



CONCEPT STORMWATER DRAINAGE PLANS

PROPOSED SECONDARY DWELLING
52 WAKEHURST PARKWAY, NORTH NARRABEEN NSW 2161



REF | SW21025

REVISION | B

CLIENT | PROJECT FLOW

ARCHITECT | DESIGN FORMATION

ENGINEERING CONSULTANTS

STAMP OF APPROVAL

DRAINAGE NOTES:

ALL PIPES TO BE LAID ON 75mm SAND BED WITH THE BARRELS FULLY SUPPORTED

100mm AND 150mm DIAMETER PIPES TO BE LAID ON MINIMUM 1% GRADE

MINIMUM DEPTH OF COVER FOR PIPES NOT SUBJECT TO VEHICULAR LOADING TO BE 300mm

ALL DRAINAGE PIPES LAID UNDER PAVEMENT SHALL BE REINFORCED CONCRETE WITH RUBBER RING JOINTS

BACKFILL TRENCHES WITH COMPACTED SAND OR APPROVED AGGREGATE MATERIAL

ALL PITS TO HAVE 600x600mm INTERNAL DIMENSIONS (U.N.O.)

SILT ARRESTORS TO HAVE 900x900mm INTERNAL DIMENSIONS

HEAVY DUTY GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS

PIT GRATE TO BE TYPE WELDLOK OR APPROVED EQUIVALENT

ALL PITS SHALL BE PROVIDED WITH A LOCKING CLIP

ALL PITS SHALL BE MAINTAINED REGULARLY

TOP OF BENCHING SHALL BE TO THE HALF OF THE OUTLET PIPE DIAMETER

MAXIMUM FRONT ENTRY PIPE:-
STRAIGHT ENTRY - Ø750
SKEW ENTRY 45° - Ø525

Ø100 SUBSOIL DRAINAGE PIPE 3000mm LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED ADJACENT TO INLET PIPES

COMPRESSIVE STRENGTH f_c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS

PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS

ISOLATED JOINTS TO BE PROVIDED TO ISOLATE CONCRETE PAVEMENTS FROM PITS

ALL TRENCH GRATES PROVIDED SHALL HAVE A MINIMUM CLEAR WIDTH OF 200mm

STORMWATER DRAINAGE CONNECTIONS TO THE MAIN SYSTEM SHALL BE TO THE REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL

AUTHORITY STORMWATER NOTES:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK ALL SET OUT AND LEVELS PRIOR TO COMMENCEMENT OF WORKS AND TO REPORT ANY DISCREPANCIES FOUND TO THE SUPERINTENDANT.

ALL SET OUT DIMENSIONS ARE TO FACE OF KERB, CENTERLINE OF FENCE/BOLARD/PIPE.

SMOOTH ALL TRANSITIONS BETWEEN NEW AND EXISTING WORK IN BOTH LEVEL AND ALIGNMENT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL SAFETY FENCES, WARNING SIGNS, TRAFFIC DIVERSIONS AND THE LIKE DURING CONSTRUCTION. ALL WORKS TO COMPLY WITH OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS AND OTHER RELEVANT AUTHORITY SAFETY REQUIREMENTS.

NO TREES SHALL BE REMOVED, CUTBACK OR RELOCATED WITHOUT THE WRITTEN INSTRUCTION FROM THE SUPERINTENDENT.

THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF COMPACTION AND PAVEMENT THICKNESS FROM A NATA REGISTERED TESTING AUTHORITY. MINIMUM THREE TESTS PER LAYER AS FOLLOWS

PIPE BACKFILL	DENSITY INDEX 75
SELECT FILL	95% STANDARD
SELECT FILL (LESS THAN 300mm BELOW BASE COURSE)	98% MODIFIED
BASE COURSE	100% MODIFIED

THE AUSPEC SPECIFICATION SHALL BE THE SPECIFICATION FOR THESE WORKS.

KERB INLET PIT NOTES:

KERB INLET PITS TO BE CONSTRUCTED TO NORTHERN BEACHES COUNCIL STANDARDS.

ALL KERB INLET PITS TO BE CAST IN-SITU, U.N.O. BY NORTHERN BEACHES COUNCIL STANDARD DRAWINGS.

ALL CONCRETE SHALL BE 32MPa STRENGTH AT 28 DAYS WITH F82 MESH CENTRALLY PLACEDBY NORTHERN BEACHES COUNCIL STANDARD DRAWINGS.

EROSION & SEDIMENT CONTROL NOTES:

PROVIDE SILT FENCE/HAY BAIL BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS (TYPICAL).

ISOLATE EXISTING STORMWATER PITS WITH HAY BALES TO FILTER ALL INCOMING FLOWS.

