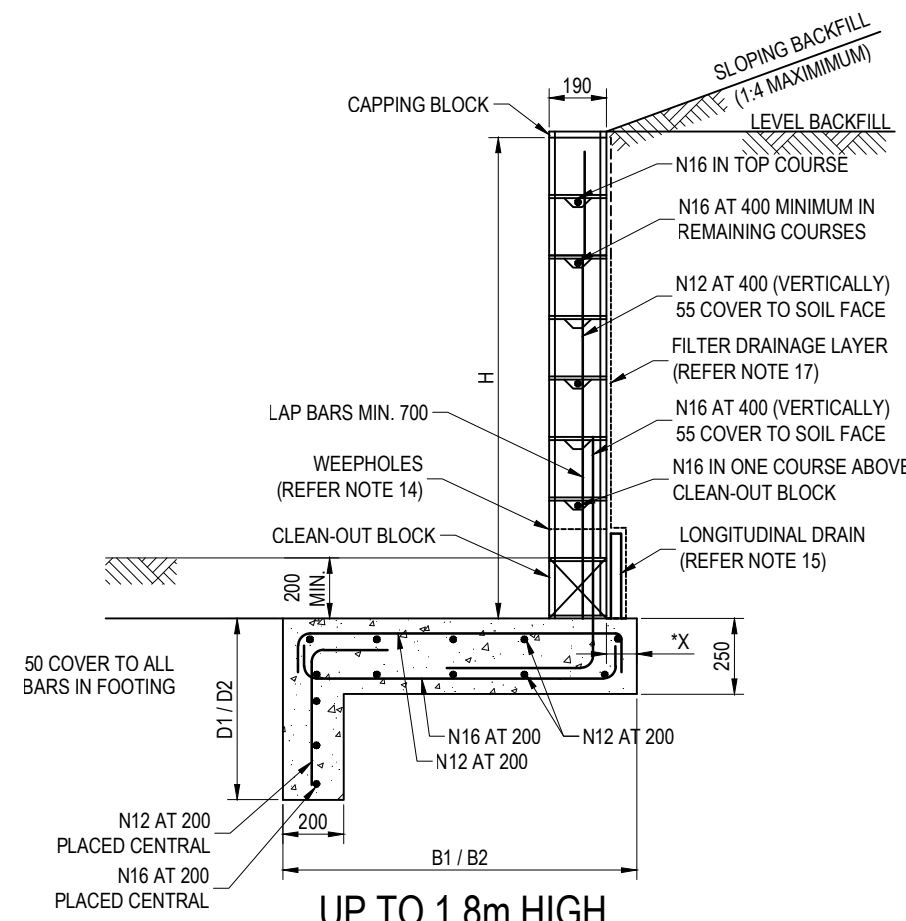
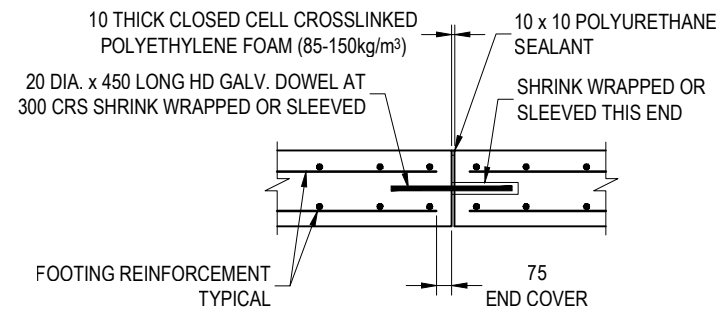


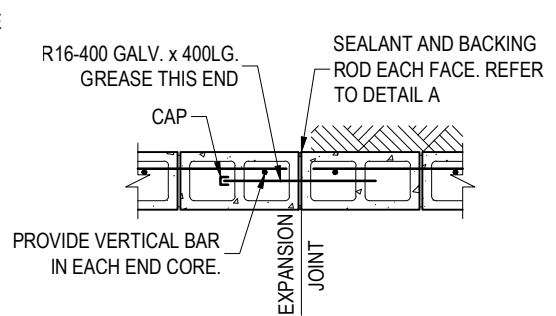
**0.8m TO 1.2m HIGH  
(150 SERIES BLOCK)**



