DISCHARGE POINT 4:
SITE DISCHARGE TO EXISTING PIT AT IL 74.84
TOP OF KERB RL 77.27

STORMWATER MANAGEMENT TANK 3
COMBINED ONSITE DETENTION & FILTRATION CARTRIDGE TANK (4.21HA)
MIN VOLUME 1221m³
NOM. DIMS: 37.4X12.57X3.18
ALLOW FOR 90X690 PSORB STORM FILTERS
OSD SUMP RL 75.07

DISCHARGE POINT3:
SITE DISCHARGE TO EXISTING Ø750 STUB
DS/IL 71.86
LENGTH 8.0m
TOP OF KERB RL 74.88

DISCHARGE POINT1:
SITE DISCHARGE TO EXISTING Ø750 STUB
US/IL 71.57
DS/IL 70.04
19.09m @ 8.0%

TOP OF KERB RL72.93

EXISTING PIT 04

JOHNSTON CRESCENT

SITE BOUNDARY

EXISTING RETAINING WALL TO BE PARTIALLY REMOVED AND RECONSTRUCTED FOR PROPOSED STORM WATER CONNECTION

RETAINING WALL

STORMWATER MANAGEMENT TANK4
COMBINED ONSITE DETENTION & FILTRATION CARTRIDGE TANK(2.55HA)
MIN VOLUME 740m³
NOM. DIMS: 36.5X9.38X2.69
ALLOW FOR 60X690 PSORB STORM FILTERS
OSD SUMP RL 77.50

PROPOSED WAREHOUSE
BEL RL 82.40

WAREHOUSE B
FFL 82.400
500mm

INDICATIVE WALL STRAPS

RETAINING WALL

STORMWATER MANAGEMENT TANK 1
COMBINED ONSITE DETENTION & FILTRATION CARTRIDGE TANK(0.79HA)
MIN VOLUME 229m³
NOM. DIMS: 20X6X2.62
ALLOW FOR 20X690 PSORB STORM FILTERS
OSD SUMP RL 75.33

PROPOSED WAREHOUSE
BEL RL 82.40

RETAINING WALL

EXISTING RETAINING WALL TO BE PARTIALLY REMOVED AND RECONSTRUCTED FOR PROPOSED STORM WATER CONNECTION

NOTE:
WORKS ADJACENT TO EXISTING SEWER ZONE OF INFLUENCE TO BE REVIEWED AND COORDINATED WITH SYDNEY WATER/WSC REQUIREMENTS.

EXISTING SEWER LINE

70 KL RAINWATER TANK
ALL RAINWATER TANK REUSE WATER ENTERING THE TANK TO BE PRE TREATED BY A FIRST FLUSH DEVICE DIRECTLY PRIOR TO TANK.

STORMWATER MANAGEMENT TANK 2
COMBINED ONSITE DETENTION & FILTRATION CARTRIDGE TANK(1.00HA)
MIN VOLUME 290m³
VOLUME PROVIDED 303 m³
NOM. DIMS: 30X6X2.13
ALLOW FOR 25X690 PSORB STORM FILTERS
OSD SUMP RL 74.75

DISCHARGE POINT 2:
EXISTING PIT TOP RL 74.42
PIT IL 73.70

STORMWATER DRAINAGE PLAN
SCALE 1:750

STORMWATER DRAINAGE NOTES:
STORMWATER DRAINAGE NOTES ARE APPLICABLE FOR PRIVATE INTERNAL STORMWATER DRAINAGE WORKS ONLY, REFERENCE SHOULD BE MADE TO THE RELEVANT COUNCIL/ ROADS AUTHORITY GUIDELINES AND SPECIFICATIONS FOR ALL STORMWATER DRAINAGE WORKS NOT PART OF THE PRIVATE INTERNAL WORKS.

1. ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
2. THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
3. ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS C012990.17-SSDA500.
4. PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
5. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
6. ALL STORMWATER PIPES Ø375 OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
7. ALL PIPES UP TO AND INCLUDING Ø300 TO BE uPVC GRADE SN8 UNO.
8. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
9. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12–200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c=25 MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
10. IN ADDITION TO ITEM 9 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
11. PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
12. CONCRETE PIPES UNDER, OR WITHIN THE ZONE OF INFLUENCE OF PAVED AREAS SHALL BE LAID USING HS2 TYPE SUPPORT, AS A MINIMUM, IN ACCORDANCE WITH AS 3725. AGGREGATE BACKFILL SHALL NOT BE USED FOR PIPE BEDDING AND OR HAUNCH/SIDE SUPPORT.
13. WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Ø100 uPVC TO EACH SIDE OF PIPE.
14. ALL SUBSOIL DRAINAGE LINES SHALL BE Ø100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
15. WHERE SUBSOIL DRAINAGE PASSES UNDER A PAVEMENT OR A SLAB, UNSLOTTED UPVC ARE TO BE PROVIDED UNLESS NOTED OTHERWISE.
16. ALL PIPE GRADES 1 IN 200 MINIMUM UNO.
17. PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
18. MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
19. PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY'. WHERE FORKLIFT USE IS REQUIRED EXTERNAL TO THE BUILDING PIT COVERS SHALL BE MIN. CLASS E. PIT COVERS IN CONTAINER PAVEMENTS ARE TO BE MIN. CLASS G. REFER TO ENGINEER FOR SPECIAL DETAILS. THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' U.N.O.
20. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
21. DOWN PIPES (DP) TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE U.N.O. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
22. PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.
23. WHERE CONNECTION TO EXISTING INGROUND DRAINAGE SYSTEMS, OPEN SWALES, CHANNELS OR ANY OTHER EXISTING SYSTEM, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND INVERT ON SITE AT THE BEGINNING OF THE CONSTRUCTION PERIOD. REFER ANY VARIANCE FROM DOCUMENTATION OR SURVEYS TO THE ENGINEER FOR CLARIFICATION.

LEGEND:
LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY LANDPARTNERS DATED 03/06/2024.

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EXISTING DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- ROOFWATER LINE
- SUBSOIL LINE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- EXISTING SEWER
- SWALE
- BREAK IN KERB FOR OVERLAND FLOW
- WALL STRAPS
- DENOTES AREA DRAINING TO RAINWATER TANK

WATER QUALITY NOTE:
ALL SURFACE INLET PITS & ROOFWATER COLLECTION PITS DENOTED WITH ◇ TO BE FITTED WITH OCEANPROTECT OCEANGUARD OG200 PIT INSERTS.

FOR INFORMATION

6m 0 15 30 45 60 75m
SCALE 1:750 AT A1 SIZE SHEET

REVISED AS CLOUDED	08.01.25	D
REVISED AS CLOUDED	19.07.24	C
REVISED AS CLOUDED	16.07.24	B
ISSUED FOR INFORMATION	06.06.24	A
AMENDMENTS	DATE	ISSUE

ARCHITECT: nettletontribe
CLIENT: ESR
PROJECT: PROPOSED DEVELOPMENT
3 JOHNSTON CRESCENT, HORSLEY PARK, NSW, 2175

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
MJ	RN	MAY '24	XC	A1	AS SHOWN	C012990.17-SSDA400

