BY-LAW NUMBER 2005/44

BY-LAW NO. 2005/44 is a by-law of the County of Wetaskiwin No. 10 in the Province of Alberta, to authorize the adoption of an Area Structure Plan for the purpose of providing a framework for subsequent subdivision and development of the area known as Pigeon Creek ECOfarms Ltd. in NE 10-46-28-W4M in accordance with Section 633 of the Municipal Government Act, Chapter M-26.1, Revised Statutes of Alberta 2000, and amendments thereto.

WHEREAS: at the requirements of County Council, an Area Structure Plan has been prepared for Pigeon Creek ECOfarms Ltd. in NE 10-46-28-W4M.

AND WHEREAS: the proposed Area Structure Plan has been widely circulated and discussed within the County pursuant to Section 230, 606(1), and 633(1) of the Municipal Government Act, 1994, Chapter M-26.1, and amendments thereto.

NOW THEREFORE: the County of Wetaskiwin No. 10, duly assembled, hereby enacts as follows:

The document attached to this By-law as "Appendix A", together with accompanying maps, is hereby adopted as the *"Pigeon Lake ECOfarms Ltd." in NE 10-46-28-W4M".*

This by-law comes into effect on the date of third reading.

READ: A First time this 7 day of July, A.D., 2005.

READ: A Second time this 7 day of July, A.D., 2005.

READ: A Third time and finally passed this 7 day of July , A.D., 2005.

REEVE

SECRETARY-TREASURER

Option B states: *"The ECOfarm would lease the road allowance with the condition that we would be able to provide parking along the ECOfarm side of the road. We, of course, would carry additional liability insurance while we are the sole lessees until such time as other development to the west might begin. If the adjacent property is developed and is accessed via this road, then other arrangements would have to be negotiated. The County would be responsible for road maintenance."*

Mr. Renschler stated that the intersection would be classed as a class 2A intersection. Pigeon Creek ECOfarms Ltd. are in the threshold between a class 2 and 2A intersection which is a difference of a half metre strip. In the ECOfarms budget they have finances to build the intersection to a class 2B standard so they don't have to expand the intersection down the road.

Mr. Blades stated that administration supported this Area Structure Plan and recommended Council provide three readings of the by-law approving the Area Structure Plan for Pigeon Creek ECOfarm in NE 10-46-28-W4M subject to the following amendment:

1. That Section 4.1 Vehicular Access and Site Circulation be amended by deleting the third, fourth and fifth sentences in the first paragraph referring to a long term lease of the abandoned right of way and replacing it with "The applicant for the Area Structure Plan shall close this County road (Road Plan 792 2867) with exception to a 30 metre (98.4 ft.) portion providing public/joint landowner access at both the Highway 13 and Range Road 282 access points".
2. That the following be added as a second paragraph to Section 4.1. "The portion of closed Road Plan 792 2867 shall be purchased and transferred from the County to the landowner, Tim Wood, for a nominal fee plus costs of road closure, advertisement, transfer and registration of the portion of Road Plan."
3. That Section 5.2 Sewer be amended by adding a second paragraph stating: "The applicant recognizes that a monetary contribution towards the expansion of the Mulhurst Bay Sewage Lagoon is necessary and will, if their onsite sewer waste disposal is not operational within two years of the date of the approval of this Area Structure Plan, pay an Offsite Levy fee for the expansion of the Mulhurst Lagoon as prescribed in the County's Off-site Levy Bylaw 2005/11".
4. 4.1 amended to add, after the second sentence, a new sentence: "sufficient land will be dedicated to allow a 90 degree intersection with Highway 13 as per the recommendation of Alberta Transportation."

Reeve G. Dearing declared the Hearing closed at 1:54 p.m. and Council thanked the delegation for attending the hearing.