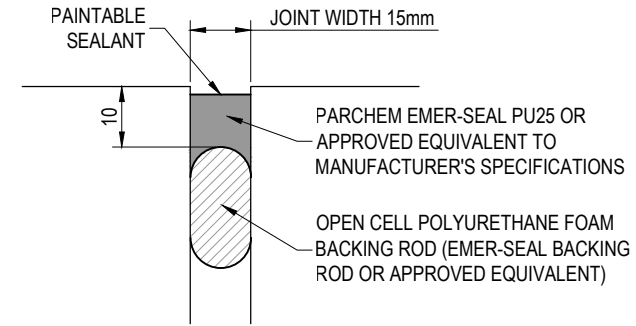
**UP TO 1.8m HIGH  
(200 SERIES BLOCK)**



**TYPICAL FOOTING  
EXPANSION JOINT**



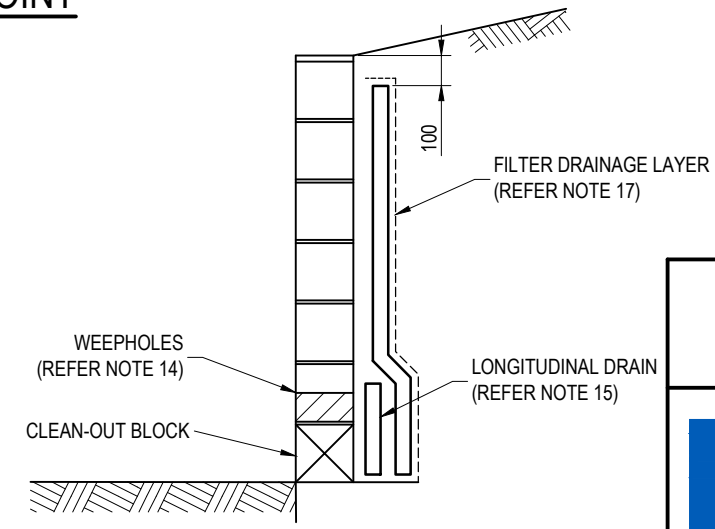
**TYPICAL WALL  
EXPANSION JOINT**



**DETAIL A**

**FOOTING DIMENSIONS**

| BLOCK SERIES | WALL HEIGHT "H" | LEVEL BACKFILL 5kPa SURCHARGE |            |       | SLOPING BACKFILL (1:4 MAXIMUM) 5kPa SURCHARGE |            |       |
|--------------|-----------------|-------------------------------|------------|-------|---|------------|-------|
|              |                 | WIDTH "B1"                    | DEPTH "D1" | "* X" | WIDTH "B2"                                    | DEPTH "D2" | "* X" |
| 150          | 0 - 800         | 850                           | -          | 50    | 1150  | -          | 50    |
|              | 801 - 1000      | 950                           | 350        | 50    | 1150  | 400        | 50    |
|              | 1001 - 1200     | 1250                          | 450        | 50    | 1550  | 500        | 50    |
| 200          | 1201 - 1400     | 1400                          | 550        | 50    | 1750  | 650        | 100   |
|              | 1401 - 1600     | 1700                          | 650        | 50    | 2250  | 800        | 100   |
|              | 1601 - 1800     | 2250                          | 750        | 50    | 3000  | 900        | 100   |