DO NOT STOCK PILE EXCAVATED MATERIAL ON THE ROAD WAY.

STORMWATER PIPE BEDDING/PAVING NOTES:

WHERE TRENCH BASE IS ROCK A MINIMUM OF 75mm BEDDING TO BE PROVIDED UNDER PIPE COLLARS.

STORMWATER PIPE BEDDING DETAIL TO BE IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS. BEDDING DETAILS TO BE CONFIRMED UPON EXCAVATION & PRIOR TO INSTALLATION OF PIPEWORK.

FOOTPATH REINSTATEMENT NOTES:

REMOVE ALL SAND FILL WITHIN THE FOOTPATH AREA TO THE EXISTING SUBGRADE.

SUPPORT ALL AUTHORITY SERVICES TO STRUCTURAL ENGINEERS DETAILS DURING EXCAVATION.

REINSTATE FOOTPATH SUBGRADE.

THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF COMPACTION FROM A NATA REGISTERED TESTING AUTHORITY. MINIMUM THREE TESTS PER LAYER AS FOLLOWS:

SELECT FILL	95% MODIFIED
SELECT FILL (LESS THAN 300mm BELOW BASE COURSE)	98% MODIFIED
BASE COURSE	100% MODIFIED

ABBREVIATIONS:

- Ø or DIA

CBR

CH

CL

CO

DD

DDO

DEJ

DGB

DGS

DP

e

FFL

GTD

GSIP

HYD

IJ

IK

IL

IP

KIP

KO

K&G

KR

LS

NGL

OFP

OSD

R

RCP

RK

RL

RW

RWT

SJ

SMH

SW

SWP

SWRM

SWS

SV

TOK

TOW

TWL

TP

UPVC

UNO

WPJ

FF

TYP
- DIAMETER

CALIFORNIA BEARING RATIO

CHAINAGE

CENTER LINE

CLEAR OUT

DISH DRAIN

DISH DRAIN OUTLET

DOWELLED EXPANSION JOINT

DENSE GRADED BASECOURSE

DENSE GRADED SUB-BASE

DOWNPIPE

EXISTING

FINISHED FLOOR LEVEL

GRATED TRENCH DRAIN

GRATED SURFACE INLET PIT

HYDRANT

ISOLATING JOINT

INTEGRAL KERB

INVERT LEVEL

INTERSECTION POINT

KERB INLET PIT

KERB ONLY

KERB & GUTTER

KERB RETURN

LONGITUDINAL SECTION

NATURAL GROUND LEVEL

OVERLAND FLOW PATH

ON-SITE DETENTION

RADIUS

REINFORCED CONCRETE PIPE

ROLL KERB & GUTTER

REDUCED LEVEL

RETAINING WALL

RAINWATER TANK

SAWN CONTROL JOINT

SEWER MAN HOLE

STORMWATER

STORMWATER PIT

STORMWATER RISING MAIN

STORMWATER SUMP

STOP VALVE

TOP OF KERB

TOP OF WALL

TOP WATER LEVEL

TANGENT POINT

UNPLASTICISED POLYVINYL CHLORIDE

UNLESS NOTED OTHERWISE

WEAKENED PLANE JOINT

FIRST FLUSH DEVICE

TYPICAL

LEGEND:

- SSD

SWRM

HL

OF

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SW

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UE

F0

TEL

eTEL

eHYD

eSV

ePP

eSMH

OFF

RWO

CO

DP

FSL
- RAINWATER TANK LINES

STORMWATER LINE

SUBSOIL LINE

STORMWATER RISING MAIN

HIGH LEVEL STORMWATER LINE

OVERFLOW LINE

EXISTING STORMWATER LINE

AUTHORITY STORMWATER LINE

AUTHORITY SEWER LINE

AUTHORITY WATER LINE

AUTHORITY GAS LINE

AUTHORITY ELECTRICITY LINE

AUTHORITY UNDERGROUND ELECTRICITY LINE

AUTHORITY FIBRE OPTIC LINE

AUTHORITY COMMS LINE

FENCE LINE

GRATED SURFACE INLET PIT

JUNCTION PIT

KERB INLET PIT

EXISTING KERB INLET PIT

EXISTING TELSTRA PIT

EXISTING HYDRANT

EXISTING STOP VALVE

EXISTING POWER POLE

EXISTING SEWER MANHOLE

OVERLAND FLOW PATH

RAINWATER OUTLET

CLEAR OUT POINT

CAPPING

DOWNPIPE DROP

DOWNPIPE

SPOT LEVELS

BENCHMARK

DRAWING REGISTER				
NUMBER	NAME		REVISION	
S100	COVER SHEET		B	
S101	SPECIFICATIONS SHEET		B	
S200	SITE STORMWATER MANAGMENT PLAN		B	

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SERVICES SHOWN ON PLAN ARE INDICATIVE, EXACT DEPTH AND LOCATION TO BE CONFIRMED ONSITE. CONTRACTOR TO CARRY OUT DIAL BEFORE YOU DIG APPLICATION AND ENGAGE A REGISTERED SURVEYOR TO PEG OUT ALL EXISTING SERVICES PRIOR TO ANY WORK COMMENCING ONSITE.

