TYPICAL SYSTEMS FOR FOUNDATION DRAINAGE & SURFACE DRAINAGE

The following information is in reference to the drainage of foundations and the storm drainage system for surface drainage.

Drawing BD-D19A depicts a typical system but there are several similar arrangements that would be equally acceptable.

The following are considered acceptable practices:

- 1. Rainwater Leaders (RWL) must be drained to a storm drainage system of approved piping (not perforated). The piping shall be not less than 75mm.
 - Calculations of the area of surface drainage may require larger sizes.
- 2. The storm drainage piping shall be sloped in accordance with the B.C.P.C.
- 3. The use of approved drainage fittings is required for storm drainage systems; i.e. 45 degree bends at the corners of the building and Y's at the connection to leaders, etc.
- 4. The storm drainage system shall be solvent cemented and capable of withstanding a test, if required.
- 5. Approved perforated sewer piping used for foundation drainage, must connect to the storm sump using approved fittings, 450 ells and long sweep bends etc. Place clean-outs at dead ends and high points.
- 6. A floor drain may be connected to the storm drain, sump or sanitary building drain. The minimum size of floor drain is 75mm.
- 7. Driveway and similar surfaces shall drain to the storm drainage system. A trough drain and sump or grated catch basin shall be installed to intercept the surface area being drained.
- 8. Storm drainage piping installed over uncompacted fill must be supported to subsection 3.4 B.C.P.C.

DRAINAGE STANDARDS - CORP. OF THE DISTRICT OF NORTH VANCOUVER

BD-D5 - Driveway Catch Basin

BD-D20 - Driveway Trough Drain BD-D3 - Standard Residential Sump

FOUNDATION AND SURFACE DRAINAGE INSTALLATION GUIDE NOTES.

DISTRICT of NORTH VANCOUVER

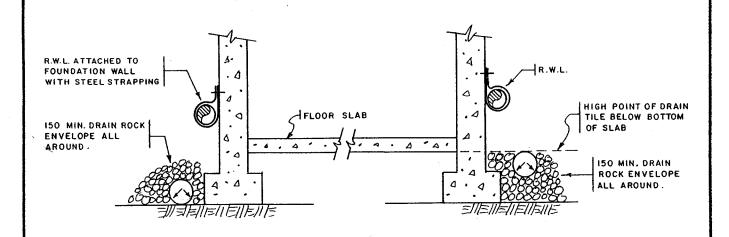
Approved By

Date 91/05/10 Scale N.T.S.

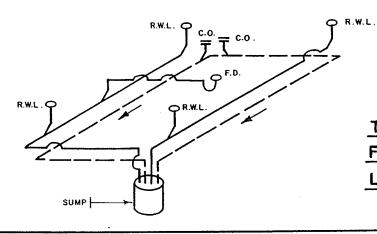
Plan Nº BD-D19B

PERMITS and LICENCES DEPT.

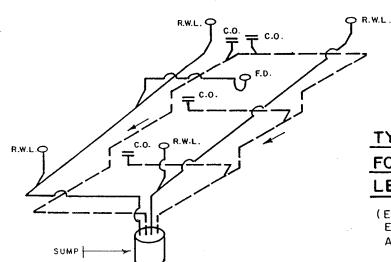
Drawn By S.A.M.



SECTION THRU DRAIN TILE AND R.W.L.



TYPICAL DRAINAGE LAYOUT
FOR A HOUSE WITH A SINGLE
LEVEL CONCRETE FLOOR



TYPICAL DRAINAGE LAYOUT
FOR A HOUSE WITH MULTILEVEL CONCRETE FLOORS

(EXTRA BRANCHES AT CHANGES IN ELEVATION AND CLEANOUT FITTING AT ENDS OF BRANCHES.)

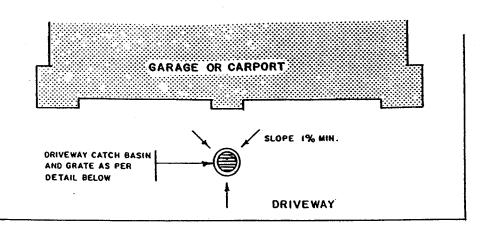
FOUNDATION AND SURFACE DRAINAGE INSTALLATION GUIDE

DISTRICT of NORTH VANCOUVER
PERMITS and LICENCES DEPT.

Approved By Date 91/05/01

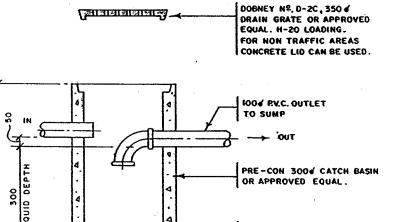
Drawn By S.A.M. Scale N.T.S.

