

Sump Design Criteria

a) Sump Pit Details

- .1 Sump pits are to be a minimum of 750 mm (30") deep, and 0.25 m² in area.
- .2 Sump pits are to be fitted with a tightly fitting removable cover.
- .3 Sump pits will be constructed of concrete, plastic, or non-corrosive metal.
- .4 Locate sumps as close to the basement exterior wall as possible (1.2m max) on the side of the building that provides positive drainage.
- .5 Sump pits are to be fitted with an opening to accept a 100mm (4") drain with the invert of the pipe located above the centre of the sump pits' height.
- .6 Sump pits are to be placed on even, well compacted surface.

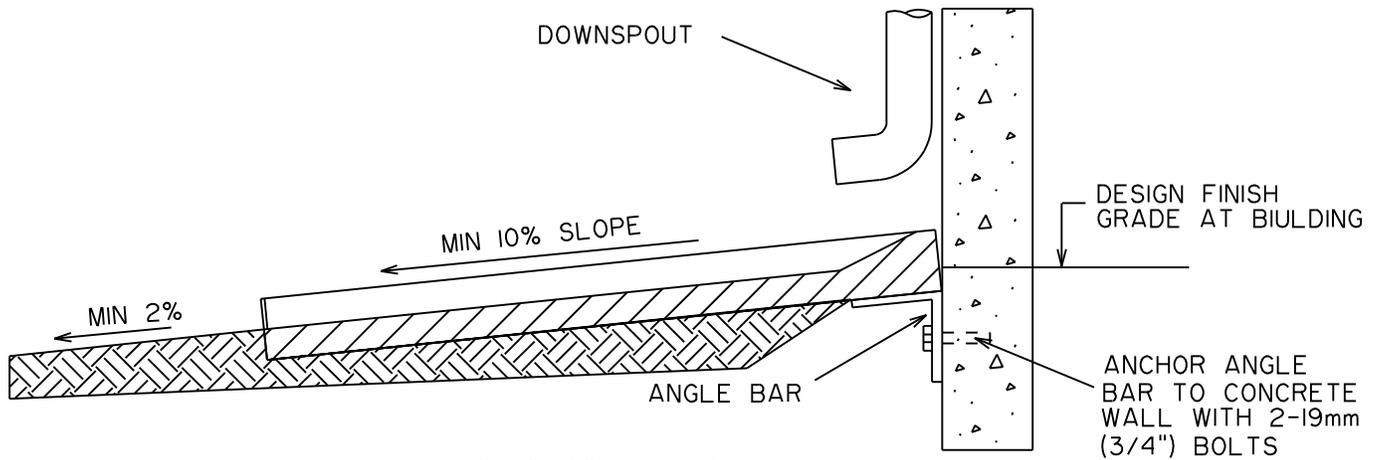
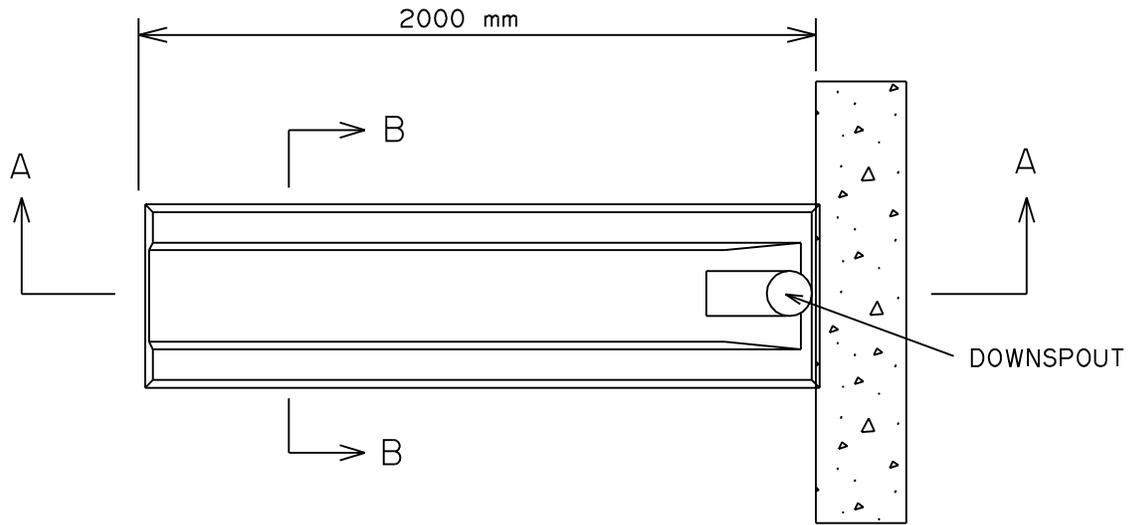
b) Foundation Drain (Weeping Tile) Drainage to Sump Pit