Area Structure Plan By-law 2005/44

By-law 2005/44 is a By-law in the County of Wetaskiwin No. 10 in the Province of Alberta, to authorize the adoption of an Area Structure Plan for the purpose of providing a framework for the purpose of constructing an ECOfarm, located South of Pigeon Lake, on Highway 13 and Range Road 282 (NE 10-46-28-W4M) in accordance with Section 633 of the Municipal Government Act, Chapter M-26.1, Revised Statutes of Alberta 2000, and amendments thereto subject to the following conditions:

1. That Section 4.1 Vehicular Access and Site Circulation be amended by deleting the third, fourth and fifth sentences in the first paragraph referring to a long term lease of the abandoned right of way and replacing it with "The applicant for the Area Structure Plan shall close this County road (Road Plan 792 2867) with exception to a 30 metre (98.4 ft.) portion providing public/joint landowner access at both the Highway 13 and Range Road 282 access points".
2. That the following be added as a second paragraph to Section 4.1. "The portion of closed Road Plan 792 2867 shall be purchased and transferred from the County to the landowner, Tim Wood, for a nominal fee plus costs of road closure, advertisement, transfer and registration of the portion of Road Plan."
3. That Section 5.2 Sewer be amended by adding a second paragraph stating: "The applicant recognises that a monetary contribution towards the expansion of the Mulhurst Sewage Lagoon is necessary and will, if their onsite sewer waste disposal is not operational within three years of the date of the approval of this Area Structure Plan, pay an Offsite Levy fee for the expansion of the Mulhurst Lagoon as prescribed in the County's Off-site Levy Bylaw 2005/11".
4. 4.1 amended to add, after the second sentence, a new sentence: "sufficient land will be dedicated to allow a 90 degree intersection with Highway 13 as per the recommendation from Alberta Transportation".

MOVED: by Councillor N. Watson that Bylaw 2005/44 be given First Reading.

Carried

MOVED: by Councillor R. Wilson that Bylaw 2005/44 be given Second Reading.

Carried

MOVED: by Councillor K. Ball that Bylaw 2005/44 be presented for Third Reading.

Carried Unanimously

MOVED: by Councillor B. Dunn that By-law 2005/44 be given Third Reading and it be declared finally passed and the Reeve and Secretary-Treasurer be authorized to sign same and affix thereto the corporate seal of the County of Wetaskiwin No. 10.

Carried

Proposed Area Structure Plan Kenneth Bay Area Structure Plan – Cowle's Landing REID Worldwide Corporation Lot A & B, Plan 002 0956, NE 2-47-28-W4M and N ½ of NW 1-

Discussion resumed regarding the Proposed Area Structure Plan Kenneth Bay Area Structure Plan – Cowle's Landing REID Worldwide Corporation. (Ref. Page 05/200 PD)

Councillor R. Wilson stated that Council could change Condition 4 to "the appropriate amount consistent with the Environmental Reserves that are taken in other developments".

Mr. Blades stated that the County can fine tune this condition at the subdivision stage.

By-law 2005/44 – Appendix A

Pigeon Creek
ECOfarm

-ASP without Bylaw 2005/44 amendments

Area Structure Plan
County of Wetaskiwin

Prepared for Pigeon Creek ECOfarm Ltd.
Prepared by: Tim Belec, Chris Buyze, Arnold Renschler, & Tim Wood

Table of Contents

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Appendices

1.0 Introduction

1.1 Purpose

The purpose of this area structure plan is to highlight the scope and scale of the planned ECOfarm development and its effect on the area's hydrology and utility infrastructure. It will also focus on a new and innovative approach to small-scale sustainable farming concentrating on local food production and small commercial value-added food production, commercial organic food solar product retailing in conjunction with select, human-scale living spaces. Solar energy, alternative heating and energy efficiency will be utilized in the buildings providing leadership in sustainable design.

1.2 Background

The Concept – The ECOfarm is an innovative approach to local food production. It combines food retail, small scale, high quality, natural food "value-added"commercial processing, organic market gardens, small animal husbandry and meat production and food education. It will provide tourism destination opportunities and a unique rural residential experience with access to nearby shopping, lake recreation and resort and meeting facilities. All this will be integrated in a design concept that incorporates energy efficiency, solar energy and attractive and efficient architectural design.

