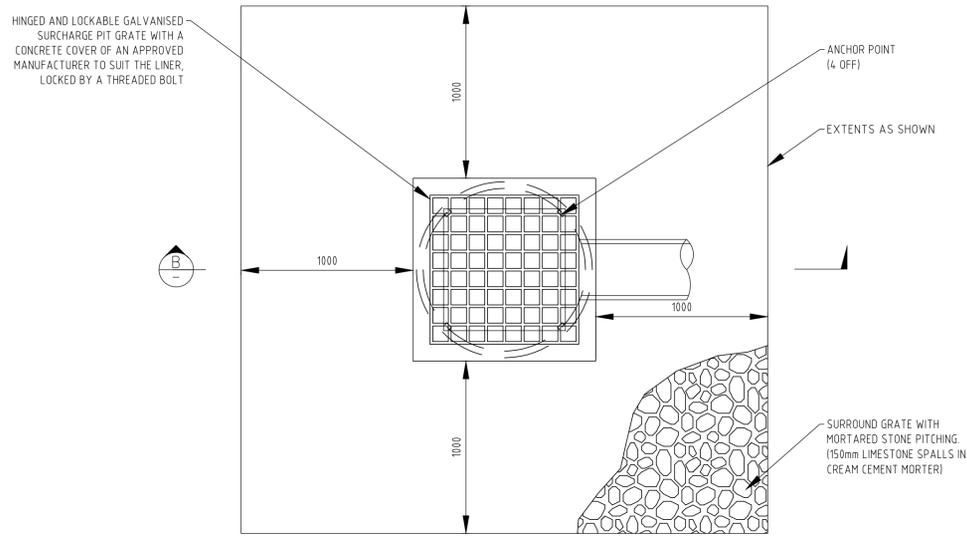
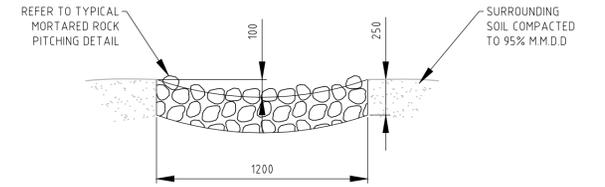


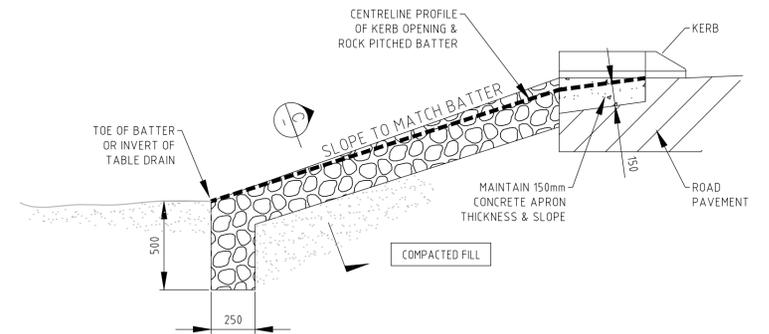
BUBBLE-IN PLAN
N.T.S.



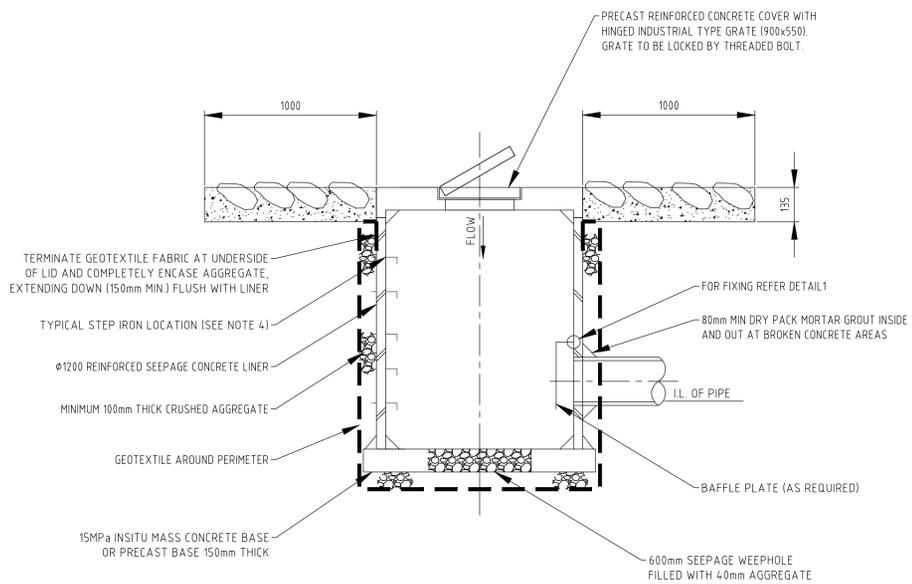
BUBBLE-UP PLAN
N.T.S.



