STORMWATER MANAGEMENT PLAN

25 ADELAIDE STREET BELMORE



SHEET INDEX:

SHEET No.	TITLE	AMMENDMENT No.		
1	INDEX SHEET	0		
2	STORMWATER DETAIL PLAN	0		
3	ROOF PLAN	0	LEGEND	EDP 1010 EXISTING DOWNPIPE - 100 x 100 RECTANGULAR
4	PUMPOUT TANK DETAILS	0		EXISTING DOWNPIPE - 100 x 100 RECTANGULAR
5	EROSION AND SEDIMENT CONTROL PLAN	0		NEW DOWNPIPE - 100Ø
			FLOWPATH FLOOR WASTE FLOW SPREADER AND DOWNPIPE TYPE 1 PROPOSED GRATED PIT PROPOSED SEALED WATER TIGHT PIT RH RAINHEAD SUMP OVERFLOW PROPOSED STORMWATER PIPE - GRAVITY PROPOSED V-DRAIN PROPOSED STORMWATER PIPE - CHARGED PROPOSED RISING MAIN (PRESSURE PIPE) PROPOSED BUILDING PROPOSED BUILDING PROPOSED CONTOURS PROPOSED BASEMENT CHANNEL	EXISTING DOWNPIPE - 100Ø IL 0.00 PIT/PIPE INVERT LEVEL TK 0.00 TOP OF KERB LEVEL GRATED DRAIN + 00.00 EXISTING SURFACE LEVEL + 00.00 PROPOSED SURFACE LEVEL o IP SEALED INSPECTION OPENING HIP ROOF TERRACE/BALCONY BASIX ROOF AREA DRAINING TO RAINWATER TAN AREA BYPASSING ON-SITE DETENTION TANK

NOTES:

- ALL PROPOSED PITS TO BE 450 x 450 CAST IN-SITU OR PRECAST PITS UNLESS SHOWN OTHERWISE.
- 2. ALL CHARGED LINE PIPES TO BE 100Ø uPVC SEWER
- CLASS UNLESS SHOWN OTHERWISE

 3. ALL DOWNPIPES TO BE 90Ø uPVC OR 100 x 50 UNLESS
- OTHERWISE SHOWN

 4. ALL NON-PRESSURE STORMWATER PIPES TO BE 100Ø
- uPVC UNLESS SHOWN OTHERWISE

 5. ALL GRATED DRAINS TO BE MINIMUM 150 WIDE
- GALVANIZED HEAVY DUTY GRATES.
- 6. ALL NON-TRAFFICABLE PITS TO BE LIGHT DUTY. PITS IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
- ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH COUNCILS SPECIFICATIONS.
- 8. ALL PITS GREATER THAN 1.2m DEPTH SHALL INCLUDE
- STEP IRONS AND HAVE MINIMUM CLEAR DIMENSIONS OF
- 9. ALL PITS ARE TO BE BENCHED TO ALLOW SMOOTH FLOW OF WATER THROUGH PITS
- 10. ALL DOWNPIPES SHALL CONFORM TO AS/NZS 1866 FOR ALUMINIUM PIPES AND AS 1254, AS/NZS 1260, AS 1273,
- AS/NZS 1477, AS/NZS 2179.2 AND AS 2032 FOR uPVC PIPES.

 11. ALL BOX GUTTERS SHALL COMPLY WITH AS/NZS 2179.1
- 12. ALL BOX GUTTERS SHALL BE CONSTRUCTED WITH A
 MINIMUM 1:200 GRADE TO SUMP/DOWNPIPES
- 13. ALL DRAINAGE WORKS SHALL BE IN ACCORDANCE WITH AS 3500.3.2

DOWNPIPE			DOWNPIPE SIZES			
TYPE	AREA MIN. (mm2)	ROUND	RECTANGULAR			
90	8600	90Ø	-			
100	11000	100Ø	-			
125	12900	125Ø	-			
150	24700	150Ø	-			
1050	8600	-	100 X 50			
1075	12900	-	100 X 75			
1010	17100	-	100 x 100			
1210	21500	-	125 x 100			
1515	24700	-	150 x 150			

