MUNICIPAL DISTRICT OF TABER
IN THE PROVINCE OF ALBERTA

BYLAW NO. 1790

BEING a bylaw of the Municipal District of Taber in the Province of Alberta for the purpose of adopting Bylaw No. 1790 being the Sacred Acres Area Structure Plan.

WHEREAS the Council of the Municipal District of Taber has redesignated Lot 1, Block 1, Plan 0711243 in the SE¼ Sec 17, Twp 9, Rge 16, W4M to the "Grouped Country Residential - GCR" land use district;

AND WHEREAS THE PURPOSE of proposed Bylaw No. 1790 is to to establish standards and requirements regarding the development and subdivision of lands described as Lot 1, Block 1, Plan 0711243 in the SE¼ Sec 17, Twp 9, Rge 16, W4M;

AND WHEREAS the municipality wishes to provide for orderly growth and development to occur while minimizing land use conflicts;

AND WHEREAS the municipality may adopt an area structure plan pursuant to section 633 of the Municipal Government Act, RSA 2000, Chapter M-26, as amended, and provide for its consideration at a public hearing.

NOW THEREFORE, under the authority and subject to the provisions of the Municipal Government Act, RSA 2000, Chapter M-26, as amended, the Council of the Municipal District of Taber in the Province of Alberta, duly assembled does hereby adopt Bylaw No. 1790 being the Sacred Acres Area Structure Plan.

READ a **first** time this 26 day of January, 2009.

Reeve - Hank Van Beers *Municipal Administrator – Derrick Krizsan*

READ a **second** time this 14 day of April, 2009.

Reeve - Hank Van Beers *Municipal Administrator – Derrick Krizsan*

READ a **third** time and finally PASSED this 14 day of April, 2009.

Reeve - Hank Van Beers *Municipal Administrator – Derrick Krizsan*

MUNICIPAL DISTRICT OF TABER
IN THE PROVINCE OF ALBERTA

BYLAW NO. 1792

BEING a bylaw of the Municipal District of Taber in the Province of Alberta, to amend Bylaw No. 1722, being the municipal Land Use Bylaw.

WHEREAS the Municipal District Council is in receipt of a request to redesignate lands legally described as:

Lot 1, Block 1, Plan 0711243 in
SE ¼ Sec 17, Twp 9, Rge 16, W4M

from "Rural Agricultural - RA" to "Grouped Country Residential - GCR" as shown on the map in Schedule 'A' attached hereto.

AND WHEREAS THE PURPOSE of proposed Bylaw No. 1792 is to accommodate future residential development on the above-noted lands in compliance with the municipal Land Use Bylaw.

AND WHEREAS the municipality must prepare a corresponding bylaw and provide for its consideration at a public hearing.

NOW THEREFORE, under the authority and subject to the provisions of the Municipal Government Act, Revised Statutes of Alberta 2000, Chapter M-26, as amended, the Council of the Municipal District of Taber in the Province of Alberta duly assembled does hereby enact the following:

1. Lands legally described as Lot 1, Block 1, Plan 0711243 in the SE¼ Sec 17, Twp 9, Rge 16, W4M presently designated as "Rural Agricultural - RA" be redesignated to "Grouped Country Residential – GCR".
2. The Land Use District Map be amended to reflect this redesignation.
3. Bylaw No. 1722, being the municipal Land Use Bylaw, is hereby amended.
4. This bylaw comes into effect upon third and final reading hereof.

READ a **first** time this 26 day of January, 2009.

~~**Reeve**~~ *Hank Van Beers* — ***Municipal Administrator*** *- Derrick Krizsan*

READ a **second** time this 14 day of April, 2009.

~~**Reeve**~~ *Hank Van Beers* — ***Municipal Administrator*** *- Derrick Krizsan*

READ a **third** time and finally PASSED this 14 day of April, 2009.

~~**Reeve**~~ *Hank Van Beers* — ***Municipal Administrator-*** *Derrick Krizsan*

Final

DESIGN SCHEME

SACRED ACRES

Steven & Chelsea Scott
S1/2 of SE ¼ 17-9-16-4 Lot 1 Block 1 Plan 0711243
Box 4563
Taber, AB
T1G 2C9

INTRODUCTION

The proposed subdivision is located S ½ of SE ¼ 17-9-16-4 lot 1 block 1 plan 0711243 approximately 4 miles south of Taber. The existing property contains 20.92 acres in its pre-subdivided state.

The proposed subdivision will consist of 3 residential lots, ranging from 2.04 acres to 10.94 acres.

The current location and layout of the proposed subdivision is shown on the accompanying plan.

AREA STRUCTURE PLAN

A DETAIL SITE PLAN

The lot layout is better shown on the aerial overhead photo of the parcel to be subdivided. Also included is a sketch of the area with approximate dimensions.. Dimensions and sizes are approximated to the nearest acre or meter. There will be three lots created in total with one lot south of the existing house, and another on the west of the existing house.

LOT 1- Consisting of existing house, grain bin, corrals and outbuildings. After subdivision this lot will be on approximately 8.01 acres.

LOT 2- Consisting of mobile home (upgraded roof, siding, windows, and floors, with operating septic system) and unattached 20 x 40 garage. After subdivision this lot will be on approximately 2.04 acres.

LOT 3- This lot will be approximately 10.94 acres on the west side of current property bordering lot 1 on the east.

B ROAD NETWORK

LOT 1 & 2
Access to lots 1 and 2 will be a shared access by the existing approach off the M.D road. An access easement will be established at the time of subdivision for the shared access approach for lots 1 and 2.

Lot 1 will also have 25 m of property fronting the MD. Road

LOT 3
Access to the site will be from Municipal District Road TWP RD 9-2. Approach location will depend on the buyers, as their building plans of the house and garage will dictate the road way into the residence. Typically the access road will be in or close to the center of the lot. Approach access and construction from the M.D. road will be done at the time of subdivision approval. Approach width and construction will meet M.D. specifications and will be at the developers cost. Road access to the house will be at the expense of the home owner with surfacing and width left to the home owner's discretion. The M.D must be contacted to determine the approach specifications and if a culvert is required.

C STORM WATER MANAGEMENT

LOT 1- Natural drainage of lot 1 is northward to a low lying area and southward toward the M.D. Road.

LOT 2- Natural Drainage is southward toward the MD Road.

LOT 3- Natural Drainage is northward toward the existing dugout and slough.

In an extreme case of excess water the direction of flow would flow to the north away from both properties towards the existing dugout. Landscaping will be the responsibility of the new owner to ensure natural drainage.

