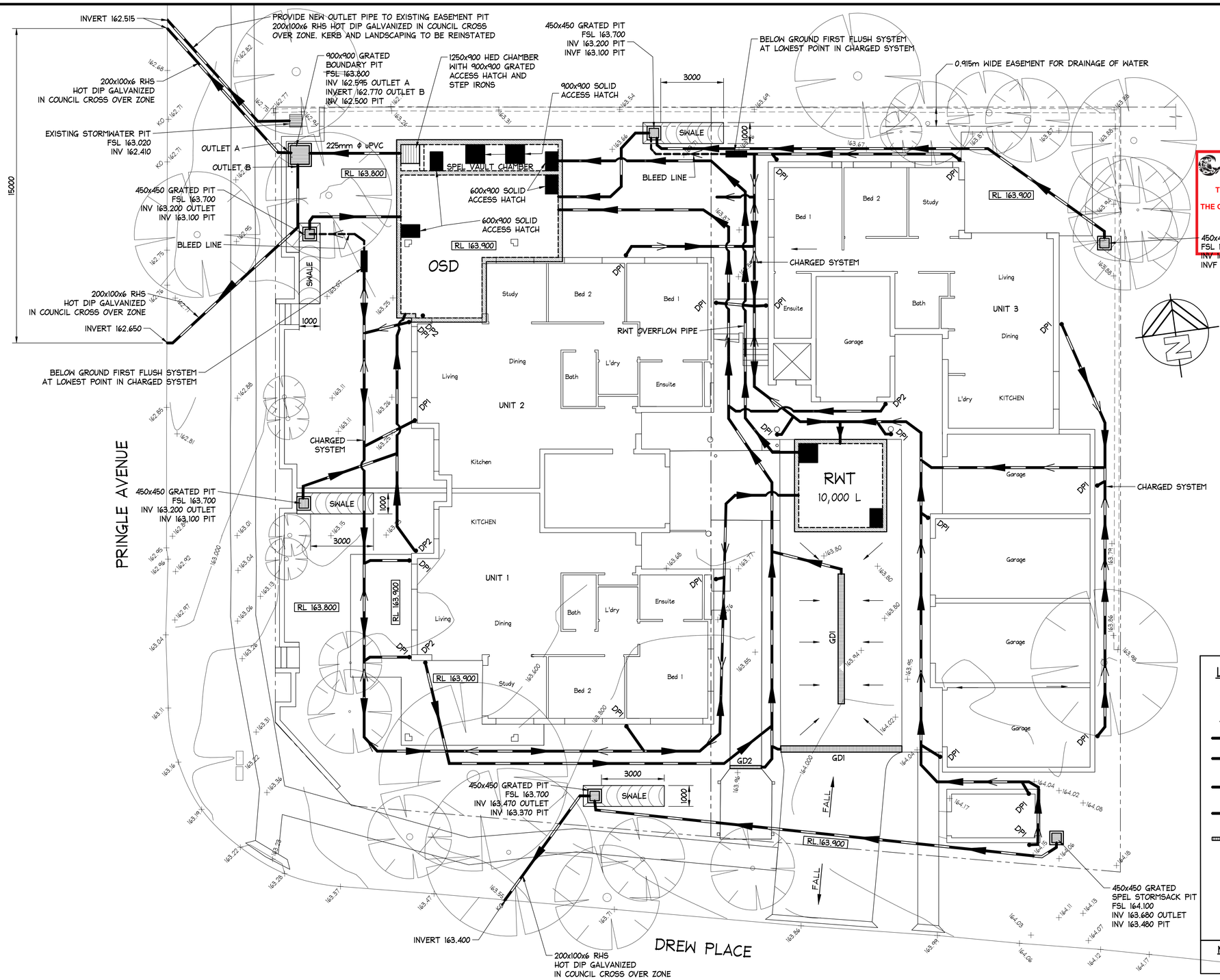

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DA2020/1072

NOTES:

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2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BY THE BUILDER BEFORE COMMENCING WITH ASSOCIATED WORK.

NOTE:
ALL STORMWATER PIPES LAID BELOW SLABS ON GROUND TO BE SEWER GRADE PIPES UNLESS NOTED OTHERWISE.

NOTE: CHARGED SYSTEM
ALL PIPE WORK IN CHARGED SYSTEM TO BE 100mm ϕ uPVC PRESSURE OR SEWER GRADE PIPES WITH ALL JOINTS PRESSURE SEALED TO 500mm ABOVE INLET LEVEL OF RWT.

NOTE:
ALL WATERPROOF MEMBRANES AND FLASHINGS TO BE INSTALLED AS PER ARCHITECTS DETAILS.

NOTE: SURFACE DRAINAGE
SURFACE DRAINAGE TO BE PROVIDED IN ACCORDANCE WITH AS 3500.3

NOTE: DPI DOWN PIPES
ALL DPI DOWN PIPES TO DISCHARGE INTO RAINWATER RE-USE TANK IN ACCORDANCE WITH AS 3500.3

LEGEND

DP1	100mm ϕ DOWNPIPE TO DISCHARGE TO RWT
DP2	100mm ϕ DOWNPIPE TO DISCHARGE TO OSD
	NEW STORMWATER PIPE
	STORMWATER PIPE FALL DIRECTION IN CHARGED SYSTEMS
	STORMWATER PIPE FLOW DIRECTION
PIT	STORMWATER PIT
GDI	GRATED DRAIN GDI - SPEL HYDROCHANNEL GD2 - 150x150 GRATED DRAIN
RWT	RAINWATER TANK TO COLLECT ALL DPI DOWNPIPES. TO BE RE-USED AS PER BASIX REQUIREMENTS LOCAL COUNCIL & SYDNEY WATER REQUIREMENTS RWT = 10,000 L TO WATER GARDEN AREAS
OSD	OSD TANK (REFER TO DETAILS) OSD = 27,000 L

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

NOTE: EXCAVATION AROUND TREES
CARE SHOULD BE TAKEN WHEN UNDERTAKING WORKS IN THE VICINITY OF SELECTED TREES NOT TO DISTURB THE TREE ROOT SYSTEM. HAND DIGGING OF TRENCHES ETC MAY BE NECESSARY. REFER ARBORISTS REPORT.

ALL PIPES TO BE 100mm ϕ uPVC UNLESS NOTED OTHERWISE
ALL PIPES TO BE LAID AT 1 % MINIMUM FALL UNLESS NOTED OTHERWISE

GROUND FLOOR STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

NOTE: EXISTING SERVICES
CONTRACTOR TO LOCATE ALL EXISTING SERVICES PRIOR TO EXCAVATION AND NOTIFY ENGINEER OF ANY POTENTIAL CLASHES WITH THE PROPOSED DRAINAGE PIPE LINE.

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Scale check - 100mm when printed to scale

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Date:	Issue:	Description:	By:	Review:
11.08.2020	A	ISSUED FOR D.A. SUBMISSION ONLY - NOT FOR CONSTRUCTION	P.R.B.	M.W.