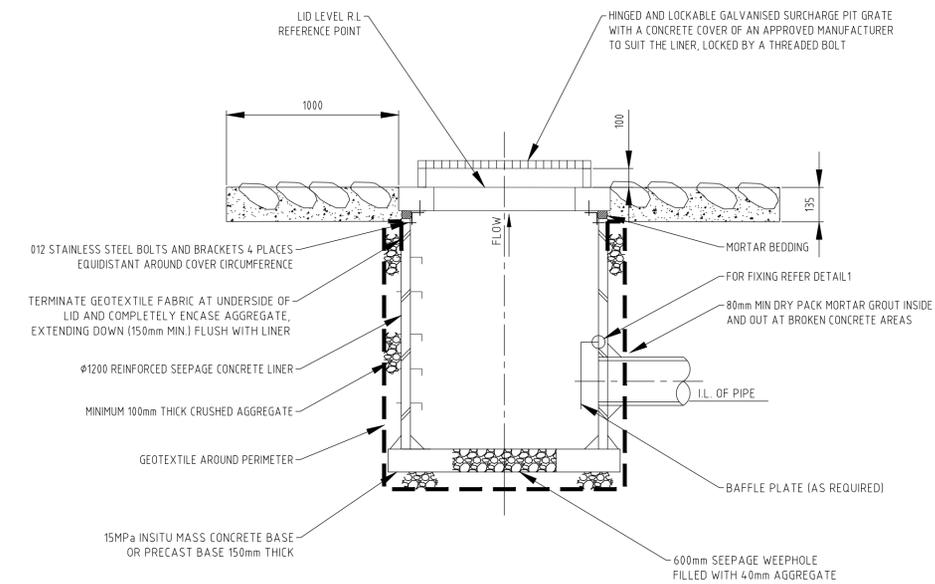
SECTION-C
N.T.S.



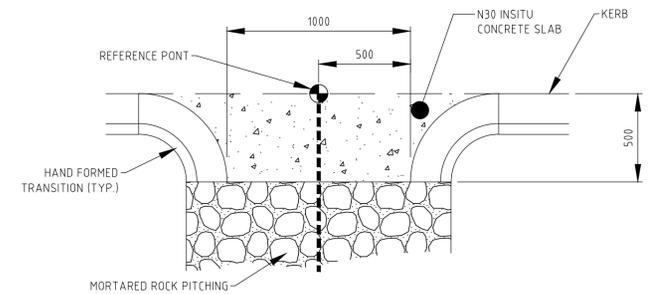
PROFILE ROCK PITCHING AT KERB OPENINGS AND ENDS
N.T.S.



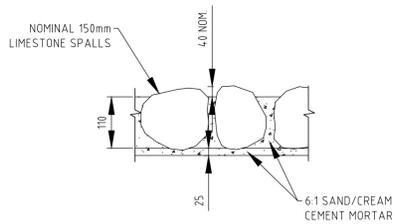
SECTION-A
N.T.S.



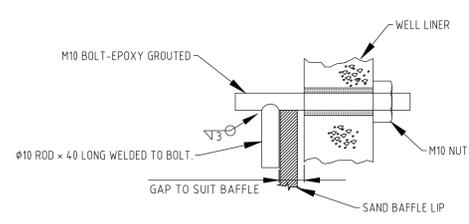
SECTION-B
N.T.S.



