

STORMWATER NOTES

- 1. All roof collection components (ie gutters / DPs etc)are to be located / sized by the Developments Hydraulic Consultant for a 1% AEP event capacity.
- 2. All Trunk Drainage pipes, as shown on this plan are to be minimum of 150mm dia uno.
- 3. All pipes to be uPVC to AS 1254:2002.
- 4. All pipes to be laid at the grade required to match pit invert levels.
- 5. All pipes to be installed and laid in accordance with AS 3500.3:2003.
- 6. Thrust blocks to be installed to the trunk drainage pipes in accordance with AS 3500.3:2003.
- 7. All roof guttering/ down pipes / valley gutters / box gutters etc are to be sized and installed in accordance with AS 3500.3:2003.
- 8. All pits are to be proprietary uv resistant polypropylene or similar unless noted (approved by the Engineer )and are to include a min 50mm sediment trap in the base and a maximesh screen laid at 45° across the pit to protect the outlet pipe .
- 9. All pits greater than 600mm in depth are to be proprietary precast concrete (approved by the Engineer).
- 10.All pits greater than 1000mm in depth are to have adequate access requirements in accordance with OH&S/Workcover requirements (ie; minimum dimensions 900x600mm with step irons).
- 11.All works are to be inspected and certified by the Principle Certifying Authority prior to backfilling.
- 12.All works requiring certification by the Engineer will require a works as executed survey prepared by a registered Surveyor detailing all levels etc as on the Engineering plans.
- 13.The system is too be flushed and cleaned of all sediment and debris annually.
- 14.The system will require regular cleaning and maintenance to ensure its ability to function is maintained.
- 15.To ensure the system's ability to function is maintained it is to be inspected and certified as operating effectively by a licensed plumber every 5 years, and a engineer every 20yrs.

STORMWATER FLOW SUMMARY  
(DRAINS ANALYSIS)

Site area	- 1393m2
Existing impervious area	- ~ 515m2 (0m2 modeled)
Proposed impervious area	- ~ 1257 m2
Detention Volume modeled	- 24000l
PSD modeled	- 35 l/s
Existing Site Discharge	
5yr ARI Storm	- 43 l/s
100yr ARI Storm	- 69 l/s
Post Development Site Discharge	
5yr ARI Storm	- 43 l/s (34 controlled / 0 overflow / 9 uncontrolled)
100yr ARI Storm	- 68 l/s (35 controlled / 19 overflow / 14 uncontrolled)

SITE STORMWATER MANAGEMENT PLAN

1:100

The system detailed above as per Northern Beaches Councils - *Water Management For Development Policy*, including Stormwater Quality requirements (refer StormFilter Treatment Chamber + MUSIC modeling by Ocean Protect), OnSite Stormwater Detention (refer 24000l system and DRAINS modeling by Barrenjoey Consulting) and BASIX storage (32000l rainwater / stormwater storage detailing by others).