DOCUMENT CERTIFICATION
Date : 11.08.2020
Rick G Wray
BE(Civil),CPEng,MIEAust.,NER.,RPEQ: 08298.
(Director NB Consulting Engineers)

NB Consulting Engineers
STRUCTURAL - CIVIL - STORMWATER - REMEDIAL
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E : nb@nbconsulting.com.au W : www.nbconsulting.com.au

Architect:	Turner Hughes Architects
Project Manager:	City State Property
Client:	Newpro 19 Pty Ltd
Project:	SENIORS DEVELOPMENT - NEWQUEST 1 Drew Place Belrose NSW 2085
Date:	July 2020
Design:	C.McL
Drawn:	Paul R Bruce AMIEAust.
Drawing Title:	GROUND FLOOR STORMWATER DRAINAGE PLAN
Job No:	2006103
Drawing No:	D01
Issue:	A

NOTES:

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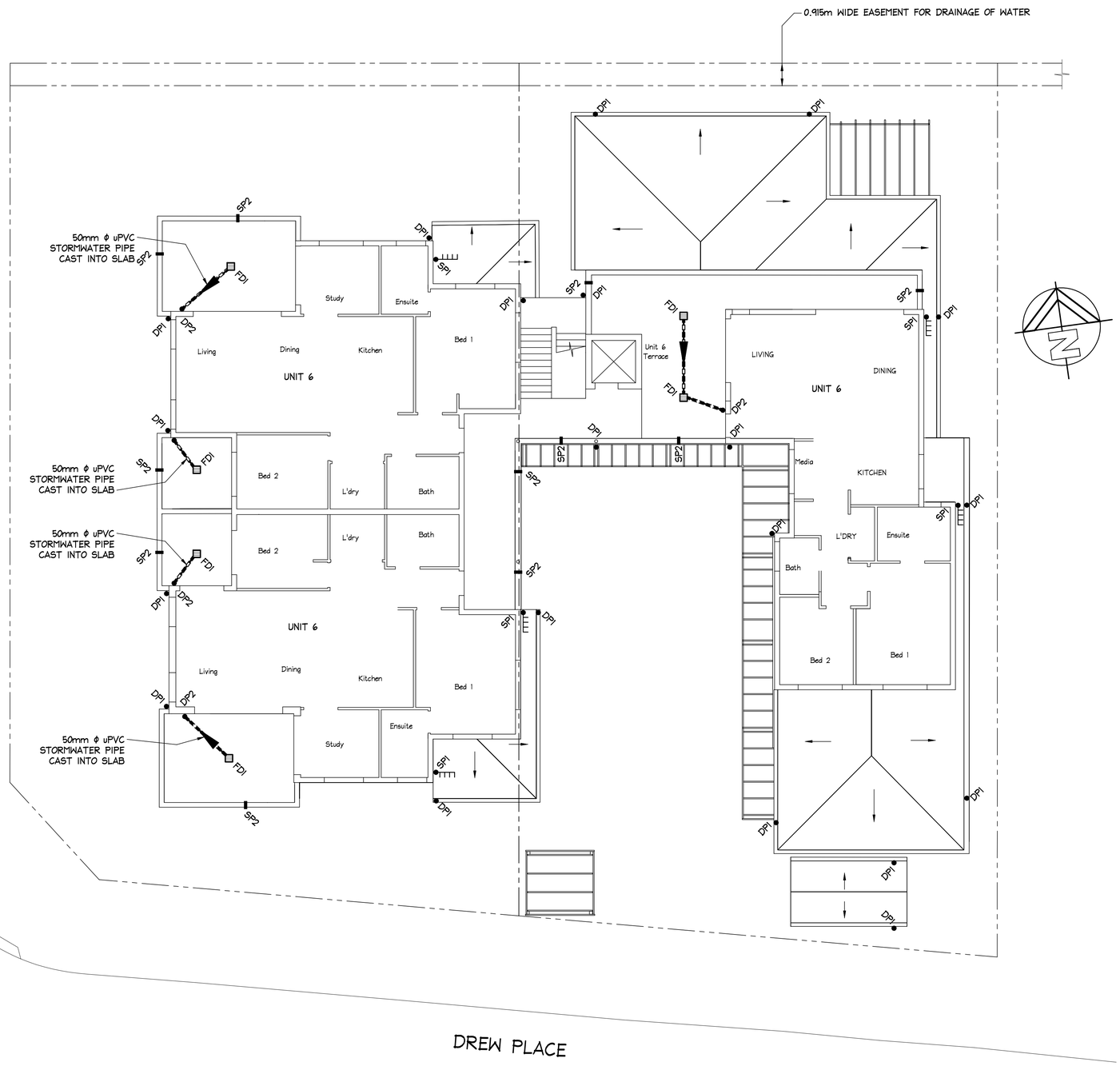

NOTE: CHARGED SYSTEM

ALL PIPE WORK IN CHARGED SYSTEM TO BE 100mm ϕ uPVC PRESSURE OR SEWER GRADE PIPES WITH ALL JOINTS PRESSURE SEALED TO 500mm ABOVE INLET LEVEL OF RWT.

NOTE:

ALL WATERPROOF MEMBRANES AND FLASHINGS TO BE INSTALLED AS PER ARCHITECTS DETAILS.

NOTE: DP1 DOWN PIPES

ALL DP1 DOWN PIPES TO DISCHARGE INTO RAINWATER RE-USE TANK IN ACCORDANCE WITH AS 3500.3

LEGEND

DP1	100mm ϕ DOWNPIPE TO DISCHARGE TO RWT
DP2	100mm ϕ DOWNPIPE TO DISCHARGE TO OSD
SP1	100mm ϕ DOWNPIPE WITH A SPREADER PIPE
SP2	BUILDER TO PROVIDE A MINIMUM 100mm W x 30mm H OR 50mm DIA OVERFLOW FOR EVERY 6m2 OF EXPOSED TERRACE AREA. THE FULL OVERFLOW DEPTH MUST BE LOCATED BELOW THE ADJACENT INTERNAL FLOOR LEVEL TO PROTECT AGAINST INCIDENTAL FLOODING DUE TO A BLOCKED FLOOR OUTLET.
	50mm ϕ uPVC STORMWATER PIPE CAST INTO SLAB
	STORMWATER PIPE FLOW DIRECTION
FDI	FLOOR DRAIN, REFER TO DETAILS

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

ALL PIPES TO BE 100mm ϕ uPVC UNLESS NOTED OTHERWISE
ALL PIPES TO BE LAID AT 1 % MINIMUM FALL UNLESS NOTED OTHERWISE

FIRST FLOOR AND LOWER ROOF STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

Scale check - 100mm when printed to scale

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Architect:	Turner Hughes Architects
Project Manager:	City State Property
Client:	Newpro 19 Pty Ltd
Project:	SENIORS DEVELOPMENT - NEWQUEST 1 Drew Place Belrose NSW 2085
Drawing Title:	FIRST FLOOR AND LOWER ROOF STORMWATER DRAINAGE PLAN
Date:	July 2020
Design:	C.McL
Drawn:	Paul R Bruce AMIEAust.
Job No:	2006103
Drawing No:	D02
Issue:	A

