

Environment Act Licence

Manitoba
Environment



Licence No. 1565

Issue Date JUNE 9, 1992

In accordance with the Manitoba Environment Act (C.C.S.M. c. E125)

THIS LICENCE IS ISSUED TO:

RURAL MUNICIPALITY OF STE. ROSE: "The Licencee"

for the construction and operation of the Development being the Ste. Rose Water Pipelines located in the Rural Municipality of Ste. Rose and subject to the following specifications, limits, terms and conditions:

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

- 1) The Licencee shall construct the development in accordance with the *Ste. Rose South Rural Water Pipeline Layout* filed with Manitoba Environment as part of the Environment Act Proposal, dated March 3, 1992.
- 2) The Licencee shall construct the Turtle River crossings as described in the *Ste. Rose South Rural Water Pipeline Layout* in accordance with the *Recommended Fish Protection for Stream Crossings in Manitoba*.
- 3) The Licencee shall bore, tunnel, or auger all crossings of the Turtle River. The Licencee shall not undertake any alternate methods of stream crossings without prior written approval from the Director.
- 4) The Licencee shall not, prior to June 15, 1992 undertake any construction near the crossings of the Turtle River that has the potential to impact the riparian zone.
- 5) The Licencee shall re-establish the profile, compact, and seed all excavated areas within the highway rights-of-way.
- 6) The Licencee shall separate and replace topsoil from backhoe and trenching operations in accordance with the methodology described in Figures 1, 2 and 3 attached to this Licence.
- 7) The Licencee shall seed disturbed, non-agricultural areas with a mixture of native and introduced grasses.

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- 8) The Licencee shall collect and dispose of all waste oil products used in the construction in accordance with Manitoba Environment Act requirements.
- 9) The Licencee shall, prior to beginning any construction of the development, submit a Groundwater Contamination Engineering Report for the approval of the Director. The Engineering Report shall:
 - a) contain the results of a groundwater contamination survey between the proposed Well Site for the Development and the Waste Disposal Ground located approximately one mile to the northwest; and
 - b) recommend specific mitigation measures as may be required as a result of the Report's findings.
- 10) The Licencee shall, prior to beginning any construction, provide to the Director, written evidence that a Licence has been obtained pursuant to the Manitoba Water Rights Act.
- 11) The Licencee shall operate the domestic water supply in accordance with Regulations under the Public Health Act and all operating requirements as recommended by Manitoba Environment.

REVOCATION

If in the opinion of the Director the Licencee has exceeded or is exceeding the specifications, limits, terms or conditions set out herein, the Director may revoke, temporarily or permanently, this Licence.



Larry Strachan, P. Eng.
Director, Environment Act



FAXED

CLIENT FILE: 3450.00

June 23, 1992

Ms. Michelle Denys
Secretary Treasurer
R. M. of Ste. Rose
P.O. Box 30
STE. ROSE DU LAC, Manitoba
ROL 1S0

Dear Ms. Denys:

In reviewing Environment Act Licence #1565 dated June 9, 1992 issued in accordance with the Manitoba Environment Act to the Rural Municipality of Ste. Rose, we discovered that Figures 1, 2 and 3 were inadvertently not attached to the Licence.

Attached for inclusion to the Licence are Figures 1, 2 and 3. Please append Figures 1, 2 and 3 to the original Environment Act Licence No. 1565 issued June 9, 1992 to the Rural Municipality of Ste. Rose.

We apologize for any inconvenience this may have caused.

Yours truly,

Larry Strachan, P. Eng.
Director
Environment

Attachment

cc: Distribution List
cc: Stella K. Fedeniuk, P. Eng.
cc: Wayne Vanrobaeys



R/W
BDY.