The idea developed from the vision of Tim Wood, local restaurateur and proponent of the "Slow Food" movement. The Slow Food movement started in Italy in 1986 by Carlo Petrini. Slow Food is an effort to bring pleasure, fellowship and community back into the act of eating. Followers often refer to themselves as "eco-gastronomes". They recognize the fact that our pleasure cannot be disconnected from the pleasure of others and from the health and vitality of the environment. Slow food endeavors to protect food choice and diversity, heritage breeds of food stocks, and the preservation of traditional dishes and cultural food practice. This endeavor, by its very nature, connects people to their food. It connects consumers to farmers, farmers to their farms and people to the planet through the fruits of the earth. Slow food looks for people who are self-reliant and able to overcome the obstacles of the pace of the modern world – people with a passionate connection to the land. In his restaurant the ECOcafe, Tim, with his wife Deborah, have gone the extra mile to bring local food products to the table in an innovative and creative menu. Local suppliers provide meat, cheese, and some vegetables. Deborah bakes all the bread products for the ECOcafe at the ECObakery. She uses local organically grown wheat where possible.

Tim's reputation has grown, and recently he was approached by local "Agri-preneur" Zona Armstrong for a collaborative effort. Zona, owner of Wapiti Ways Elk Farm, commissioned Tim to provide a range of value-added elk products. Zona has opened a retail outlet in Calgary and soon will be adding an Edmonton retail location. Tim is producing a variety of creative and appetizing products for retail, but this opportunity puts him on the horns of a dilemma – the lack of production space. Tim is now ready to expand into his own food production to meet the needs the niche he has created. So, the concept of the ECOfarm was born and Tim has started the redevelopment of the abandoned nearby farmstead at the location mentioned above that will soon provide the community with an organic market garden venue as well as a larger commissary kitchen for value-added food products from local sources. The ECObakery will also re-locate adjacent to the commissary kitchen and will include a storefront retail component.

The slow food concept links itself seamlessly to sustainability and energy efficiency because of its re-establishing connection to natural processes. A partner in the ECOfarm, Tim Belec has a passion for solar energy and organic food. For years, people have been asking Tim Belec's advice on solar energy and have been coming to his home to see his own solar installations. Recently, Tim and his wife Brenda have incorporated Earthly Goods Trading Company Ltd. Partnering with the ECOfarm, they will open a retail storefront outlet that will sell and promote solar energy, and organic and sustainable products. The ECOfarm connection is a natural fit.

Sustainability and connection requires community. With his company, Battle Lake Design Group, Arnold Renschler, a local designer/builder and an ECOfarm partner, has learned the lessons of Jane Jacobs, Christopher Alexander and James Howard Kunstler well.

The design and architecture of the Eco Farm is a response to the need to re-establish sustainable and human scale environments. Public and private spaces are designed to honour and nurture human activity and their relationship to the natural world. Many of the design patterns draw on a compilation of processes and call forth a fresh response by design professionals from across North America to sustainably built environments. Orientation of buildings are a result of consideration of climate, view, light, solar gain, and connection to practical and natural features on the site. Commercial, residential, and farm buildings on the site are designed to maximise the use of local materials – siding, framing material, hardwood floors and straw bales are a few examples. Benefits include the support of local economies, ecological awareness and buildings that are 'indigenous' to the local area.

The importance of energy conservation forms the basis of the ECOfarm's design. This includes buildings with double the R-values of conventional construction, geothermal heating, and solar generated domestic hot water. Triple glazing on windows and heat recovery further augment the energy savings.

The places we inhabit need to be designed to make life worth living. They need to be real and authentic. Form, balance, proportion and charm are part of the ECOfarm design, as are spaces and buildings that draw us into the consideration of our humanity in relationship to the larger circle of life. This means creating people friendly spaces, places for people to meet and commune, where interaction is facilitated and community is forged. Through this design lens, Arnold's vision is to incorporate the living space within the ECOfarm complex.

