

GROUND FLOOR DRAINAGE PLAN
Scale: 1 : 100

- 1. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.
- 2. THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE.
- 3. PRIOR TO COMMENCING ANY WORKS ON THE SITE, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTION INTO COUNCIL'S KERB/DRAINAGE SYSTEM MATCH THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.
- 4. ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS. WHERE NOT POSSIBLE, TAKE CARE IN VICINITY OF TREE TO BE RETAINED AND HAND EXCAVATE TRENCHES AS REQUIRED.
- 5. ALL BASES OF PITS TO BE BENCH (TO HALF PIPE DEPTH) TO THE INVERT OF THE OUTLET PIPE WITH ALL PIPES CUT FLUSH WITH SIDE OF PIT, TO ALLOW SMOOTH FLOW OF STORMWATER.
- 6. PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATE WHERE IN TRAFFICABLE AREAS.
- 7. PROVIDE 100mm GAP IN BASE OF FENCE FOR EMERGENCY OVERFLOWS.
- 8. PROVIDE SUBSOIL DRAINAGE AND OUTLETS TO ALL ON PODIUM PLANTER BOXES. OUTLET PIPES NOT SHOWN FOR CLARITY OF DOCUMENTATION.

GENERAL LEGEND

- LANDSCAPE
- LANDSCAPE ON PODIUM SLAB
- HARDSTAND
- ROOF AREA TO DRAIN
- OSD
- PROPOSED TREES
- EXISTING TREES

CIV - FIXTURES SCHEDULE		
	TYPE	DESCRIPTION
[Symbol]	GRATED LID	
[Symbol]	GRATED STORMWATER PIT	
[Symbol]	PERIMETER GRATES	
[Symbol]	PERIMETER STRIP DRAIN	
[Symbol]	SEALED LID	
[Symbol]	SEALED STORMWATER PIT	
[Symbol]	300W	GRATED STRIP DRAIN
[Symbol]	RWO	RAINWATER OUTLET

CIV - STANDARD SYMBOLS	
	DESCRIPTION
[Symbol]	FALL ARROW
[Symbol]	OVERLAND FLOW PATH

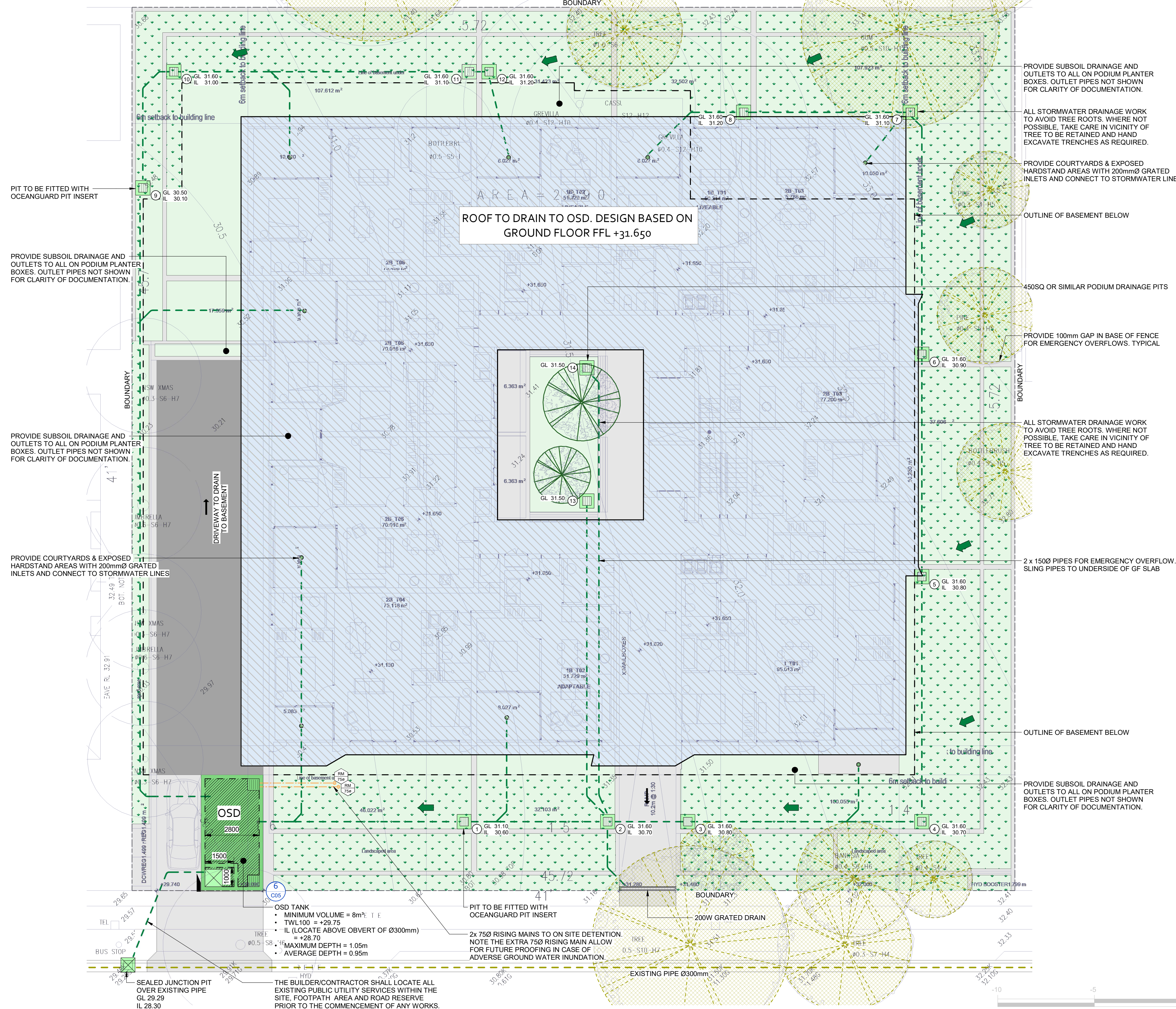
CIV - STORMWATER SERVICES		
	TYPE	DESCRIPTION
[Symbol]	RM	RIISING MAIN
[Symbol]	SS	SUB SOIL DRAINAGE
[Symbol]	STW	STORMWATER