D LOT SERVICING

Septic System

Percolation tests were conducted on the proposed lots 1 and 3 by UMA Engineering and are included as an attachment to this plan. The existing home and mobile have current operating septic fields. The percolation tests done on site did not meet acceptable standards and therefore if a septic system be installed it will be the responsibility of the property owner to have the completed installed septic disposal system inspected by an accredited Safety Code Officer, with a copy of the final inspection certificate (plumbing permit approval) submitted to the M.D. It will be the responsibility of the home builder to meet the recommendation specifications mentioned in order to have a viable septic field installed.

a. Effluent Treatment Option:
    1. Based on the site investigation results by UMA Engineering it is recommended that a treatment mound system be installed. (Please refer to UMA recommendation letter, (included))The treatment mound is most often used for difficult soils where a disposal field will not work well. (Please refer to Alberta Municipal Affairs Codes & Permits(included), or http://www.municipalaffairs.gov.ab.ca/handbook_treatment_mounds)

It will be the responsibility of the owner to pay for installation of the sewage system. As costs vary according to installer it will be the responsibility of the new home owner to determine estimate costs.

Domestic Drinking Water
Water supply (domestic drinking water) will have to be hauled from a viable drinking source at the lot owner's expense, and stored in a cistern on-site.

Irrigation
The Taber Irrigation District has a water turn out on the North East corner of the existing property. It will be the responsibility of the lot owner to put irrigation in place. A letter from the T.I.D (included) states it has no objection to the rezoning.

Utilities
Utility services for electricity, gas, and phone will be the responsibility of the new owner. Fortis power lines run along the M.D. road.

ATCO Gas lines run through the middle of the property (East, West) and will be the responsibility of the new owner to access these lines.

E DESIGN DETAILS

i) ARCHITECTURAL CONTROLS

a) Any prebuilt, manufactured home older than 20 years must have a peak on the roof design, and finished weather proof siding. There will be no specific restrictions to color.
b) Houses may be bungalow or multi level. The maximum height above ground level shall not exceed the maximum height provided for in the Municipality's Land Use Bylaw #1722 and amendments that may be made from time to time.
c) It will be the responsibility of the developer to register a restrictive covenant upon the property at the time of subdivision, and enforce the architectural controls as contained within the area structure plan.
d) No other controls will be required.

ii) KEEPING OF ANIMALS

Pursuant to Part 12 of the Grouped Country Residential – "GCR" District within the Municipal District of Taber Land Use Bylaw No 1772 (as amended from time to time), the keeping of animals on private property within the Plan Area shall be allowed subject to the following:

(a) It is recognized that the keeping of animals is an appropriate activity given the rural characteristics of development within the Plan Area, subject to certain conditions intended to balance rural and residential needs and expectations around this activity.
(b) Animals within this Plan are defined as Household Pets and Pet-type Domestic Livestock.

(c) The number of **Mature** animals and birds will be limited to the Equivalent of 2 animal Units per 2 acre of property as described below:

i. Equines, Bovines, Bovidae, Cervides, Suidae and Camilidae are rated as three units each and not more than 3 of these animals shall be allowed for lot 1, 2 per lot 2, and 3 per lot 3.
ii. Poultry/Fowl, including chickens, ducks, geese, pheasants and pee-fowl are rated as four animals per Unit.

The accommodation of Immature, direct offspring from the allowed animals only, will be limited within these ages:
Large Animals-Less than twelve (12) months of age;
Birds- Less than 5 months of age

iii) **HOME OCCUPATION**

Home Occupation is a discretionary use and will be determined by the M.D. of Taber Land Use Bylaw.

F AFFECTED AGENCY COMMENTS

- Chinook Health Region, Pam Hogkinson (letter included)
- Taber Irrigation District, Kent Bullock (letter included)
- Oil, Gas Companies – Not applicable

G RIGHT TO FARM

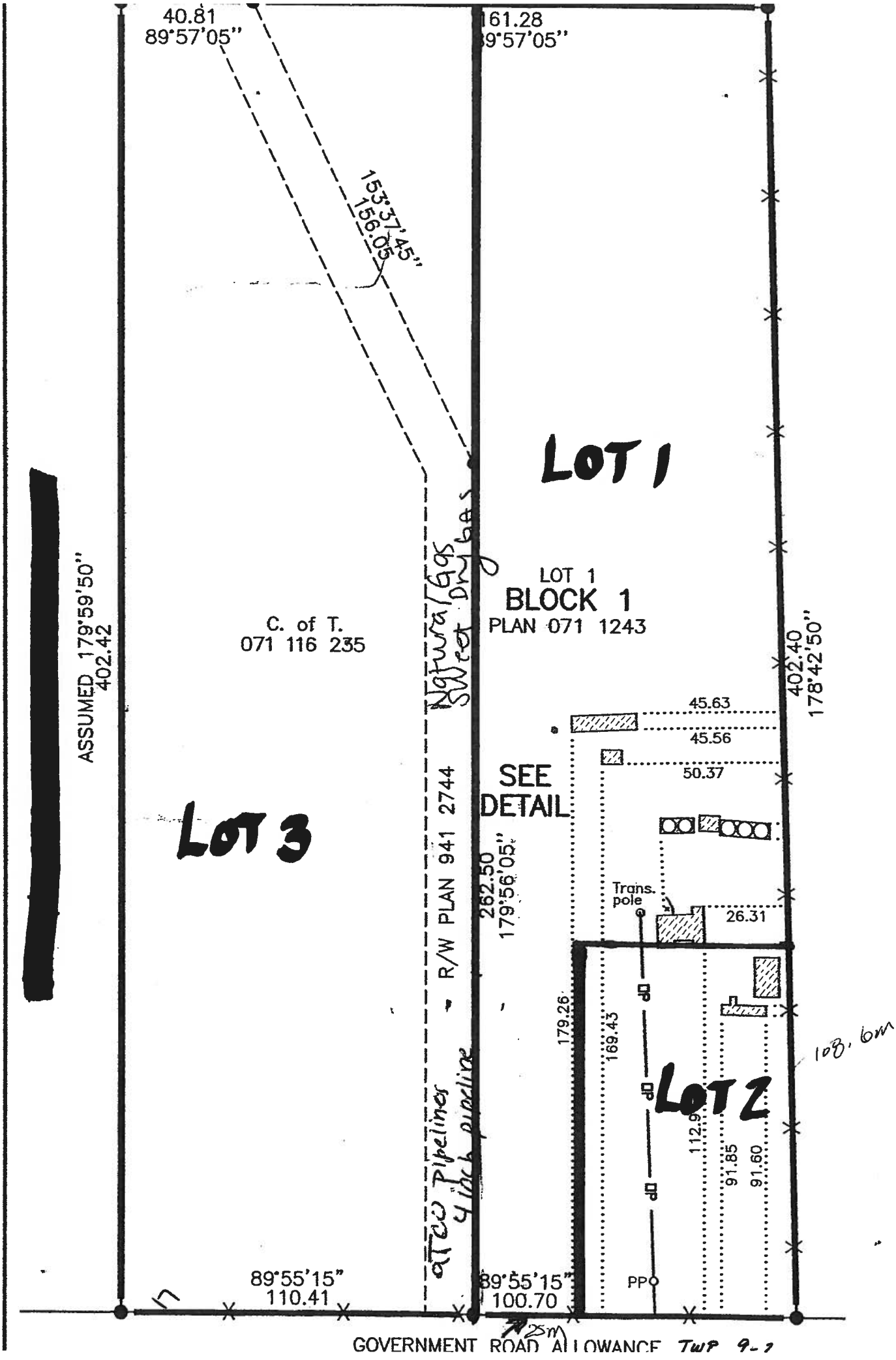
It will be the understanding of the new land owner that they will be subject to sounds, smells, traffics, and activities of an agricultural nature. It is a provision hereof that the owner of the lands may not hold liable any person in an action in nuisance resulting from agricultural operations. The owner of any agricultural operation is not to be prevented by injunction or other order of a court from carrying on the agricultural operation because it causes or created a nuisance.