This serves two purposes. First, to complete the food connection, there needs to be community. We are social beings; our pleasure is supported by the community we surround ourselves with. People make this project a living entity. Most importantly, sustainability requires locality. This will be a small but vibrant community centered on a lifestyle that encourages sustainability, connection to the earth and relationships to each other. It also illustrates our close connection to our food and the intimate relationship we have to it. It also has the benefit of helping with the bridge financing of the project. Above the retail and commissary space will be seven well-designed condominiums. Surrounding the building and the market gardens will be walking paths, gardens and ponds.

1.3 Location

The ECOfarm is located at located on the N.E. quarter of section 10, township 46, range 28, west of the 4th meridian. It encompasses roughly 50 acres (approximately 20 hectares) and is bordered on the north by highway 13, to the west by the abandoned County road running diagonally northwest to southeast, to the east by range road 282 and to the south by the property listed to R&L Fiveland. This gives the property a triangular shape (see attached map).

The ECOfarm is roughly two miles east of the Village at Pigeon Lake and ¼ mile from the west Ma-Me-O Beach turn off to Highway 13A.

1.4 Current and Proposed Land Use

The property is currently zoned agricultural. The farmstead has been abandoned for over 30 years. Currently, the hay is cut by a neighbouring farmer and there is some grazing by a small number of sheep and other livestock. In the redevelopment plan, the ECOfarm will be applying for rezoning to DC or rural commercial on a small portion of the land, and will apply to lease the abandoned county road on the west which will be used for access and some parking for the commercial/retail/ residential building.

2.0 Site Analysis

2.1 Soil Analysis

Below is a copy of a County of Wetaskiwin document detailing the soil constituents of the south end of Pigeon Lake, where the ECOfarm is located. Included in Appendix C is a recent soil analysis performed by Northwest Labs in Edmonton of the farm site divided into the sections: the hay field, the pasture/pens, and the market garden area. This soil analysis shows some requirements for nitrogen, phosphorus and potassium in the hayfield; nitrogen in the pasture pens; and nitrogen in the market garden. All areas show suitable pH. Sulphates are slightly excessive in all areas. Soil consistency is congruent with the soil report below obtained from the County of Wetaskiwin.