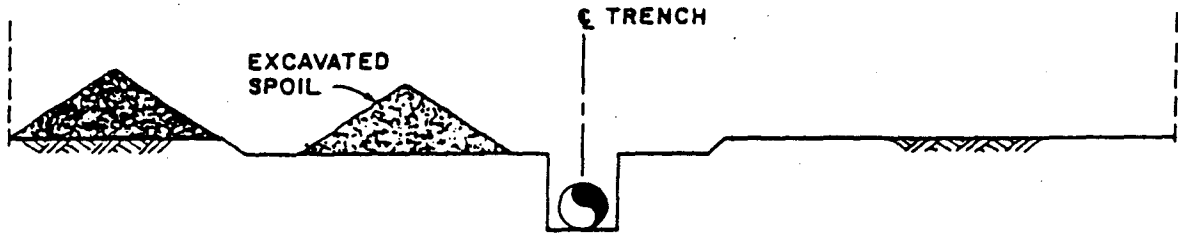
SPOIL SIDE

WORK SIDE

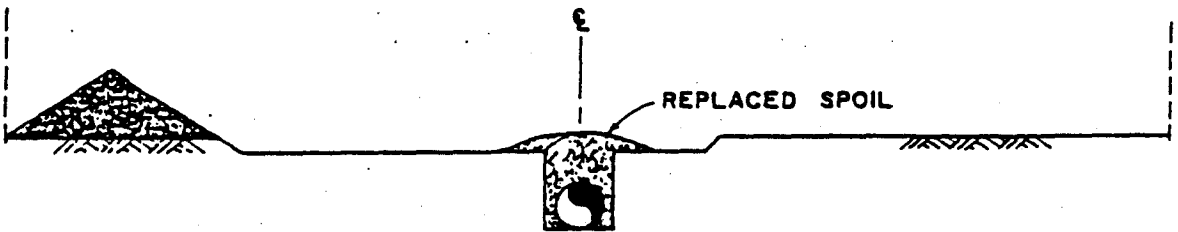
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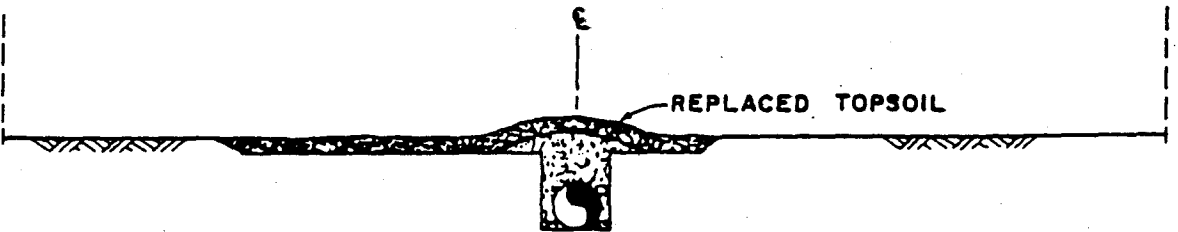
1. TOPSOIL STRIPPED
N.T.S.



2. TRENCH EXCAVATED
N.T.S.



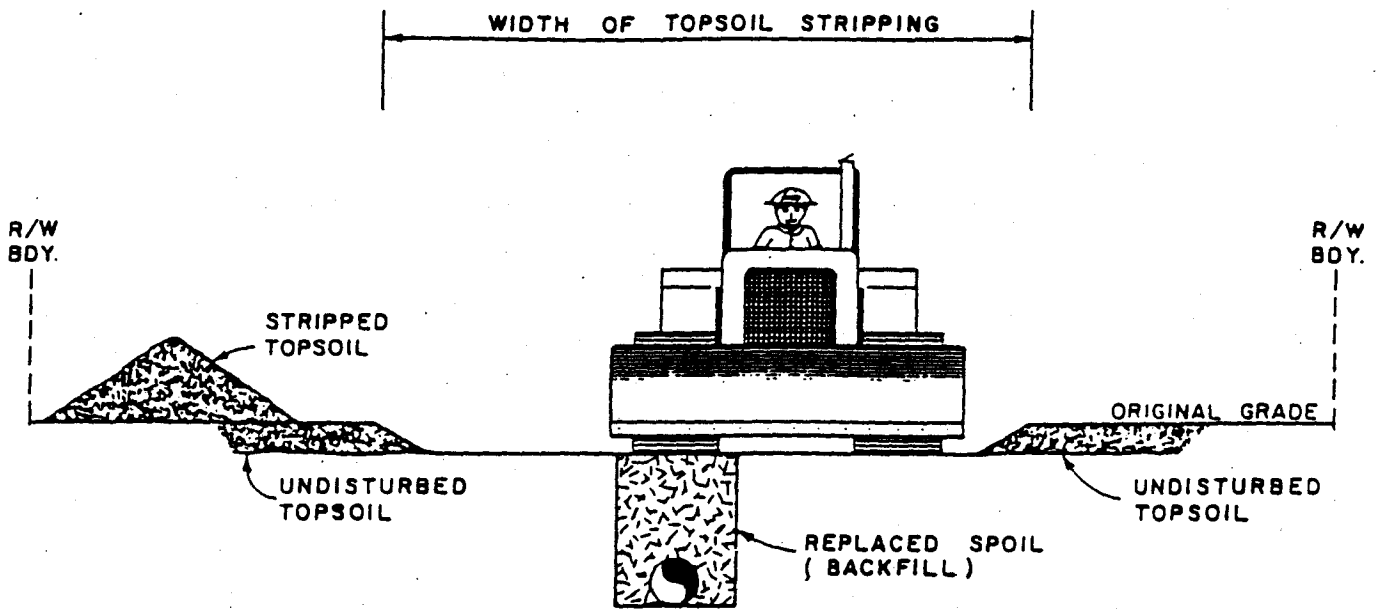
3. TRENCH BACKFILLED
N.T.S.