**DRAINAGE DETAIL**

**NOTES:**

- ALL WORKMANSHIP AND MATERIAL SHALL COMPLY WITH AS3600, AS3700 AND ALL OTHER RELEVANT AUSTRALIAN STANDARDS AND WORKPLACE HEALTH AND SAFETY REGULATIONS THAT ARE CURRENT AT THE TIME OF CONSTRUCTION.
- VERIFY LOCATIONS OF ALL SERVICES PRIOR TO COMMENCING WORK AND AVOID OVERSTRESSING AND DESTABILISING SERVICES AND EXISTING STRUCTURES DUE TO RETAINING WALL CONSTRUCTION.
- THE WALLS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS4678 - 2002 FOR A DESIGN LIFE OF 50 YEARS AND ON THE ASSUMPTION THAT A MINIMUM ALLOWABLE BEARING CAPACITY OF 100 kPa, A MINIMUM EFFECTIVE FRICTION ANGLE OF 32° AND BULK DENSITY OF 19kN/m<sup>3</sup> ARE AVAILABLE ON SITE FOR FOUNDING MATERIAL. A GEOTECHNICAL ENGINEER (RPEQ) SHALL CERTIFY THAT THE ASSUMED GEOTECHNICAL PARAMETERS IN NOTE 1 COULD BE ACHIEVED ON SITE. IF THEY CANNOT BE ACHIEVED, A STRUCTURAL ENGINEER (RPEQ) SHALL BE CONSULTED TO REDESIGN THE FOOTINGS.
- THE DESIGN IS NOT FOR VEHICLE LOADINGS HENCE A VEHICLE LOAD ON THE UPHILL LEVEL SHALL BE NO CLOSER THAN "H" FROM THE REAR CAPPING EDGE. THE DESIGN DOES NOT ALLOW FOR FENCES/BALUSTRADES OR OTHER BARRIERS TO BE FIXED TO THE WALL.
- BACKFILL SHALL BE FREE DRAINING, NON-PLASTIC PREDOMINANTLY GRANULAR MATERIAL WITH MINIMUM EFFECTIVE FRICTION ANGLE OF 32° AND BULK DENSITY OF 19kN/m<sup>3</sup>. DO NOT PLACE BACKFILL BEHIND THE WALL UNTIL COREFILL REACHES A MINIMUM OF 20MPa.
- THE CONTRACTOR'S GEOTECHNICAL ENGINEER (RPEQ) SHALL CERTIFY THAT:
  - THE COMBINED VERTICAL COMPACTION PRESSURES AND CONSTRUCTION SURCHARGE BEHIND THE WALL DO NOT EXCEED 5.0 kPa PRESSURE DURING CONSTRUCTION;
  - LATERAL COMPACTION INDUCED PRESSURES ON THE BACK OF THE WALL ARE RELIEVED BEFORE THE END OF CONSTRUCTION; AND
  - NO COMPACTION IS TO OCCUR WITHIN 300mm FROM THE BACK OF THE WALL.
- ALL CONCRETE BLOCKWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH AS3700.
- BLOCKS SHALL HAVE A MINIMUM STRENGTH OF 15MPa, MORTAR IS TO BE CLASS M3 IN ACCORDANCE WITH AS3700.
- MORTAR FINS PROTRUDING INTO CORES TO BE REMOVED BEFORE GROUTING.
- ALL CORES SHALL BE FILLED WITH GROUT, WHETHER REINFORCED OR NOT.
- GROUT FOR FILLING BLOCKWORK SHALL HAVE A MINIMUM CHARACTERISTIC STRENGTH OF 25 MPa (REFER AS3700) WITH A SLUMP OF 230 +/- 30. MAXIMUM AGGREGATE SIZE SHALL BE 10mm.
- CONCRETE FOOTINGS ARE BASED ON EXPOSURE CLASSIFICATION A2 IN ACCORDANCE WITH AS3600. CONCRETE GRADE SHALL BE N25 MINIMUM. A STRUCTURAL ENGINEER (RPEQ) SHALL BE CONSULTED TO REDESIGN THE FOOTINGS IF A WORSE EXPOSURE CLASSIFICATION IS FOUND ON SITE.
