

# STORMWATER DRAINAGE CONCEPT

## 618 BARRENJOEY ROAD , AVALON

### NOTES:

1. MAIN STORMWATER DRAINS SHALL FALL AS NOTED. HOWEVER, ALL OTHER BRANCH DRAINS SHALL HAVE A MINIMUM GRADE OF 1%.
2. STORMWATER DRAINS PIPES OF SIZE LESS THAN 300mm SHALL BE DWV GRADE PVC WITH SOLVENT CEMENT JOINTS.
3. PITS LOCATED IN DRIVEWAY AREAS SHALL BE EQUAL TO CI & D CAST IRON GRATES AND FRAMES - TYPE D.
4. STORMWATER PITS TO LANDSCAPED AND PEDESTRIAN AREAS SHALL BE EQUAL TO CI & D CAST IRON GRATES AND FRAMES - TYPE A.
5. ALL WORKS SHALL BE CARRIED OUT TO THE REQUIREMENTS OF THE RELEVANT COUNCIL / AUTHORITY, AS 3500.3, AS 2032, AS 3996 AND AS 3725.
6. AT THE COMPLETION OF THE WORKS PROVIDE A "WORK AS EXECUTED" PLAN OF THE STORMWATER DRAINAGE AND DETENTION SYSTEM. THE PLAN SHALL BE PREPARED AND CERTIFIED BY THE REGISTERED SURVEYOR AND SHOW ALL PIPE SIZES, INVERTS, PIT COVER AND BASE LEVELS AND ALL DETENTION TANK DIMENSIONS, SURFACE LEVELS AND THE ORIFICE PLATE SIZE.
7. PITS SHALL BE CI & D PRECAST CONCRETE OR APPROVED EQUAL WITH EXTENSION RISERS AS REQUIRED. PITS SHALL BE BEDDED ON A 50mm LAYER OF 4:1 CEMENT MORTAR AND BACKFILLED WITH EXCAVATED MATERIAL IN 200mm THICK COMPACTED LAYERS TO FINISHED SURFACE LEVEL.
8. COVERS TO PITS LOCATED WITHIN PAVED AREAS SHALL BE CAST IN WITH THE CONCRETE POUR. ALL OTHER PIT COVERS SHALL BE PROVIDED WITH A 150mm CONCRETE SURROUND.
9. PROVIDE 25mm DIAMETER GALVANIZED STEP-IRONS AT INTERVALS OF 300mm WHERE THE INTERNAL DEPTH OF THE PIT EXCEEDS 1200mm.

### DESIGN CRITERIA:

TOTAL SITE AREA 282 m<sup>2</sup>  
IMPERVIOUS AREA 237 m<sup>2</sup>  
PERVIOUS AREA 44.60 m<sup>2</sup>  
STORM INTENSITY USED 168 mm/hr - 5 MIN / 20 year storm

ON SITE DETENTION - OSD: IS REQUIRED TO COMPLY WITH NORTHERN BEACHES COUNCIL STORMWATER MANAGEMENT POLICY

DETENTION AREA/ TO MEET NORTHERN BEACHES COUNCIL CODE  
DETENTION VOLUME AS PER NORTHERN BEACHES COUNCIL STORMWATER MANAGEMENT CODE.

RAINWATER REUSE TANK VOLUME 2,000 LITRES.

EXISTING SITE DISCHARGE IS BY INFILTRATION.  
INTERNAL DRAINAGE PIPE SIZING CALCULATIONS IS BASED ON THE INTENSITY FROM A 20 YEAR STORM EVENT.

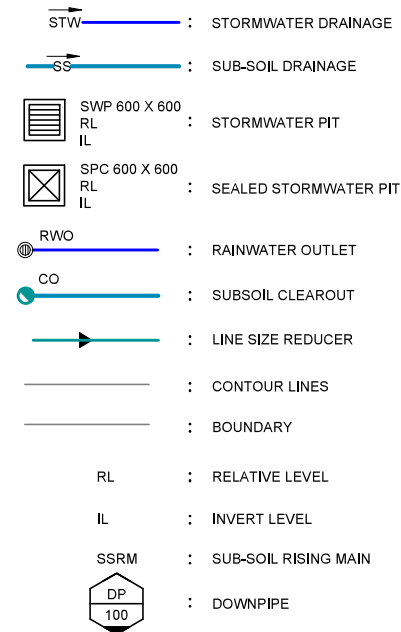
DOWNPIPE SIZING 150MM DIA OR 100 MM DIA AS NOMINATED.

