

STORMWATER DRAINAGE

DESIGN SUMMARY:

TOTAL ROOF AREA = 245.7m² TOTAL PAVED AREA = 57.1m² TOTAL IMPERVIOUS AREA = 302.8m²

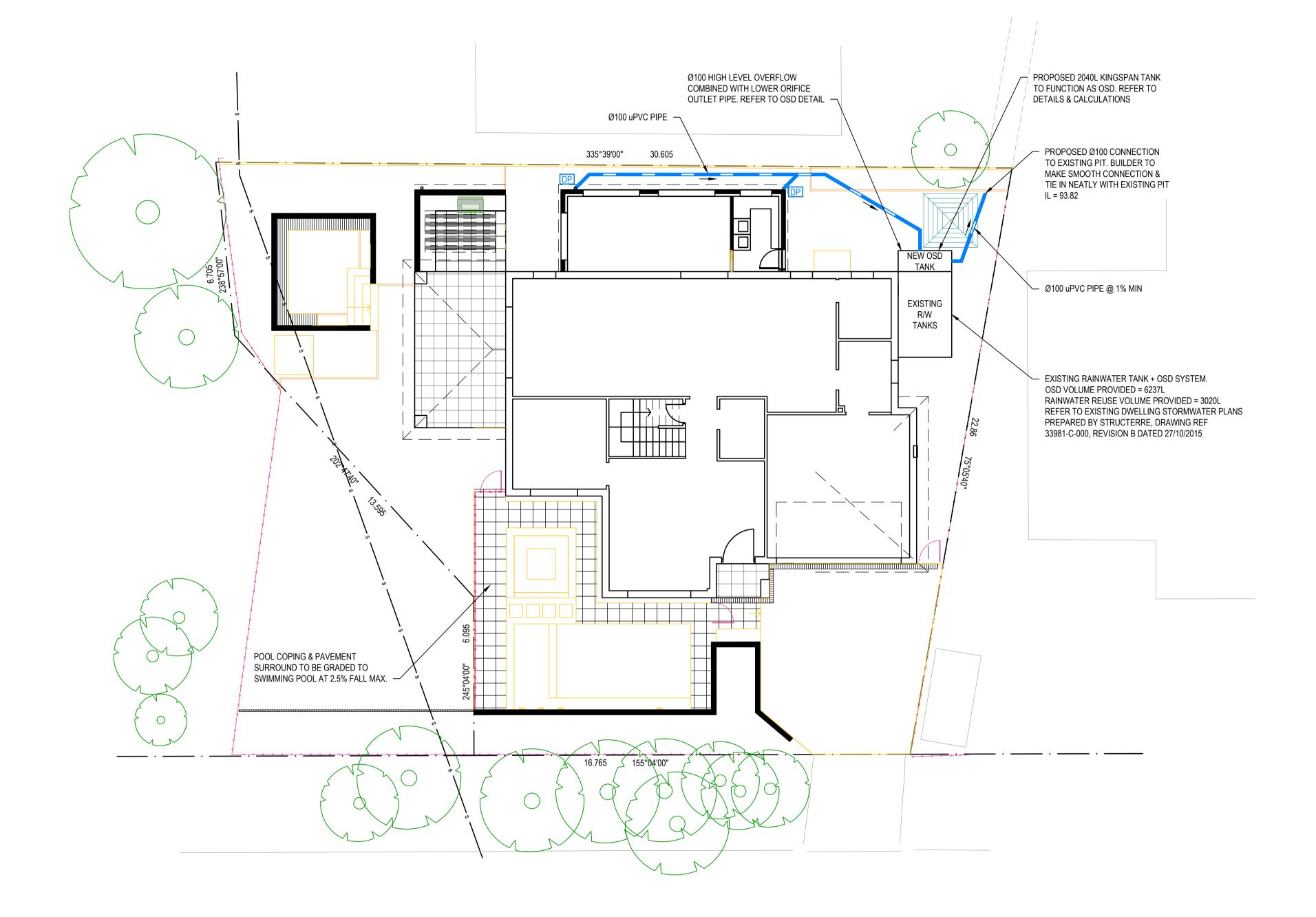
POOL + COPING & PAVEMENT SURROUND AREA = 61.3m² (DRAINING TO SEWER & THEREFORE EXCLUDED FROM OSD CALCULATIONS