H NO WAIVER

Failure by the M.D. or any third party to enforce or require compliance with any provision hereof shall not render any such provision in any way unenforceable or invalid. No provision hereof shall be waived except in writing duly sighned and delivered by the M.D. of Taber.

I FURTHER SUBDIVISION

It is a provision hereof that the owner of the lands may not further subdivide the land unless under the provisions of the M.D of Taber Land Use By-Law


40.81
89°57'05"
153°37'45"
156.05
161.28
89°57'05"
LOT 1
LOT 1
BLOCK 1
PLAN 071 1243
C. of T.
071 116 235
ASSUMED 179°59'50"
402.42
402.40
178°42'50"
45.63
45.56
50.37
SEE
DETAIL
LOT 3
R/W PLAN 941 2744
262.50
179°56'05"
Trans.
pole
26.31
179.26
169.43
112.9
91.85
91.60
LOT 2
108.6m
89°55'15"
110.41
89°55'15"
100.70
PP
GOVERNMENT ROAD ALLOWANCE TWP 9-1

UMA Engineering Ltd.
514 Stafford Drive N
Lethbridge, Alberta T1H 2B2
T 403.329.4822 F 403.329.1678 www.uma.aecom.com

March 19, 2008 Project No.: E718-001-00/L001

Steve and Chelsea Scott
Box 4563
Taber, Alberta
T1G 2C9

Dear Steve and Chelsea:

RE: Percolation Testing for Proposed Disposal Field
SE 17-9-16-W4M, Taber, Alberta

As per your request, a representative of UMA Engineering Ltd. visited the above captioned site on January 14 – 15, 2008.

The purpose of the testing was to give a general percolation rate for a proposed septic field and to establish general design criteria for septic field installation.

UMA's scope of work was to carry out two percolation tests on the above quarter section of land on the east and west edges of the approximately 10 acre parcel of land to the west of the Scott residence. Testing consisted of installing two 0.20 m diameter test holes to a depth of 0.9 m and performing percolation tests according to the procedures outlined in *Alberta Private Sewage Systems Standard of Practice, 1999*. In addition, UMA was to install one test hole to a depth of 3.0 m and install a slotted piezometer to determine depth to water within the proposed area. No further testing was requested.

Standing water was found at 2.75 m (9 ft) and 2.40 m (8 ft) below ground level within east and west site 3.0 m standpipes on January 15, 2008. According to the above regulations, Section 7.1.6, a vertical separation between the point of effluent discharge and a water table must be greater than:

- 1.5 m (5 ft.) if the effluent is supplied by a septic tank with no other treatment, or
- 0.9 m (3 ft.) if the effluent undergoes Class 1 packaged sewage treatment or a sand filter, a treatment mound, or an open bottom sand filter.

Water levels measured on January 15, 2008 indicate there is adequate separation, but the winter water table is at its seasonal low and will be much closer to the surface in the spring and early summer months. Therefore, the minimum 1.5 m untreated effluent separation distance may not be maintained throughout the entire year and effluent treatment options may need to be explored.

The percolation holes were presoaked for 24 hours prior to conducting the percolation tests. The average percolation rate for both sites were determined to be approximately 2.25 minutes per 25 mm which falls outside the *Alberta Private Sewage Systems Standard of Practice, 1999* range of percolation rates of 5 to 60 minutes per 25 mm. The Unified Soil Classification for all test holes was SW (well graded sands).

UMA | AECOM

The coarse nature of the sediments underlying the proposed development has resulted in a rate of percolation that exceeds the guidelines provided by the *Alberta Private Sewage Systems Standard of Practice, 1999*. Therefore, UMA can recommend the development of a septic system only on the contingency that the soil conditions will be modified to conform to section 7A.2.2. of the Alberta Private Sewage Systems Standard of Practice (1999). If you have any questions, please contact Zan Gullickson at 329-7133.

Sincerely,

UMA Engineering Ltd.

Zan Gullickson B.Sc.
Environmental Scientist, Earth and Environmental
Earth and Water
zan.gullickson@uma.aecom.com

Reviewed by:

PROFESSIONAL ENGINEER ALBERTA
WILLIAM R. MACMILLAN

W.R. (Bill) MacMillan, P.Eng., P.Ag., M.Sc.
Regional Manager
Earth and Environmental
Bill.macmillan@uma.aecom.com

March 24/08

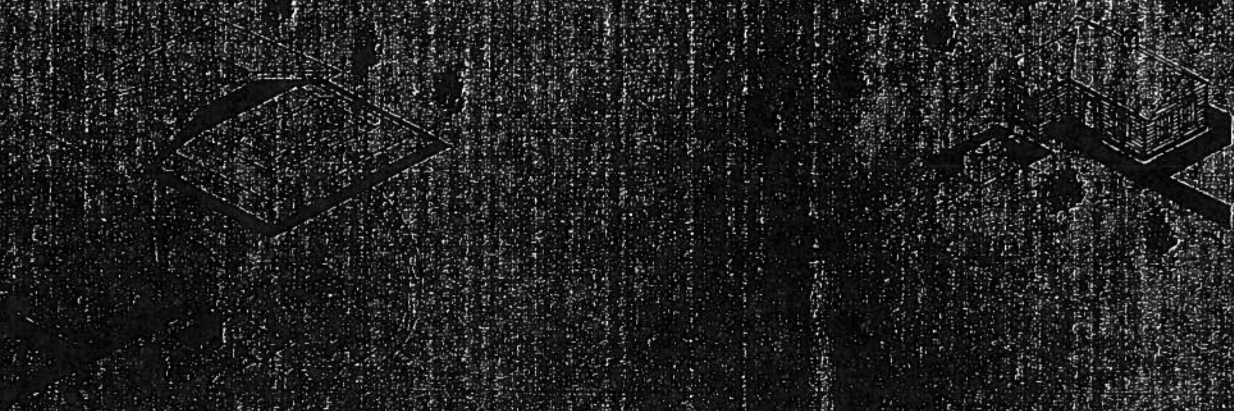
ML:cms

UMA Engineering Ltd : BORE HOLE LOGS

Perc test for Scott family on SE 17-9-16 W4, south of Taber

	Hole 1 Time (min)	East Location 30	60	90	Hole 2 Time (min)	West Location 30	60	90
Drop in inches	A	14 1/2			A	6		
	B	13			B	13		
Drop in cm	A	36.83			A	15.24		
	B	33.02			B	33.02		
Rate of change (cm/min)	A	1.23			A	0.51		
	B	1.10			B	1.10		
Min / 25 cm	A	2.036383				4.92126		
	B	2.271351				2.271351		