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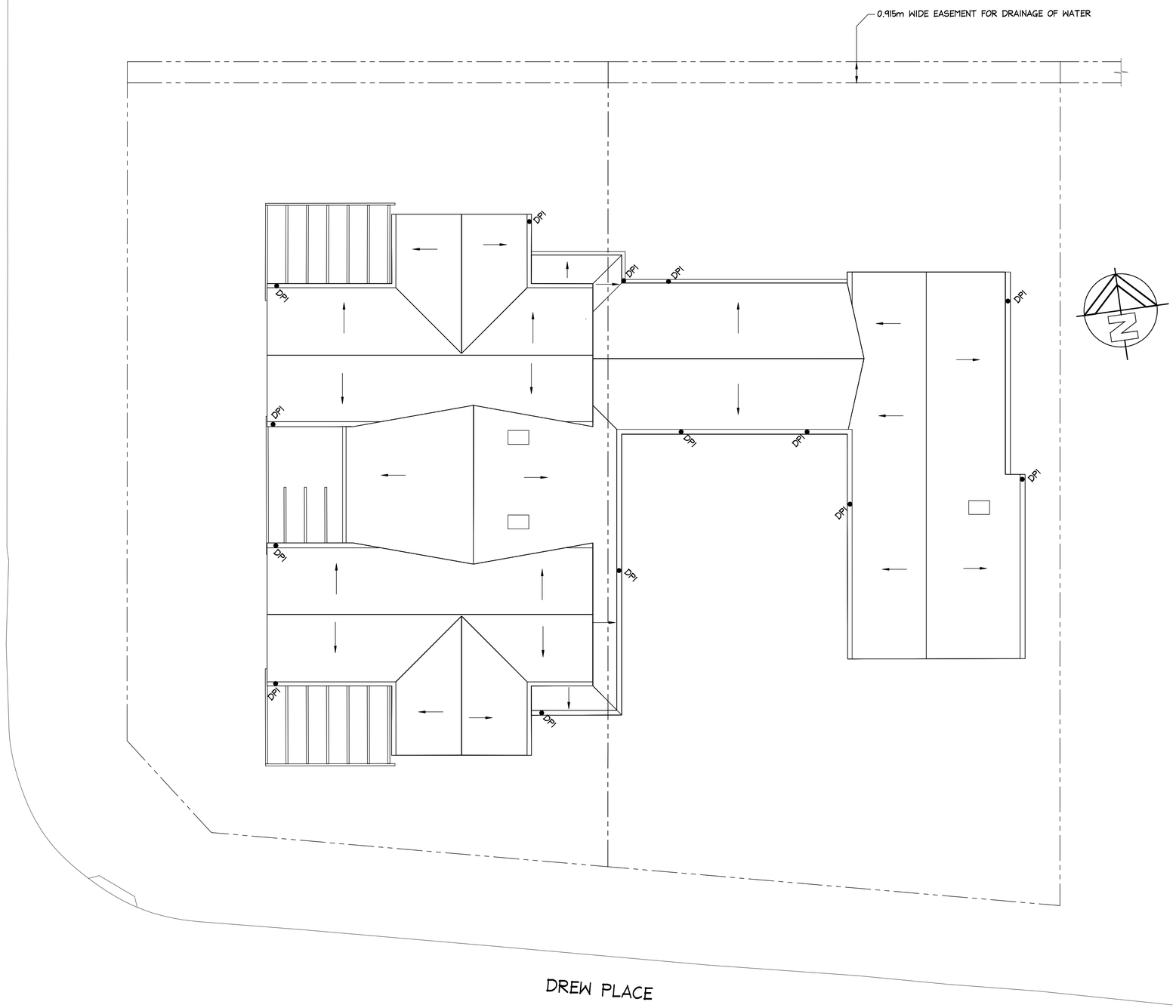

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NOTE:
ALL WATERPROOF MEMBRANES AND FLASHINGS TO BE INSTALLED AS PER ARCHITECTS DETAILS.

NOTE: DPI DOWN PIPES
ALL DPI DOWN PIPES TO DISCHARGE INTO RAINWATER RE-USE TANK IN ACCORDANCE WITH AS 3500.3

LEGEND

DPI ● 100mm ϕ DOWNPIPE TO DISCHARGE TO RWT

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

ALL PIPES TO BE 100mm ϕ uPVC UNLESS NOTED OTHERWISE
ALL PIPES TO BE LAID AT 1 % MINIMUM FALL UNLESS NOTED OTHERWISE

UPPER ROOF STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

Scale check - 100mm when printed to scale

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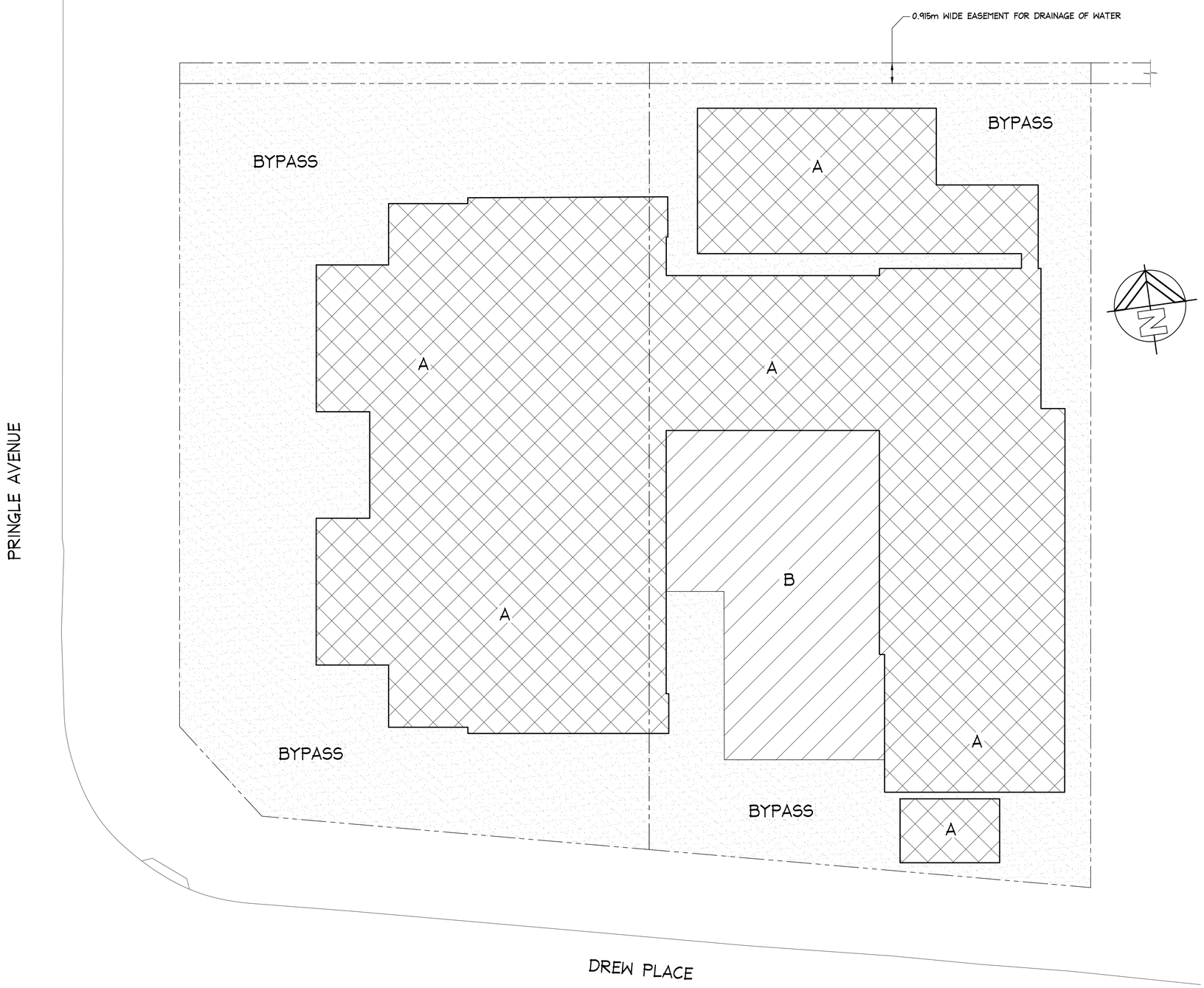
Architect:	Turner Hughes Architects
Project Manager:	City State Property
Client:	Newpro 19 Pty Ltd
Project:	SENIORS DEVELOPMENT - NEWQUEST 1 Drew Place Belrose NSW 2085
Date:	July 2020
Design:	C.McL
Drawn:	Paul R Bruce AMIEAust.
Drawing Title:	UPPER ROOF STORMWATER DRAINAGE PLAN
Job No:	2006103
Drawing No:	D03
Issue:	A



