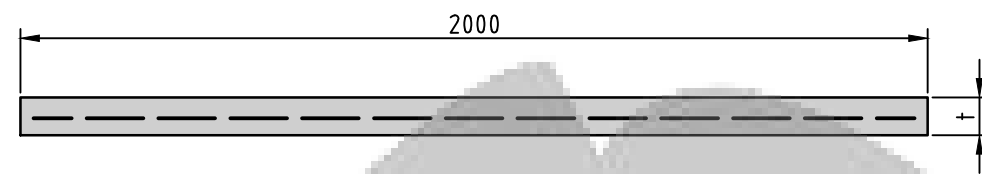
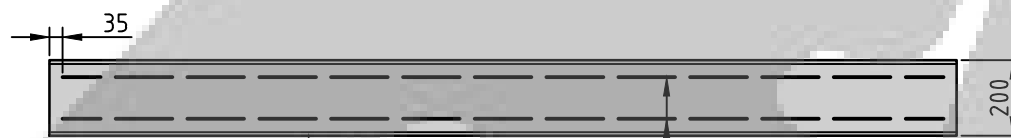


**SECTION VIEW**  
SCALE 1:10

**NOTE:**  
PATTERN FACE SHALL NOT ENCR OACH INTO SLEEPER MIN. THICKNESS 't'

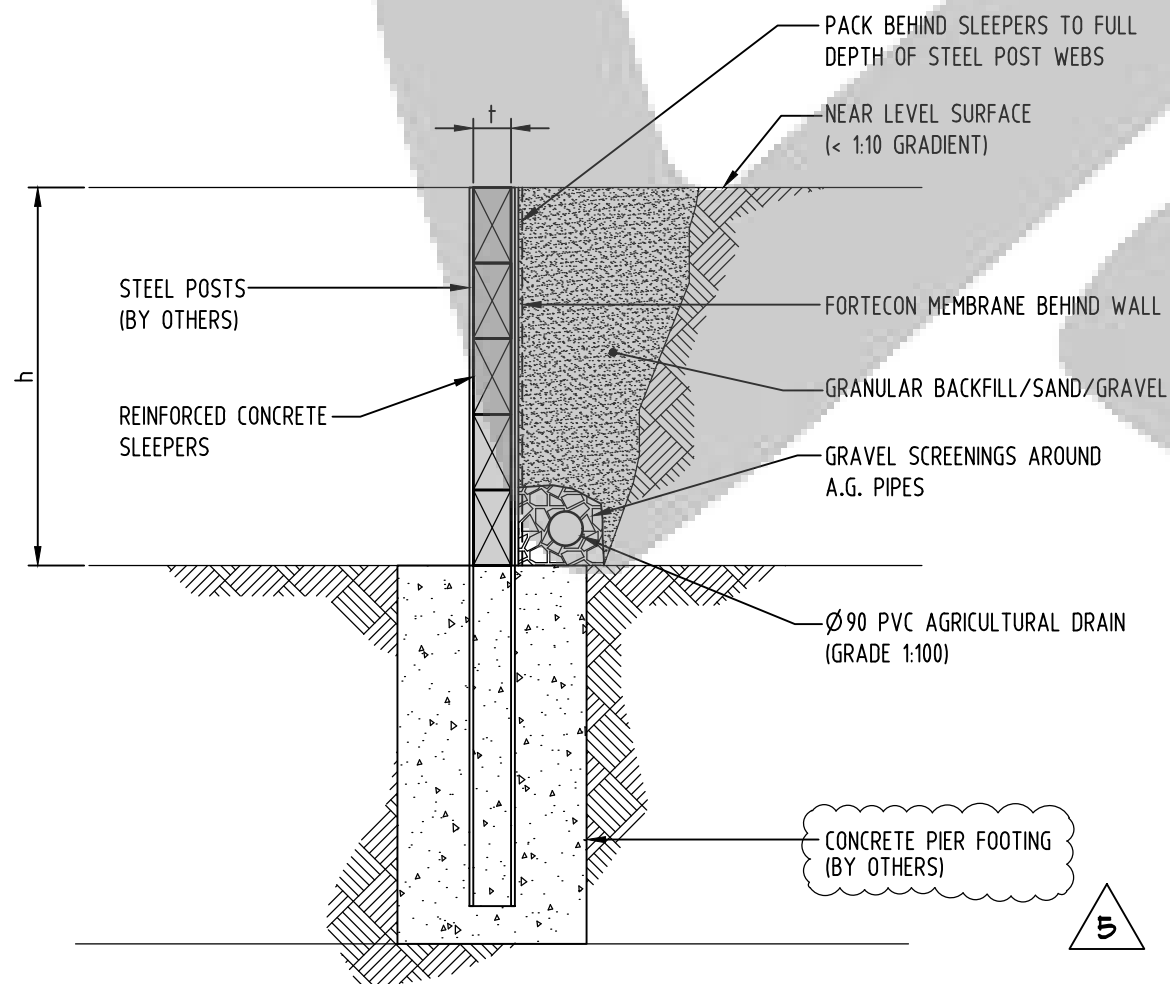


**PLAN VIEW**  
SCALE 1:20



**ELEVATION VIEW**  
SCALE 1:20

CONCRETE SLEEPER  
REINFORCEMENT NOT CENTRAL REFER TO SECTION



**TYPICAL SECTION**  
SCALE 1:20

**CONSTRUCTION ISSUE**

**SPECIFICATIONS**

- SLEEPER CONCRETE GRADE TO BE N60. RIGID FORMWORK & INTENSE CONCRETE COMPACTION IN ACCORDANCE WITH AS 3600 IS REQUIRED FOR CASTING EACH SLEEPER.
- HAND COMPACTING EQUIPMENT ONLY IS PERMITTED TO BE USED ADJACENT SLEEPERS (WITHIN DISTANCE = 0.75H)
- THESE SLEEPER SPECIFICATIONS ARE ONLY SUITABLE FOR USE WITH RETAINING WALLS WHICH SATISFY THE FOLLOWING CONDITIONS/LIMITATIONS.
  - THE WALL IS NOT SUBJECT TO HEAVY SURCHARGE LOADS. FOR EXAMPLE, NEARBY EXISTING RETAINING WALLS, STRUCTURES OR BUILDINGS WITHIN A DISTANCE EQUAL TO TWO TIMES THE WALL HEIGHT.
  - THE FINAL SURFACE GRADIENT ABOVE THE WALL IS LESS THAN 1 VERTICAL RISE IN 10 HORIZONTAL.
  - SLEEPERS ARE HANDLED WITH DUE CARE DURING TRANSPORTATION & ERECTION.
- SLEEPER MINIMUM END BEARING LENGTH SHALL NOT BE LESS THAN 25mm EACH END.
- FOR DETERMINATION OF THE APPROPRIATE SLEEPER TYPE, THE HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE APPLICABLE SLEEPER. A WALL FACE CROSS SECTION MAY CONSIST OF VARIOUS SLEEPER TYPES.

