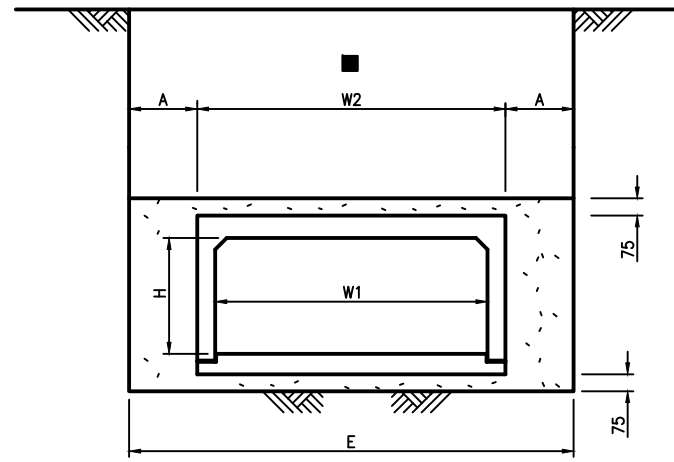
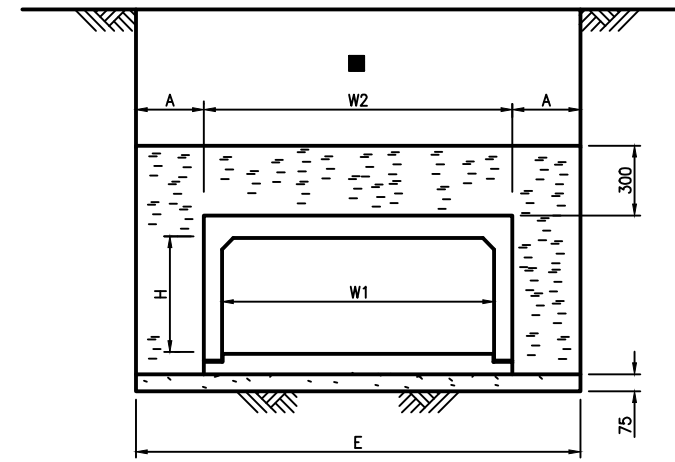