FOR DA APPROVAL

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SURVEYOR	0	DA ISSUE	21/11/2024				
HARRISON FRIEDMANN							
ARCHITECT							
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CONSULTANT	No.	AMMENDMENT	DATE	No.	. A	AMMENDMENT	DATE
-						DO NOT SCALE	

C.K. ENGINEERING SERVICES

ABN 67 115 216 496

49 FLORA ST

ROSELANDS, NSW 2196

MOB: 0403 329 327

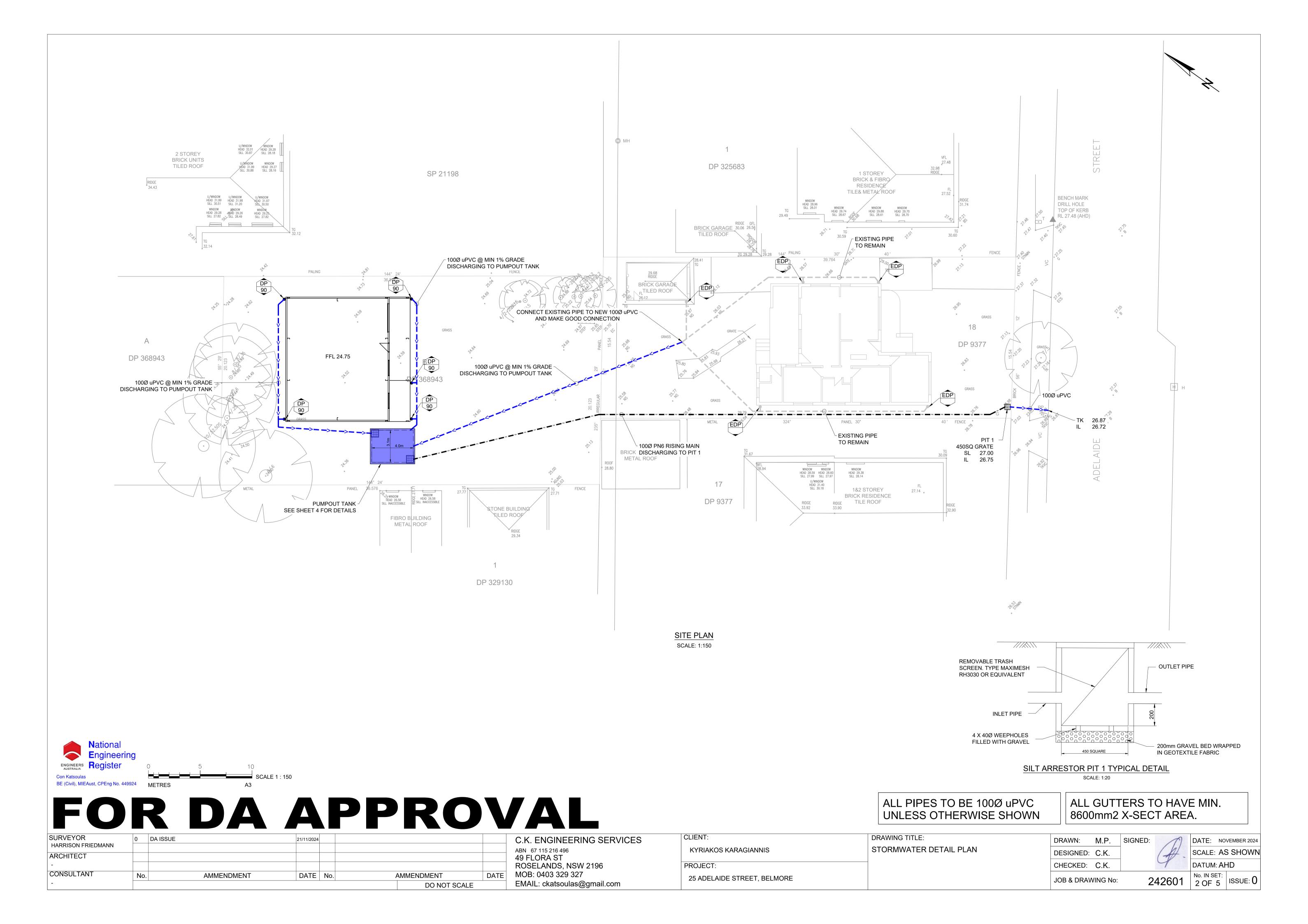
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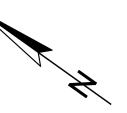
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KYRIAKOS KARAGIANNIS	STORMWATER DETAIL PLAN
PROJECT:	
25 ADELAIDE STREET, BELMORE	

