

**SCHEDULE
TO WELL CONSTRUCTION AGREEMENT
BETWEEN**

**and
THE CORPORATION OF THE TOWNSHIP OF
NORTH GRENVILLE**

PART LOT CONCESSION ; BEING PART ON PLAN 15R-

WELL DESIGN SPECIFICATIONS

All wells shall be located and constructed in accordance with the following specifications:

The well shall be completed into a bedrock aquifer to ensure that the water supply can be adequately protected from surface contaminants. Completed wells shall be a minimum of 150 mm (6 inch) diameter. The annular space shall be 50 mm (2 inches) in diameter larger than the outside diameter of the casing, for the entire length of the casing. The well shall be drilled for a depth of 6 m from surface or for 2 m into competent bedrock, whichever is deeper, using standard well drilling equipment.

A 150 mm (6 inches) interior diameter steel casing with a drive shoe shall be seated into the bedrock. The remainder of the well shall be completed as a 150 mm diameter open hole to whatever depth is required in order to obtain an adequate supply of potable water. Wells shall be constructed by a properly licensed water well contractor and in accordance with Ontario Regulation 903 and as per the attached sketch.

The casing shall be pressure grouted with cement, for the entire length of casing. Neat cement grout shall be a mixture of 100 lbs. of cement to 5 or 6 gallons of clean water. Hydrated lime may be added to a maximum of 10% of the volume of cement. Not more than 2 parts (by weight) of sand to one part of cement may be used. Cement grout shall be allowed to set a minimum of 24 hours (high early cement) or 72 hours (normal cement) before drilling continues.

The final depth of the wells will be dependant on the yield. Well drilling and construction operations shall be inspected, and the Township shall be notified for inspection 24 hours prior to the following stages;

- prior to commencement of pressure grouting
- prior to backfilling of service trench

MOE recommended cement grouting methods No. 3, 4 or 5 shall be followed, in order to ensure that all void spaces are filled. Wells shall be completed with a pitless adaptor to ensure ease of maintenance of well pumps and equipment. Holes in the well casing shall be cut with a hole saw, not a torch. Tiles and other drainage collecting structures are not permitted around the well head.

Since current Municipal By-laws do not permit flowing wells or ground-source heat pumps to be discharged into road ditches or Municipal Drains; therefore when flowing artesian conditions exist (i.e. the static water level is above the ground surface), it will be required that the well casing be extended above grade to a height above the highest static water elevation.

Finished casing shall extend a minimum of 0.3 meters above finished grade.

THE CORPORATION OF THE TOWNSHIP OF NORTH GRENVILLE

Schedule "A" to By-Law No. 11-03

CERTIFICATION OF LICENSING

I, _____ do hereby certify that I am licenced to drill water
(Name of Contractor/Company)

wells in the Province of Ontario.

AND FURTHERMORE THAT I will supervise the drilling of a well on the property of

_____, located at _____ in the
(Name of Landowner) (Municipal Address)

geographic Township of North Grenville.

AND FURTHERMORE THAT I am aware of the well drilling requirements of the Township of North Grenville and the regulations of the Ministry of Environment as they govern well installations in the Province of Ontario.

AND FURTHERMORE THAT I acknowledge that each registered plan of subdivision may have different well drilling requirements.

AND I DO HEREBY CERTIFY THAT the said well shall be drilled, cased and grouted to the standards as specified in the applicable Well Construction Agreement.

Signed this _____ day of _____, 20____.

Well Contractor

Licence No.

Well Technician

Licence No.

Pump Installer

Licence No.



WELL CONSTRUCTION AGREEMENT

Re: Part Lot ____ Concession _____
Geographic Township of _____
Municipality of North Grenville
Part ____ On Plan 15R- _____