Safety Codes Council



Alberta Private Sewage Systems Standard of Practice 1999

7A.2. Installation Standards

7A.2.1. A *disposal field*, measured from any part of a *weeping lateral trench* shall not be located within

(a) 1.5 m (5 ft.) from a *property* line,
(b) 15 m (50 ft.) from a *water source*,
(c) 15 m (50 ft.) from a *water course*,
(d) 9 m (30 ft.) from a basement, cellar or crawl space,
(e) 1 m (3.25 ft.) from a *building* that does not have a basement, cellar or crawl space, and
(f) 1 m (3.25 ft.) from a *septic tank* or *packaged sewage treatment plant*.

Note: *The 9 m (30 ft.) requirement to a cellar, basement or crawl space is intended to protect excavations below grade from accumulating migrating effluent. A crawl space that is not below grade, or where the level of the ground surface at the disposal area is below the level of the crawl space, would not require 9m (30 ft) clearance and could be treated as a building without a basement.*

7A.2.2. A *disposal field* shall not be installed in soil having a percolation rate faster than 5 minutes per 25 mm (1 in.) unless

(a) the *weeping lateral trenches* are lined on the bottom and sides with a minimum of 300 mm (1 ft.) of a soil having a percolation rate in excess of 5 minutes per 25 mm (1 in.), or

Intent: *The trenches, when lined with loam or sandy loam soil having a percolation rate of 5 to 10 minutes/ 25mm (1 in.) will slow the rate the effluent enters the native soil, preventing saturated flow through the soil and allowing for it to be treated.*

Note: *A disposal field shall not be installed in soils that have a percolation rate in excess of 60 minutes per inch as limited by Article 7.1.5.*

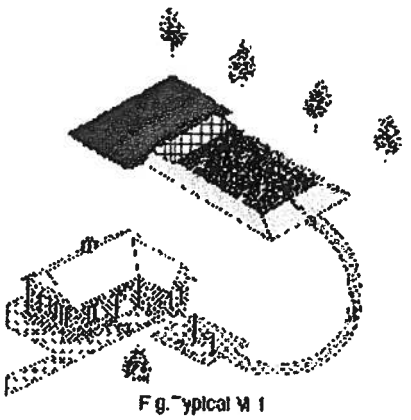
(b) sufficient test data is provided indicating that between a *water table* and the lowest point where *effluent* is discharged into the soil, there is a layer of soil over the entire area which
  (i) has a minimum thickness of 300 mm (1 ft.), and
  (ii) has a percolation rate slower than 5 minutes per 25 mm (1 in.).

7A.2.3. A *weeping lateral trench* shall

(a) be not more than 900 mm (3 ft.) deep,
(b) be not less than 450 mm (18 in.) or more than 900 mm (3 ft.) in width when using weeping lateral trench media,
(c) be not less than 300 mm (12 in.) or more than 900 mm (3 ft.) in width when using chambers in weeping lateral trenches,
(d) have a *nominally level* bottom,
(e) include a void space created by
  (i) a chamber, or
  (ii) *weeping lateral trench* media at the bottom of the trench filling the entire width of the trench to a depth of 300 mm (1 ft.), and
(f) be provided with a minimum of 900 mm (3 ft.) of earth between it and another *weeping lateral trench*.

Note: *A cover of 12 inches of soil over the top of the gravel and effluent pipe has been found to usually provide adequate protection from frost in many areas of Alberta.*

Sewage Treatment Mound Standards of Practice and Explanation

Standard of Practice	Explanation
8. Treatment Mounds	Treatment Mound Installation Using A Deep Bury Pump Type Septic Tank  Fig. Typical M 1 See Pg. 197, Fig. Typical M 1 in Appendix "B"
8.1 Design Standard	
8.1.1. Notwithstanding Article 7.1.5. , a *treatment mound* may be constructed on soils where a. the soil percolation rate to a depth of at least 600 mm (2 ft.) below the *sand layer* is faster than 120 minutes per 25 mm (1 in.), and b. below the *sand layer* there is a layer of soil at least 300 mm (1 ft.) thick that has a percolation rate slower than 5 minutes per 25 mm (1 in.). *Intent: Fill soil may be placed under the mound to provide the depth of suitable soil. The fill soil used should be a loamy sand to a sandy loam. Soil with a high percentage of clay content should not be used.*	The *treatment mound* is most often used on difficult soils where a *disposal field* will not work well. A key requirement to *building* a successful mound is the use of high quality, clean *sand* in the *sand layer* and the proper soil for the *berms* and cover of the mound. See Pg. 38, Article 7.1.6. for Vertical Separation Requirements. See Pg. 178, Fig. Vertical Separation in Appendix "B" See Pg. 182, Fig. DF 1B in Appendix "B"
8.1.2. The *sand layer* receiving *effluent* shall a. have a surface area designed on the basis of not more than 50 L of *effluent* per square metre (1 gal per sq. ft.) per day loading rate, b. have a surface area of not less than	Making the *sand layer* narrower than 10 feet and longer can provide a better working and more effective mound. See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B" See Pg. 200, Fig. M1c in Appendix "B" See Pg. 51, Construction of Treatment Mounds in Appendix "B" See Pg. 56, Article 8.3.2. for Sand quality requirements.