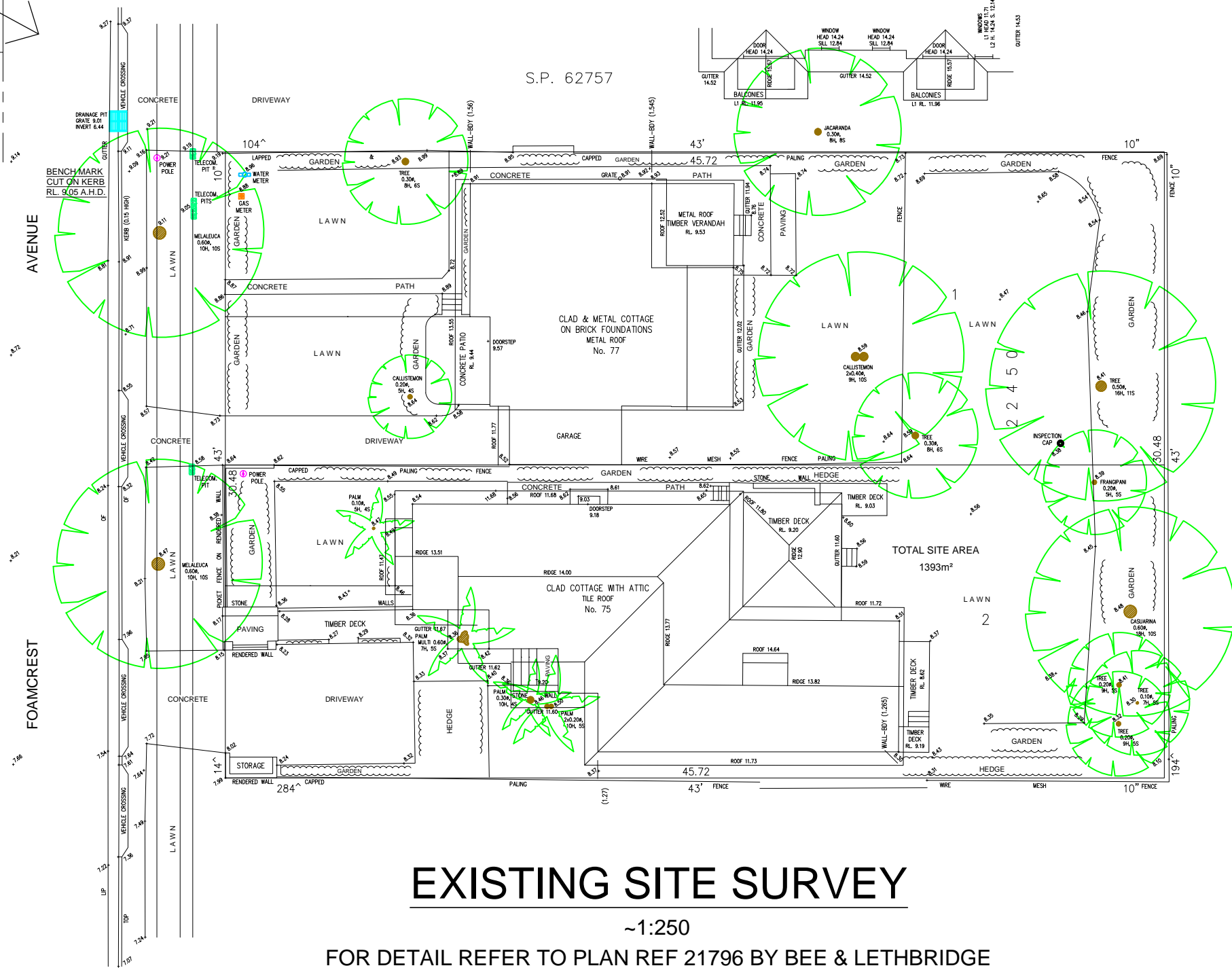
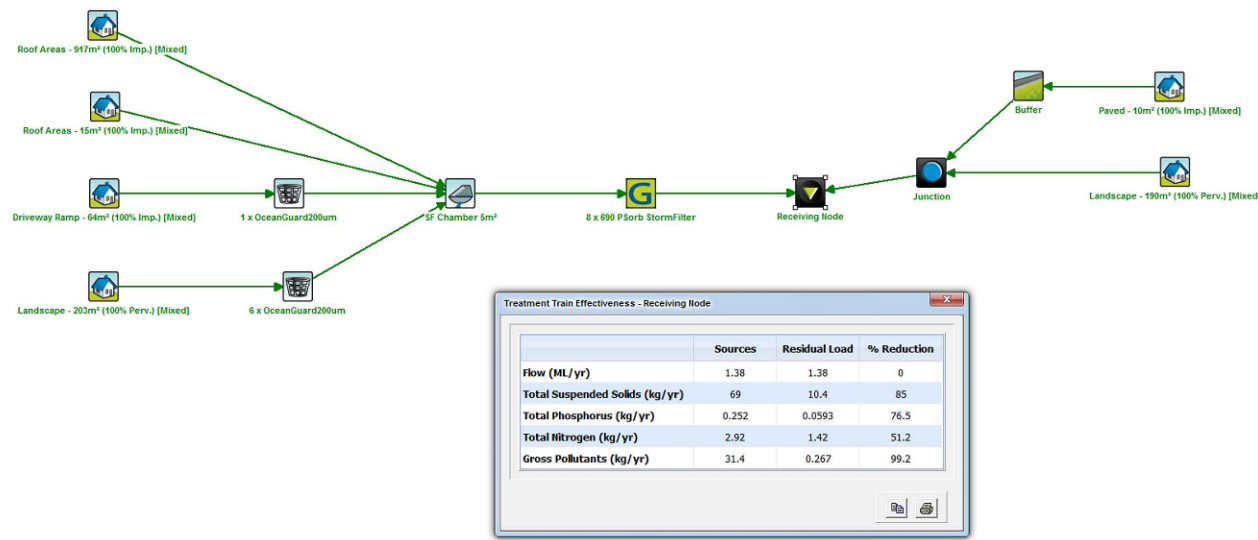
All drainage as per conventional methods and to be sized by the developments hydraulic engineer for a 1% AEP event and to be documented with the construction certificate works.