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ASSUMPTIONS:

1. 690 m2 ROOF AREA TO BE DIRECTED THROUGH 10,000 L RAINWATER TANK. REUSE IS FOR IRRIGATION ONLY.
2. 170 m2 TO BE DIRECTED THROUGH SPEL HYDROCHANNELS.
3. 450 m2 TO BE DIRECTED THROUGH 3 x 1.0m WIDE x 3.0m LONG SWALES.
4. 90 m 2 TO BE DIRECTED THROUGH 450x450 SPEL STORMSACK PITS

STORMWATER SYSTEM WATER QUALITY CALCULATION SUMMARY NOTES

TOTAL SITE AREA	1396 m^2	
DESIGN METHOD USED	MUSIC (REFER TO DISK)	
POLLUTANT TYPE	PERFORMANCE TARGET REDUCTION LOADS	REQUIRED TARGETS
GROSS POLLUTANTS (GP)	100 % REDUCTION IN POST DEVELOPMENT MEAN ANNUAL LOAD OF TOTAL GROSS POLLUTANTS	100 %
TOTAL SUSPENDED SOLIDS (TSS)	85 % REDUCTION IN POST DEVELOPMENT MEAN ANNUAL LOAD OF TOTAL GROSS POLLUTANTS	85.3 %
TOTAL PHOSPHORUS (TP)	65% REDUCTION IN POST DEVELOPMENT MEAN ANNUAL LOAD OF TOTAL GROSS POLLUTANTS	71.7 %
TOTAL NITROGEN (TN)	45 % REDUCTION IN POST DEVELOPMENT MEAN ANNUAL LOAD OF TOTAL GROSS POLLUTANTS	57.5 %

CATCHMENT SCHEDULE

TOTAL SITE AREA	1396 m^2		
CATCHMENT NAME	AREA (m^2)	PERVIOUS (%)	IMPERVIOUS (%)
A	686	0	100
B	120	0	100
BYPASS	590	82	18

MUSIC CATCHMENT PLAN

SCALE = 1 : 100

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E : nb@nbconsulting.com.au W : www.nbconsulting.com.au

Architect: Turner Hughes Architects
Project Manager: City State Property
Client: Newpro 19 Pty Ltd

Project: SENIORS DEVELOPMENT - NEWQUEST
1 Drew Place Belrose NSW 2085

Drawing Title: MUSIC CATCHMENT PLAN

Date:	Design:	Drawn:
July 2020	C.McL	Paul R Bruce AMIEAust.

Job No:	Drawing No:	Issue:
2006103	D04	A

STORMWATER NOTES:

1. ALL PIPES TO BE 100mm ϕ UNLESS NOTED OTHERWISE.
2. ALL PIPES TO BE uPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE.
3. ALL PIPES TO BE LAYED AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.
4. ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS.
   (NO COMPACTION REQUIRED BELOW LANDSCAPING)
   COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM.
   BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
5. ALL DOWN PIPES TO BE 100mm ϕ UNLESS NOTED OTHERWISE.
6. DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
7. PROVIDE CLEANING EYES AT ALL DOWNPIPES.
8. ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER. CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH 1 N12 TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 900 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH N12 AT 300 EACH WAY UNLESS NOTED OTHERWISE.
9. ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
10. THE BOUNDARY OR SILT ARRESTOR PIT SHOULD ALWAYS INCORPORATE A SUMP AND MAXI-MESH SCREEN AS PER LOCAL COUNCIL REQUIREMENTS. HOWEVER, UNLESS SPECIFICALLY REQUIRED BY COUNCILS POLICY OR IF THE SITE CONSISTS OF A CLAY OR ROCK SUBGRADE, ALL OTHER DRAINAGE PITS WILL NOT REQUIRE A SUMP.
11. ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
12. PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APPROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
13. ALL LEVELS SHOWN ARE TO AHD
14. ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
15. ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
16. ALL WORKS TO BE IN ACCORDANCE WITH AS 3500-2003 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.
17. UNLESS NOTED OTHERWISE, SUB-SOIL DRAINS ARE TO BE INSTALLED IN ACCORDANCE WITH AS3500.3 ALONGSIDE WALLS THAT IMPEDE THE NATURAL FLOW OF GROUNDWATER. THIS MAY ALSO INVOLVE TRENCHING INTO THE CLAY OR ROCK SUBGRADE TO DIRECT GROUNDWATER AWAY FROM STRUCTURES.
18. IF NOT INDICATED ON PLANS, PROVIDE LEAF CATCHERS TO ALL DOWNPIPES OR GUTTER GUARD TO ALL EAVES GUTTERS.
19. ORIFICE PLATE MUST BE INSTALLED PRIOR TO INSTALLATION OF THE ROOF DRAINAGE SYSTEM AND CONNECTION OF THE SITE STORMWATER SYSTEM TO THE ONSITE DETENTION TANK.