KERB OPENING PLAN
N.T.S.



TYPICAL MORTARED ROCK PITCHING DETAIL
N.T.S.



DETAIL-1
N.T.S.

NOM. LINER SIZE (mm)	PIPE SIZE MAX. (mm)	LINER TYPE
φ1050	φ450	CONCRETE
φ1200	φ600	CONCRETE
φ1500	φ750	CONCRETE
φ1800	φ900	CONCRETE

FOR PIPES φ1200 AND LARGER INSTALL A CUSTOM CHAMBER TO SUIT.

LINER SIZE MIN. (mm)	SOAKHOLE DIAMETER (mm)
1050	600
1200	600
1500	900
1800	1200

NOTES:

- CONCRETE TO BE 20mm NOM AGGREGATE AND HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 20MPa FOR INSITU BASE AND 40MPa FOR PRECAST UNITS.
- ALL COMPONENTS SHALL BE DESIGNED TO ACCEPT LOADINGS IN ACCORDANCE WITH AS3725 AND MANUFACTURER'S GUIDELINES.
- IN HIGH GROUNDWATER AREAS THE BASE AND PIT MUST BE SEALED AND BENCHED.
- STEP IRONS TO BE INSTALLED IN PITS WHERE THE DEPTH FROM COVER TO TOP OF BASE EXCEEDS 1200mm. STEP IRONS TO BE LOCATED ON THE SIDE WITH LEAST INTERFERENCE FROM PIPES IN ALL JUNCTION PITS, GULLYS, SIDE ENTRY AND/OR COMBINATION PITS. THIS IS TO ENSURE STEP INTERVALS AREN'T COMPROMISED AND ACCESSIBILITY IS MAINTAINED.
- PIPE JOINTS WITHIN 10m OF PIT TO BE SEALED.
- SUBGRADE TO BASE TO BE COMPACTED TO 95% M.M.D. PRIOR TO PLACING OF BASE.
- BACKFILL SURROUNDING PIT TO BE TO 95% M.M.D.
- ALL PITS TO HAVE A WEEP HOLE IN ACCORDANCE WITH TABLE B, UNLESS IN HIGH GROUND WATER AREAS, SEE NOTE 3.
- A MAXIMUM OF THREE PIPE OPENINGS ARE ALLOWED IN ANY ONE JUNCTION PIT. A MINIMUM WALL WIDTH OF 250mm IS ALLOWED BETWEEN HOLES CUT FOR PIPE OPENINGS.
- ALL PITS TO BE TRAPPED WITH MINIMUM 300mm DEPTH BELOW PIPE INVERT.
- PIPES TO BE FINISHED FLUSH WITH INSIDE OF LINER AND MADE GOOD WITH MORTAR.

REV	DATE	DESCRIPTION	DRAWN
D	06/22	GEOTEXTILE FABRIC DETAIL AMENDED TO COMPLETELY ENCASE AGGREGATE	J.M.
C	06/19	REVIEW COMPLETED & DRAFTING AMENDMENTS MADE	J.M.
B	06/18	AGGREGATE AMENDED FROM 20mm TO 40mm & KERB OPENING APRON TO BE CONCRETE	J.M.
A	05/17	ADOPTED BY CITY OF KWINANA	J.M.

ASSOCIATE CONSULTANT:



PROJECT: **STANDARD DETAILS**
BUBBLE UP & ROCK PITCHING

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SCALE: **N.T.S. (A1)**

DESIGN: **S.S.** CHECK: **R.N.**

DRAWN: **J.M.** DATE: **05/17**

AUTHORISED (MANAGER ENGINEERING SERVICES)

R.NAJAFZADEH

DRAWING TITLE: **STANDARD DETAILS**
BUBBLE UP & ROCK PITCHING

FILE NO.: **ENG03**

DRAWING NUMBER: **STD-D07** REVISION: **D**