Drive run-off and any seepage flows collected at Basement Level are to be pumped / discharged directly to the StormFilter Treatment Chamber.

Variations to layout to be reviewed and approved by Barrenjoey Consulting Engineers before construction.

MUSIC MODEL SUMMARY  
by OCEAN PROTECT  
MUSIC Version 6.3.0

- MUSIC Version 6.3.0
- Rainfall Station 66062 Sydney Observatory Hill, 6 Minute Time Step 1981 To 1985
- Northern Beaches Council's source nodes utilizing modified % impervious area, rainfall threshold, soil properties & pollutant concentration
- No drainage routing between nodes.
- 85% Total Suspended Solids Reduction
- 65% Total Phosphorus Reduction
- 45% Total Nitrogen Reduction
- 90% Gross Pollutant Reduction



EXISTING SITE SURVEY

~1:250

FOR DETAIL REFER TO PLAN REF 21796 BY BEE & LETHBRIDGE

ISSUE:		
Prelim	27. 11. 2020	Issued for comment
DA	27. 11. 2020	Issued for DA submission

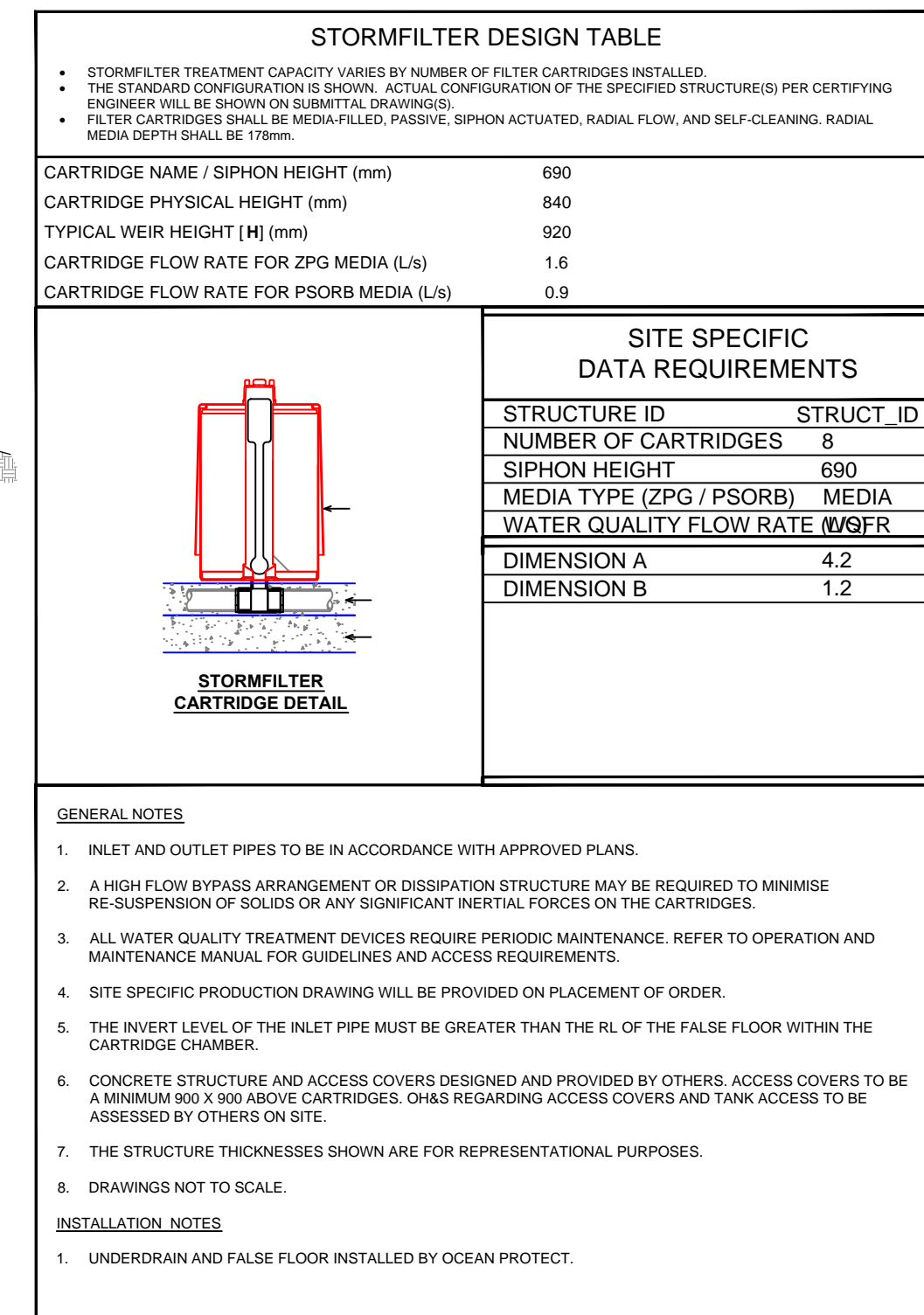
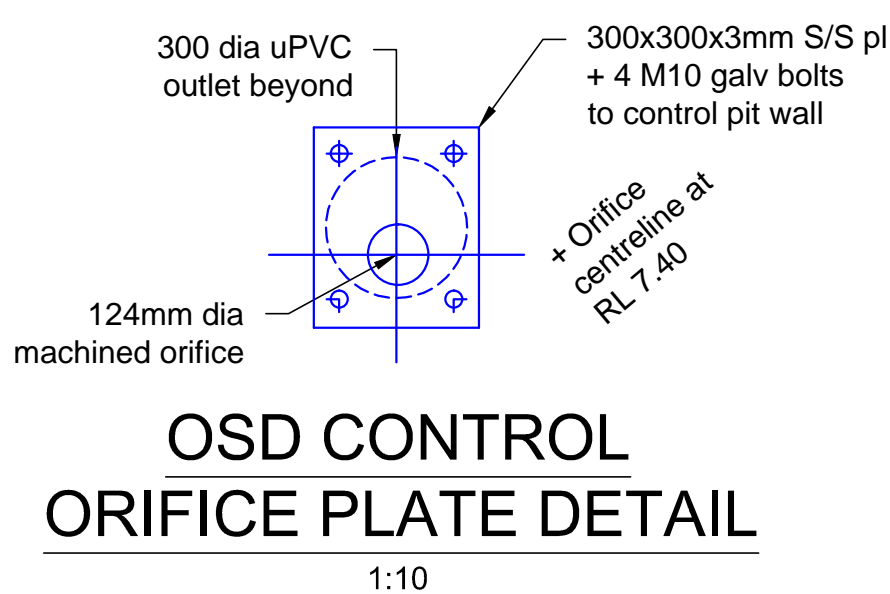
Barrenjoey Consulting Engineers pty ltd  
Stormwater      Structural      Civil  
PO Box 672  
Avon NSW 21107  
M: 0418 620 550  
E: lucasbee@bigpond.com  
ABN: 13124694917  
ACN: 124694917