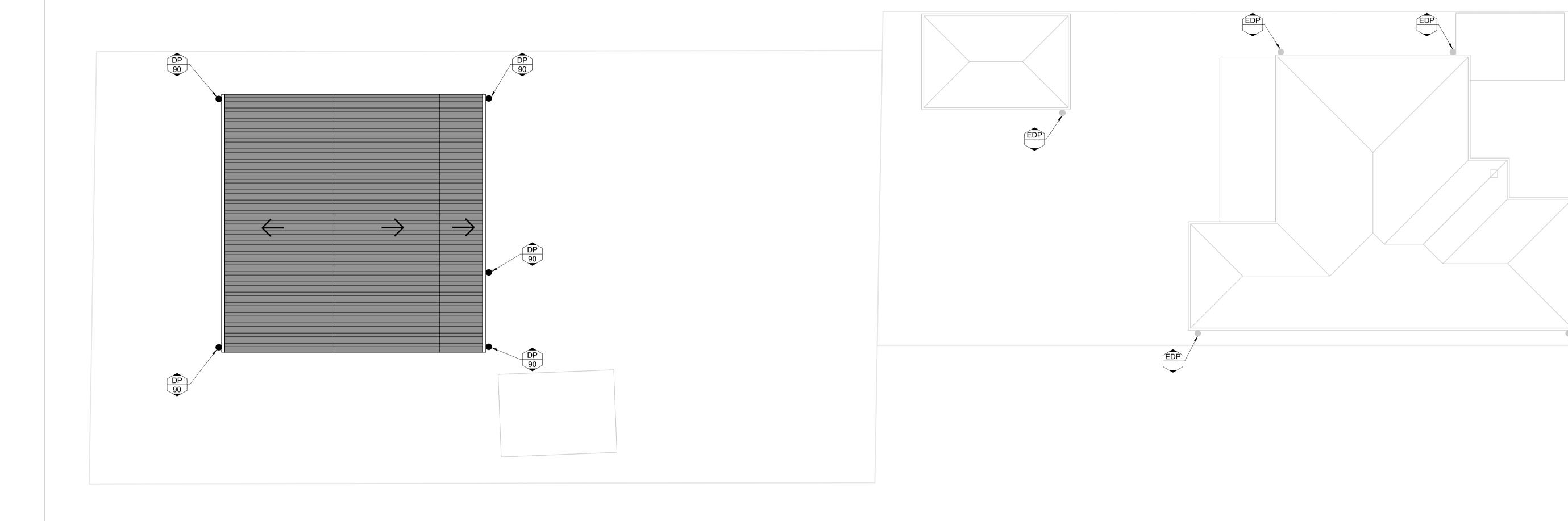
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DESIGNED:	C.K.	
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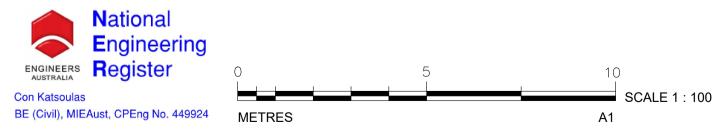
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ROOF PLAN
SCALE: 1:100