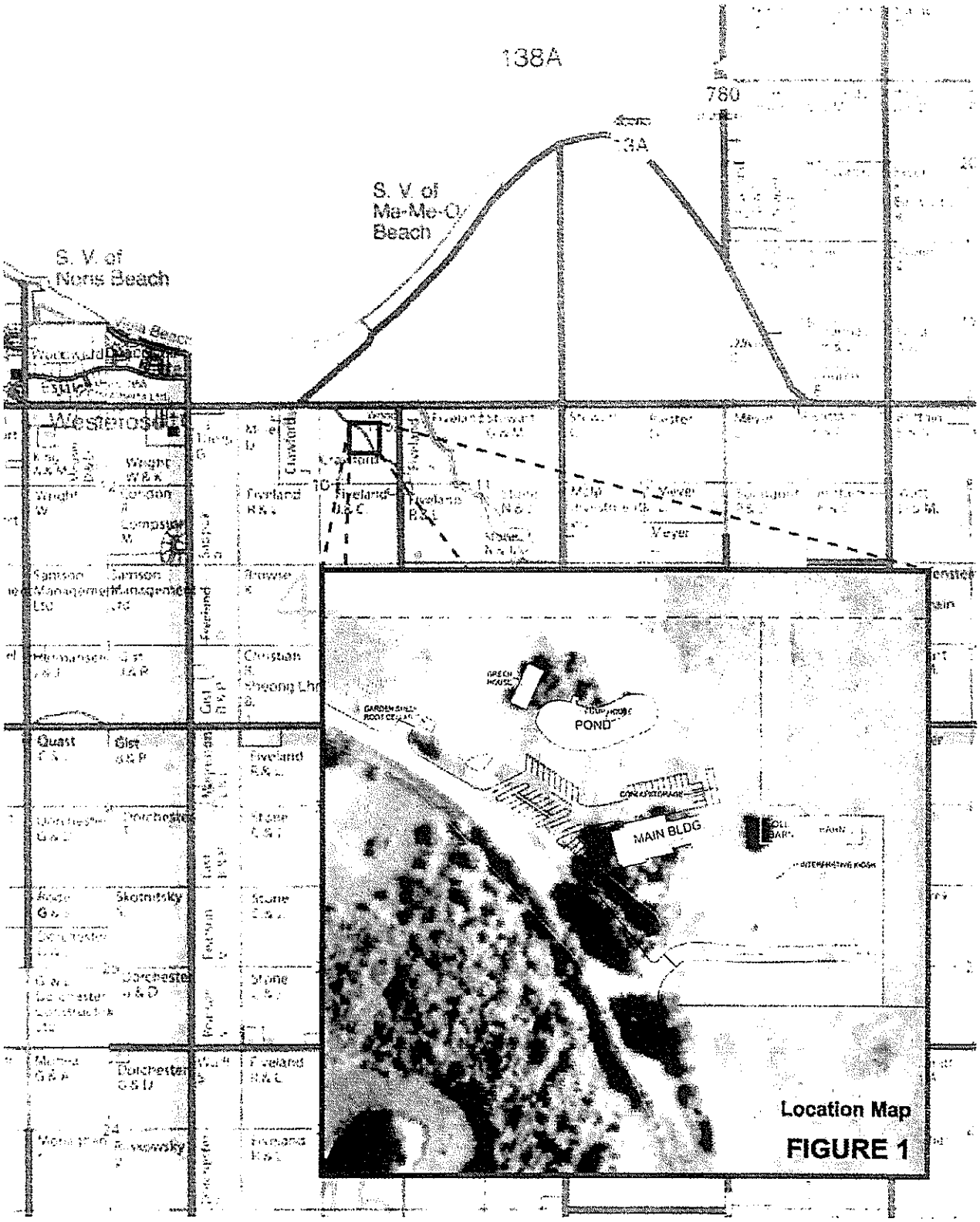

138A
780
S. V. of
Norris Beach
S. V. of
Ma-Me-O
Beach
POND
MAIN BLDG
Location Map

FIGURE 1

2.2 County of Wetaskiwin Soil Survey Report (Also see Appendix C)

Soils Information for South End of Pigeon Lake

The Soil Survey Report indicated that the area of land in the south end of Pigeon Lake near Westerose is mainly composed of Podzolic soils of the Orthic Gray Wooded subgroup. Slopes from 0-9% were identified in this area.

Approximately 70% of the area was classified as a Breton Loam. Breton soils are moderately well drained Orthic Gray Wooded soils developed on till of Paskapoo Formation origin. Stone occur throughout the profile, usually mixed quartzites and sandstones. These soils occur in both simple and complex topography. The simple topography is usually associated with bedrock close to the surface. The Breton series, therefore is usually associated with the Modeste soil series. There may be a thin Ah horizon present and the lower portion of the Ae horizon may have a somewhat higher chroma than the upper portion. Gleyed Breton soils occur with Orthic soils. They usually have a thicker L-H horizon, an Ae horizon somewhat thicker than normal, and more mottling and duller colors in the solum than the Orthic Breton soils.

Approximately 20% of the area was classified as a Tolman Loam. The Tolman soils are moderately well drained Orthic Gray Wooded soils developed on medium textured alluvial-lacustrine material. They are usually stone-free. The topography is complex and varies from undulating to rolling. Till is usually encountered at depths ranging from 4 to 10 feet.

Approximately 10% of the area was classified as a Modeste Loam. Modeste soils are well-drained Orthic Gray Wooded soils developed on residual material (Paskapoo Formation). They occur on level to hilly topography. Fragments of weathered bedrock are found within the solum and some textural variation occurs in these profiles because the parent material (Paskapoo bedrock) ranges from coarse textured sandstone to siltstone. Bedrock exposures can be seen in many of the road cuts. Lime can sometimes be seen in the lower C horizon along root channels.

Small patches of Organic soils were found scattered throughout the area. Generally these Organic soils have formed in enclosed basins from a mixture of sedges and sphagnum peats.