PROJECT:  
PROPOSED RESIDENTIAL  
DEVELOPMENT  
75 - 77 FOAMCREST AVE  
NEWPORT  
for ~ M & L CORK

DRAWING :  
STORMWATER MANAGEMENT  
PLAN

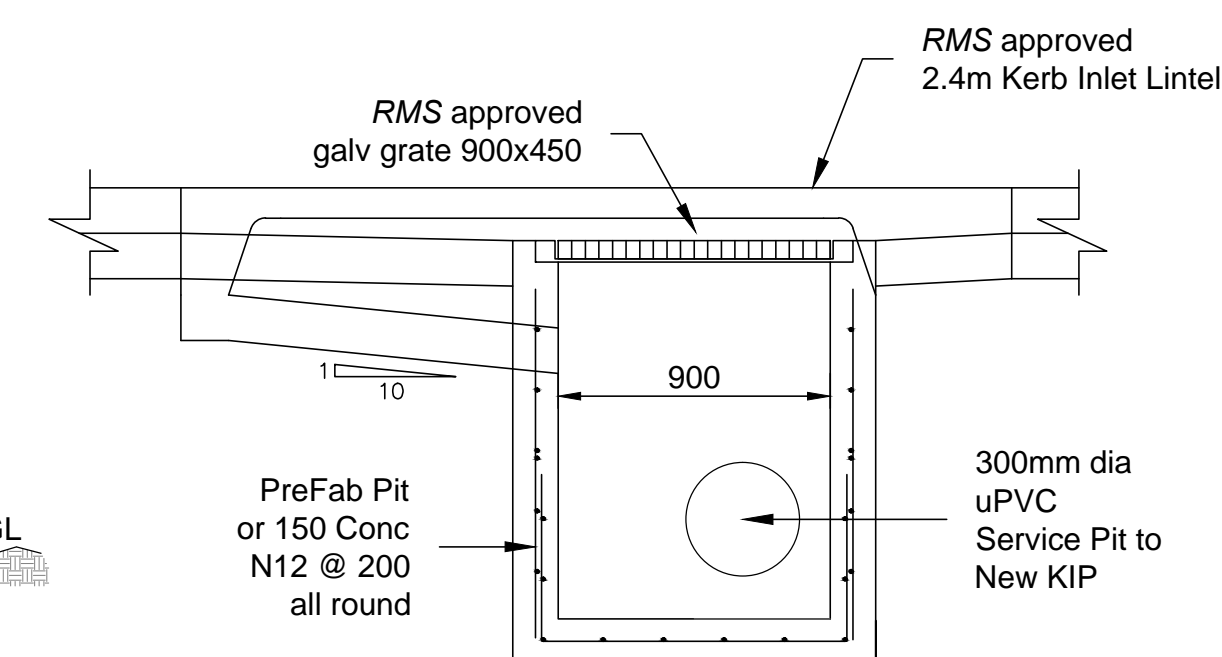
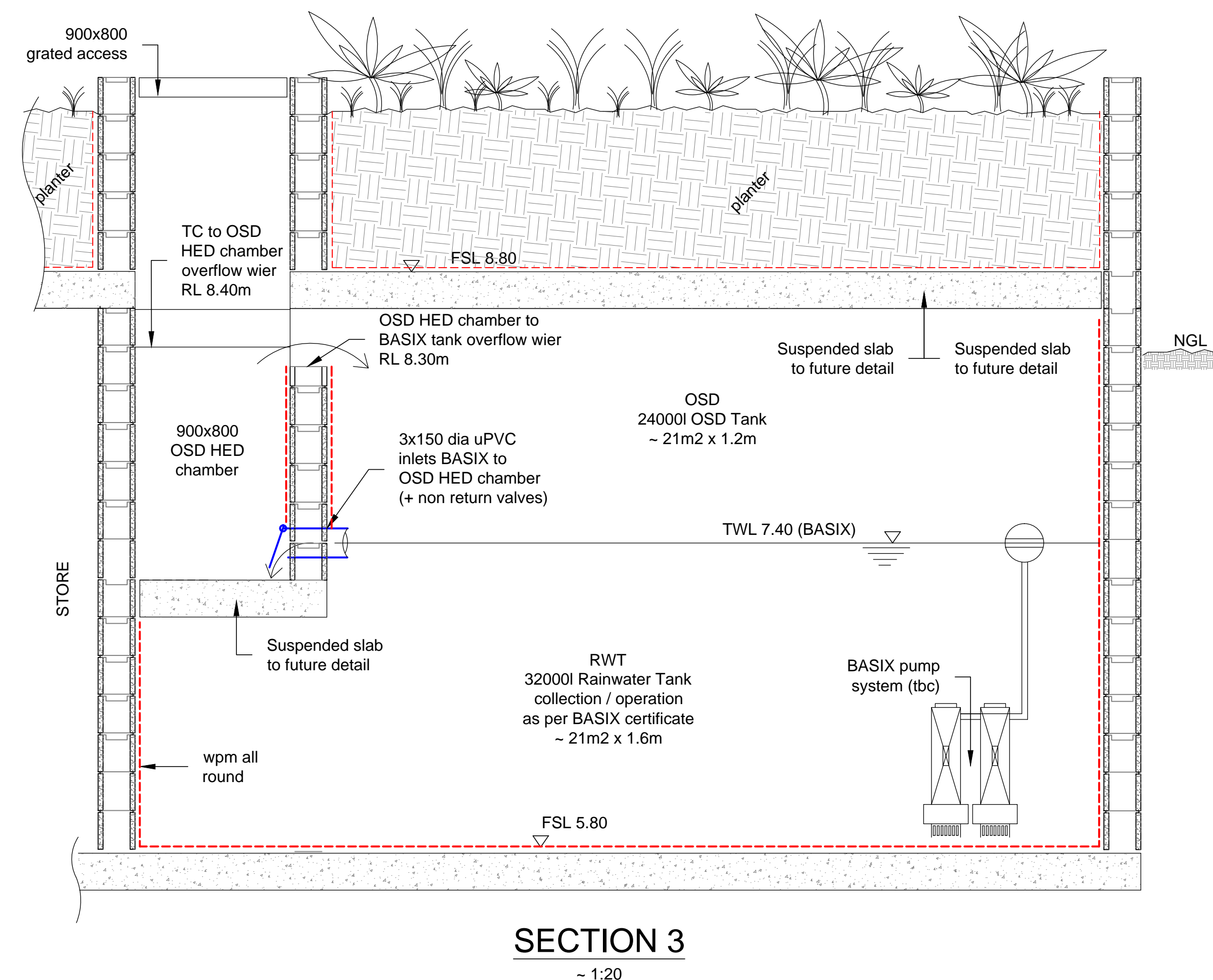
Job No : <b>201107</b>	Drawing No <b>SW1DA</b>
Document Certification Barrenjoey Consulting Engineers <small>pty ltd</small> per Lucas Molloy    MIEA CPEng NER Director	