RAINWATER RE-USE TANKS:

1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A RAINWATER TANK FOR USE AS PER BASIX REQUIREMENTS, SYDNEY WATER AND NSW HEALTH REQUIRMENTS FOR NON DRINKING USE ONLY AS FOLLOWS:
   a) TO WATER GARDEN AREAS
2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
3. REFERENCES:
   COOMBES P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE.
   PATRICK DUPONT & STEVE SHACKEL, "RAINWATER"
   AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS"
4. ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK" AVAILABLE AT www.sydneywater.com.au
5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANING AND NATURAL RESOURCES.
6. IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m2 OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.
7. SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4-6mm AND DESIGNED TO BE SELF-CLEANING.
8. FIRST FLUSH DEVICES, OR APPROVED ALTERATIVE, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS.
9. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.
10. PRE-STORAGE PITS FOR UNDERGROUND RAINWATER STORAGE TANKS AND FLUSH OUT PITS MAY ASSIST IN LIMITING SILT, AND PREVENT VERMIN, INSECTS (INCLUDING MOSQUITOES) AND DEBRIS FROM ENTERING THE RAINWATER STORAGE AREA.
11. BUILDER/PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK - HB 230-2008. IF IN DOUBT CONTACT ENGINEER.
12. RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230-200B

NOTE: ATLANTIS DRAINAGE CELLS

ATLANTIS DRAINAGE CELLS TO GREEN ROOF / PLANTER AREAS TO BE INSTALLED AS PER MANUFACTURERS DETAILS

NOTE:

STORMWATER DRAWINGS DO NOT INCLUDE SUBSOIL AGRICULTURAL DRAINAGE DETAILS FOR D.A. SUBMISSION. NORTHERN BEACHES CONSULTING ENGINEERS PTY LTD MUST BE COMMISSIONED TO INCLUDE THESE DETAILS ONLY WHEN CONSTRUCTION CERTIFICATE AND/OR CONSTRUCTION DOCUMENTATION IS COMPLETE AND PROVIDED.

Scale check - 100mm when printed to scale

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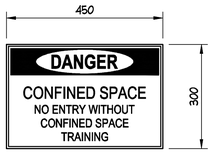


TANK ENTRY SIGN

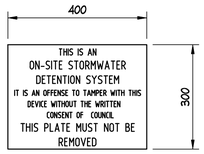
SCALE = N.T.S.

LEGEND:

BLACK ON YELLOW BACKGROUND

SIGN FOR RWT AND OUTLETS

SCALE = N.T.S.



OSD TANK SIGN

SCALE = N.T.S.

NORTHERN BEACHES COUNCIL (WARRINGAH AREA) ON SITE DETENTION SYSTEM CALCULATION SHEET

ADDRESS: 1 DREW PLACE, BELROSE

SITE DETAILS

TOTAL SITE AREA (TITLE AREA)	1396 m^2	
PRE DEVELOPMENT IMPERVIOUS AREA	902 m^2	(64.5 % IMPERVIOUS)
POST DEVELOPMENT IMPERVIOUS AREA	932 m^2	(67 % IMPERVIOUS)
INCREASE	30 m^2	

OSD REQUIREMENT

OSD IS REQUIRED FOR THIS DEVELOPMENT

PERMITTED SITE DISCHARGE

PRE DEVELOPMENT SITE DISCHARGE	
5 YR	44 l/s
20 YR	67 l/s
100 YR	92 l/s
POST DEVELOPMENT SITE DISCHARGE	
5 YR	35 l/s (31 l/s FROM OSD)
20 YR	41 l/s (34 l/s FROM OSD)
100 YR	44 l/s (35 l/s FROM OSD)

SITE STORAGE REQUIREMENT

OSD VOLUME REQUIRED	26 m^3 (27 m^3 PROVIDED)
RAINWATER 'BASIX' REQUIRED	10 m^3 (10 m^3 PROVIDED)
PORTION OF SITE TO OSD	87%
TYPE OF CONTROL	BELOW GROUND BLOCKWORK TANK WITH ORIFICE PLATE
ORIFICE SIZE	160 mm ϕ

OUTLET CONTROL

METHOD OF DISCHARGE	CONNECTION TO KERB
MAXIMUM CONCENTRATED DISCHARGE TO KERB	17 L/s

NOTES:

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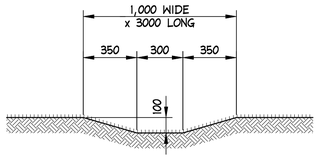
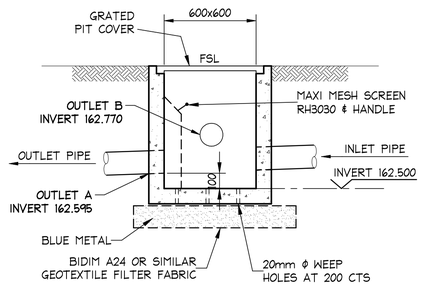
NOTE:

SWALES TO BE CONSTRUCTED TO PROVIDE TREATMENT TO UPSTREAM RUNOFF. GRASS SWALE TO HAVE 1 % MINIMUM FAQLL TO PIT



1.0m WIDE TURF LINED BIO SWALE DRAIN

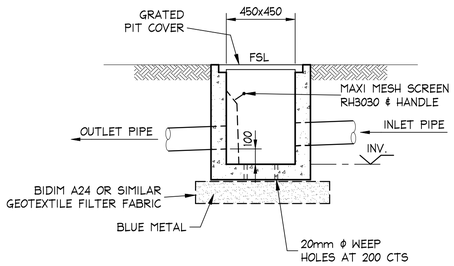
SCALE = 1 : 20



PRECAST OR CAST INSITU PIT
REFER STORMWATER NOTES
ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER

600x600 BOUNDARY PIT DETAIL

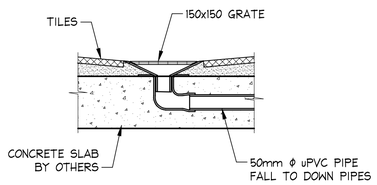
SCALE = 1 : 20



PRECAST OR CAST INSITU PIT
REFER STORMWATER NOTES
ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER

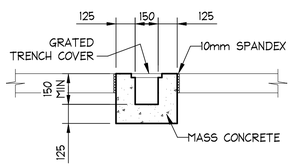
450x450 PIT DETAIL

SCALE = 1 : 20



STANDARD FLOOR DRAIN - 'FD1'

SCALE = 1 : 10



OR PRECAST GRATED DRAIN
ALTERNATE POLYPROPYLENE DRAIN BY MANUFACTURER

TYPE 'GD2' GRATED DRAIN DETAIL

SCALE = 1 : 20

NOTE:

NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE.
ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE

DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOULD THEY DAMAGE UNDERGROUND NETWORKS.