The southeast end of Pigeon Lake also contained Carvel Sandy Loam soils. Carvel soils are well-drained, Orthic Dark Gray Wooded soils developed on deltaic material in which stones are of rare occurrence. Carvel soils are very permeable and although they do occur on sloping topography, erosion can be controlled if managed properly. These soils can be distinguished by the overall brown color and the presence of fine textured bands in the B horizon.

3.0 Land Use Concept

3.1 Food Production Component

In the wake of the BSE crisis and avian flu epidemics, and with the continued growth of genetically modified organisms reaching the human food chain, many people want to know where their food comes from. Food security can only be assured if people make that direct connection to the source. The ECOfarm will be growing and raising some of the food stocks required for the retail and food production components. Soon, the ECOfarm will have completed its Environmental Farm Plan (EFP), an Alberta Government sponsored plan that promotes the best environmental farm practices. The ECOfarm will also strongly encourage its farm suppliers to complete an EFP. In addition, histories and biographies of all the suppliers will be available to ECOfarm customers so that they can acquaint themselves with their food producers on a personal level.

The ECOfarm will promote a "closed loop" approach to raising the food offered. For example, some of the chicken used at the ECOfarm will be ECOfarm raised. The chicken will be used in chicken pot pies or other products. Onions, carrots celery and other produce used in the pie will also likely be ECOfarm raised, or locally sourced organic or "natural" produce. The cuttings and refuse from these will be fed back to the chickens, the manure from the chickens will be composted and re-applied to the market gardens and the cycle continues. The ECOfarm will even utilize its used vegetable oil by burning it straight in modified farm vehicles and equipment, or by making biodiesel.

Many other food issues will be addressed at the ECOfarm. Local and seasonal foods will be offered. Typically, imported "green-picked" produce is designed primarily for handling and transport at the expense of flavour. Unfortunately, this requires high energy inputs and breaks the food connection. One way the ECOfarm will take advantage of its seasonal bounty is to return to safe and proven methods of food preservation so local produce can be enjoyed year round. At the ECOfarm, seasonal surplus will be either safely stored or preserved so customers can benefit from local food products all year.

The ECOfarm will produce or offer from local producers a range of "farm gate" products such as vegetables, berries, eggs, chicken, beef, lamb, elk, pork and bison. This will present local producers with a direct market for their products and promote that food connection that is vital to our farm concept. Producer biographies and information will be available to customers so people can make that link to the producer.

3.2 Commercial Commissary Kitchen – ECOkitchen

In order to produce a large variety of value-added food products, the ECOkitchen will occupy the largest portion of the ECOfarm's building space. Products from the ECOkitchen will be produced from food grown on the ECOfarm and from local suppliers whenever possible. The ECOkitchen will offer a wide variety of wholesome and creative food choices packaged for retail. Much of this product will find its way to retail outlets in Edmonton and Calgary, and will also be for sale in the attached retail store, Earthly Goods Trading Company Ltd. The benefits of producing value-added products onsite is the spin-off effects to the local economy. It is estimated that 10 – 15 people will be employed in the commercial food area alone. The Bakery and retail store, garden space and farm will employ 8 to 10 people, some of these seasonal. Also, local producers will have a direct line to consumers for their products.

3.3 ECObakery

The ECObakery currently provides baked goods to the ECOcafe, the parent company and restaurant located at the Village at Pigeon Lake. The ECObakery will be moved to the ECOfarm and will operate in conjunction with the ECOkitchen where it will continue to produce baked goods for the ECOcafe, as well as components for the ECOkitchen value-added products. New for the ECObakery will be the store front retail outlet where visitors can buy bread and other baked goods to take home, or to snack on while they walk through the ECOfarm's gardens.

