



CONCEPT STORMWATER DRAINAGE PLANS

PROPOSED SECONDARY DWELLING
52 WAKEHURST PARKWAY, NORTH NARRABEEN NSW 2161



REF | SW21025

REVISION | A

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	DIAMETER
CBR	CALIFORNIA BEARING RATIO
CH	CHAINAGE
CL	CENTER LINE
CO	CLEAR OUT
DD	DISH DRAIN
DDO	DISH DRAIN OUTLET
DEJ	DOWELLED EXPANSION JOINT
DGB	DENSE GRADED BASECOURSE
DGS	DENSE GRADED SUB-BASE
DP	DOWNPIPE
e	EXISTING
FFL	FINISHED FLOOR LEVEL
GTD	GRATED TRENCH DRAIN
GSIP	GRATED SURFACE INLET PIT
HYD	HYDRANT
IJ	ISOLATING JOINT
IK	INTEGRAL KERB
IL	INVERT LEVEL
IP	INTERSECTION POINT
KIP	KERB INLET PIT
KO	KERB ONLY
K&G	KERB & GUTTER
KR	KERB RETURN
LS	LONGITUDINAL SECTION
NGL	NATURAL GROUND LEVEL
OF	OVERLAND FLOW PATH
OSD	ON-SITE DETENTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RK	ROLL KERB & GUTTER
RL	REDUCED LEVEL
RW	RETAINING WALL
RWT	RAINWATER TANK
SJ	SAWN CONTROL JOINT
SMH	SEWER MAN HOLE
SW	STORMWATER
SWP	STORMWATER PIT
SWRM	STORMWATER RISING MAIN
SWS	STORMWATER SUMP
SV	STOP VALVE
TOK	TOP OF KERB
TOW	TOP OF WALL
TWL	TOP WATER LEVEL
TP	TANGENT POINT
UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UNO	UNLESS NOTED OTHERWISE
WPJ	WEAKENED PLANE JOINT
FF	FIRST FLUSH DEVICE
TYP	TYPICAL

LEGEND:

	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	A		
S101	SPECIFICATIONS SHEET	A		
S200	SITE STORMWATER MANAGMENT PLAN	A		



DIAL BEFORE YOU DIG SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION ON SITE

TM: TRADE MARK OF THE ASSOCIATION OF DIAL BEFORE YOU DIG SERVICES LTD. USED UNDER LICENSE.

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.)	 ENGINEERING CONSULTANTS	DRAWN: A.A. REVIEWED: J.D. APPROVED: A.A.	DESIGNED: A.A. DATE: 02.02.2021 DATE: 02.02.2021	 DESIGN FORMATION Building Design Studio	PROJECT FLOW	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				
					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.	B.E CIVIL/STRUCTURAL BEng,MIEAust MEMB. NO: 5579488		ARCHITECT:						PROJECT NO. SW21025	DRAWING NO. S101			
A	ISSUED FOR DA	2	A.A.	02.02.2021	APPROVAL TYPE: 1. PRELIMINARY 2. DEVELOPMENT APPLICATION 3. COMPLYING DEVELOPMENT 4. CONSTRUCTION CERTIFICATE 5. FOR TENDER 6. OTHER									SCALE:				
REV	DESCRIPTION	APP.	DESIGN	DATE														

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.

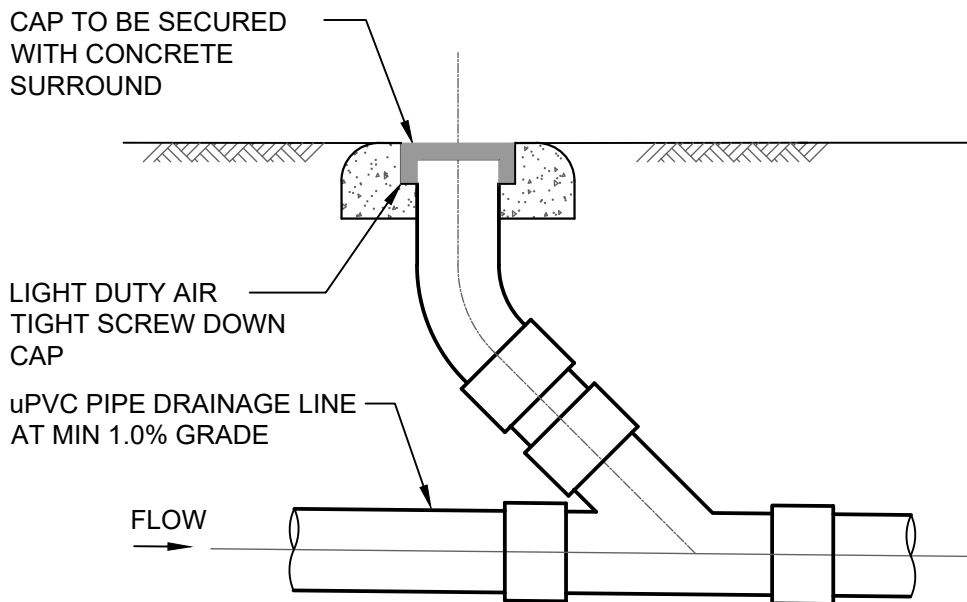
EXISTING STORMWATER DISCHARGE
CONNECTION TO KERB INLET PIT TO BE
RETAINED. PLUMBER TO ASSESS
CONDITION & STATE OF REPAIR.

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).

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

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



CLEANING EYE
SCALE 1:20

					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.) 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.	 ENGINEERING CONSULTANTS	DRAWN: A.A. REVIEWED: J.D. APPROVED: A.A.	A.A. DESIGNED: A.A. DATE: 02.02.2021 DATE: 02.02.2021	 DESIGN FORMATION Building Design Studio	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	ALL DIMENSIONS IN 'm' UNLESS OTHERWISE STATED
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