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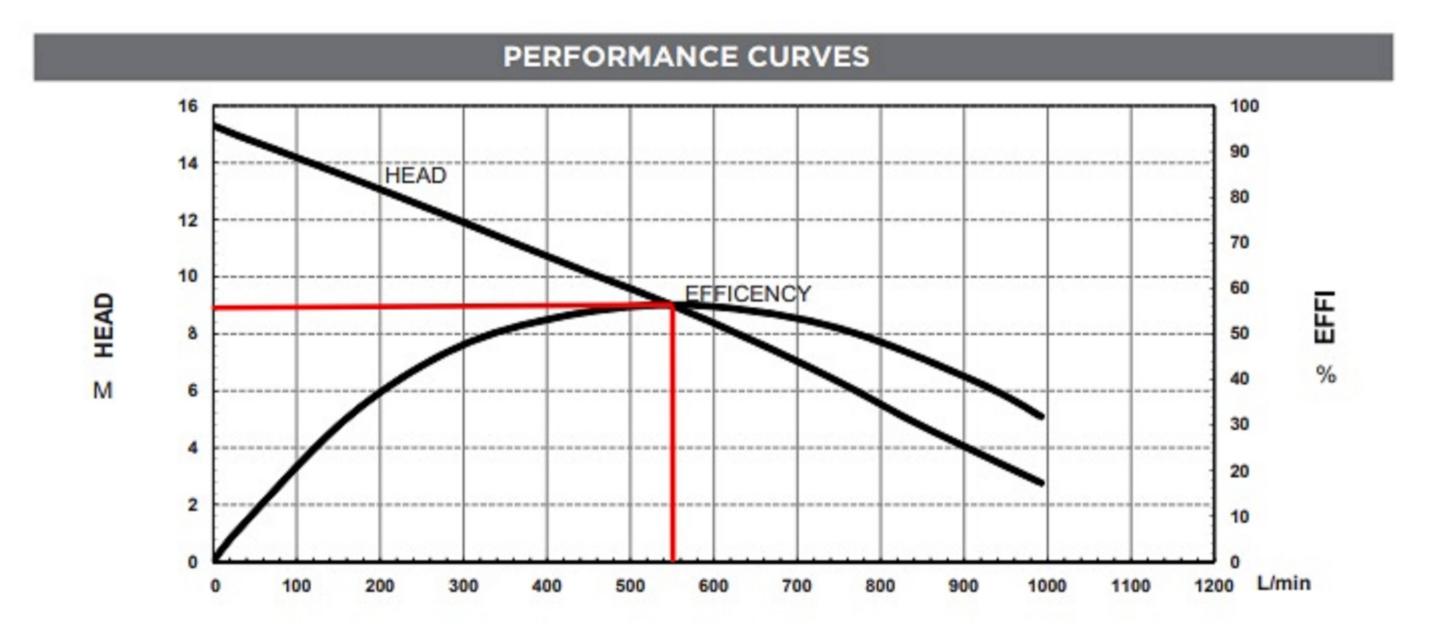
EMAIL: ckatsoulas@gmail.com