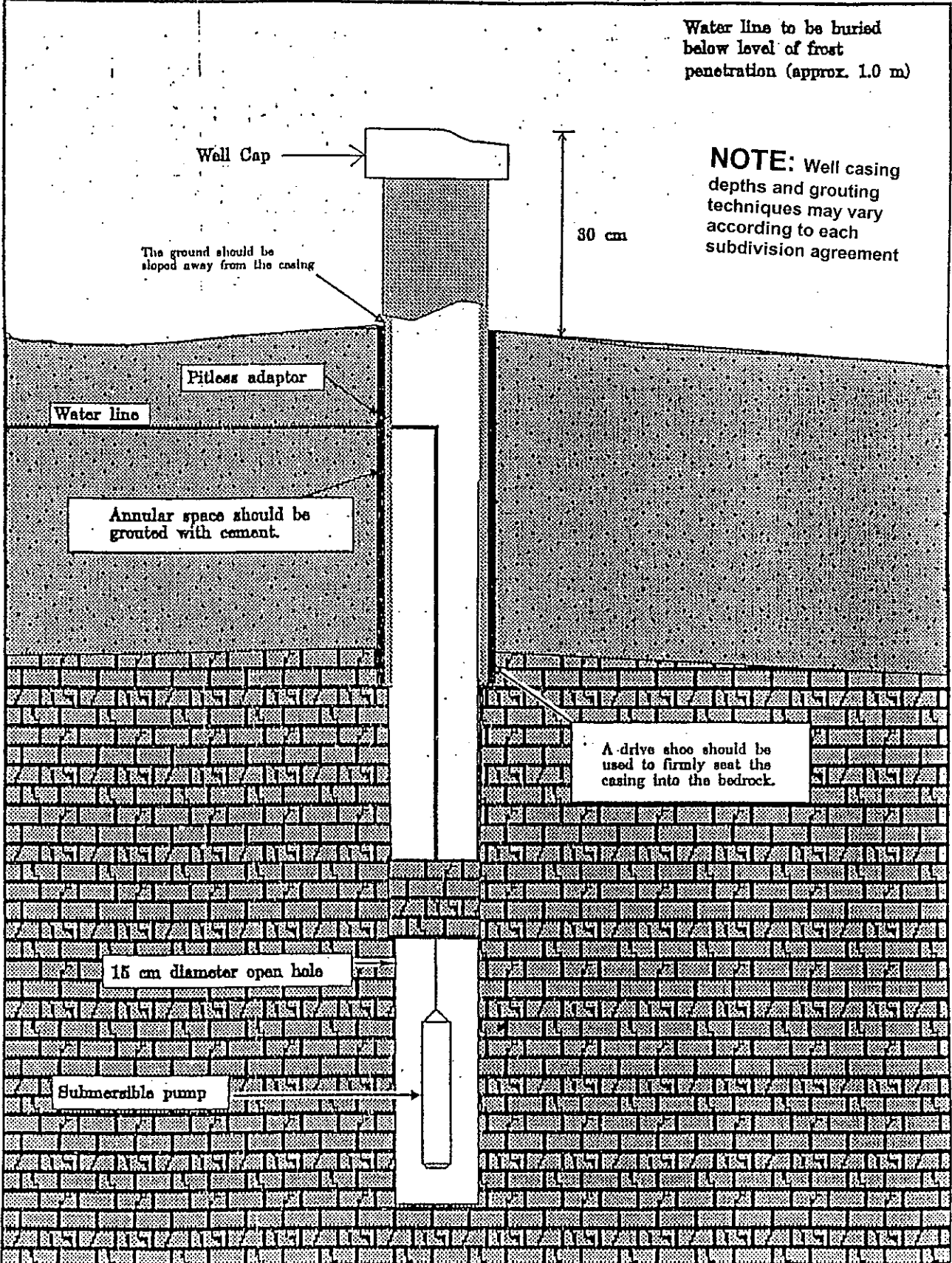
In consideration of the Municipality waiving the requirement for a hydro-geological report in respect of the above noted property; I _____ (being the owner, agent of the owner), hereby agree to construct any water wells on this property in accordance with the attached specifications, or those specifications as provided for in the subdivision agreement.

Dated at _____, this ____ day of _____ 20 ____

Signed: _____

Witness: _____

Water line to be buried below level of frost penetration (approx. 1.0 m)



Well Cap

30 cm

NOTE: Well casing depths and grouting techniques may vary according to each subdivision agreement

The ground should be sloped away from the casing

Pitless adaptor

Water line

Annular space should be grouted with cement.

A drive shoe should be used to firmly seat the casing into the bedrock.

15 cm diameter open hole

Submersible pump

WELL DESIGN