OSD CALCULATIONS

- DESIGN CRITERIA: REDUCE 100-YR POST-DEVELOPMENT BACK TO PRE-DEVELOPMENT LEVELS.
 - SITE AREA = 2090m²
 - PRE-DEVELOPMENT IMP: 47%
 - POST- DEVELOPMENT AREA BYPASSING OSD: 0m² ASSUMED
 - POST- DEVELOPMENT AREA TO OSD: 2090m² @ 71% IMPERVIOUS (ONLY COUNTING DEEP SOIL AS PERVIOUS, REMAINING PODIUM AND ROOFTOP LANDSCAPING CONSERVATIVELY COUNTED AS IMPERVIOUS)
- USE WBNM RUNOFF-ROUTING MODEL
- WBNM PARAMETERS: LAG C = 1.6, IL=0mm, CLR=2.5 mm/hr
 - SSR100 = 8m³ (WBNM RUNOFF ROUTING MODEL)
 - Q5 PRE / POST = 88 / 88 L/s [25mm]
 - Q100 PRE / POST = 140 / 138 L/s [25mm]
 - VOLUME PROVIDED = 10m³ IN TANK UNDER DRIVEWAY [OK]
 - DIAMETER OF ORIFICE = Ø270mm WITH 1.1m MAX PONDING DEPTH (WBNM CALCULATIONS)

- NOTES:
- BASE OF OSD TANK SET AT +28.70, AT THE OVERT OF THE EXISTING Ø300mm IN TAREN PT RD (APPROXIMATE HGL IN CONNECTING PIT AT THIS LEVEL)
 - PROVIDE DISCHARGE CONTROL CHAMBER WITHIN OSD, SUCH THAT ORIFICE BLOCKAGE WILL CAUSE OVERFLOWS TO GO OVER INTERNAL WEIR, RATHER THAN INTO BASEMENT

- WSUD:
- OCEANGUARD PIT INSERTS PROVIDED AS NOTED ON PLANS TO ADDRESS PRE-DA REQUIREMENT FOR STORMWATER TREATMENT DEVICE TO BE PROVIDED.



REV.	DATE	BY	DESCRIPTION	REV.	DATE	BY	DESCRIPTION
3	02.08.19	LTR	ISSUED FOR DA				
2	25.06.19	JPS	ISSUED FOR DA				
1	24.06.19	JPS	ISSUED FOR APPROVAL				

DESIGN: [Signature]

CHECKED: AMcK

SCALE: As indicated

SIZE: A1



PROPOSED DEVELOPMENT

310-314 Taren Point Road, Caringbah, NSW

MBD Developments

CIVIL DESIGN

GROUND FLOOR DRAINAGE PLAN

181209

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