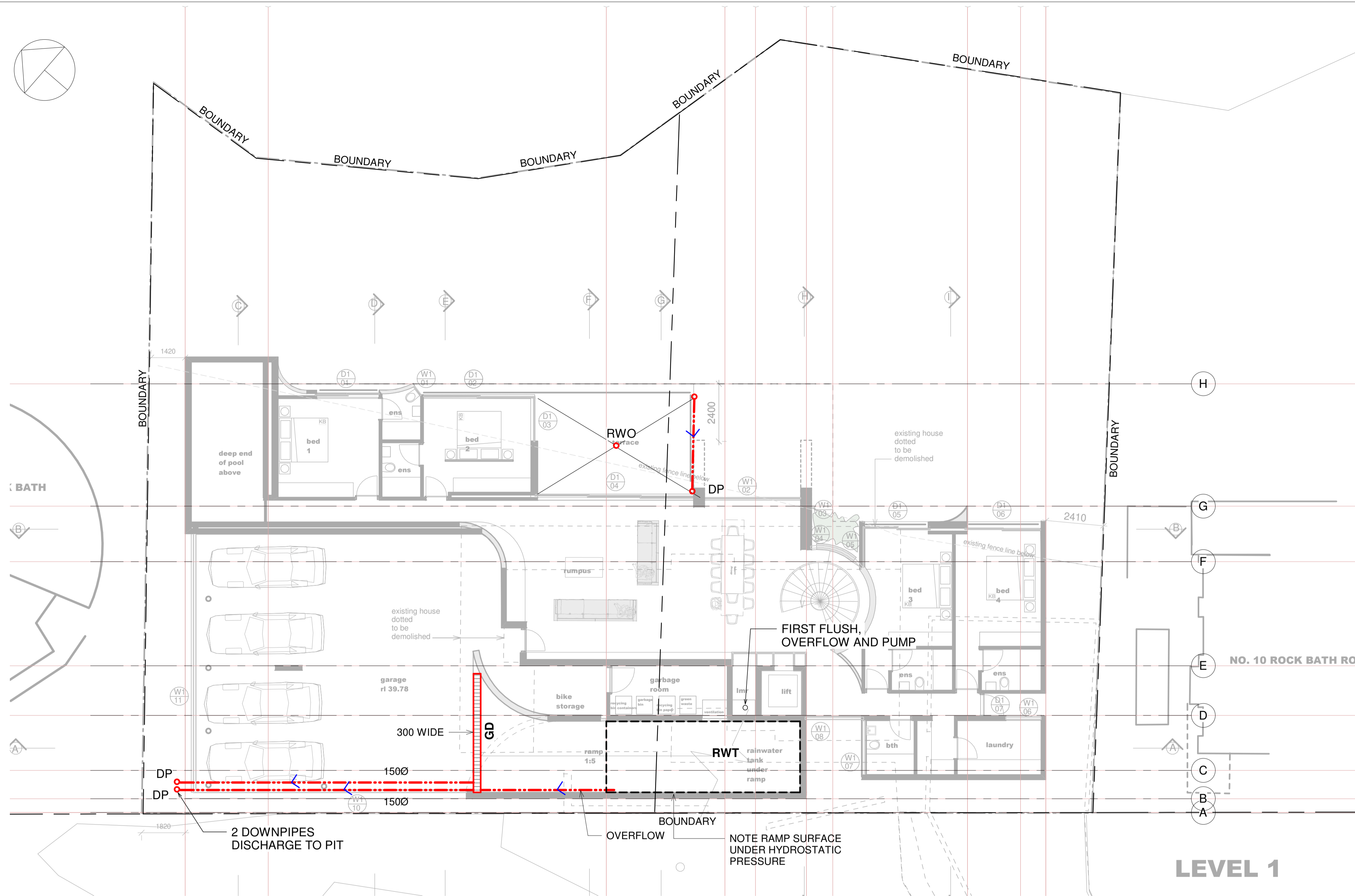
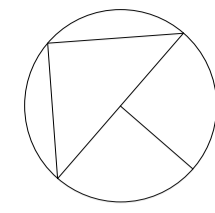
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STORMWATER DRAINAGE PLAN - GROUND FLOOR