- REINFORCING STEEL SHALL BE GRADE D500N TO AS4671.
- INSTALL WEEPHOLES IN ADDITION TO THE LONGITUDINAL DRAIN FOR MAINTENANCE AND OVERFLOW PURPOSES. WEEPHOLES TO BE A VERTICAL JOINT VOID OF MORTAR ON THE LOWER HALF OF THE JOINT, SPACED AT 1000 MAX. CENTRES, AND POSITIONED AT A CONSTANT HEIGHT OF APPROXIMATELY 200 ABOVE ULTIMATE GROUND LEVEL.
- LONGITUDINAL DRAIN SHALL BE 300x50 MEGAFLOW OR STRIP DRAIN OR 100 DIA. CORRUGATED PERFORATED POLYETHYLENE PIPE, ENCASED WITH BIDUM A24 OR EQUIVALENT. THE INVERT OF THE LONGITUDINAL DRAIN SHALL BE 200 BELOW THE INVERT OF THE WEEPHOLE INLET. THE LONGITUDINAL DRAIN SHALL OUTLET TO THE KERB AND CHANNEL, STORMWATER PIPE OR GULLY AT A MINIMUM SLOPE OF 1 IN 200 AND AT 25m INTERVALS. WHERE SUCH AN OUTLET IS NOT ACHIEVABLE, THE INVERTS OF THE LONGITUDINAL DRAIN AND THE WEEPHOLE INLET SHALL BE ALIGNED TO ALLOW DIRECT DISCHARGE VIA THE WEEPHOLE.
- ALL CONNECTIONS, INCLUDING THE JOINING OF LENGTHS OF STRIP DRAIN, SHALL BE MADE USING STANDARD MANUFACTURER FITTINGS.
- FILTER DRAINAGE LAYER FOR FULL HEIGHT AND LENGTH OF WALL SHALL BE CORDRAIN OR APPROVED EQUIVALENT WITH BIDUM A24 OR APPROVED EQUIVALENT ADHERED TO ONE SIDE ABUTTING THE BACKFILL. ALTERNATIVELY, A 300 THICK FREE DRAINING, FILTER SAND/GRAVEL LAYER SEPARATED FROM THE INSITU MATERIAL BY TYPE BIDUM A24 OR EQUIVALENT IS ACCEPTABLE.
- PROVIDE EXPANSION JOINTS IN WALLS AND FOOTINGS AT 12m MAX CRS. AND 6m MAX FROM CORNERS AND ENDS TYPICALLY.
- ALL COUNCIL RETAINING WALLS TO BE CONSTRUCTED IN THE ROAD RESERVE WHERE POSSIBLE. PRIVATE WALLS INCLUDING FOOTING TO BE CONTAINED WHOLLY WITHIN PRIVATE PROPERTY.
- DIMENSIONS IN MILLIMETRES (U.N.O.).

THE PURPOSE OF THIS STANDARD DRAWING IS TO PROVIDE TYPICAL DETAILS THAT SUPPORT THE DESIRED OUTCOMES OF THE BRISBANE CITY PLAN 2014 AND ASSOCIATED PLANNING SCHEME POLICIES. THE FITNESS FOR PURPOSE OF THIS STANDARD DRAWING FOR A SPECIFIC PROJECT SHOULD BE ASSESSED AND ACCEPTED BY AN APPROPRIATELY QUALIFIED DESIGNER AND/OR REGISTERED PROFESSIONAL ENGINEER OF QUEENSLAND (RPEQ).



**BRISBANE CITY COUNCIL STANDARD DRAWING**

**RETAINING WALL  
CONCRETE BLOCK  
TYPE 2 FOOTING**

|                |              |
|----------------|--------------|
| PUBLISH DATE   | JUN 2023     |
| SCALE          | NOT TO SCALE |
| DRAWING NUMBER | BSD-2223     |
| ORIGINAL SIZE  | A3           |
| REVISION       | C            |