4. TOPSOIL REPLACED
N.T.S.

SEQUENCE OF TOPSOIL HANDLING

FIGURE I



PROFILE
N.T.S.

Notes

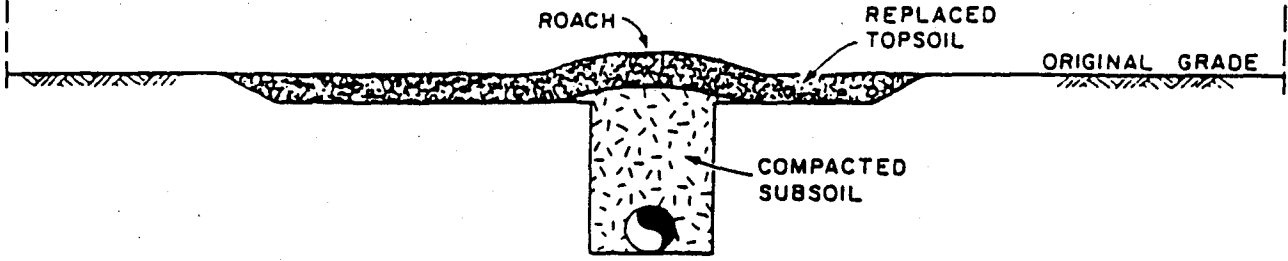
1. Except in rocky or muskeg areas, compact the backfilled subsoil to minimize settlement. The degree of compaction which can be achieved is limited by soil type, frost and moisture content, depth of cover, pipe strength and insulation, and other factors. Typically, compaction is achieved by a few passes with a crawler tractor. In special cases such as irrigated fields and open cut road crossings, 100% compaction is desirable and requires special equipment and compaction in multiple lifts.
2. Dispose of excess subsoil in locations satisfactory to the landowner and in a manner which will prevent mixing with topsoil.

COMPACTION OF BACKFILL

FIGURE 2

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BDY.



PROFILE
N.T.S.

Notes

1. Roach the trench to compensate for settlement and changes in natural drainage patterns. The height of the roach depends upon land use, the degree of compaction achieved, and soil frost. Frozen soils require higher roaches than non-frozen soils. In agricultural lands, including forested lands in the yellow area, the roach should be low and wide (unfrozen case) to facilitate topsoil replacement. A higher roach is acceptable on forested land provided drainage and wildlife are unaffected. Typical values for roaching of representative soil types are presented below. The higher numbers in the range represent the worst case (frozen or clods).

Type of Backfill	Swell Coefficient (r)
blasted rock	.00 - .05
sand & gravel	.05 - .10
sand	.08 - .15
silty sand	.10 - .15
silt	.10 - .20
clay	.10 - .25
organic (muskeg)	.50 - 1.00

$R = r \times D$ where R = height of roach
 r = swell coefficient
 D = depth of trench

2. Leave periodic gaps in roach (e.g., 250 m), at all obvious drainage courses and at trench breakers (Dwgs. No. 12-3a and 3b) to allow for surface run-off. These gaps may require maintenance the following year to fill in settled areas.
3. Replace topsoil evenly after trench has settled or has been compacted.

Source: Formula adapted from Transcanada Pipelines, 1979.

ROACHING THE TRENCH

FIGURE 3