CONSULT AUSTRALIA

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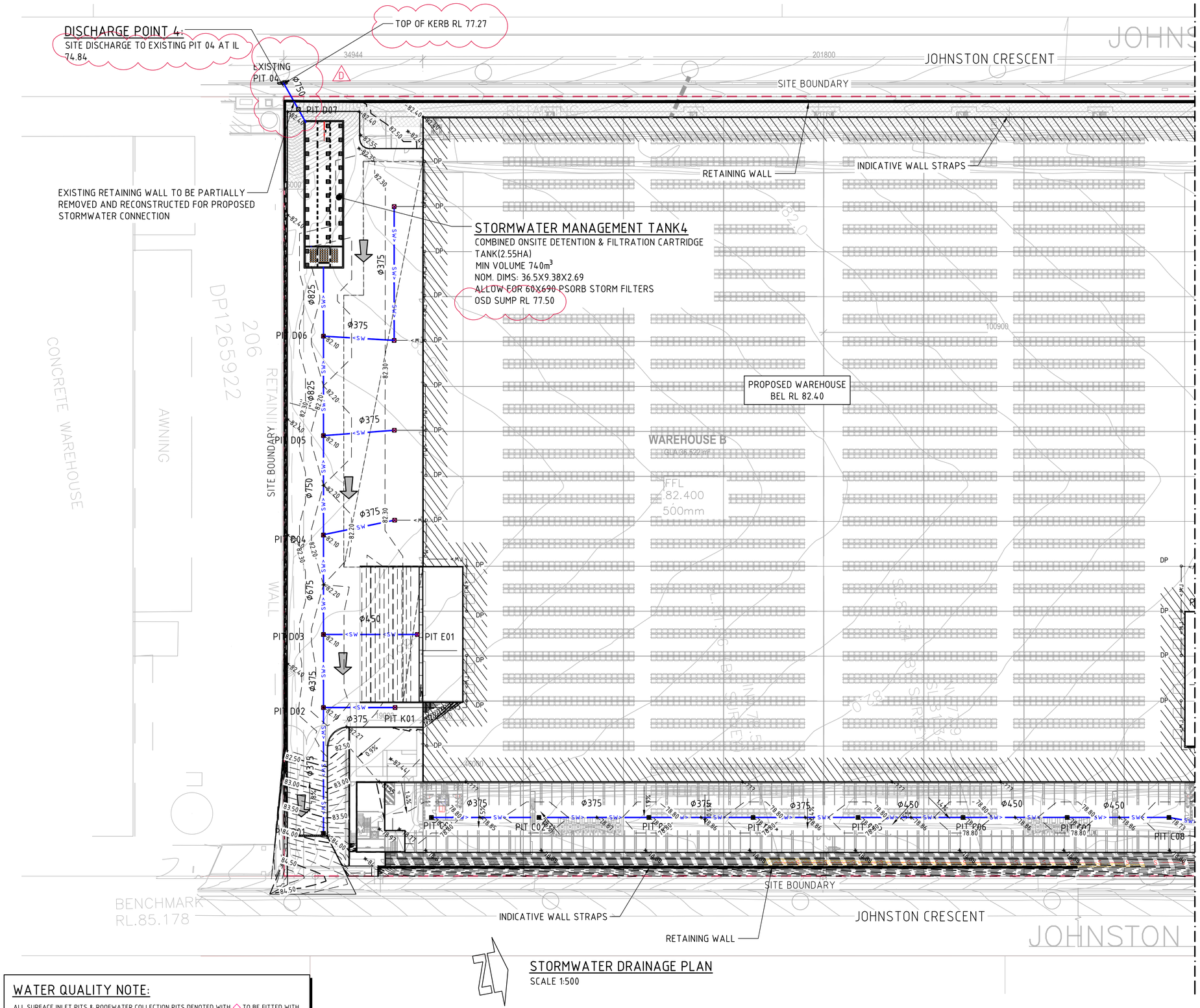
CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE: STORMWATER DRAINAGE PLAN
DRAWING No: C012990.17-SSDA 400
ISSUE: D



STORMWATER DRAINAGE PLAN
SCALE 1:500

WATER QUALITY NOTE:

ALL SURFACE INLET PITS & ROOFWATER COLLECTION PITS DENOTED WITH ◇ TO BE FITTED WITH OCEANPROTECT OCEANGUARD OG200 PIT INSERTS.

STORMWATER DRAINAGE NOTES:

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5. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
6. ALL STORMWATER PIPES Φ375 OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
7. ALL PIPES UP TO AND INCLUDING Φ300 TO BE uPVC GRADE SN8 UNO.
8. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
9. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12–200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c=25 MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
10. IN ADDITION TO ITEM 9 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
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LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY LANDPARTNERS DATED 03/06/2024.