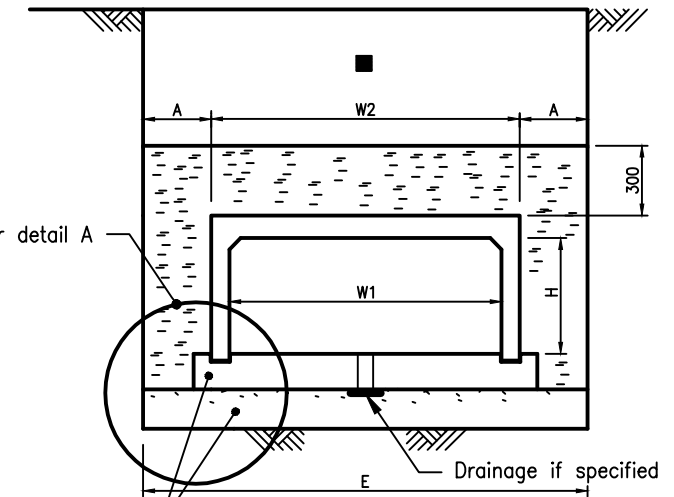
**TYPE 1  
NATURAL BEDDING**



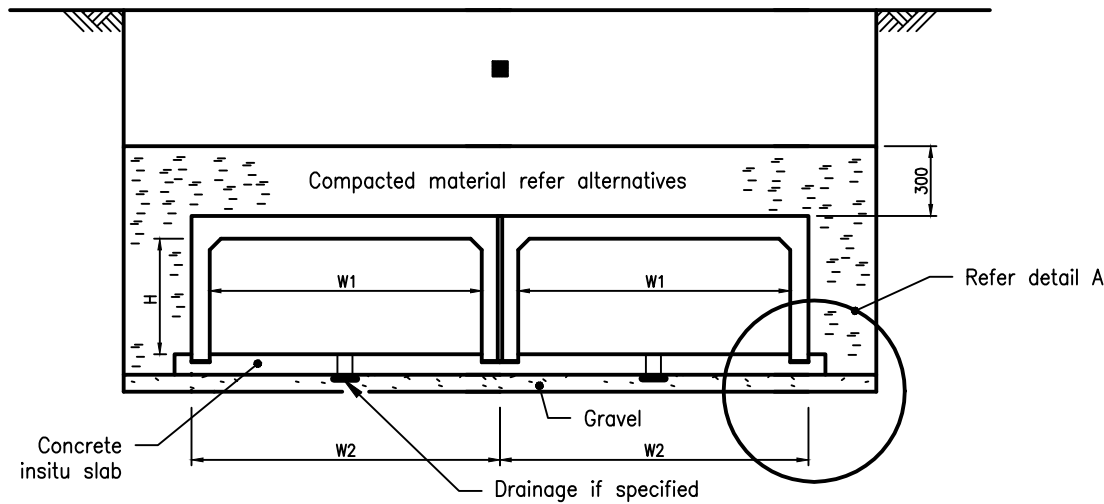
**TYPE 2  
SAND SURROUND**



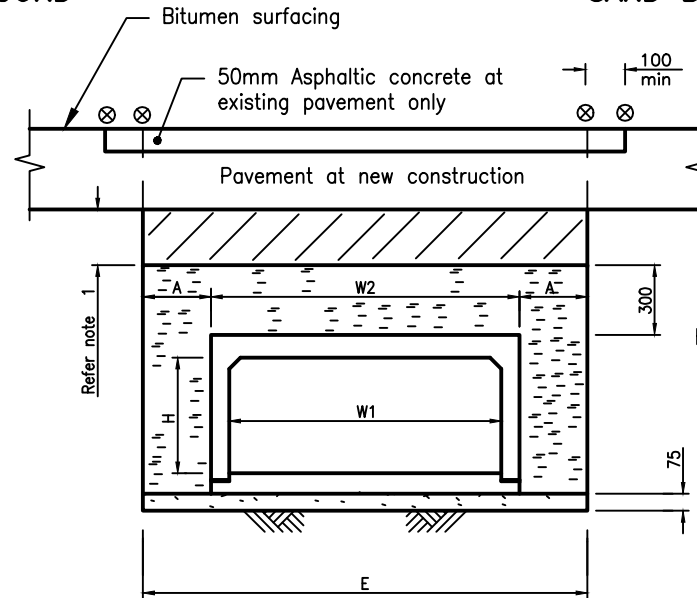
**TYPE 3  
SAND BEDDING**



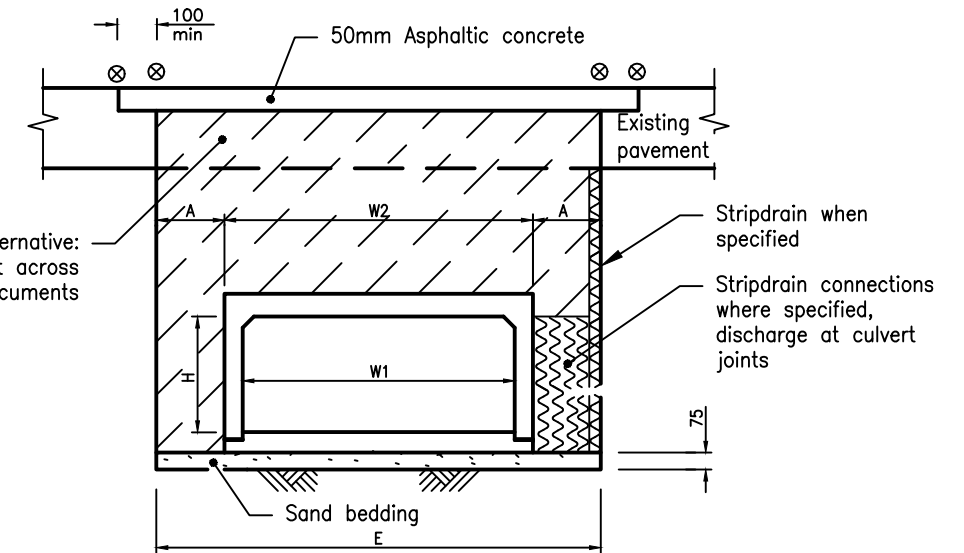
**TYPE 4  
INSITU BASE SLAB**  
Insitu concrete, bedding & drainage design to suit specific site conditions