DESIGN RY	DRAWN HL	PROJECT NO.
		6458
CHKD.		DRAWING NO.
APPRD.		REV
A1 SCALE 1 : 100	DATE	SW3 B



LEGEND	
+ xx.xx	EXISTING LEVEL FROM SURVEY
+ xx.xx	PROPOSED RLS
ESMH ⊗	EXISTING SEWER MANHOLE
---	EXISTING SEWER PIPE
---	EXISTING STORMWATER PIPE
-W-W-	EXISTING WATER MAIN PIPE
---	PROPOSED STORMWATER PIPE
○ DP	PROPOSED DOWNPIPE
○ RWO	PROPOSED RAINWATER OUTLET
▬ GD	PROPOSED GRATED DRAIN
RWT	RAINWATER TANK
PP	PROPOSED PIT
NOTE: ALL EXISTING SERVICES LOCATIONS ARE APPROXIMATE	

RWT - 22000L REFER BASIX CERTIFICATE
 CONNECT TO OUTLETS AS NOMINATED IN BASIX
 REFER CERTIFICATE
 DISPLAY NON POTABLE SIGNAGE AT
 ALL RWT SUPPLIED OUTLETS

STORMWATER DRAINAGE PLAN - LEVEL 1
 SCALE 1 : 100 @A1
 ALL PIPEWORK TO AS3500 AND LOCAL AUTHORITY REQUIREMENTS
 100 UPVC AT MIN 1:100 FALL U.N.O.
 SERVICE LOCATIONS SUBJECT TO COORDINATION.



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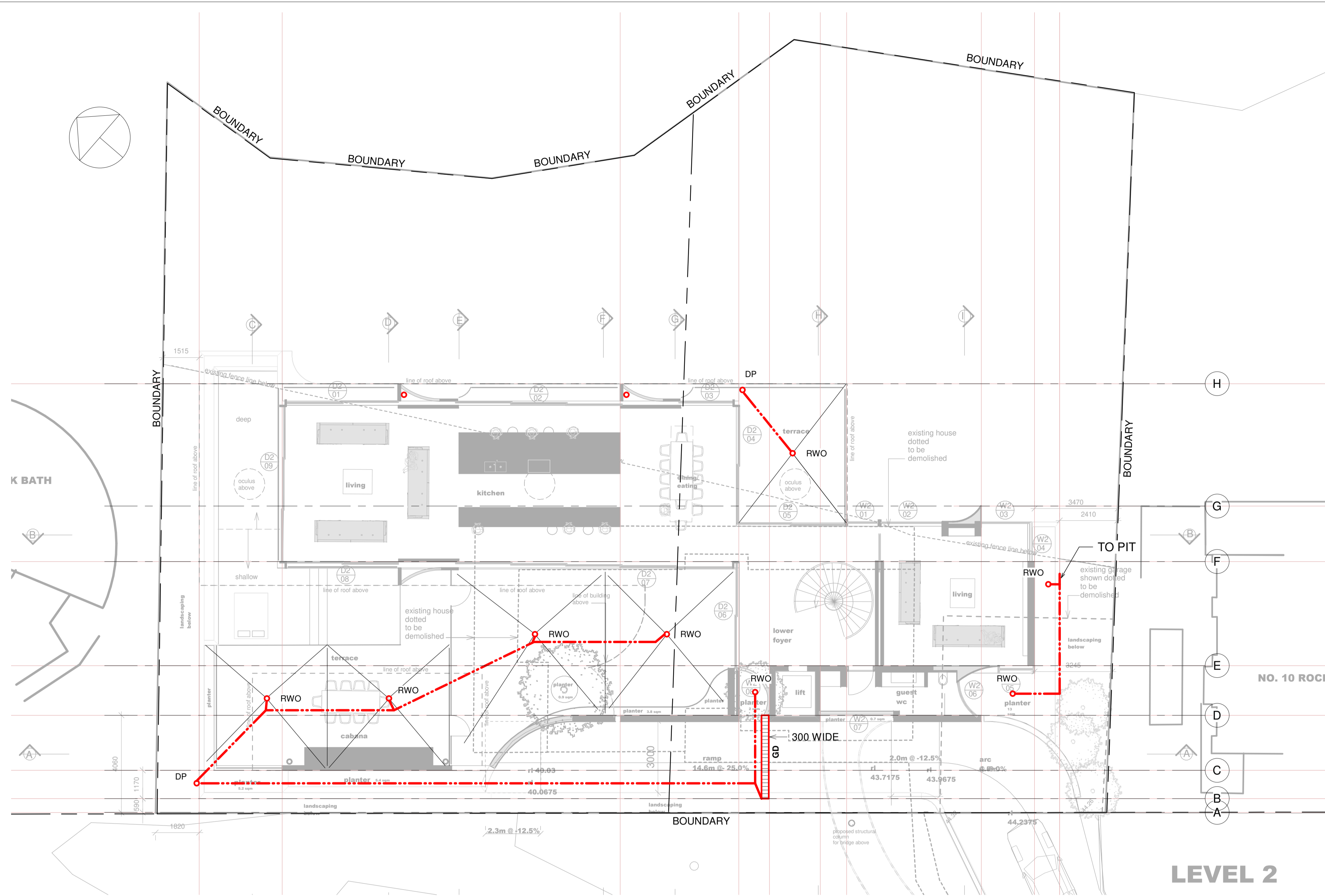
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STORMWATER DRAINAGE PLAN - LEVEL 1