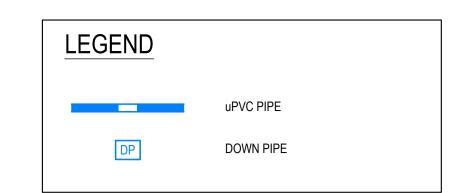
TOTAL INTO OSD (EXISTING & PROPOSED) = 245.7m²

TOTAL PIPED DISCHARGE THROUGH EASEMENT: EXISTING OSD PSD = 3.91L/s

NEW OSD PSD =1.66L/s DRIVEWAY = 3L/s TOTAL = 8.57L/s

EASEMENT PIPE CAPACITY: ASSUMED SIZE = 100DIA UPVC (WITH MANNINGS ROUGHNESS = 0.012) GRADE FROM BOUNDARY PIT TO OUTLET ON EMU ST ~ 4.46% USING MANNINGS EQUATION, PIPE CAPACITY = 11.19L/s





NOTES

1. EXISTING DRAINAGE SYSTEM TO BE FULLY RETAINED. SYSTEM TO BE REPLACED AS NECESSARY IF DAMAGED DURING WORKS.

GENERAL NOTES

- 1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH CITY OF RYDE COUNCIL'S STORMWATER, DETENTION AND SEDIMENT
- 2. THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY
- TO RELOCATE OR ADJUST IF NECESSARY. 3. THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJOINING LANDS WITHOUT THE PERMISSION OF THE SUPERINTENDENT.
- 4. ALL NEW WORKS SHALL MAKE SMOOTH CONNECTION TO
- EXISTING CONDITIONS. 5. ALL IMPORTED FILL SHALL BE APPROVED BY THE COUNCIL. THE FILL SHALL BE PLACED IN NOT MORE THAN 300mm LAYERS AND
- SHALL BE COMPACTED TO AT LEAST 98% STANDARD COMPACTION TO COUNCIL'S SPECIFICATION. 6. THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL
- WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES. ALL IMPORTED FILL TO BE USED TO SUPPORT GROUND SLABS SHALL BE COMPACTED TO A MINIMUM LEVEL OF COMPACTION OF 98% OF MAXIMUM DRY DENSITY AT A MOISTURE CONTENT
- WITHIN ± 2% OF OPTIMUM (AS1289.5.1.1) 8. STEP IRONS AT 300mm CENTRES AND TO COUNCIL'S SPECIFICATIONS SHALL BE PROVIDED WHERE PITS ARE DEEPER THAN 1000mm
- 9. ALL DOWNPIPES ARE SHOWN DIAGRAMATICALLY POSITION OF DOWNPIPES SHALL BE CONFIRMED ON SITE
- 10. EXISTING LEVELS AND SERVICE DEPTH AND LOCATION TO BE CHECKED PRIOR TO CONSTRUCTION.
- 11. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DOCUMENTATION WHICH INCLUDE BUT IS NOT LIMITED TO ARCHITECTURAL AND SURVEY DRAWINGS.

STORMWATER DRAINAGE NOTES

THE STORMWATER DRAINAGE DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500.3:2018 "STORMWATER DRAINAGE" AND AS/NZS 3500.3.2:1998 "STORMWATER DRAINAGE - ACCEPTABLE SOLUTIONS".

ANY VARIATIONS TO THE NOMINATED LEVELS SHALL BE REFERRED TO ENGINEER IMMEDIATELY.

ANY VARIATIONS TO SPECIFIED PRODUCTS OR DETAILS SHALL BE REFERRED TO THE ENGINEER FOR APPROVAL.

BOX COLORBOND OR ZINCALUME STEEL GUTTERS SHALL BE A MINIMUM OF 450 WIDE X 150 DEEP U.N.O.

EAVES GUTTERS SHALL BE A MINIMUM OF 125 WIDE X 100 DEEP (OR OF EQUIVALENT AREA) COLORBOND OR ZINCALUME STEEL U.N.O.

MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500.

ALL DRAINAGE LINES SHALL BE SEWER GRADE uPVC PIPE U.N.O.

ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MINIMUM, U.N.O.

FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL.

SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS AND EMBANKMENTS, WITH LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM.