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- GD, GRATED DRAIN (300W x 225D UNO)
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- SW> EXISTING DRAINAGE LINE
- DP ROOFWATER DOWNPIPE (INDICATIVE)
- RW> ROOFWATER LINE
- SS> SUBSOIL LINE
- OVERLAND FLOW DIRECTION
- 50.00 FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- 50.10 FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- S EXISTING SEWER
- SWALE
- BREAK IN KERB FOR OVERLAND FLOW
- WALL STRAPS
- DENOTES AREA DRAINING TO RAINWATER TANK

5m 0 10 20 30 40 50m
SCALE 1:500 AT A1 SIZE SHEET

FOR INFORMATION

AMENDMENTS	DATE	ISSUE
REVISED AS CLOUDED	08.01.25	D
REVISED AS CLOUDED	19.07.24	C
REVISED AS CLOUDED	16.07.24	B
ISSUED FOR INFORMATION	06.06.24	A

ARCHITECT: nettletontribe
CLIENT: ESR

PROJECT
PROPOSED DEVELOPMENT
3 JOHNSTON CRESCENT, HORSLEY PARK, NSW, 2175

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
MJ	RN	MAY '24	XC	A1	AS SHOWN	C012990.17-SSDA401

CONSULT AUSTRALIA

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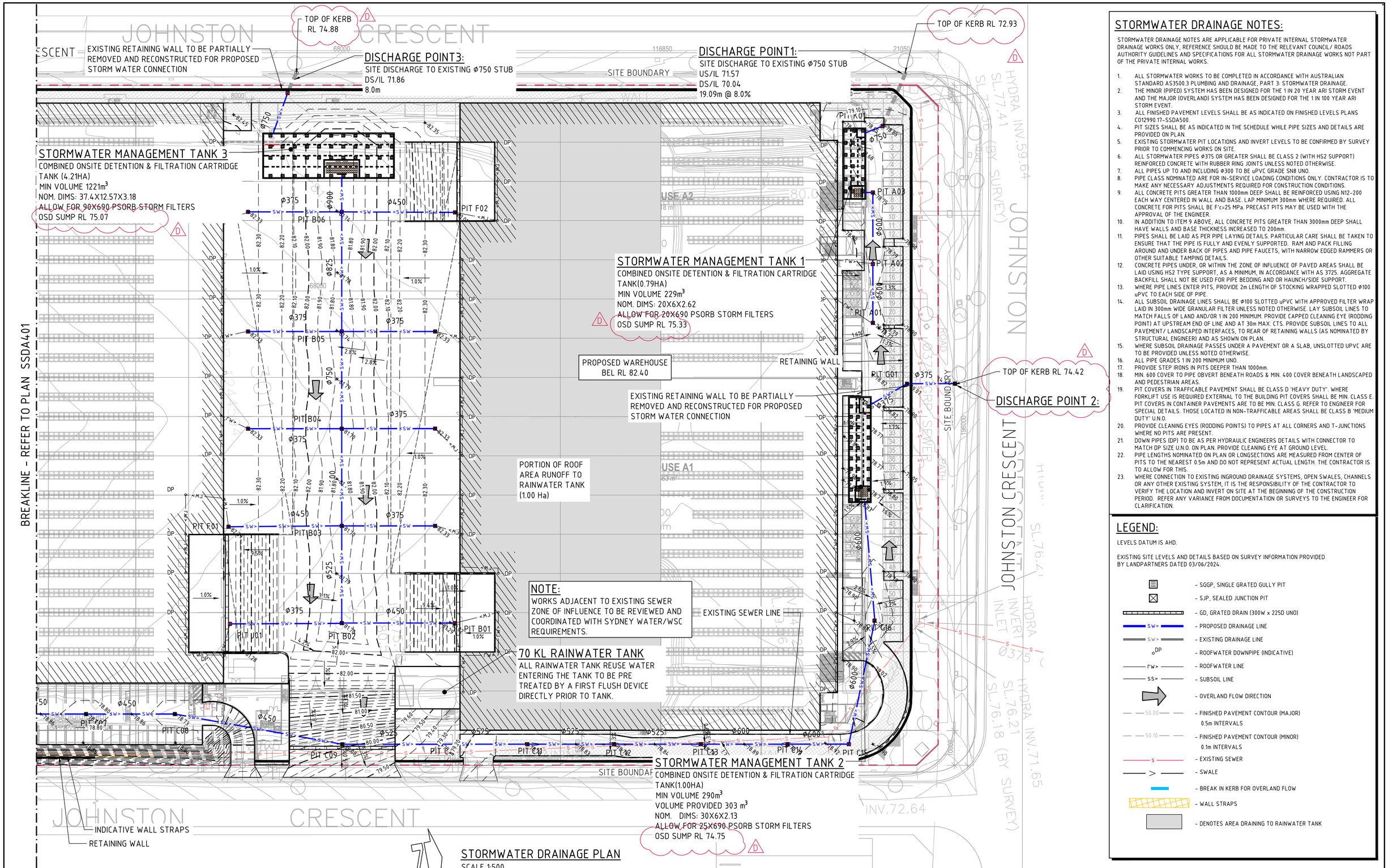
COSTIN ROE CONSULTING | CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE
STORMWATER DRAINAGE PLAN SHEET 1