CARELESS DIGGING CAN:
- CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
- INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
- CUT OFF EMERGENCY SERVICES
- DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

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DOCUMENT CERTIFICATION
Date : 11.08.2020
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Architect:	Turner Hughes Architects
Project Manager:	City State Property
Client:	Newpro 19 Pty Ltd
Project:	SENIORS DEVELOPMENT - NEWQUEST 1 Drew Place Belrose NSW 2085
Drawing Title:	STORMWATER DRAINAGE NOTES AND DETAILS
Date:	July 2020
Design:	C.McL
Drawn:	Paul R Bruce AMIEAust.
Job No:	2006103
Drawing No:	D05
Issue:	A

NOTES:

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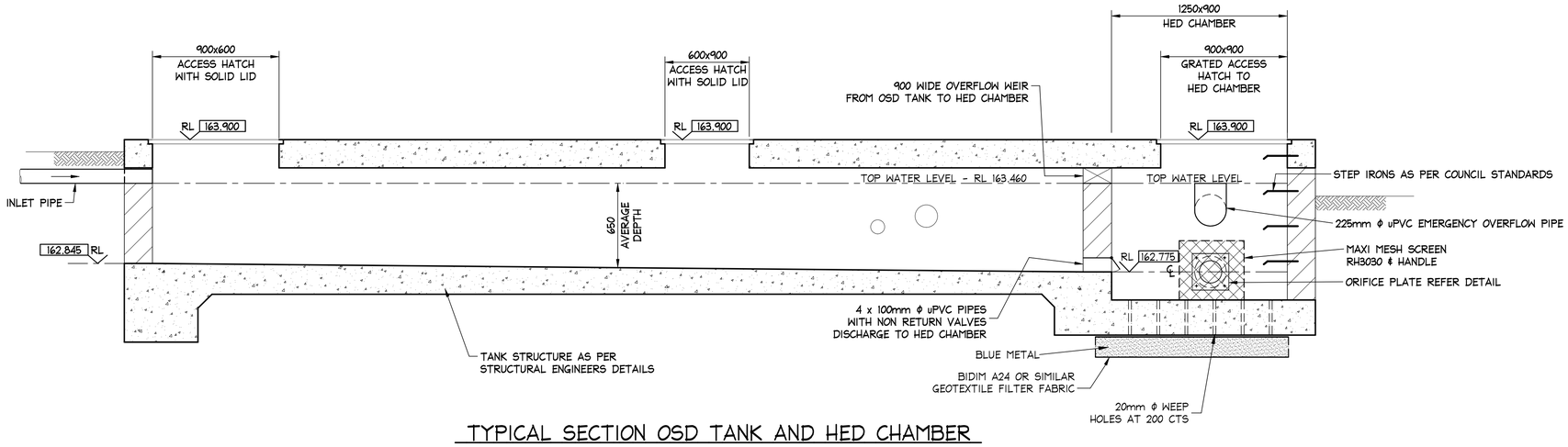
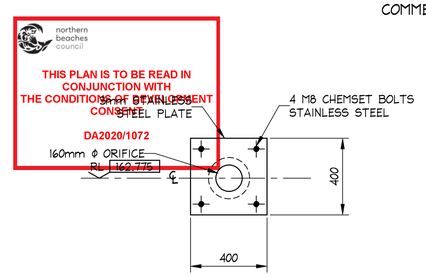


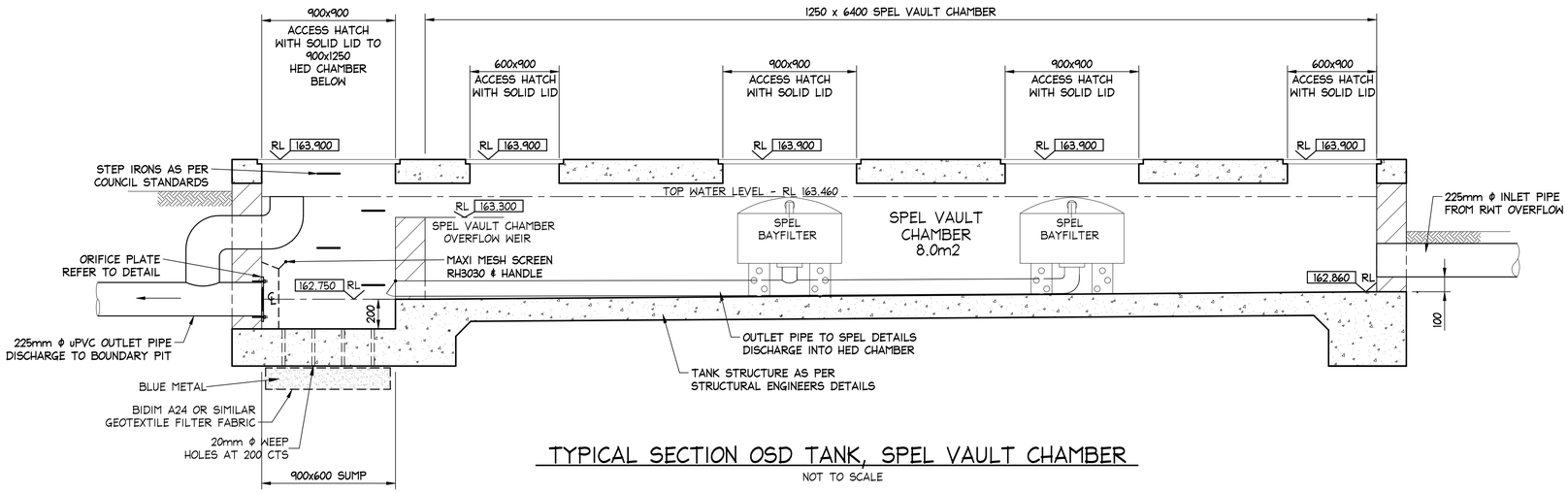
TYPICAL SECTION OSD TANK AND HED CHAMBER