					E: admin@deboke.com.au W: www.deboke.com.au A: 65 Blaxcell Street, Granville NSW 2142 M: 0432 225 833 (A.A.), 0404 786 785 (J.D.)	<div>deboke</div> <div>ENGINEERING CONSULTANTS</div>	DRAWN: A.A.	DESIGNED: A.A.	<div>DF</div> <div>DESIGN FORMATION</div> <div>Building Design Studio</div>	PROJECT: PROPOSED SECONDARY DWELLING ADDRESS: 52 WAKEHURST PARKWAY, NORTH NARRABEEN APPLICATION: DEVELOPMENT APPLICATION (DA) LGA: NORTHERN BEACHES COUNCIL	TITLE: COVER SHEET	ALL DIMENSIONS IN 'm' UNLESS OTHERWISE STATED
B	ISSUED FOR DA	2	A.A.	21.04.2021	COPYRIGHT THIS DRAWING AND THE INFORMATION SHOWN HEREON IS THE PROPERTY OF DEBOKE ENGINEERING CONSULTANTS AND MAY NOT BE USED FOR ANY PURPOSES THAN FOR WHICH SUPPLIED.							PROJECT NO. SW21025
A	ISSUED FOR DA	2	A.A.	02.02.2021								DRAWING NO. S101
REV	DESCRIPTION	APP.	DESIGN	DATE	APPROVAL TYPE: 1. PRELIMINARY 2. DEVELOPMENT APPLICATION 3. COMPLYING DEVELOPMENT 4. CONSTRUCTION CERTIFICATE 5. FOR TENDER 6. OTHER	B.E CIVIL/STRUCTURAL BEng,MIEAust MEMB. NO: 5579488	ARCHITECT:	CLIENT:				

STAMP OF APPROVAL

DESIGN NOTES:

SITE IS LOCATED IN NORTHERN BEACHES COUNCIL.

SITE AREA = 588.4m²

PROPOSED DEVELOPMENT DOES NOT PROPOSED AN INCREASE IN
HARDSTAND AREA; THEREFORE OSD IS NOT REQUIRED.

ALL DOWNPIPES SHOWN ON PLAN ARE Ø100mm uPVC U.N.O.

ALL NEW STORMWATER PIPES TO HAVE A MINIMUM OF 100mm CONCRETE OR
300mm TOPSOIL COVER U.N.O.

KEY NOTES:

1. ALL EXISTING STORMWATER PIPES AND DOWNPIPES ARE TO BE RETAINED
U.N.O (TYP). PLUMBER TO ASSESS CONDITION AND STATE OF REPAIR. ALLOW
FOR REPLACEMENT IF REQUIRED.

2. CONTRACTOR TO ENSURE LOCATION OF NEW DWELLING DOES NOT
ADVERSELY IMPACT EXISTING STORMWATER SYSTEM. IF SO, CONTRACTOR
TO CONTACT STORMWATER ENGINEER PRIOR TO COMMENCING ANY WORKS.

3. CONTRACTOR PERMITTED TO CONNECT TO EXISTING STORMWATER
SYSTEM IF FOUND TO BE IN GOOD CONDITION DURING CONSTRUCTION.
STORMWATER ENGINEER TO BE CONTACTED PRIOR TO COMMENCING ANY
WORKS WHICH VARY FROM THE APPROVED STORMWATER PLANS.

4. IF EXISTING STORMWATER SYSTEM IS CONNECTED TO SEWER,
CONTRACTOR IS TO RECTIFY STORMWATER DESIGN AND CREATE A NEW
CONNECTION AS PER COUNCIL SPECIFICATIONS AND AUSTRALIAN
STANDARDS. CONTRACTOR TO CONTACT STORMWATER ENGINEER PRIOR TO
COMMENCING ANY WORKS.

EXISTING STORMWATER DISCHARGE
CONNECTION TO KERB INLET PIT TO BE
RETAINED. PLUMBER TO ASSESS
CONDITION & STATE OF REPAIR.

ASSUMED LOCATION OF EXISTING
STORMWATER PIPE. TO BE CONFIRMED
DURING CONSTRUCTION. PLUMBER TO
PERFORM CCTV INSPECTION TO ASSESS
CONDITION & STATE OF REPAIR. ALLOW
FOR REPLACEMENT IF REQUIRED (TYP).