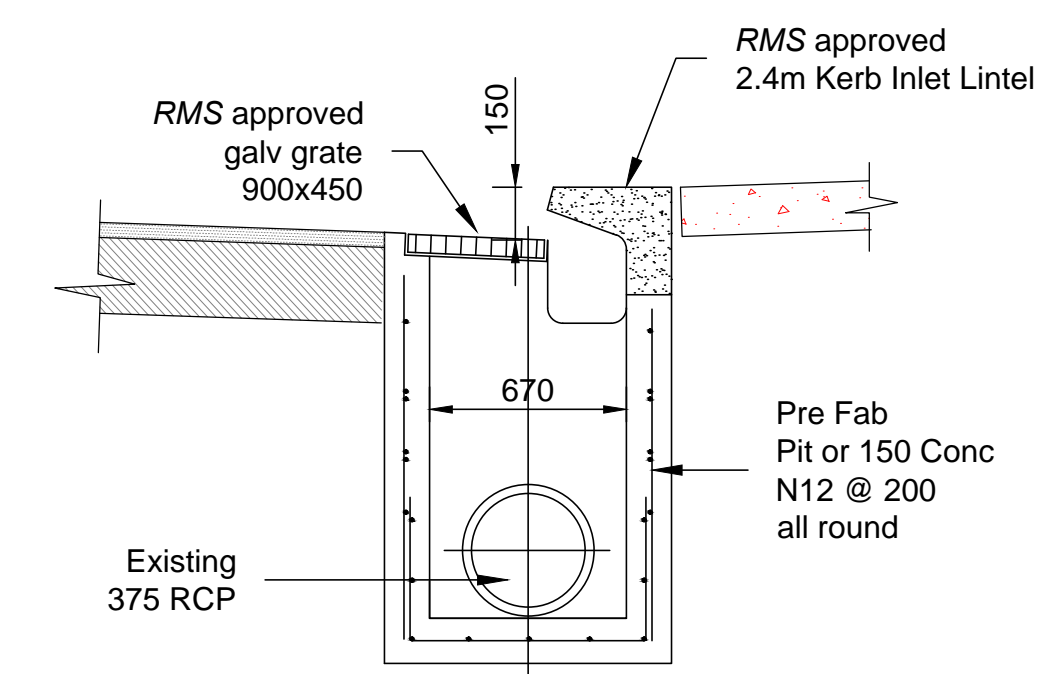


P R O T E T

PHONE: 1300 354 722      [www.oceanprotect.com.au](http://www.oceanprotect.com.au)



KERB INLET PIT DETAIL 1  
~ 1:20



KERB INLET PIT DETAIL 2

ISSUE:		
Prelim	27 / 11 / 2020	Issued for comment
DA	27 / 11 / 2020	Issued for DA submission

**Barrenjoey Consulting Engineers** Pty Ltd  
Stormwater                      Structural                      Civil  
PO Box 672  
Avalon NSW 2107  
M: 0418 620 530  
E: [lucasbce@bigpond.com](mailto:lucasbce@bigpond.com)  
ABN: 13124694917  
ACN: 124694917

PROJECT:  
PROPOSED RESIDENTIAL  
DEVELOPMENT  
75 - 77 FOAMCREST AVE  
NEWPORT  
for ~ M & L CORK

DRAWING :	STORMWATER MANAGEMENT DETAILING 1
-----------	--------------------------------------

Job No : <b>201107</b>	Drawing No <b>SW2</b> DA
Document Certification Barrenjoey Consulting Engineers Pty Ltd per <b>Lucas Molloy</b> MIEA CPENG NER Director	