**MULTIPLE CULVERTS**



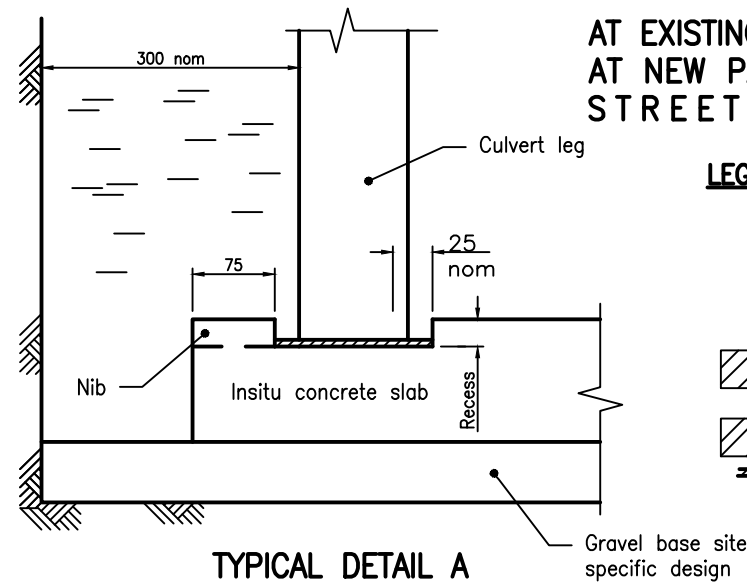
**ALTERNATIVE A  
AT EXISTING SURFACED PAVEMENTS OR  
AT NEW PAVEMENTS ON RESIDENTIAL  
STREETS & RURAL ROADS**



**ALTERNATIVE B  
AT EXISTING SURFACED PAVEMENTS OR  
ON INDUSTRIAL, TRUNK COLLECTOR,  
SUB-ARTERIAL STREETS/ROADS**

| W1   | W2   | E<br>nom |
|------|------|----------|
| 300  | 420  | 1000     |
| 375  | 500  | 1100     |
| 450  | 570  | 1200     |
| 600  | 730  | 1300     |
| 750  | 890  | 1500     |
| 900  | 1050 | 1700     |
| 1200 | 1360 | 2000     |
| 1520 | 1700 | 2300     |
| 1820 | 2010 | 2600     |
| 2130 | 2340 | 3000     |
| 2440 | 2670 | 3300     |

**EXCAVATION WIDTH**



**TYPICAL DETAIL A**

**LEGEND**

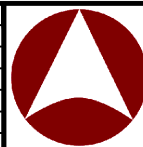
- A 300mm nom.
- Refer Alternative A for backfill requirements at new pavement
- ⊗ Saw cut at existing pavement
- ▨ Gravel (min CBR15) or 75mm crusher run backfill
- ▧ Lean mix concrete backfill (1:15 mix)
- ▩ 10mm Cement mortar bed, 1:3 mix

**NOTES:**

1. Backfill compaction: Approved fill/approved bedding/compacted backfill/CBR15 Gravel 90% Compacted gravel (300 layer) under road pavement 95% Compacted fill - at footpaths/private property 90% max densities determined by Standard Compaction tests to AS 1285.5.5.1
2. Refer to DTMR Std. Dwg. SD1316 for installation of precast culverts.
3. Refer to DTMR Std. Dwg. SD1243 for installation of precast headwalls.
4. Tape all joints with 75 wide Denso (600) Tape or equivalent.
5. All dimensions are in millimetres unless shown otherwise

These drawings have been developed in consultation between the participating Councils.  
BEFORE USE, the user shall confirm that the drawing has been adopted by the appropriate Council.

| Rv. | DATE  | REVISIONS              |
|-----|-------|------------------------|
| D   | 06/16 | Review                 |
| C   | 06/14 | Review                 |
| B   | 03/14 | Amended Drawing Number |
| A   | 10/12 | ORIGINAL ISSUE         |



**INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA  
STANDARD DRAWINGS**

**EXCAVATION, BEDDING AND BACKFILLING PRECAST  
BOX CULVERTS**

**DS-031**

D  
C  
B  
A  
Rv.