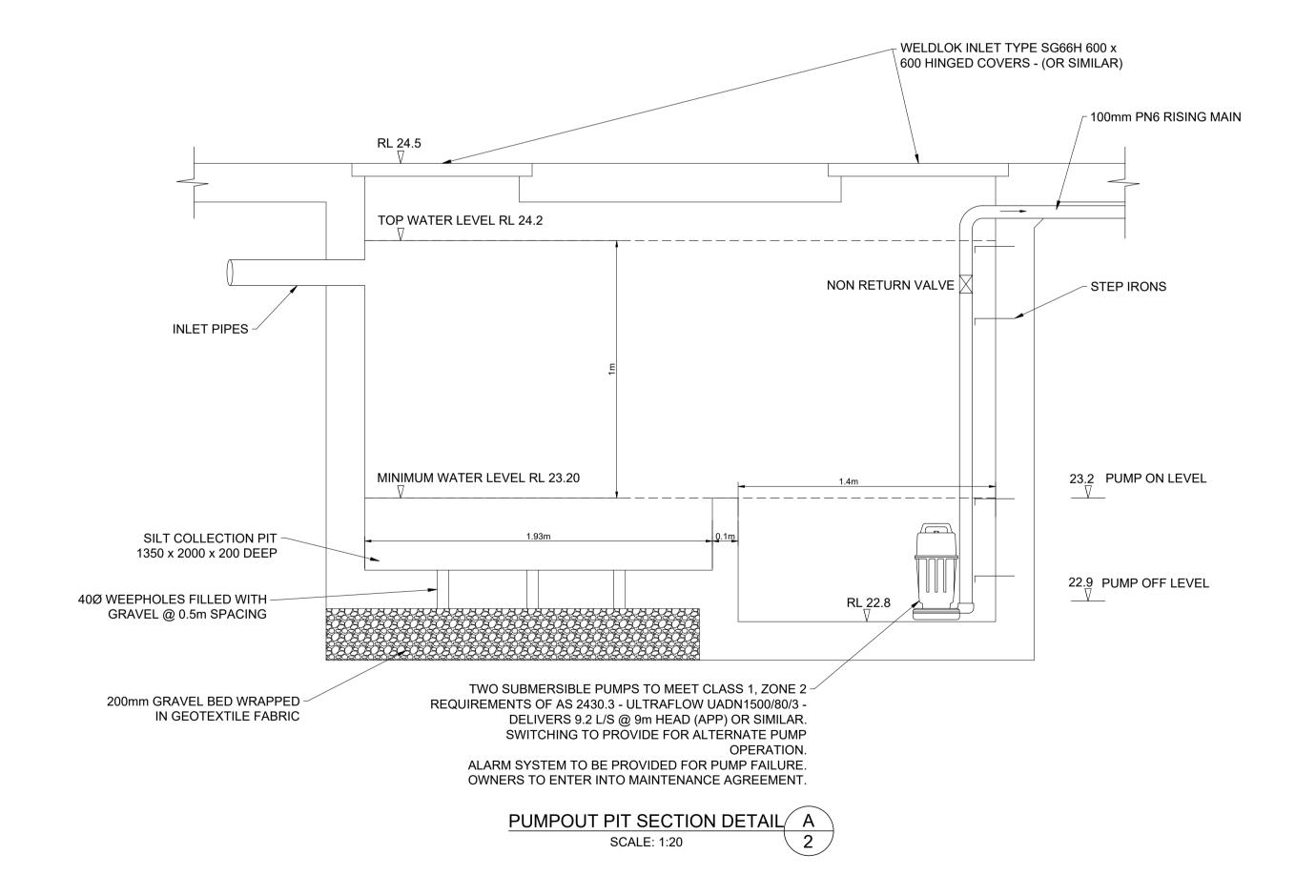
CLIENT:	DRAWING TITLE:
KYRIAKOS KARAGIANNIS	ROOF PLAN
PROJECT:	
25 ADELAIDE STREET, BELMORE	

DRAWN:	M.P.	SIGNED:	/
DESIGNED:	C.K.		1-
CHECKED:	C.K.		4
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DATE: NOVEMBER 2024
SCALE: AS SHOWN
DATUM: AHD

No. IN SET: 3 OF 5 ISSUE: 0







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HARRISON FRIEDMANN						
ARCHITECT						
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CLIENT:

KYRIAKOS KARAGIANNIS

PROJECT:

25 ADELAIDE STREET, BELMORE

DRAWING TITLE:
PUMPOUT TANK DETAILS

Catchment area

Effective Volume (2hr storm)

Pump start volume (PC5)

Design Wet Well Volume

Volume pumped in 30 min (PC30)

ARI

Intensity

Duration

Design Flow

Hyd. Radius

Velocity Head

Length of Pipe

90 deg bends

60 deg bends

45 deg bends

30 deg bends

Head Loss(hf)

T-junction/pit, exit loss

Reflux valve/Tank loss

Diameter

Velocity

Reynolds

f-factor

C100

DRAWN: M.P. S
DESIGNED: C.K.
CHECKED: C.K.