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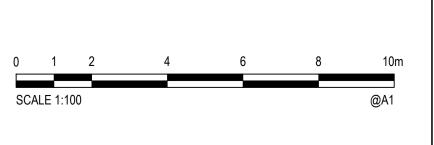
GROUP DEVELOPMENT SERVICES PTY LTD ABN: 86 064 110 809 PO Box 498, Fax: +61 2 9484 0355 Pennant Hills NSW 1715 Email: info@gdsland.com.au

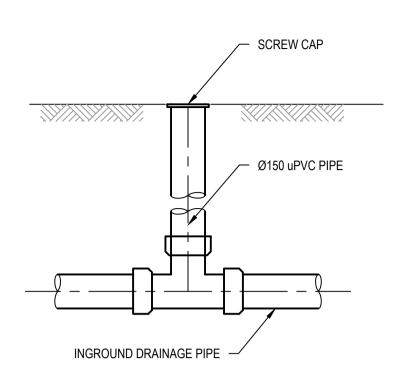
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Date Client Date Project 100 WINBOURNE STREET WEST RYDE STORMWATER PLAN P00533-CI-DA-1321

CONCEPT DRAINAGE PLAN FOR DA APPROVAL NOT FOR CONSTRUCTION

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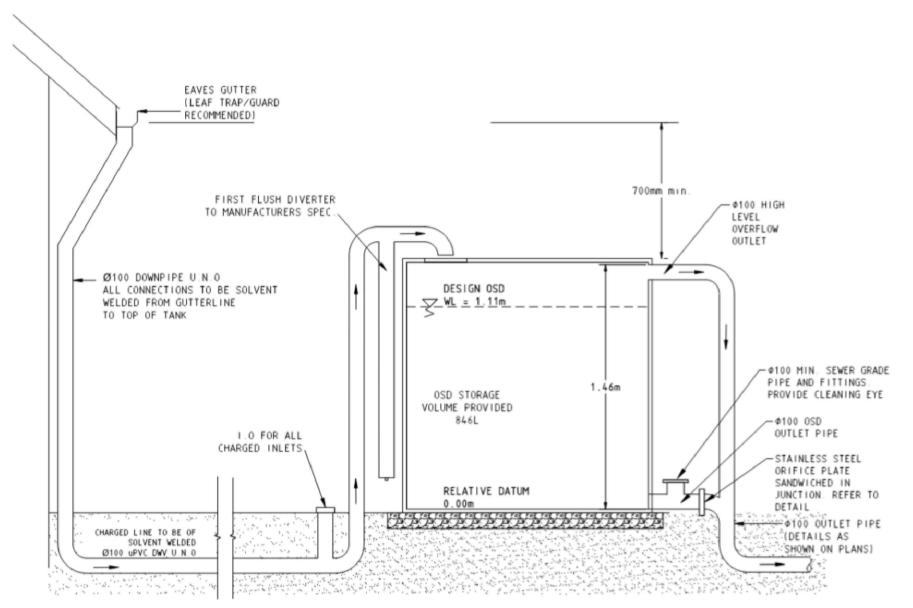


TYPICAL DETAIL - DOWNPIPE TO CHARGED LINE

TYPICAL DETAIL - INSPECTION / CLEANING EYE

NOTE:

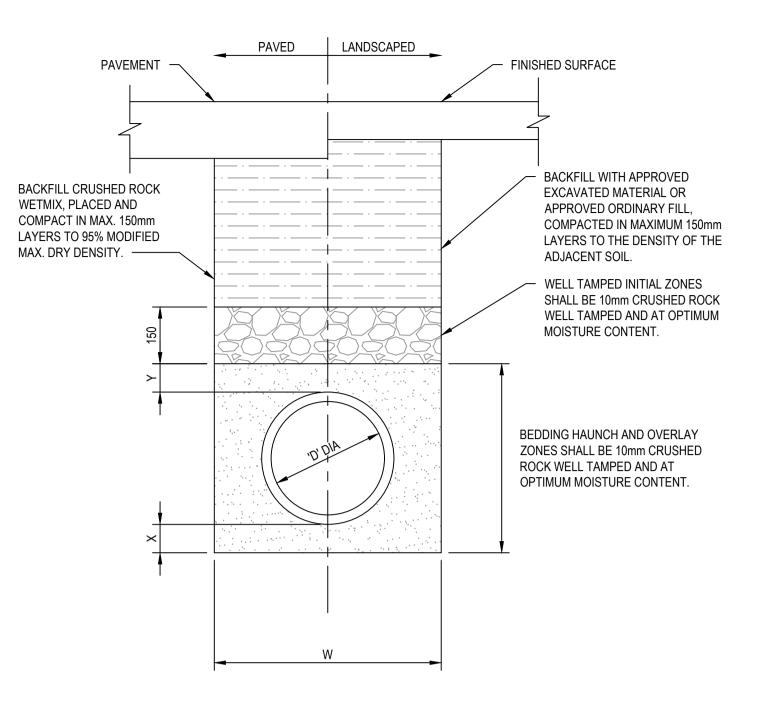
CLEANING EYE TO BE PROVIDED AT START OF CHARGED LINE AND AT CRITICAL JUNCTIONS TO BUILDER'S DETAIL.