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A1 SCALE 1 : 100	DATE	SW4 B



LEGEND	
+ xx.xx	EXISTING LEVEL FROM SURVEY
+ xx.xx	PROPOSED RLS
ESMH ⊗	EXISTING SEWER MANHOLE
---	EXISTING SEWER PIPE
---	EXISTING STORMWATER PIPE
—W—W—	EXISTING WATER MAIN PIPE
---	PROPOSED STORMWATER PIPE
○ DP	PROPOSED DOWNPIPE
○ RWO	PROPOSED RAINWATER OUTLET
▬ GD	PROPOSED GRATED DRAIN
RWT	RAINWATER TANK
PP	PROPOSED PIT
NOTE: ALL EXISTING SERVICES LOCATIONS ARE APPROXIMATE	

STORMWATER DRAINAGE PLAN - LEVEL 2

SCALE 1 : 100 @A1

ALL PIPEWORK TO AS3500 AND LOCAL AUTHORITY REQUIREMENTS
100 UPVC AT MIN 1:100 FALL U.N.O.

SERVICE LOCATIONS SUBJECT TO COORDINATION.

LEVEL 2



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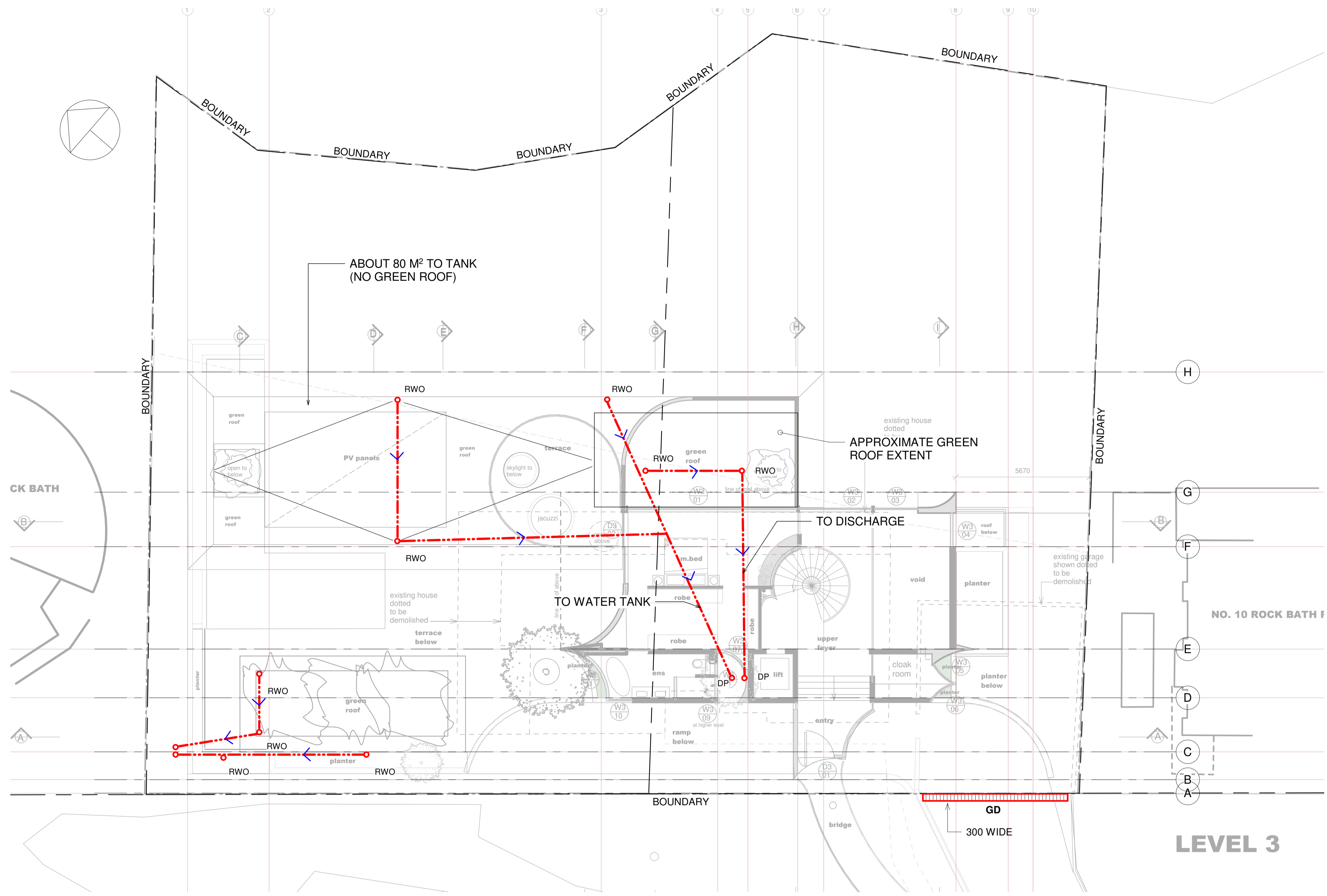