37 square metres (400 sq. ft.), c. be 3 m (10 ft.) wide or less, measured at the top of the *sand layer*, d. be not less than 300 mm (1 ft.) thick, and e. be on or above the existing soil. *Intent: Clause 8.1.2.(e) requires the mound to be built on the existing grade of the soil. Soil should not be stripped away creating a depression in the ground or be stripped away and replaced by fill material.*	See Pg. 182, Fig. DF 1B in Appendix "B"
8.1.3. The area of the mound within the *berm*, excluding the end slopes, providing the infiltration area into the original soil shall a. be at least equal to 70 percent of the trench bottom area determined by Article 7A.1.4. or Article 7A.1.5., b. when on a slope exceeding 1 percent, be measured downslope from the upslope side of the *sand layer* area receiving the *effluent*, and c. be constructed of a loamy *sand* or sandy loam fill material. *Intent: The intent of this Article is to assure that an adequate area of soil is available for the effluent to infiltrate, that this area is fully covered by the berm, and that the permeability of the berm fill material is suitable to distribute the effluent over the infiltration area.*	The infiltration area required under the *treatment mound* is 70 % of the area required for a *disposal field* because of the additional treatment of the *effluent* provided in the *sand layer* prior to the *effluent* entering the soil. See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B" See Pg. 200, Fig. M1c in Appendix "B" See Pg. 149, Sizing the Infiltration Area in Appendix "B"
8.1.4. The distribution of *effluent* into the *sand layer* shall be into a. a layer of gravel over the *sand layer*, or b. chambers that provide an infiltrative area that is not less than 80% the designed area of the *sand layer* receiving the *effluent*.	See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B" See Pg. 200, Fig. M1c in Appendix "B" See Pg. 202, Fig. M3 in Appendix "B"
8.1.5. Where chambers are used a. the *sand layer* shall be covered with a minimum of 50mm (2 in.)	See Pg. 202, Fig. M3 in Appendix "B" See Pg. 147, Treatment Mound Design in Appendix "B"

of gravel, and b. a pressure *effluent* distribution lateral on top of the gravel shall be provided for each row of chambers.	
8.1.6. The designed quantity of *effluent* delivered to the mound per pump cycle, shall not exceed 25% of the estimated or measured daily *sewage* flow. *Intent: Smaller doses provide better treatment conditions. Doses may be smaller than 25%.*	Note: Gravity distribution of *effluent* in a *treatment mound* is not permitted. A *treatment mound* is a closed system that is sensitive to internal hydraulic pressures which can cause a breakout at the sides of the mound if hydraulically overloaded. See Pg. 182, Fig. DF 1B in Appendix "B"
8.1.7. Distribution of *effluent* shall be by distribution laterals under pressure.	Note: Gravity distribution of *effluent* in a *treatment mound* is not permitted. See Pg. 21, Article 3.1.8.
8.1.8. The *effluent* pump rate of discharge shall be sufficient to distribute *effluent* effectively throughout the distribution laterals while maintaining *pressure head* in accordance with Table A.1.B. .1.B.	The minimum head pressure as specified in Pg. 73, Table A.1.B. in Appendix "A" is at the farthest point of the distribution laterals from the manifold. Remember to consider pressure loss in *effluent line* to the *treatment mound*. See Pg. 75, Table A.1.C.1 in Appendix "A" for friction loss in the *effluent line* between the *septic tank* and the *treatment mound*.
8.1.9. The rate of discharge per orifice *diameter* and *pressure head* shall be calculated in accordance with Table A.1.B.	The discharge volume per orifice will change with the head pressure as specified in Pg. 73, Table A.1.B. in Appendix "A"
8.1.10. The maximum number of orifices in distribution laterals shall be in accordance with Table A.1.A.	See Pg. 69, Table A.1.A. for the number of orifices in given lengths of various *diameters* of pipe.
8.1.11. Pipe orifices shall be sized to provide relatively even distribution of *effluent* over the *sand layer*.	See Pg. 194, Fig. PDL 3 Squirt Test in Appendix "B" See Pg. 138, Pressure Distribution Lateral Design in Appendix "B"
8.1.12. Pipe orifices shall be located in the distribution laterals a. to direct the spray in a direction that will not cause erosion of the soil or *sand layer*, and b. be provided with a device that will deflect the spray to prevent erosion of the soil above and the entry of foreign material into the orifice if the orifice is pointed upwards.	When the distribution laterals are installed in gravel, pointing the orifices down will not erode the *sand layer*. However, there is a greater possibility of orifice clogging and slightly uneven distribution of *effluent*. If the orifices are pointed up, orifice shields must be provided to prevent gravel from laying on the orifice and restricting the flow or erosion of the soil above. Also, greater care must be taken to ensure the distribution lateral is *graded* to allow drainage. A few orifices can be drilled to point down to allow for drainage of the pipe.

Intent: Orifices may be placed at the bottom of the piping to help drain the pipe and protect from freezing. Locating the orifice on the upper half of the pipe can help prevent clogging of the orifice. Wherever the orifices are located, there must be room for the water to escape and the spraying water must not cause any erosion of the soil or sand around it.	If the distribution laterals are installed inside a chamber, the orifices must be pointed up to prevent erosion of the surface of the *sand layer* under the chamber. See Pg. 201, Fig. M2 in Appendix "B" See Pg. 193, Fig. PDL 2 in Appendix "B" See Pg. 194, Fig. PDL 3 Squirt Test in Appendix "B" See Pg. 140, Squirt Test in Appendix "B" See Pg. 138, Pressure Distribution Lateral Design in Appendix "B"
8.2. Installation Standards	
8.2.1. A *treatment mound* shall not be located within 1. a. 3 m (10 ft.) of a *property* line, b. 15 m (50 ft.) of a *water source*, c. 15 m (50 ft.) of a *water course*, d. 3 m (10 ft.) of a *septic tank*, e. 9 m (30 ft.) of a basement, cellar, or crawl space, and f. 3 m (10 ft.) of a *building* that does not have a basement, cellar, or crawl space. 2. For the purposes of Sentence 8.2.1.(1), all measurements are to be taken from the point where the side slope of the mound intersects with the natural soil contour.	See Pg. 38, Article 7.1.6. for Vertical Separation Requirements. See Pg. 178, Fig. Vertical Separation in Appendix "B".
8.2.2. Whenever mounds are located on slopes, a diversion shall be constructed immediately up slope from the base of the mound to intercept and direct run-off water away from the mound.	See Pg. 21, Article 3.1.6.
8.2.3. The *sand layer* the *effluent* is distributed over shall be a minimum of 300 mm (1 ft.) thick and the top of the *sand layer* shall be *nominally level*.	See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B" See Pg. 200, Fig. M1c in Appendix "B" See Pg. 147, Treatment Mound Design in Appendix "B"
8.2.4. Track type machinery shall be used to move the *sand* into place and at least 150 mm (6 in.) of *sand* shall be kept beneath the machinery to minimize compaction of the soil under the *sand layer* to prevent smearing or glazing of the soil under the	See Pg. 147, Treatment Mound Design in Appendix "B"