- .1 Provide a weeping tile collection system around the buildings perimeter tied to a sump pit using a 100mm (4") pipe which discharges into the side of the pit.
- .2 The outside perimeter of the sump pit, if of metal or plastic, is to be filled with clean washed rock 19mm – 25mm (3/4" – 1") to facilitate good drainage.

c) Sump Pump

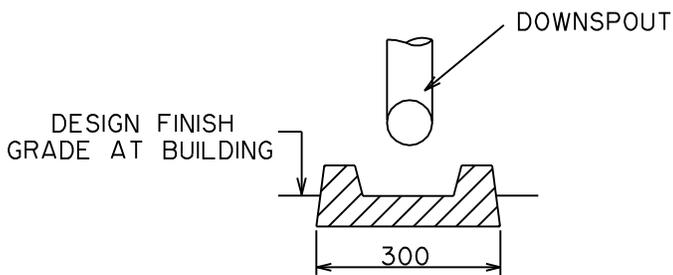
- .1 Provide a sump pump (column or submersible type) capable of pumping 0 L/m at 3m (10') of head. The pump is to be connected to an electrical power source (hardwired or by way of an electrical outlet) in accordance with the Electrical Protection Act.
- .2 The pump shall be fitted with an automatic on/off level control.
- .3 The pump discharge must be a minimum of 32mm (1 1/4") pipe which is placed under the floor slab and rises up the exterior foundation wall and exits the building. The pipe must be adequately secured to the wall.

- .4 The discharge line within the sump must be equipped with the following valves and fittings as per the requirements of the Alberta Plumbing Code:
- A union coupling,
 - A check valve located on the downstream side of the union.
- .5 Sump pumps discharging to a storm sewer or foundation collector drain must be equipped with a shut-off valve located downstream of the check valve, so that the connection to the main can be isolated for maintenance, etc.



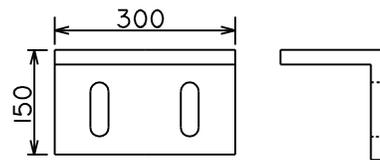
SECTION THRU A-A

N.T.S.



SECTION THRU B-B

N.T.S.



150mm x 150mm x 5mm
THK STD STOCK
ANGLE BAR

DETAIL OF ANGLE BAR

N.T.S.

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INFRASTRUCTURE SERVICES

SPLASH PAD DETAIL

DRAWN P.R.A.

CHECKED K.L.V.

APPROVED

SCALE N.T.S.

DATE 94/02/11

DWG NO LG-1

FLOOR JOIST

NOTE: PUMP MAY BE CONNECTED TO A RECEPTICAL WIRED IN THE VICINITY OF THE SUMP BOX, OR WIRED DIRECTLY TO ELECTRICAL PANEL.

TOP & SIDE COVERED WITH MINIMUM 150mm OF CRUSHED STONE OR EQUIVALENT

DISCHARGE TO STORM SEWER OR FOUNDATION DRAINAGE COLLECTOR

38mm CTS PLASTIC PRESSURE DISCHARGE PIPE

WEEPING TILE & TEE MIN 100mm

100mm (4") ABS PIPE OR WEEPING TILE TO SUMP

SHUT-OFF VALVE

CHECK VALVE

UNION COUPLING

REMOVEABLE COVER

WEEP HOLES

SEALED TO PREVENT SEEPAGES FROM OTHER AREAS BELOW FLOOR

AUTOMATIC SUMP PUMP

MIN 500mm x 500mm APPROX. (20" x 20") FOR SQUARE PITS, APPROX 600mm (24") DIAM FOR ROUND PITS, DEPTH OF SUMP PIT - 750mm (30"). MIN AREA OF SUMP 0.25 m². SUMP TO BE PLACED ON UNDISTURBED SOIL.

SUMP PIT MAY BE CONSTRUCTED OF:

- a.) CONCRETE
- b.) CORROSION RESISTANT STEEL
- c.) PLASTIC

CODE REFERENCE ON SUMP:
ALBERTA BUILDING CODE ART: 9.14.5.2

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SUMP WITH PUMPED DISCHARGE TO STORM SEWER OR FOUNDATION DRAINAGE COLLECTOR

DRAWN P.R.A.

CHECKED K.L.V.

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SCALE N.T.S.

DATE 94/01/28

DWG NO LG-2