NOT TO SCALE



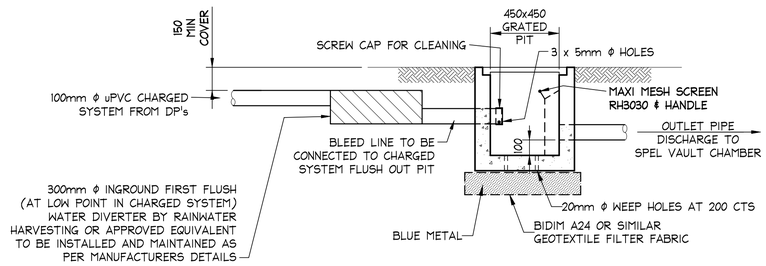
ORIFICE PLATE DETAIL

NOT TO SCALE



TYPICAL SECTION OSD TANK, SPEL VAULT CHAMBER

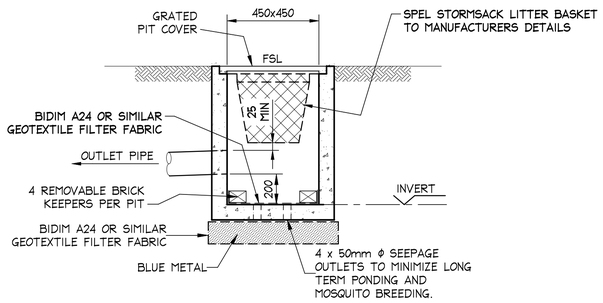
NOT TO SCALE



PRECAST OR CAST INSITU PIT REFER STORMWATER NOTES

450x450 CHARGED SYSTEM FLUSH OUT PIT DETAIL

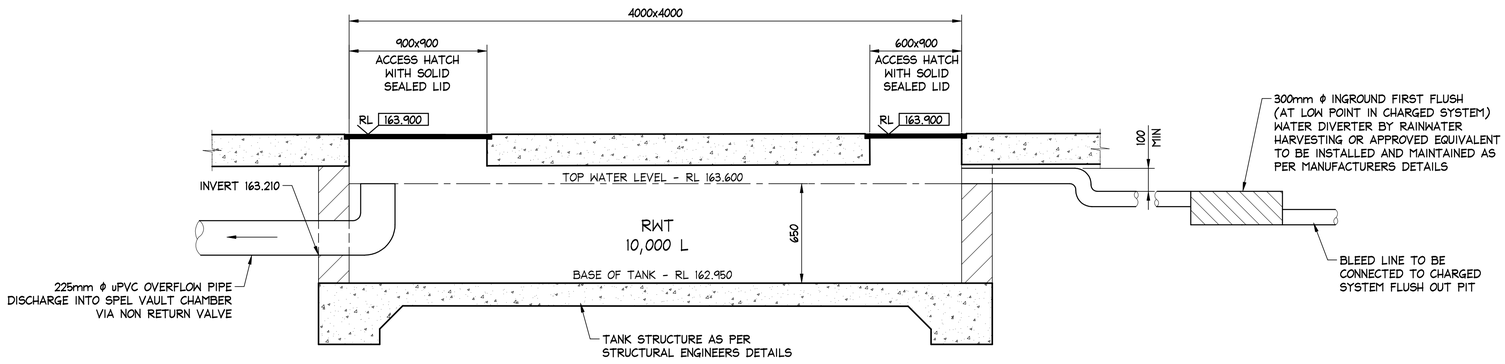
SCALE = 1 : 20



PRECAST OR CAST INSITU PIT
REFER STORMWATER NOTES

450x450 SPEL STORMSACK PIT DETAIL

NOT TO SCALE



TYPICAL SECTION RAINWATER RE-USE TANK

NOT TO SCALE

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Architect:	Turner Hughes Architects
Project Manager:	City State Property
Client:	Newpro 19 Pty Ltd
Project:	SENIORS DEVELOPMENT - NEWQUEST 1 Drew Place Belrose NSW 2085
Drawing Title:	STORMWATER DRAINAGE DETAILS SHEET 1
Date:	July 2020
Design:	C.McL
Drawn:	Paul R Bruce AMIEAust.
Job No:	2006103
Drawing No:	D06
Issue:	A

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THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

DA2020/1072

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SEDIMENT AND EROSION CONTROL PLAN

SCALE = 1 : 100

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Architect:	Turner Hughes Architects
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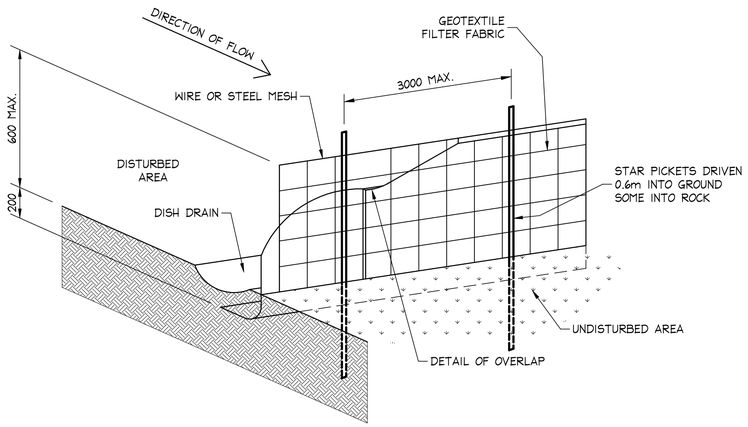
Client:	Newpro 19 Pty Ltd
Project:	SENIORS DEVELOPMENT - NEWQUEST 1 Drew Place Belrose NSW 2085
Date:	July 2020
Design:	C.McL
Drawn:	Paul R Bruce AMIEAust.
Drawing Title:	SEDIMENT AND EROSION CONTROL PLAN
Job No:	2006103
Drawing No:	D07
Issue:	A

GENERAL NOTES :