JOB & DRAWING No:

SIGNED:

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No. IN SET: 4 OF 5 ISSUE: 0

PERMISSIABLE SITE DISCHARGE

SITE AREA = 737 m2 + 616.5 m2 = 1353.5 m2 PSD = 150 L/s/Ha = 1353.5 x 150 / 10,000 = 20.3 L/s

ADOPT MAXIMUM 9.2L/s DISCHARGE TO KERB (BASED ON PUMP SPECS)

365 m2

100 years

39.5 mm/hr

39.5 L/h/m2

28.84 m3

16.56 m3

2.76 m3

9.2 L/s

80 mm

1.8 m/s

0.02 m

0.17 m

60 m

2 No

0 No

0 No

1 No

1 No

0 No

4.2 m

9.2 m

k=1.15

k=0.50

k = 0.25

k=0.10

k=1.00

k=2.00

1751

0.0345

12.28 m3

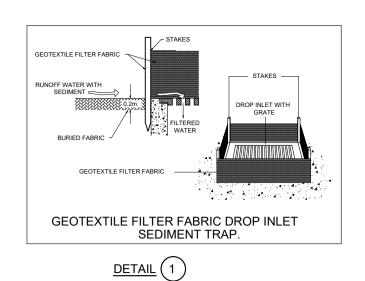
4.005 L/s

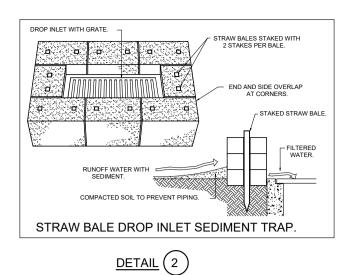
2 hr

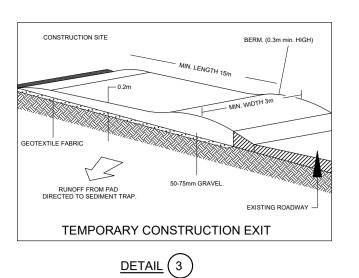
PUMP-OUT CALCULATIONS
INTENSITY FOR 100YR 2 HOUR STORM = 39.5mm/hr

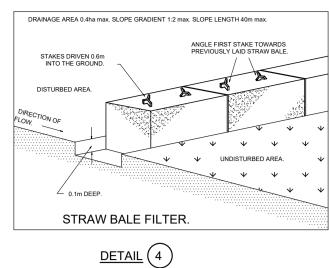
CONTRIBUTING AREA = 365 m2
ARI = 100 years
DURATION = 2 hours
CO-EFFICIENT OF RUNOFF C100 = 1.0
PEAK DISCHARGE Q = C x I = 1.0 x 39.5
PEAK DISCHARGE Q = 39.5 L/h/m2

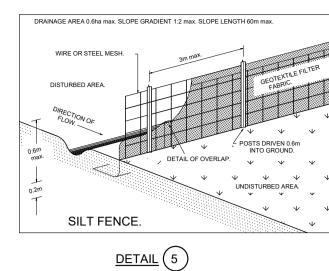
VOLUME FOR 1 hr STORM = Q x T x A = 39.5/1000 x 2 x 365 = 28.84 m3 PUMP CAPACITY VOLUME PUMPED IN 30 mins WET WELL VOLUME REQUIRED 9.2 L/s 16.56m3 12.3m3