BD-D19A



PLAN

[साराबाबाबायास्त्र]



20 MPa CONCRETE BASE CAST IN PLACE ON UNDISTURBED SOIL

DETAIL OF DRIVEWAY CATCH BASIN AND GRATE

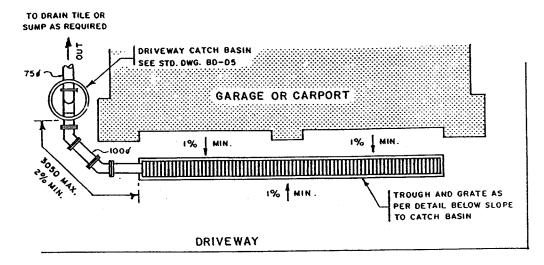
Pursuant to the current B.C. Building Code, Article 9.14.6.3, driveway catch basins and/or trough drains shall be provided and connected to a building sump.

The details contained in Apendix "J" establish minimum standards acceptable to the authorities having jurisdiction.

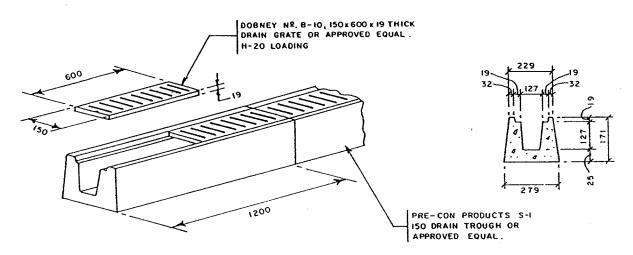
Hydraulic loads used for proper and adequate design of a catch basin or trough drain shall conform to Appendix "D" of this Bylaw and the current B.C. Building Code.

DRIVEWAY CATCH BASIN

Plan Nº Approved By Date OCT, 1993 DISTRICT of NORTH VANCOUVER BD - D5PERMITS and LICENCES DEPT. Orewn By \$.A.M. Scale N.T.S.



PLAN



DETAIL OF 150 DRIVEWAY DRAIN TROUGH AND GRATE

Pursuant to the current B.C. Building Code, Article 9.14.6.3, driveway catch basins and/or trough drains shall be provided and connected to a building sump.

The details contained in Apendix "J" establish minimum standards acceptable to the authorities having jurisdiction.

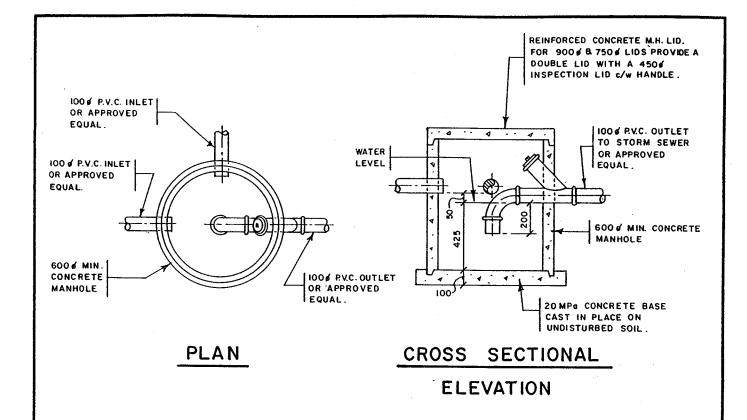
Hydraulic loads used for proper and adequate design of a catch basin or trough drain shall conform to Appendix "D" of this Bylaw and the current B.C. Building Code.

DISTRICT of NORTH VANCOUVER

PERMITS and LICENCES DEPT.

Approved By		Date OCT, 1993	
Drawn By	S.A.M.	Scale	N.T.S.

BD - D20



- Every basement, cellar, surface, roof or weeping tile, drain shall be trapped by means of a sump constructed as shown on this plan, and located not more than 1.5m from the building it serves. The walls of the sump shall extend to finished grade.

> Sumps 1200mm in depth to be 600mm diameter Sumps 1800mm in depth to be 750mm diameter Sumps over 1800mm to be 900mm diameter

- All drains to the sump must be individually connected, to facilitate cleaning and servicing.
- The outlet from the sump shall be C.I. or approved plastic.
- Before proecceding with the construction of a sump, a permit must be obtained from the Plumbing Inspector, and the installation must be inspected and passed by the Inspector before it is put into service.
- The sump must be located so as to be readily accessible at all times for cleaning and servicing.
- All deposits in the sump must be removed as necessary to ensure that no sediment enters the outlet fitting. It is unlawful to clean the sump by washing or flushing the sediment or sludge into the public sewer.

JIMNUMINU INGGINGENTIME JUME	STANDARD	RESIDENTIAL	SUMP
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DISTRICT of NORTH VANCOUVER
PERMITS and LICENCES DEPT.

Approved By
Date OCT., 1989
Plan Nº.
BD - D3