mound area.	
8.2.5. When gravel is used over the *sand layer* a. not less than 225 mm (9 in.) of gravel shall be placed over the contact area below the distribution laterals, b. not less than 50 mm (2 in.) of gravel shall be placed over the distribution laterals, and c. straw or equivalent fibrous material shall be placed over the gravel to an uncompacted depth of 75 mm to 100 mm (3 in. to 4 in.) to prevent the migration of soil into the gravel.	See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B" See Pg. 200, Fig. M1c in Appendix "B" See Pg. 147, Treatment Mound Design in Appendix "B"
8.2.6. The distribution laterals shall be a. connected to a manifold pipe with all ends capped, b. spaced not less than 900 mm (36 in.) and not more than 1000 mm (40 in.) on center, c. located not less than 400 mm (16 in.) or more than 500 mm (20 in.) from the edge of the gravel layer, and d. sized in accordance with Table A.1.A.	*Treatment mounds* may be constructed with the contact area between the gravel or chambers and the *sand layer* less than 3 m (10 feet) wide. When a longer, narrower *treatment mound* is desired, the number of distribution laterals can be reduced from 3 to 2. A *treatment mound* with only 2 distribution laterals would have a maximum width of the contact area between the gravel, or chambers, and the *sand layer* of 2 m (6.5 feet). See Pg. 198, Fig. M1 in Appendix "B" See Pg. 201, Fig M2 in Appendix "B" See Pg. 202, Fig. M3 in Appendix "B" See Pg. 193, Fig PDL 2 in Appendix "B" See Pg. 138, Pressure Distribution Lateral Design in Appendix "B"
8.2.7. The manifold pipe shall be connected to the pump discharge pipe and shall slope back toward the pump.	See Pg. 138, Pressure Distribution Lateral Design in Appendix "B"
8.2.8. Sandy loam fill material shall be placed over the gravel layer or chambers to a depth of 300 mm (1 ft.) in the centre of the mound and to a depth of 150 mm (6 in.) at the sides. *Intent: To provide an adequate slope on the top of the treatment mound to prevent storm water from standing on the top of the mound.*	See Pg. 147, Treatment Mound Design in Appendix "B"
8.2.9. A minimum of 75 mm (3 in.) of top soil shall be placed on the fill material over the entire area of the mound.	See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B" See Pg. 200, Fig. M1c in Appendix "B" See Pg. 147, Treatment Mound Design in Appendix "B"
8.2.10. A grass cover shall be established over the entire area of the mound.	See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B"

Intent: A contractor meets the requirement of this Article by seeding the mound to grass, leaving the responsibility to water and maintain the grass cover to the owner. The grass cover is needed to prevent erosion of the mound and to assist in evaporating the effluent.	See Pg. 200, Fig. M1c in Appendix "B" See Pg. 147, Treatment Mound Design in Appendix "B"
8.2.11. Shrubs shall not be planted on the top of the mound.	
8.2.12. The side slopes on the mound shall not be steeper than 1:4 (one vertical to four horizontal).	See Pg. 198, Fig. M1 in Appendix "B" See Pg. 199, Fig. M1b in Appendix "B" See Pg. 200, Fig. M1c in Appendix "B" See Pg. 147, Treatment Mound Design in Appendix "B"
8.3 Requirements for Materials	
8.3.1. Piping materials used in the construction of distribution laterals for a *treatment mound* shall a. be smooth, rigid plastic piping, and b. be *certified* for a pressure application by a testing agency recognized by the Standards Council of Canada, or acceptable to an *Administrator*.	See Pg. 201, Fig. M2 in Appendix "B" See Pg. 193, Fig. PDL 2 in Appendix "B" See Pg. 138, Pressure Distribution Lateral Design in Appendix "B"
8.3.2. *Sand* used for the *sand layer* shall be a soil texture composed by weight of at least 85% soil particles varying in size from 2.0 mm to 0.05 mm, and containing not more than 10% *fines*.	See Pg. 51, Article 8.1.2. See Pg. 147, Treatment Mound Design in Appendix "B"
8.3.3. Gravel used in the *treatment mound* shall be 12 mm (½ in.) to 40 mm (1½ in.) particle size containing not more than 5% *fines*, silt or clay.	

AECOM
514 Stafford Drive N, Lethbridge, AB T1H 2B2
T 403.329.4822 F 403.329.1678 www.aecom.com

March 15, 2009 Project Number: E718-001-00

Steven Scott
PO Box 4563
Taber, Alberta T1G 2C9

Dear Steven:

Re: Septic System Design Options at SE 17-9-16-W4M

This intent of this letter is to provide recommendations for possible design options for a private sewage treatment system, as per your request. AECOM performed percolation testing at this location in January of 2008, the results of which suggest that both of the options you are considering should be acceptable, provided that certain conditions are met, based on the Alberta provincial Standard of Practice for Septic Systems (the Standard).

The first option to consider is a traditional septic system with the added condition that the weeping tile lateral trenches will need to be lined to reduce the seepage rate. This would entail lining the bottom and sides of each trench with a minimum of 0.3 m (1ft) of soil material to reduce the percolation rate to a maximum of 25 mm per 5 minutes (1/5 inch per minute). The intention of lining the trenches is to provide an adequate amount of lower permeability soil to reduce the percolation rate of the effluent prior to the wastewater entering the underlying native soil. This strategy should prevent the underlying soils from becoming saturated with waste laden effluent and allow adequate soil column retention time for the wastewater to be adequately treated.

The second treatment option you suggested is a sewage treatment mound. Treatment mounds are an allowable option where soil conditions are not conducive to the use of traditional septic disposal fields. High soil percolation rates and high watertable conditions, which are common situations that may lead to consideration of a septic mound system, were both identified at the subject property during the site investigation.

Based on the site investigation results, AECOM recommend that a treatment mound system is the more suitable of two options currently being considered. The treatment mound provides two important benefits: separation between the water table and the bottom elevation of the lateral trenches and mitigation of the high natural percolation rates at this site. Furthermore, a properly constructed treatment mound is likely the only option being considered that would meet the implied intention of the appropriate Standard.

Further, as you have expressed concerns about the proximity of the proposed treatment system to a slough, you should be aware that the Standard stipulates minimum distances between a treatment mound and man-made structures and natural physical features. These separation distances are stipulated in the Standard, which states that a treatment mound shall not be located within:

a. 3 m (10 ft.) of a property line

b. 15 m (50 ft.) of a water source

c. 15 m (50 ft.) of a water course

d. 3 m (10 ft.) of a septic tank

e. 9 m (30 ft.) of a basement, cellar, or crawl space

f. 3 m (10 ft.) of a building that does not have a basement, cellar, or crawl space.

Therefore, it is prudent to interpret the Standard to mean that, if you elect to use a treatment mound system, it must be located at least 15 m from any slough or other water body on or near the property.

I trust this information is suitable for your requirements at this time, as per our discussions. Should you have any further questions, please free to contact me directly at 403-329-7133.

Sincerely,
AECOM Canada Ltd.