1. CONSTRUCTION VEHICLES ARE TO LEAVE AND ENTER THE SITE OVER AN ALL WEATHER SURFACE CONSISTING OF COURSE CRUSHED STONE OR BLUE METAL CONSTRUCTED WITHIN THE FRONT SETBACK AREA OPPOSITE THE EXISTING FOOTPATH CROSSING UNLESS NOTED OTHERWISE.
2. EXCAVATION MACHINERY ARE TO BE UNLOADED AND LOADED UPON THIS ALL WEATHER SURFACE. CONCRETE PUMPS AND TRUCKS WILL ALSO UTILISE THE ALL WEATHER SURFACE FOR THEIR OPERATIONS.
3. MATERIALS WILL BE UNLOADED UPON THE ALL WEATHER SURFACE WITHIN THE FRONT SETBACK AREA BY MEANS OF CRANES MOUNTED ON THE BACK OF DELIVERY TRUCKS OR UNLOADED BY HAND. IT IS NOT ENVISAGED THAT A MOBILE CRANE WILL BE REQUIRED DURING THE CONSTRUCTION PROCESS.
4. SOME STOCKPILING OF TOPSOIL REMOVED FROM THE BUILDING AREA MAY BE STORED ON THE SITE DURING THE CONSTRUCTION WITHIN THE PROPERTY IN AN AREA ENCLOSED WITHIN THE SEDIMENT CONTROL FENCING.
5. ALL EXCAVATED & CONSTRUCTION MATERIALS, SHED, SKIP BINS, TEMPORARY WATER CLOSETS, SPOIL AND EQUIPMENT, ETC SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL STAND ON COUNICIL FOOTPATHS FOR LARGE LENGTHS OF TIME.
6. ALL RUBBISH & RECYCLABLE MATERIAL SHALL BE STOCKPILED IN WASTE BINS IN THE AREA NOMINATED ON THE SITE PLAN WITHIN THE SITE BOUNDARY. PUBLIC PROPERTY SHALL BE KEPT FREE OF RUBBISH AND RECYCLABLES AT ALL TIMES ANY WASTE MATERIALS SHALL BE REGULARLY COLLECTED FROM THE SITE AND DISPOSED OF IN AN APPROPRIATE FASHION.
7. ANY BUILDING / DEMOLITION WORKS INVOLVING ASBESTOS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELAVANT STANDARDS.
8. VEHICLES LEAVING THE SITE WILL DO SO VIA THE ALL WEATHER BALLAST DRIVEWAY MADE OF COURSE AGGREGATE OR SIMILLAR LOCATED WITHIN THE FRONT SETBACK AREA OF THE DEVELOPMENT. ANY DIRT OR MATERIAL DEPOSITED ON THE ROAD RESERVE OR ROADWAY IS TO BE PROMPTLY CLEANED.
9. ANY EXCAVATED AREA REQUIRED SUPPORT WILL BE UNDERTAKEN BY THE OWNER USING STRUCTURALLY APPROVED RETAINING STRUCTURES.
10. ADEQUATE SAFETY SIGNAGE MUST BE ERECTED IN A PROMINENT POSITION ON THE WORK SITE, WARNING OF UNAUTHORISED ENTRY TO WORK SITE AND INTENDING DANGERS.
11. SAFETY FENCES SHALL BE PROVIDED AROUND ALL BOUNDARIES UNLESS A CONTINUOUS STRUCTURALLY ADEQUATE FENCE PRESENTLY EXISTS. THE FENCING SHALL BE ADEQUATE TO RESTRICT PUBLIC ACCESS TO THE SITE WHEN BUILDING WORK IS NOT IN PROGRESS OR THE SITE IS UNOCCUPIED.
12. NOISE LEVELS SHALL NOT EXCEED COUNCIL REGULATION LEVELS. BUILDING AND DEMOLITION WORKS SHALL ONLY BE CARRIED OUT BETWEEN HOURS AND DAYS SPECIFIED BY COUNCIL.
13. GEOTEXTILE FABRIC SHALL BE PLACED ON THE INSIDE OF THE SITE FENCING PRIOR TO SITE DISTURBANCE TO PREVENT SEDIMENT WASHING FROM CLEARED AND DISTURBED AREAS OF THE SITE INTO THE STORMWATER SYSTEM DURING CONSTRUCTION UNCONTAMINATED RUNOFF FROM CLEARED OR DISTURBED AREAS IS TO BE DIRECTED TO A TEMPORARY SILT ARRESTOR PIT THAT SHALL BE PROVIDED WITHIN THE SITE AT THE STREET BOUNDARY PROCESSING SITE STORMWATER BEFORE IT IS DISCHARGED TO THE STREET DRAINAGE SYSTEM OR WATERCOURSE.
14. ALL TOP SOIL STRIPPED & STOCKPILED ON SITE IS TO BE BE PLACED IN NOMINATED AREAS ON PLAN. ALL DISTURBED AREAS ARE TO BE STABILISED UPON THE COMPLETION OF BUILDING WORKS.
15. ALL SEDIMENT CONTROL STRUCTURES ARE TO BE CONTINUALLY MAINTAINED DURING CONSTRUCTION AND INSPECTED FOR STRUCTURAL DAMAGE AFTER EACH RAINFALL EVENT, WITH TRAPPED SEDIMENT BEING REMOVED TO THE TOPSOIL STOCKPILE.
16. WHERE THERE IS THE POTENTIAL OF SITE EROSION TO PRODUCE EXCESSIVE SEDIMENT RUNOFF SUITABLE GEOTEXTILE BARRIERS SHALL BE PLACED TO ALLEVIATE THE RISK ACCORDINGLY. BARE SURFACES SHALL BE KEPT MOIST TO REDUCE DUST LEVELS. GEOTEXTILE FABRIC LOCATED ON THE INSIDE OF FENCES SHALL ALSO BE UTILISED FOR DUST CONTROL WHERE NECESSARY.

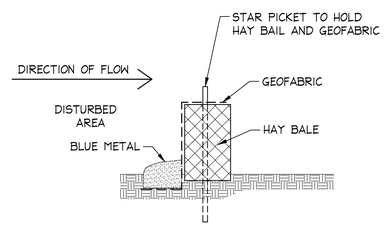
SEDIMENT CONTROL:

1. INSTALL SEDIMENT CONTROL STRUCTURES IN LOCATIONS INDICATED ON DRAWINGS AND AS OTHERWISE REQUIRED TO CONTROL SEDIMENT DURING ALL EXCAVATIONS AND WHILST AREAS OF THE SITE ARE EXPOSED TO EROSION.
2. CONTROL STRUCTURES TO BE AS DETAILED OR AS OTHERWISE REQUIRED BY CERTIFYING AUTHORITY.
3. REVIEW CONTROL MEASURES AND MAINTAIN STRUCTURES DURING CONSTRUCTION.
4. IF ADDITIONAL MEASURES ARE REQUIRED FOR EROSION CONTROL OR BY COUNCIL REQUIREMENTS REFER TO "URBAN EROSION AND SEDIMENT CONTROL" GUIDELINES PREPARED BY THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT.



SILT FENCE DETAIL - OPTION 1

SCALE = N.T.S.



SILT FENCE DETAIL - OPTION 2

SCALE = N.T.S.

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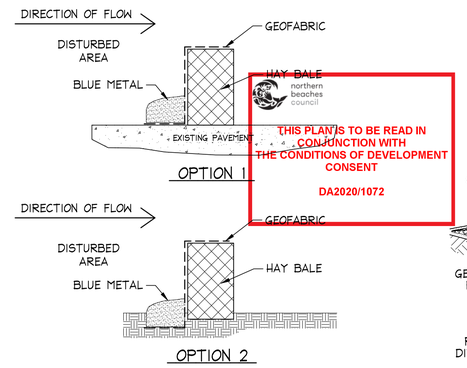
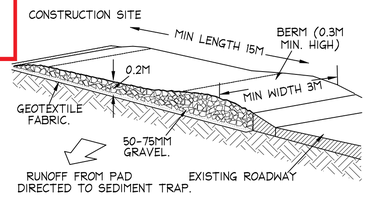


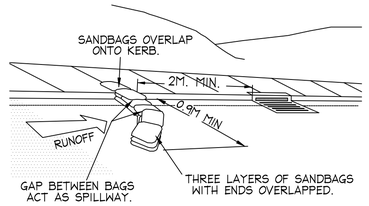
REMOVABLE HAY BALE DETAIL



TYPICAL TEMPORARY CONSTRUCTION ENTRY/EXIT DETAIL

CONSTRUCTION NOTES:

1. STRIP TOPSOIL AND LEVEL SITE.
2. COMPACT SUBGRADE.
3. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING ROADBASE or 30mm AGGREGATE. MINIMUM LENGTH 15 METRES OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3 METRES.
5. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE or OTHER SEDIMENT TRAP.
6. OR CONSTRUCT A CATTLE GRID LOCATED AT ANY POINT WHERE TRAFFIC ENTERS OF LEAVES THE SITE.



SANDBAG KERB INLET SEDIMENT TRAP

SCALE = N.T.S.

SCHEDULE OF WORKS:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. CUTS TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0 m VERT. TO 1.7 m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0 m VERT. TO 1.7 m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.

NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER.
2. MINIMISE DISTURBED AREAS'
3. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
4. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
5. ROADS AND FOOTPATH TO BE SWEPT DAILY.

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Drawn:	Paul R Bruce AMIEAust.
Job No:	2006103
Drawing No:	D08
Issue:	A