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STORMWATER DRAINAGE PLAN - LEVEL 2

DESIGN RY	DRAWN HL	PROJECT NO.
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A1 SCALE 1 : 100	DATE	SW5 B



LEGEND	
+ xx.xx	EXISTING LEVEL FROM SURVEY
+ xx.xx	PROPOSED RLS
ESMH ⊗	EXISTING SEWER MANHOLE
---	EXISTING SEWER PIPE
---	EXISTING STORMWATER PIPE
---	EXISTING WATER MAIN PIPE
---	PROPOSED STORMWATER PIPE
○ DP	PROPOSED DOWNPIPE
○ RWO	PROPOSED RAINWATER OUTLET
▬ GD	PROPOSED GRATED DRAIN
RWT	RAINWATER TANK
PP	PROPOSED PIT
NOTE: ALL EXISTING SERVICES LOCATIONS ARE APPROXIMATE	

MINIMUM ROOF CATCHMENT AREA
DRAINING TO RWT REQUIRED BY BASIX
185m²

STORMWATER DRAINAGE PLAN - LEVEL 3
SCALE 1 : 100 @A1
ALL PIPEWORK TO AS3500 AND LOCAL AUTHORITY REQUIREMENTS
100 UPVC AT MIN 1:100 FALL U.N.O.
SERVICE LOCATIONS SUBJECT TO COORDINATION.