DRAWING No C012990.17-SSDA 401
ISSUE D



STORMWATER DRAINAGE PLAN
SCALE 1:500

STORMWATER DRAINAGE NOTES:

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5. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
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7. ALL PIPES UP TO AND INCLUDING ⌀300 TO BE uPVC GRADE SN8 UNO.
8. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
9. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12–200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c=25 MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
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14. ALL SUBSOIL DRAINAGE LINES SHALL BE ⌀100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
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22. PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.
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LEGEND:

LEVELS DATUM IS AHD.

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- SJP, SEALED JUNCTION PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- SW> — PROPOSED DRAINAGE LINE
- SW> — EXISTING DRAINAGE LINE
- DP — ROOFWATER DOWNPIPE (INDICATIVE)
- RW> — ROOFWATER LINE
- SS> — SUBSOIL LINE
- OVERLAND FLOW DIRECTION
- 50.00 — FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- 50.10 — FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- S — EXISTING SEWER
- SWALE
- BREAK IN KERB FOR OVERLAND FLOW
- WALL STRAPS
- DENOTES AREA DRAINING TO RAINWATER TANK

WATER QUALITY NOTE:

ALL SURFACE INLET PITS & ROOFWATER COLLECTION PITS DENOTED WITH ◇ TO BE FITTED WITH OCEANPROTECT OCEANGUARD OG200 PIT INSERTS.

FOR INFORMATION

5m 0 10 20 30 40 50m
SCALE 1:500 AT A1 SIZE SHEET

AMENDMENTS	DATE	ISSUE
REVISED AS CLOUDED	08.01.25	D
REVISED AS CLOUDED	19.07.24	C
REVISED AS CLOUDED	16.07.24	B
ISSUED FOR INFORMATION	06.06.24	A

ARCHITECT: nettletontribe

CLIENT: ESR

PROJECT: PROPOSED DEVELOPMENT
3 JOHNSTON CRESCENT, HORSLEY PARK, NSW, 2175

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
MJ	RN	MAY '24	XC	A1	AS SHOWN	C012990.17-SSDA401

Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446
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e: mail@costinroe.com.au w: costinroe.com.au
CONSULT AUSTRALIA
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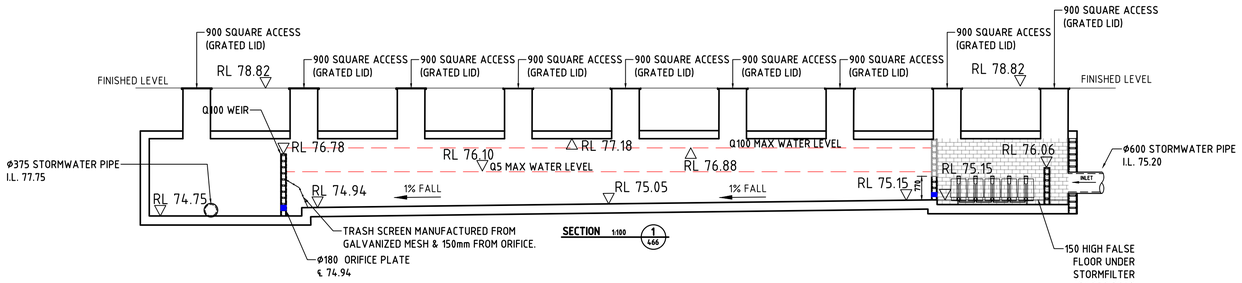
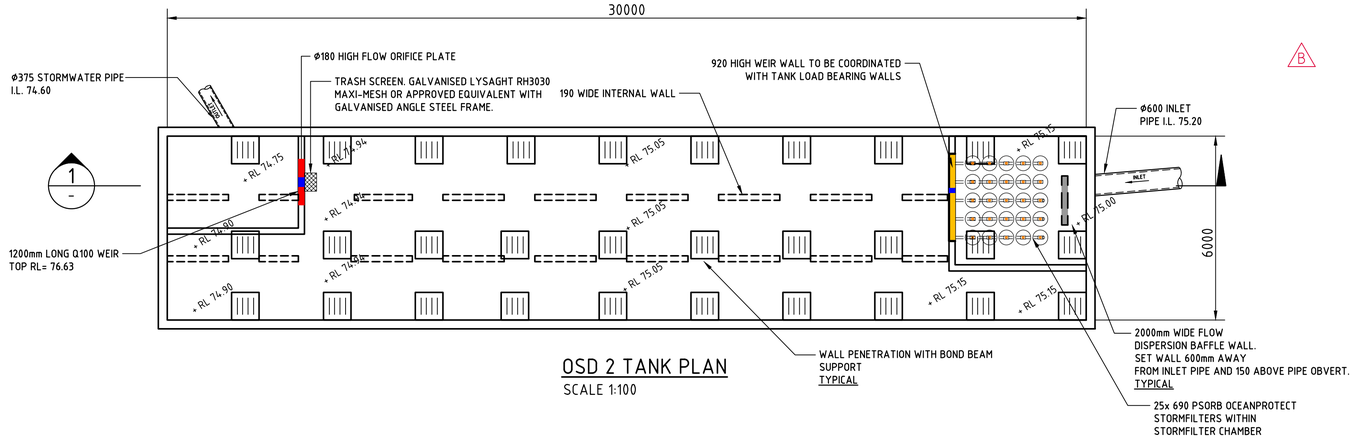
CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE: STORMWATER DRAINAGE PLAN SHEET 2

DRAWING No: C012990.17-SSDA 401 ISSUE: D





OSD 2 TANK PLAN
SCALE 1:100

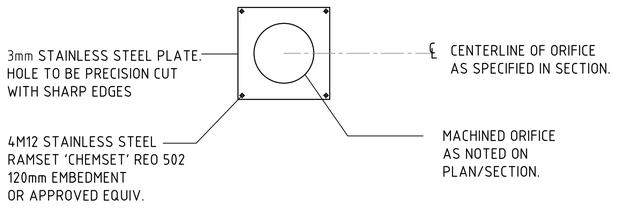
OSD TANK DETAILS

TOTAL SITE AREA	86,000m^2
TOTAL SITE AREA DRAINING TO STORAGE (95% IMPERVIOUS)	10,000m^2

STORAGE

OSD STORAGE AREA	166 m
Q5 ORIFICE Ø	180mm
Q5 ORIFICE ℄ =	RL 74.94
5 YEAR ARIVOLUME PROVIDED	174.3m MIN.
5 YEAR ARI VOLUME REQUIRED	170.0m MIN.
100 YEAR ARIVOLUME PROVIDED	303.0m MIN.
100 YEAR ARI VOLUME REQUIRED	290.0m MIN.

INTERNAL TANK DIMENSIONS
(INC. HIGH FLOW CHAMBERS)



ORIFICE PLATE DETAIL
NTS

1m 0 1 2 3 4 5 6 7 8 9 10m
SCALE 1:100 AT A1 SIZE SHEET

FOR INFORMATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR INFORMATION	08.01.25	B
ISSUED FOR INFORMATION	16.07.24	A

ARCHITECT
nettletontribe

CLIENT
ESR

PROJECT
PROPOSED DEVELOPMENT
3 JOHNSTON CRESCENT, HORSLEY PARK, NSW, 2175

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
MJ	RN	MAY '24	XC	A1	AS SHOWN	C012990.17-SSDA466

CONSULT AUSTRALIA

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CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE
OSD TANK / WATER QUALITY DETAILS SHEET 2

DRAWING No C012990.17-SSDA 466 ISSUE B