Zan Gullickson, A.I.T., B.Sc.
zan.gullickson@aecom.com

ZG:cms

Reviewed by:

ALBERTA INSTITUTE OF AGROLOGISTS
W.R. (BILL) MACMILLAN, P.Ag.
1189
MEMBER

W.R. (Bill) MacMillan, P.Eng., P.Ag., M.Sc.
bill.macmillan@aecom.com

March 16/09

Taber Irrigation District

TID

Specialty Crop Country

4420 - 44th Street
Taber, Alberta T1G 2J6
Telephone: (403) 223-2148
Fax: (403) 223-2924
Email: tid@telusplanet.net

February 11, 2008

Steve & Chelsea Scott
Box 4563
Taber, Alberta
T1G 2C9

Dear Mr. & Mrs. Scott:

RE: Group Country Residential Rezoning of
West 20 acres of S½ of SE 17-9-16 W4

The Taber Irrigation District has no objections to the rezoning of this parcel of land. If irrigation water is used on the new country residential lots, they will be subject to water agreements.

Yours truly,

M. Kent Bullock, P. Eng.
District Manager

MKB/pg

Chinook Health
5009 - 56 Street Taber, AB T1G 1M8
Phone Number: 403-223-4403 Fax Number: 403-223-8733

LAND USE INSPECTION REPORT

Mail To:
Oldman River Regional Services Commission
3105- 16th Avenue North
Lethbridge, AB T1H 5E8

Our File Number: 38
Inspection Date: April 4, 2008
Report Date: April 4, 2008

Facility Inspected:
LAND USE- M.D. of Taber No. 14
Facility Contact: Municipal District of Taber
Site Phone: 329-1344 Site Fax: 327-6847

Site Address: 4900 B 50th Strreet
M.D. of Taber, AB

Facility Category: Land Use, Inclusive
Inspection Type: Inspection: Development Application
Action(s) Taken: Inspection Report Provided
Next Routine Date:
Delivery Method: Regular Mail

Opening Comments and Observations:
ATTN;
Director of Planning and Development
MD Taber

An inspection was conducted at:
S1/2 of SE1/4 17-9-16-4
MD Taber

Landowner: Steven & Chelsea Scott

From the information provided and the on-site inspection, this office has the following comments:

1. Ensure all minimum setback distances are met.

2. Ensure all water courses are protected from contamination.

3. Ensure that all septic systems are sited, installed and maintained appropriately as to not to create a nuisance. Ensure that if necessary, measures are taken to determine appropriate siting of septic disposal system in the proposed lots to prevent any ground water contamination.

Owner or Agent Acknowledgement
I have read and understood this report.

Inspector
Z6 Pam Hodgkinson, Executive Officer

interpipeline

February 13, 2009

Municipal District of Taber
4900B 50th St.
Taber, AB T1G 1T2

Attention: Derrick Krizsan, Municipal Administrator

Re: Proposed Rezoning of Lot 1 Block 1, Plan 0711243 in the SE 17-9-16-W4M
Our File: B1700.031

In response to the Municipal District of Taber notification regarding the rezoning of land crossing Pipeline Management Inc.'s pipeline right of way, we would like to inform you and the land owners of the following applicable sections of the Pipeline Acts and Regulations of Alberta regarding:

Ground disturbance in absence of pipeline right of way
58 No person shall undertake a ground disturbance within 5 metres of the centreline of a pipeline where there is no pipeline right of way without the approval of
(a) the licensee of the pipeline, or
(b) the Board, if approval cannot reasonably be obtained from the licensee.

Preparation for ground disturbance
60(1) For the purposes of section 32(1)(a)(I)(B) of the Act, the distance from the perimeter of the area in which a person proposes to undertake a ground disturbance within which the person shall take all precautions reasonably necessary to ascertain whether a pipeline exists before commencing any work, operation or activity is 30 metres.
(2) A person proposing to undertake a ground disturbance within the controlled area of a pipeline shall notify the licensee of the pipeline and Alberta One-Call at least 2 days and not more than 10 days, excluding Saturdays, Sundays and holidays, prior to commencing the ground disturbance so that Alberta One-Call may notify the licensee of any buried pipeline of the intent to disturb the ground and request that the licensee identify and mark the location of the pipeline.
(4) If the licensee has notice of a proposed ground disturbance in the controlled area of a pipeline, the licensee shall, prior to the commencement of the ground disturbance, accurately mark on the surface of the ground the horizontal position and alignment of the pipeline with clearly distinguishable warning signs and markers at adequate intervals in accordance with the Uniform Color Code, and provide documentation of the markings to the person proposing to undertake the ground disturbance.
(5) A person shall not proceed with a ground disturbance within the controlled area of a pipeline until the locating and marking of the pipeline has been completed.

Approval of ground disturbance
62(1) When approval for a ground disturbance is requested from a licensee pursuant to section 42 of the Act or section 58 of this Regulation, the licensee shall respond in writing within 21 days from the date the approval is requested.

Duties of licensee and person undertaking ground disturbance
63(1) A licensee of an existing pipeline who has been notified under section 32(1)(b) of the Act of a proposed ground disturbance shall
(a) have a representative inspect the pipeline before the commencement of the ground disturbance to ensure that the identifying and marking referred to in section 60(4) has been properly carried out,
(b) ensure that its representative has in his or her possession when on the site of the ground disturbance a copy of the written approval for the ground disturbance,

Interpipeline

(c) ensure that its representative has completed a supervisory level training course in ground disturbance practices and is currently certified to supervise a ground disturbance, and
(d) carry out any inspections of the ground disturbance that are necessary to ensure the continued safety of the pipeline.

(2) The person responsible for a ground disturbance shall keep all pipeline warning signs or markers referred to in section 60(4) visible and legible for the duration of the ground disturbance and shall replace or relocate them if necessary.
(3) A person undertaking a ground disturbance who exposes any part of a pipeline shall notify the licensee at least 24 hours prior to backfilling the pipeline, and on being so notified, a representative of the licensee shall inspect without delay the exposed part of the pipeline before backfilling to ensure that no damage has occurred.

Exposing pipeline
65(1) An excavation conducted for the purpose of locating a pipeline shall be done by hand excavation until the pipeline is sufficiently exposed to enable it to be identified.
(2) A representative of the licensee shall be present at the time the pipeline is being exposed, unless the licensee and the person undertaking the ground disturbance agree otherwise.
(3) A person proposing to undertake a ground disturbance that will cross or be carried out within 5 metres of an existing pipeline shall, before commencing any mechanical excavation, locate and expose the existing pipeline by hand excavation.
(4) Hand excavation procedures must be acceptable to the licensee of the pipeline.
(5) After a pipeline has been located in accordance with this section, no person shall use or cause to be used mechanical excavation equipment within 600 millimetres of the pipeline or within any distance beneath a pipeline, except under the direct supervision of a representative of the licensee of the existing pipeline.