NORTHERN BEACHES COUNCIL STORMWATER MANAGEMENT CODE USED AS BASIS FOR THE STORMWATER DESIGN

### CATCHMENT SCHEDULE:

| AREA No | AREA IN M2 | SURFACE TYPE      | IMPERVIOUS |
|---------|------------|-------------------|------------|
| 1       | 8.8M2      | GARDEN            | N          |
| 2       | 3.78M2     | PAVING            | Y          |
| 3       | 37.8M2     | DRIVEWAY PAVEMENT | Y          |
| 4       | 4.0M2      | PAVEMENT          | Y          |
| 5       | 33.08M2    | ROOF              | Y          |
| 6       | 6.6M2      | GARDEN            | N          |
| 7       | 11.5M2     | GARDEN            | N          |
| 8       | 109.5M2    | ROOF              | Y          |
| 9       | 12.2M2     | ROOF              | Y          |
| 10      | 9.88M2     | DECK              | Y          |
| 11      | 9.70M2     | DECK              | Y          |
| 12      | 11.80M2    | SOAK AWAY         | N          |
| 13      | 7.80M2     | GRASS             | N          |
| 14      | 9.88M2     | GRASS             | N          |

### LEGEND



SITE LOCATION PLAN

## DA APPROVAL

ARCHITECT:

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p. 80956253



SCALE: As indicated @ A3

PROJECT:

#2024062  
**618 BARRENJOEY RD**  
**AVALON NSW 2107**

CLIENT:

DRAWING TITLE:

**HYDRAULIC SERVICES**  
**COVER SHEET & NOTES**

SHEET NUMBER:

**STW-00**

DATE: 10/06/2024

REV:

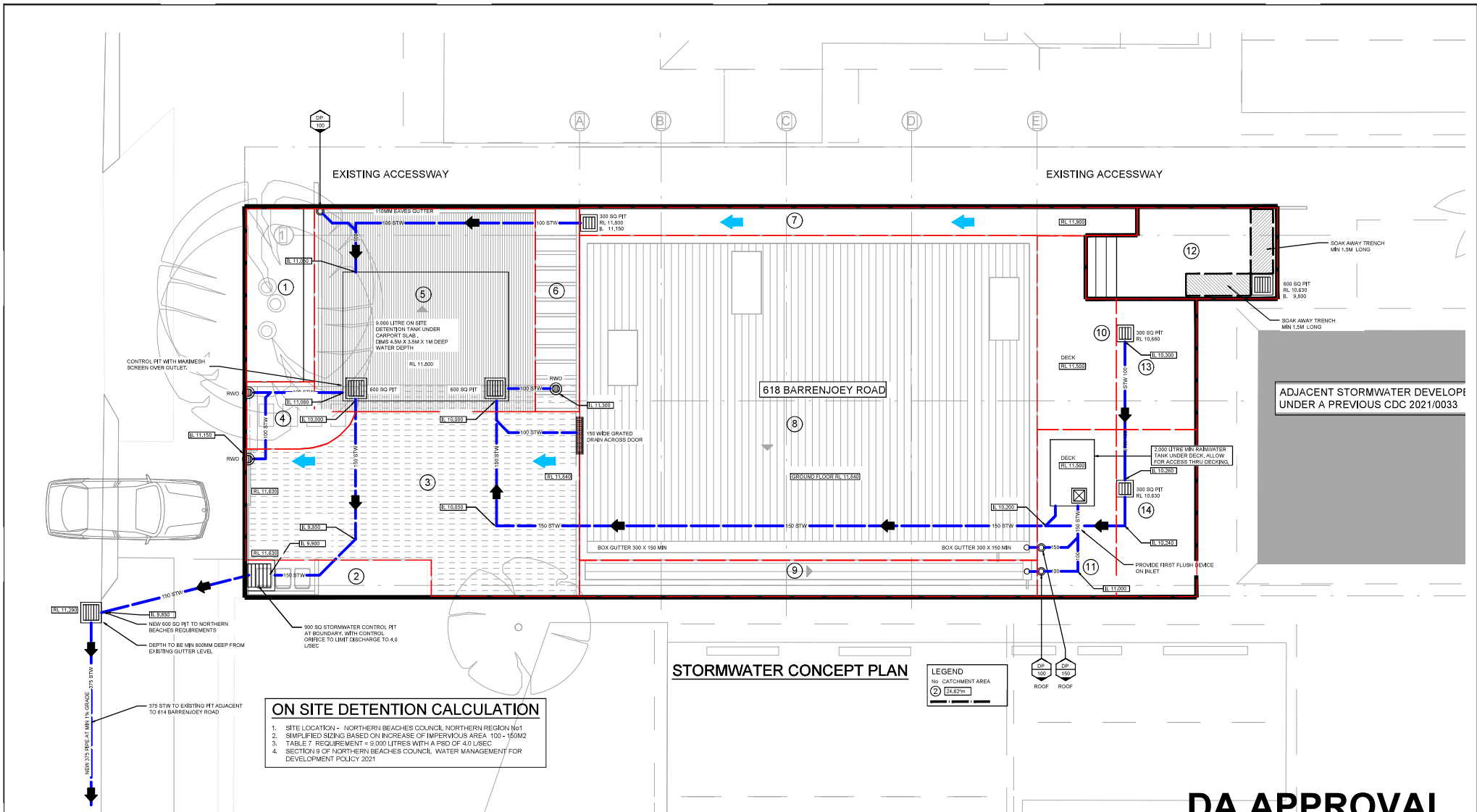
**A**

HYDRAULIC CONSULTANT:



MESH GROUP P/L

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E : JIM@MESH-GROUP.COM



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0 4m  
1:100

SCALE: As indicated @ A3

PROJECT:

#2024062  
**618 BARRENJOEY RD**  
**AVALON NSW 2107**

CLIENT:

DRAWING TITLE:

**PROPOSED PLAN**  
**HYDRAULIC SERVICES**

SHEET NUMBER:

**STW-01**

DATE: 10/06/2024

REV:

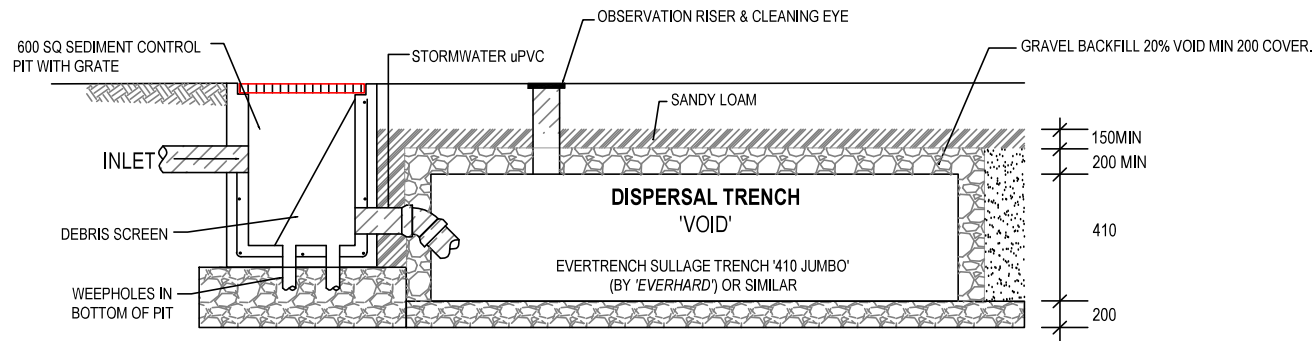
**B**

HYDRAULIC CONSULTANT:



MESH GROUP P/L

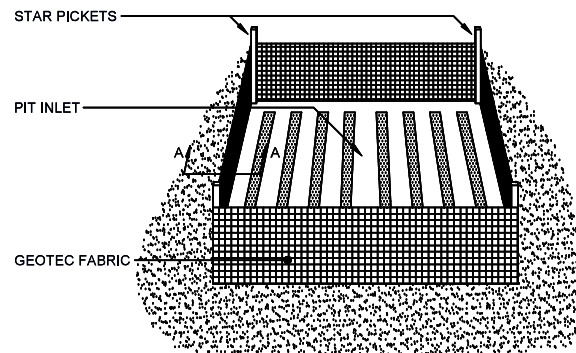
10 POPLAR PLACE, PICTON NSW 2571  
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**EVERTRENCH 410 JUMBO**  
**ABSORPTION TRENCH SECTION**

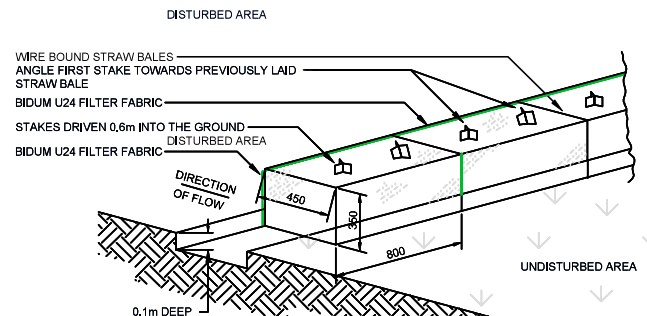
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## SEDIMENT AND EROSION CONTROL MEASURES



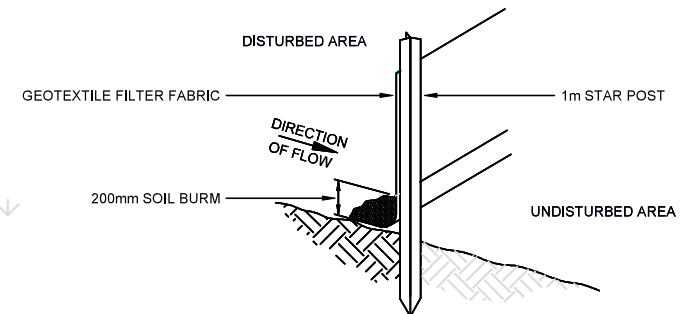
**SWP WITH SEDIMENT FENCE**

N.T.S



**STRAW BALE SEDIMENT FILTER**

N.T.S



**SEDIMENT FILTER FENCE**

N.T.S

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PROJECT:

#2024062  
**618 BARRENJOEY RD**  
**AVALON NSW 2107**

CLIENT:

DRAWING TITLE:

**HYDRAULIC SERVICES**  
**DETAIL SHEET No 1**

SHEET NUMBER:

**STW-02**

DATE: 10/06/2024

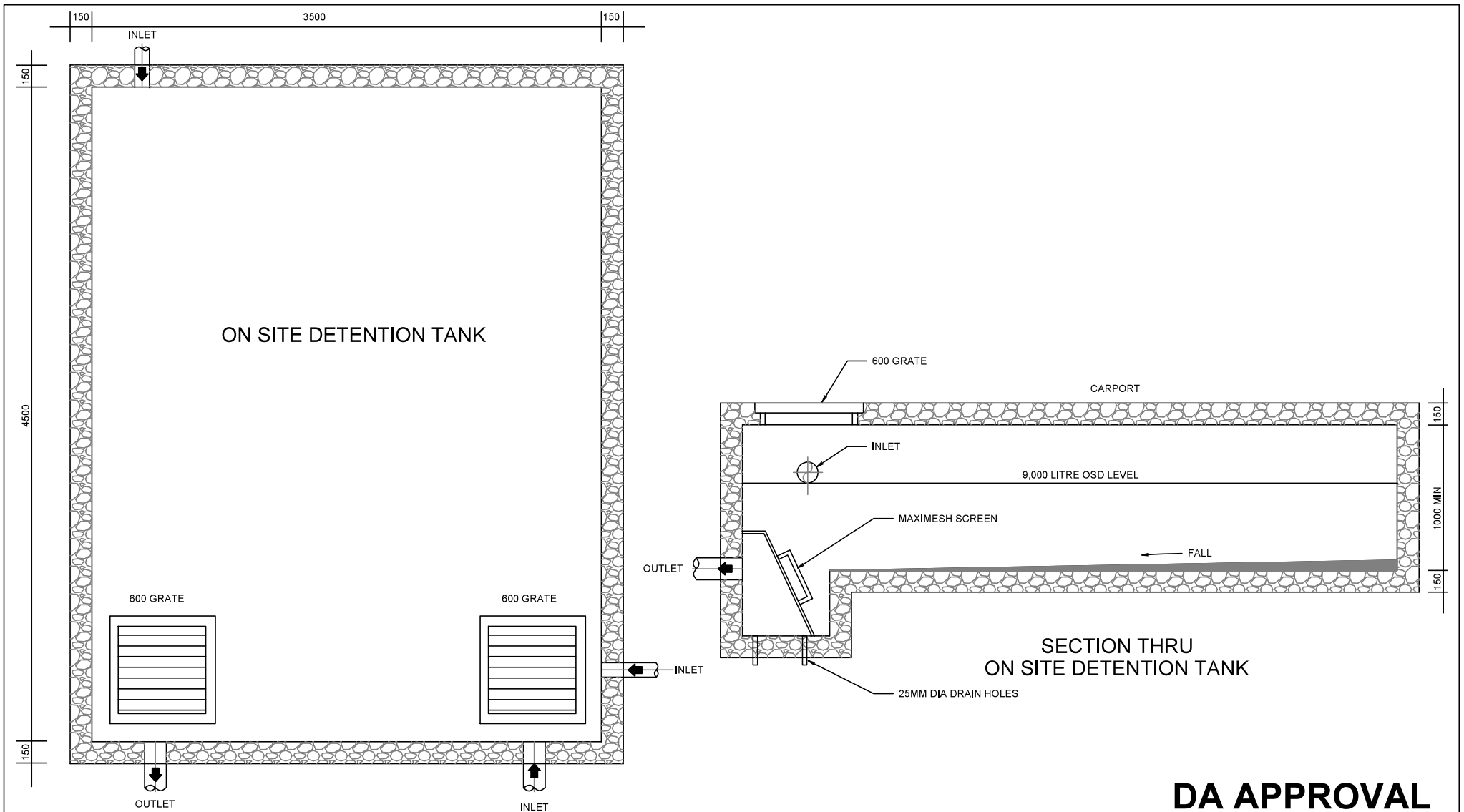
REV:

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PROJECT:

#2024062  
**618 BARRENJOEY RD  
AVALON NSW 2107**

CLIENT:

DRAWING TITLE:

**HYDRAULIC SERVICES  
DETAIL SHEET No2**

SHEET NUMBER:

**STW-03**

DATE: 10/06/2024

REV:

**A**

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