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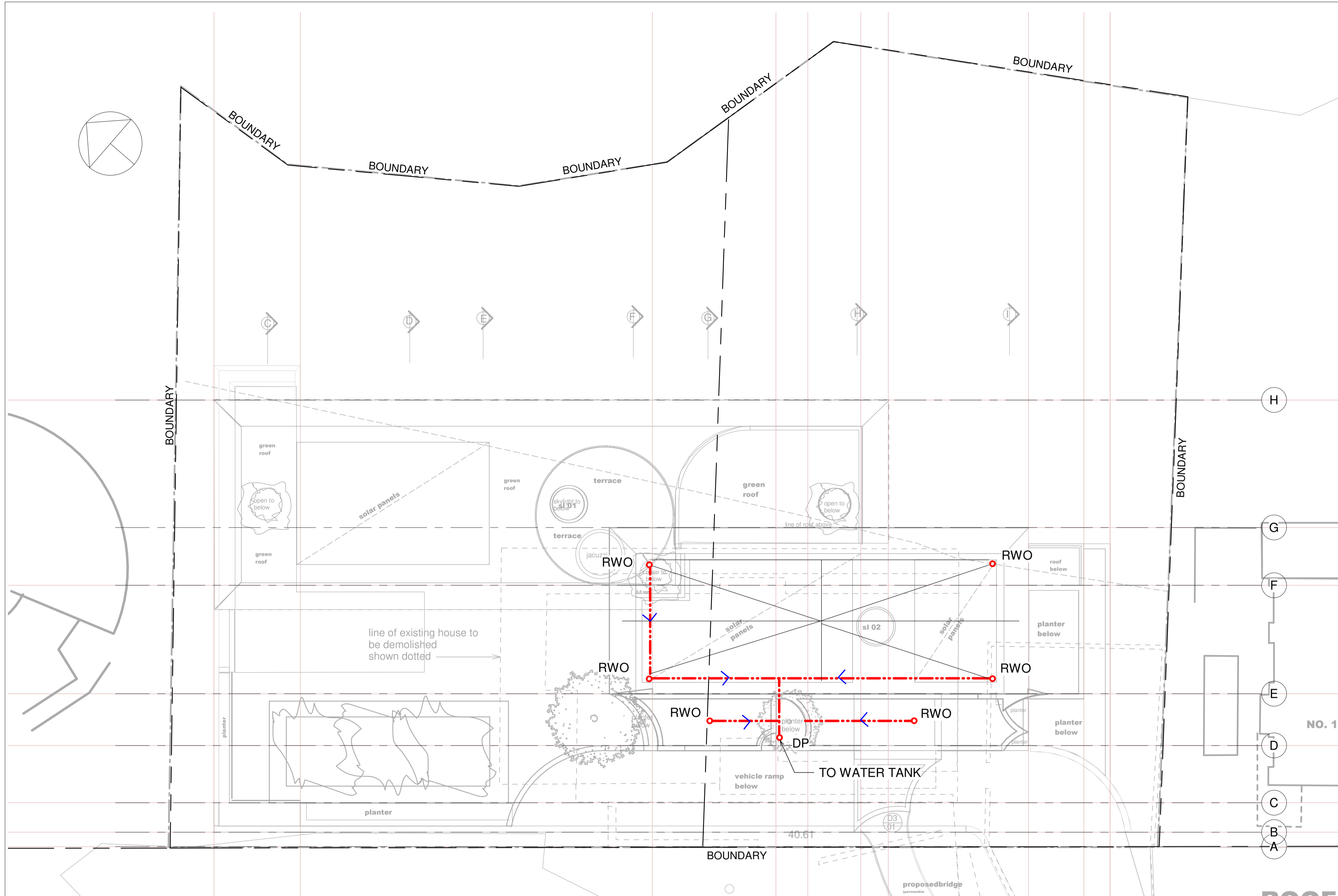
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STORMWATER DRAINAGE PLAN - LEVEL 3

DESIGN RY	DRAWN HL	PROJECT NO.
CHKD.		6458
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A1 SCALE 1 : 100	DATE	SW6 B

LEGEND	
+ xx.xx	EXISTING LEVEL FROM SURVEY
+ xx.xx	PROPOSED RLS
ESMH ⊗	EXISTING SEWER MANHOLE
---	EXISTING SEWER PIPE
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NOTE: ALL EXISTING SERVICES LOCATIONS ARE APPROXIMATE	



STORMWATER DRAINAGE PLAN - ROOF

SCALE 1 : 100 @A1

ALL PIPEWORK TO AS3500 AND LOCAL AUTHORITY REQUIREMENTS
100 UPVC AT MIN 1:100 FALL U.N.O.

SERVICE LOCATIONS SUBJECT TO COORDINATION.



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