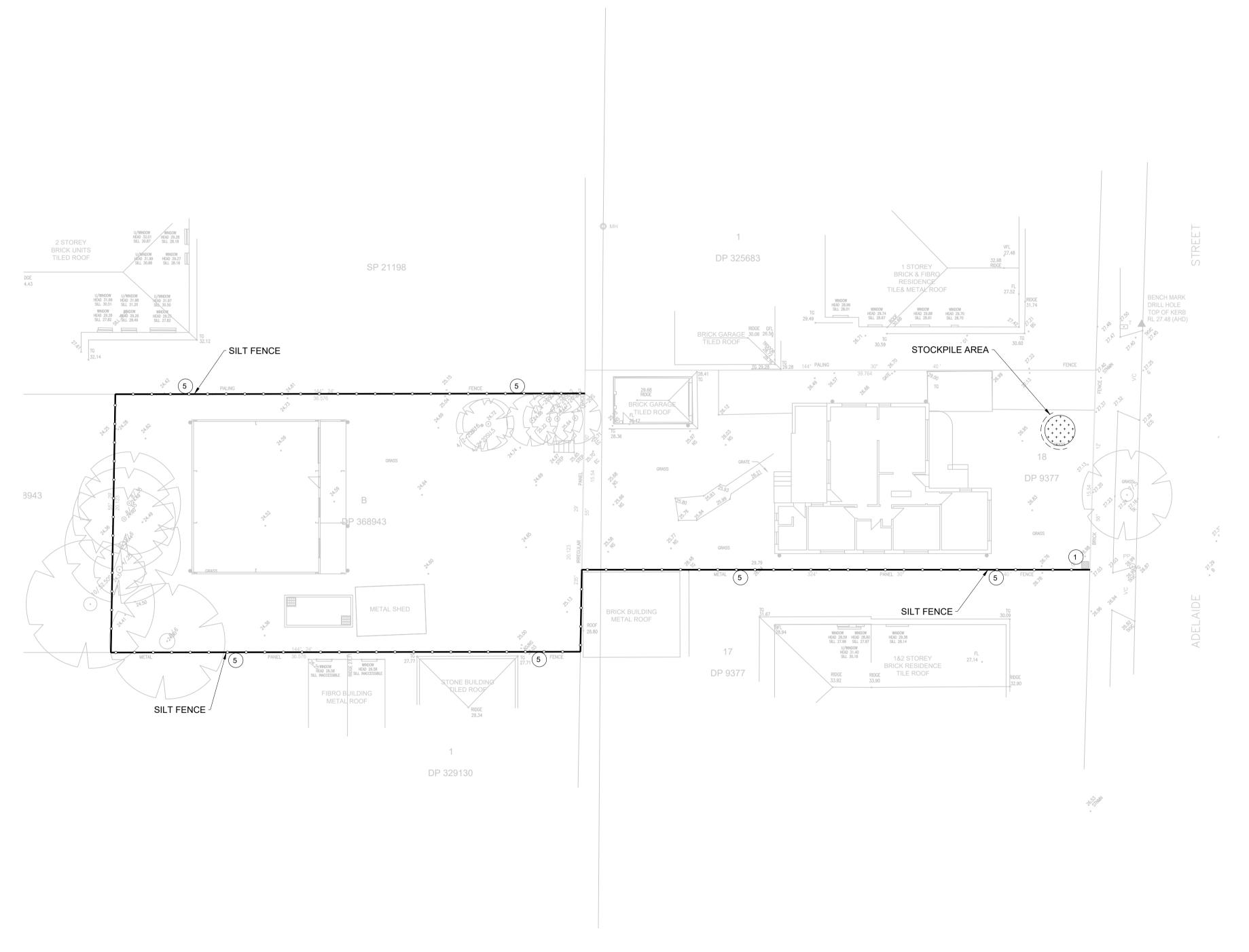








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EROSION CONTROL NOTES:

- 1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S STANDARD SPECIFICATIONS AND TO THE SATISFACTION OF COUNCIL'S ENGINEER.
- 2. EROSION AND SEDIMENTATION CONTROLS SHALL BE CONSTRUCTED AS SHOWN ON SHEET 2 AND 3 OF THIS PLAN AND/OR WHERE DIRECTED BY COUNCIL'S ENGINEER.
- 3. SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE IMPLEMENTED PRIOR TO OR IN CONJUNCTION WITH THE FIRST PHASE OF EARTHWORKS AND SHALL BE REMOVED ONLY WHEN THE AREAS ABOVE IT HAVE BEEN STABILISED. EACH SEDIMENTATION AND EROSION CONTROL DEVICE SHALL BE INSPECTED AFTER EACH STORM FOR STRUCTURAL DAMAGE OR CLOGGING BY SILT AND OTHER DEBRIS AND PROMPTLY DESILTED, REPAIRED OR REPLACED IF REQUIRED.
- 4. TOPSOIL STOCKPILES SHALL BE LOCATED OUTSIDE HAZARD AREAS SUCH AS DRAINAGE DEPRESSIONS.
- 5. ALL AREAS NOT SUBJECT TO CONSTRUCTION WORKS SHALL BE RETAINED FREE FROM DISTURBANCE OR DAMAGE FOR THE DURATION OF THE WORKS.
- 6. TREES TO BE RETAINED SHALL BE PROTECTED DURING SITE WORKS AND CONSTRUCTION BY THE ERECTION OF SOLID BARRICADES AT THE DRIP LINE OR AS SPECIFIED BY COUNCIL'S ENGINEER.
- 7. THE DEVELOPER OR CONTRACTOR WILL TAKE ALL MEASURES TO PREVENT DAMAGE TO TREES AND ROOT SYSTEMS DURING SITE WORKS AND CONSTRUCTION ACTIVITIES INCLUDING THE PROVISION OF WATER, SEWERAGE AND STORMWATER DRAINAGE SERVICES. IN PARTICULAR, WORKS, ERECTION OF STRUCTURES, EXCAVATION OR CHANGES TO SOIL LEVELS WITHIN 4 METRES OF THE TRUNKS OF TREES TO BE RETAINED ARE NOT PERMITTED UNLESS PART OF THE DEVELOPMENT AS APPROVED, AND THE STORAGE OF SPOIL, BUILDING MATERIALS, SOILS OR THE DRIVING OR PARKING OF ANY VEHICLE OR MACHINERY WITHIN 4 METRES OF THE TRUNK OF A TREE TO BE RETAINED, IS NOT PERMITTED.
- 8. WETTING OF THE SITE SHOULD BE CARRIED OUT AS OFTEN AS NECESSARY AS A FORM OF DUST CONTROL.
- 9. SILT FENCES TO BE CONSTRUCTED WHERE EVER NATURAL SURFACE SLOPES AWAY FROM DISTURBED AREAS OR WHERE DIRECTED BY THE ENGINEER.

EROSION AND SEDIMENT CONTROL PLAN

DO NOT SCALE

FOR DA APPROVAL

SURVEYOR HARRISON FRIEDMANN	0	DA ISSUE	21/11/2024		
ARCHITECT					
-					
CONSULTANT	No.	AMMENDMENT	DATE No	AMMENDMENT	DATE

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KYRIAKOS KARAGIANNIS

PROJECT:

25 ADELAIDE STREET, BELMORE

DRAWING TITLE:

EROSION AND SEDIMENT CONTROL PLAN

ENGINEERS AUSTRALIA
Con Katsoulas
BE (Civil), MIEAust, CPEng No. 449924

JOB & DRAWING No:

DRAWN: M.P. SIGNED:

DESIGNED: C.K.

CHECKED: C.K.

ENED:

DATE: NOVEMBER 2024
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5 OF 5 ISSUE: 0