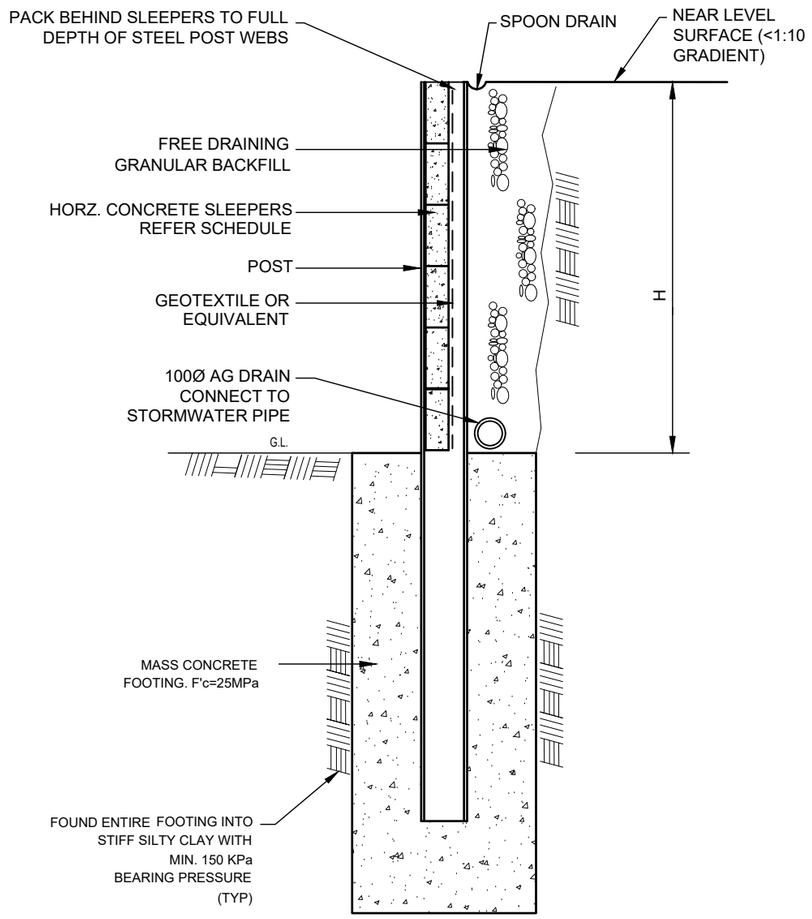
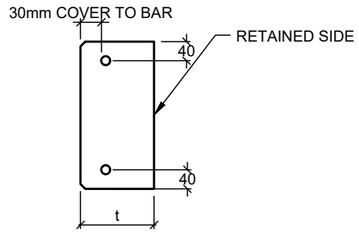
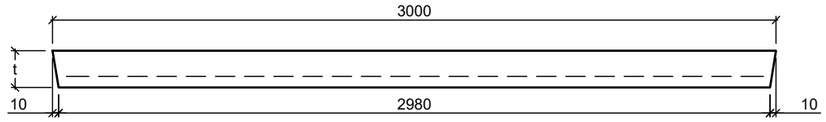


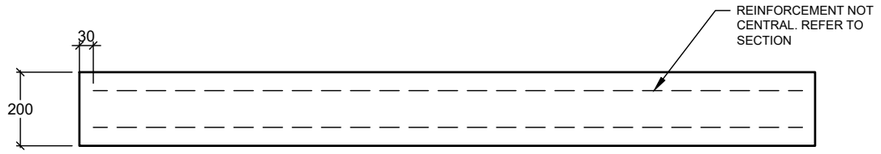
TYPICAL SLEEPER RETAINING WALL DETAIL



SECTION VIEW



PLAN VIEW



ELEVATION VIEW

REINFORCEMENT TYPES	
TYPE A	EITHER: 2/N12, 3N10, 2/12mm GFRP (60GPa) OR ALSO 2/N10 USING 60MPa CONCRETE
TYPE B	EITHER: 2/N10, 2/10mm GFRP (60GPa)

ASSUMED SOIL PROPERTIES	
SOIL DENSITY (kN/m^3)	18
Ka	0.35
INTERNAL FRICTION ANGLE	30 DEGREE

SLEEPER SIZE =3000 LONG X 200mm DEEP

WALL TYPE	THICKNESS (t)	REINFORCEMENT	SOIL RETAINED (H) 5KPa	SOIL RETAINED (H) 10KPa
3000-77-A	77mm	TYPE A	0.8m	0.5m
3000-100-A	100mm	TYPE A	2.5m	2.0m
3000-120-A	120mm	TYPE A	3.5m	3.0m
3000-77-B	77mm	TYPE B	0.5m	0.2m
3000-100-B	100mm	TYPE B	1.5m	1.3m
3000-120-B	120mm	TYPE B	2.5m	2.0m

SPECIFICATIONS:

1. SLEEPER CONCRETE GRADE TO BE N40. CASTING EACH SLEEPER REQUIRES RIGID FORMWORK AND CONCRETE COMPACTION IN ACCORDANCE WITH AS3600

2. THESE SLEEPER WALLS SPECIFICATIONS ARE ONLY SUITABLE FOR USE WITH RETAINING WALLS WHICH SATISFY THE FOLLOWING CONDITIONS:

- THE WALL IS NOT SUBJECT TO HEAVY SURCHARGE LOADS, THE SURCHARGE LOADS THAT INCLUDED IN THIS CALCULATION IS 5kPA or 10 kPa

- THE FINAL SURFACE GRADIENT ABOVE THE WALL IS LEVEL OR ONLY SLIGHT (LESS THAN 1 VERTICAL RISE IN 10 HORIZONTAL)

- THE WALLS BACKFILL IS FREE DRAINING CONSISTING OF SAND &/OR GRAVEL

- ALL SUB-SURFACE WATER IS DRAINED BY MEANS OF AN AGRICULTURAL DRAIN, OR OTHER SUITABLE METHOD.

- SLEEPERS ARE HANDLED WITH DUE CARE DURING TRANSPORTATION AND ERECTION

- SLEEPER MINIMUM END BEARING LENGTH SHALL NOT BE LESS THAN 25mm EACH END

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TITLE: CONCRETE SLEEPER RETAINING WALL (3000 LONG)

FOR CONSTRUCTION

PROJECT: CONCRETE SLEEPER DESIGN

CLIENT: SUNSET SLEEPERS

JOB No: 2109031 DRAWING No: S104

SCALE:

REVISION	AMENDED DESCRIPTION	DRAWN BY	DATE
A	FOR CONSTRUCTION	B.E.	08.09.21
B	FOR CONSTRUCTION	B.E.	16.05.22
C	FOR CONSTRUCTION	B.E.	23.05.22
D	FOR CONSTRUCTION	B.E.	07.06.22