EXISTING SERVICES SHOWN ON PLAN
ARE INDICATIVE ONLY. CONTRACTOR
TO DETERMINE EXACT SIZE, LOCATION
AND DEPTH BEFORE COMMENCING ANY
WORKS (TYP).

CONNECT NEW STORMWATER PIPES
TO EXISTING STORMWATER SYSTEM
AS SHOWN. PLUMBER TO MAKE
SMOOTH CONNECTION & MATCH
INVERT LEVEL TO EXISTING (TYP).

EXISTING STORMWATER PITS
AND PIPES ARE TO BE RETAINED
U.N.O (TYP). PLUMBER TO
ASSESS CONDITION AND STATE
OF REPAIR (TYP).

WAKEHURST PARKWAY
WAKEHURST PARKWAY

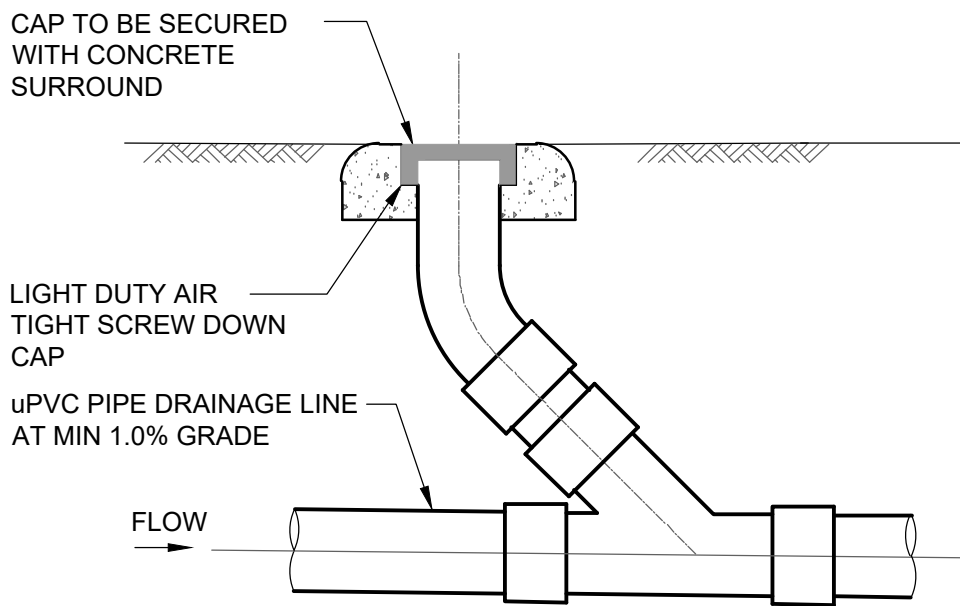
EXISTING DWELLING
52 WAKEHURST PARKWAY, NORTH NARRABEEN

RL:10.12

LOT 14
DP 17088

LOT 20
DP 17088

LOT 13
DP 17088



CLEANING EYE
SCALE 1:20

REV	DESCRIPTION	APP.	DESIGN	DATE
B	ISSUED FOR DA	2	A.A.	21.04.2021
A	ISSUED FOR DA	2	A.A.	02.02.2021

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APPROVAL TYPE:
1. PRELIMINARY
2. DEVELOPMENT APPLICATION
3. COMPLYING DEVELOPMENT
4. CONSTRUCTION CERTIFICATE
5. FOR TENDER
6. OTHER



DRAWN: A.A. DESIGNED: A.A.
REVIEWED: J.D. DATE: 21.04.2021
APPROVED: DATE: 21.04.2021
A.A.

B.E CIVIL/STRUCTURAL
BEng,MIEAust
MEMB. NO: 5579488



DESIGN FORMATION
Building Design Studio

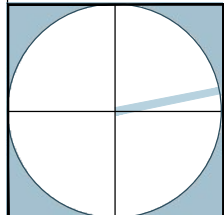
ARCHITECT:

PROJECT FLOW

CLIENT:

PROJECT:
PROPOSED SECONDARY DWELLING
ADDRESS:
52 WAKEHURST PARKWAY, NORTH NARRABEEN
APPLICATION:
DEVELOPMENT APPLICATION (DA)
LGA:
NORTHERN BEACHES COUNCIL

TITLE:
SITE STORMWATER
MANAGMENT PLAN



SCALE:
0m 1 2 3 4 5
SCALE 1:100 ON ORIGINAL SIZE

ALL DIMENSIONS
IN 'm'
UNLESS OTHERWISE
STATED

PROJECT NO.
SW21025
DRAWING NO.
S200