**ASSUMED SOIL PROPERTIES**

$\gamma_s$  = 18kN/m<sup>3</sup>  
 $\phi$  = 30°

**ASSUMED MAX. SURCHARGE**

Q = 5kPa

**SLEEPER LENGTH (l) = 2000mm**

| WALL TYPE                       | WALL HEIGHT (h)      | THICKNESS t (mm) | REINFORCEMENT |
|---------------------------------|----------------------|------------------|---------------|
| 2m STD (GREEN)                  | $\leq 2.0m$          | 75               | 2-N10         |
| 2m (HD) HEAVY DUTY (YELLOW)     | $2.0m < h \leq 3.0m$ | 100              | 2-N10         |
| 2m (EHD) EXTRA HEAVY DUTY (RED) | $3.0m < h \leq 4.0m$ | 110              | 2-N10         |

**NOTE:**

- PANELS & SLEEPERS MAY BE USED TOGETHER. FOR PANEL TYPES REFER DRAWING WAD150933-S10.

| REV. | DATE     | DESCRIPTION          | DRAFT | ENG. | CHK. |
|------|----------|----------------------|-------|------|------|
| 0    | 16.11.15 | CONSTRUCTION ISSUE   | MJS   | NM   | CL   |
| 1    | 17.02.16 | CONSTRUCTION REISSUE | MJS   | NM   | CL   |
| 2    | 16.06.17 | CONSTRUCTION REISSUE | MJS   | NM   | CL   |
| 3    | 10.05.19 | CONSTRUCTION REISSUE | AA    | RS   | CL   |
| 4    | 24.05.19 | CONSTRUCTION REISSUE | AA    | RS   | CL   |
| 5    | 03.07.20 | CONSTRUCTION REISSUE | AA    | RS   | CL   |



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**CONCRETE SLEEPERS**  
OUTBACK SLEEPERS AUSTRALIA P/L

**2000mm LONG SLEEPER**

**A3** DRAWING NUMBER  
Job Number Sheet No. Rev.  
Design Drawn  
C.LINDNER M.SMITH **WAD150933 S01 5**