Vehicle crossing pipeline
66 No person shall operate a vehicle or equipment across a pipeline at a point that is not within the upgraded and traveled portion of a highway or public road without obtaining approval from the licensee of the pipeline unless
(a) the vehicle or equipment is used for farming operations,
(b) the vehicle is an off highway vehicle as defined in section 117(a)(iii) to (viii) of the *Traffic Safety Act* or
(c) the vehicle is a private passenger vehicle as defined in section 1 (1) (jj) of the *Traffic Safety Act* and has a nominal chassis rating of not greater than ¾ of a ton.

Minimum earth cover
20(1) Unless otherwise authorized by the Board, and subject to subsection (3) the minimum earth cover for any pipeline must at all times be the greater of the minimum earth cover specified in CSA Z662 and, as the case may be,
(a) 1.4 metres within the right of way of a highway,
(b) 1.1 metres within the right of way of a road, and
(c) 0.8 metres in any other place.

(2) Unless otherwise authorized by the Board, the minimum earth cover set out in the above section must be maintained for all operating and discontinued pipelines.
(3) Unless otherwise specified by the Board, for a pipeline existing at the time that this Regulation comes into force, if lesser earth cover was permitted by the construction standards and regulatory requirements in place at the time of construction, that lesser cover is acceptable.

We request that the width of our pipeline right-of-way remains clear of any:

- Temporary or permanent structures,
- Storage such as sheds, vehicles of any kind, construction equipment, steel, cabling, etc.,
- Debris, such as wastes, piles of rocks, sand, dirt, etc.

Interpipeline

Contact information for the service of requests, notices and questions is:

Inter Pipeline Fund
2600, 237 4th Ave. S.W.
Calgary, AB T2P 4K3
Attention: Surface Land
Phone: 403-290-6000
Fax: 403-290-6095

Should you require consent to cross our facilities or have any questions or concerns, please contact the Surface Land Department.

Yours truly,
INTER PIPELINE FUND
By its General Partner
PIPELINE MANAGEMENT INC.

Janeen Streibel
Surface Land Administrator
jstreibel@interpipelinefund.com

Enclosures

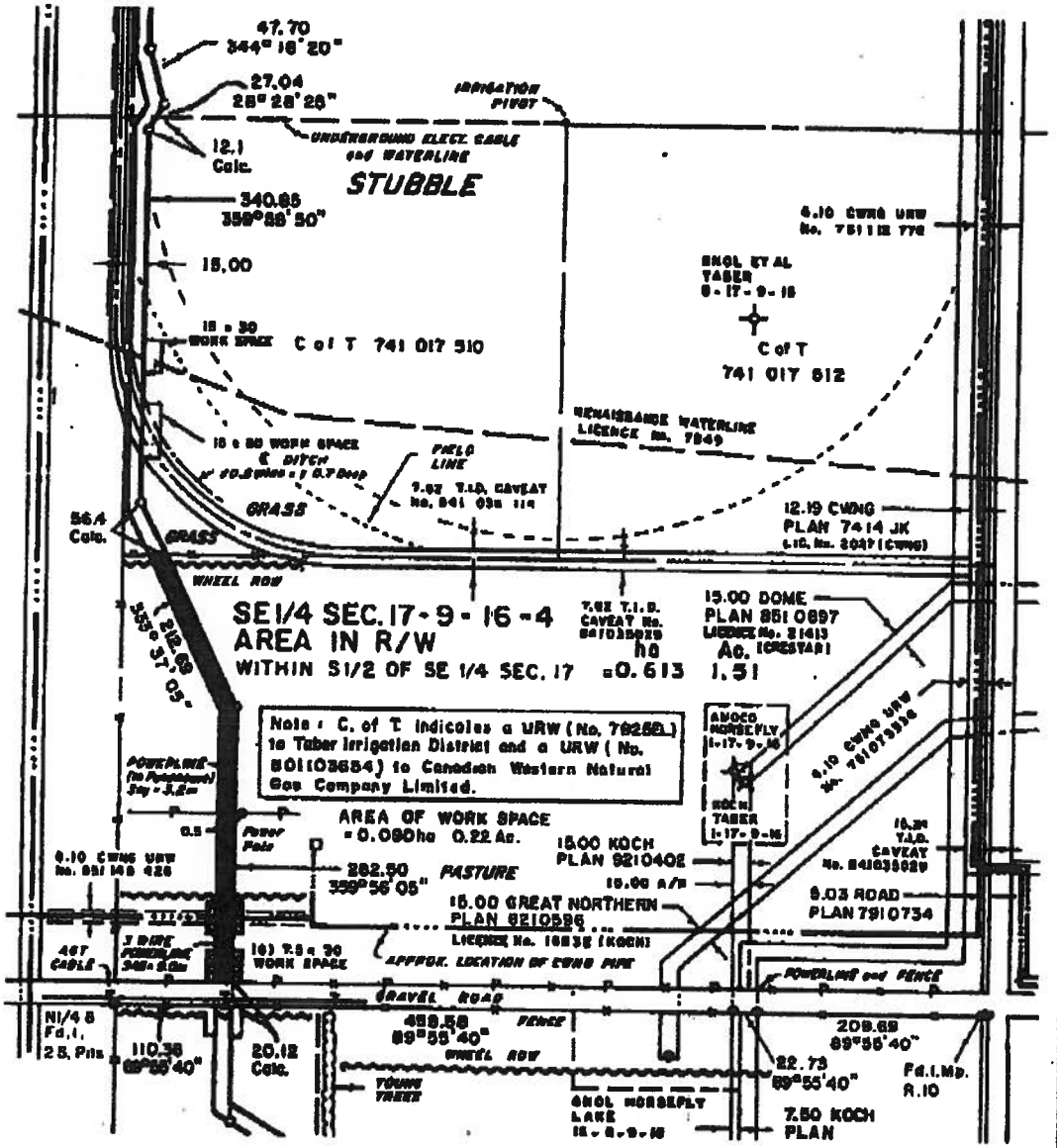
cc: Steven and Chelsea Scott, General Delivery, Taber, Alberta T1G 2E5

REVISED

BOW RIVER PIPE LINES LTD.

INDIVIDUAL OWNERSHIP PLAN

Showing PIPE LINE RIGHT-OF-WAY
in the S.E. 1/4 Section 17 Township 9 Range 16 West of the 4 Meridion
Scale - 1:5000 Within S. 1/2 of S.E. 1/4 Sec. 17



OWNER : GLENN HARDING and
LOYIA HARDING

TITLE NUMBER : 861 194 154A

AREA REQUIRED : 0.613 ha 1.51 Ac

I/We agree to the location of the Right-of-Way and have no objection to the E.R.C.B. issuing a permit for same.

Date : _____

Owner : _____

_____

LEGEND

Monuments found shown thus _____●

Monuments planted shown thus _____○

Portion referred to outlined thus _____

Certified Correct

Peter D. Brown ALS

REV. : 15/11/94

DATE : 7/10/94 JOB NO. : 94-1287

ALL-CAN ENGINEERING & SURVEYS (1976) LTD.