DETAIL - ABOVE GROUND OSD + RWT

NOTES

1. TANK SELECTED - KINGSPAN 2000 LITRE SKINNY SLIMLINE
AQUAPLATE (COLORBOND) STEEL WATER TANK, WITH
DIMENSIONS AS FOLLOWS
ACTUAL CAPACITY = 2040 LITRES
WIDTH = 550mm
LENGTH = 2500mm
HEIGHT = 1560mm
ENSURE TANKS HAVE MINIMUM 700mm HEAD FROM ROOF GUTTERS
2. TANK SIZES MAY BE INCREASED TO SUIT SITE CONDITIONS. IF
HEIGHT OF TANKS VARY, NOTIFY ENGINEER TO RECALCULATE
ORIFICE PLATE OPENING SIZE

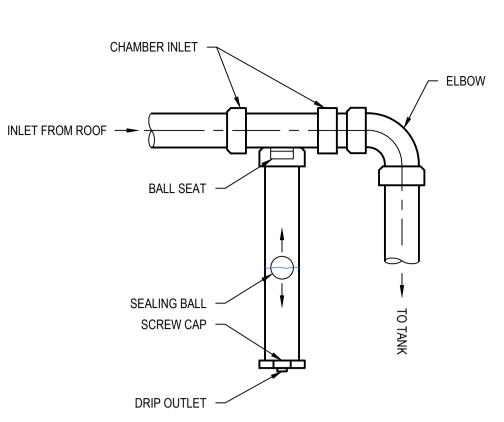


TYPICAL DETAIL - uPVC PIPE LAYING N.T.S.

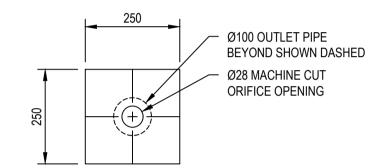
NOTE:

REFER TO PIPE LAYING SPECIFICATIONS FOR DETAILS.

PIPE DIA 'D'	W	X MIN	Υ	
100 - 150	300	75	75	
225 - 300	600	75	75	



TYPICAL FIRST FLUSH DIVERTER



OSD ORIFICE PLATE DETAIL

ON-SITE STORMWATER DETENTION SYSTEM

REQUIRED BY CITY OF RYDE

IT IS AN OFFENCE TO REDUCE THE VOLUME OF THE TANK OR BASIN OR TO INTERFERE WITH THE ORIFICE PLATE THAT CONTROLS THE OUTFLOW

THE BASE OF THE OUTLET CONTROL PIT AND THE DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND SEDIMENT ON A REGULAR BASIS BY THE OWNER

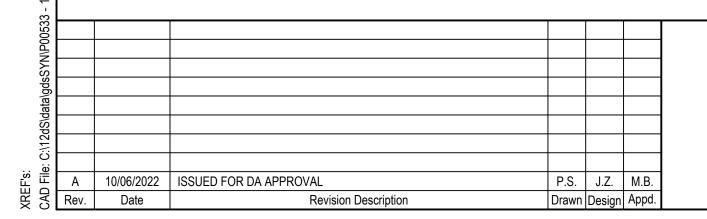
THIS PLATE MUST NOT BE REMOVED

OSD SIGNAGE DETAIL N.T.S.

NOTE:

TO BE FIXED IN AN ADEQUATELY VISIBLE LOCATION.

CONCEPT DRAINAGE PLAN FOR DA APPROVAL NOT FOR CONSTRUCTION





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			J.Z.	10/06/2022	Title	STORMWATER DETAIL	Revision
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