3.4 Earthly Goods Trading Company Ltd. – Organics, Solar and Sustainables

A separate but affiliated company, Earthly Goods Trading Company Ltd., will operate a large part of the retail space on the lower floor of the building complex. This storefront will retail the products grown on the ECOfarm and produced in the ECOkitchen, as well as offering a wide range of organic food products that are not usually available outside larger urban areas. Earthly Goods Trading Company Ltd. will also source and sell locally made cheeses and dairy products, and natural and organic meats and vegetables not grown on the ECOfarm. Off-season organic produce will be sourced from distributors in Edmonton and Vancouver. There will be an organic bulk food section that will offer bulk staples such as flour, beans, pasta and other similar dry goods. "Sustainables" and solar products are also a focus. Solar water heating and air panels, compact fluorescent light bulbs, water saving devices, and other products that promote and encourage sustainable living and energy efficiency will be retailed. To top off the "general store" appeal will be a juice bar that will offer fresh juices and "smoothies", as well as espresso drinks like cappuccino and latte. With 20% annual growth in organic food sales and 30% increase in solar energy sales nationally, Earthly Goods Trading Company Ltd. will be an important addition to the surrounding lake community.

3.5 Message Therapist and Doctor of Chinese Medicine

As a component of the ECOfarm's philosophy of encouraging good health and wellness, one of the retail stores will house a message therapist and Doctor of Chinese Medicine. This business fits well with the overall vision of the ECOfarm, and compliments the host of "healthy" services already at this development.

3.6 Bookstore and Art Gallery

In addition to the educational aspect wishing to be achieved by the ECOfarm, a small bookstore and art gallery will augment the desire by the ECOfarm to provide continuing educational opportunities. The bookstore will house many new or near new books on such topics as gardening, building, home design, cooking, health, farming, art, religion, sustainability, cultural studies, politics, and local history. Arnold Renschler, a partner in the ECOfarm, will be operating this establishment, and receiving books geared towards these topics (and others of interest to the local community and lake tourists) from Barb Ellis of the Edmonton Book Store. Arnold will also be carrying a large selection of books from reputable sources such as New Society publishers and Taunton Press. This will be complimented by a healthy supply of current magazines and journals of interest to those frequenting the ECOfarm.

A small, but vital, art gallery will be operated as part of the store, showcasing local area artists, as well as other talent from around Alberta. This will be an important outlet for many of the talented artists and artisans that live and create work around the Pigeon Lake area and in the County of Wetaskiwin.

3.7 Residential Condominiums

To maintain vitality and viability, communities need people. Above the retail and kitchen space will be seven condominiums offering select, professionally-designed, country living opportunities. These units will be built in an open loft concept overlooking the gardens and bucolic rural countryside. High ceilings, hardwood floors, skylights, custom cabinetry, and fine millwork will compliment a host of energy saving features and appliances. A diversity of layout styles, sizes, and features make these condos potentially attractive to a broad demographic. Each suite will have solar water heating providing roughly 75% of the domestic hot water needs. Geothermal radiant heat will make efficient use of the earth's energy for space heating and provide cutting-edge alternative heating for the building. Each unit will be equipped to allow for solar electricity generation utilizing "net metering" to reduce utility operating costs and to take advantage of the sun's energy once this type of generation is sanctioned by the Electrical Utilities Act. The appeal of these units is further enhanced by the many local amenities, such as the Village at Pigeon Lake, shopping, golfing, water sports, provincial parks, and rural culture that surround Pigeon and Battle Lakes. This type of eco-housing opportunity will provide many different segments of the general population an opportunity to participate in the creation of a sustainable community that encourages interaction between neighbours not typically found in most developments.

Although not a typical "co-housing" arrangement, we would hope that residents would take the possibilities provided by the ECOfarm development & community as "an exceptionally vibrant, visionary, and open-hearted place to live. Each of us brings our personal interests and life experiences and wisdom to our community. This convergence of self, community, and the world is "the sweet spot" - the place where synergy takes hold and we can be something bigger than ourselves."[1]

3.8 Community Component

The ECOfarm will be a community venue – a meeting place where people can connect. The market garden, retail and commercial areas will be surrounded with sitting areas and walking paths in a park-like setting.

3.9 Tourism

The ECOfarm is a visionary blend of rural farm life with contemporary, sustainable residential living. Many things set the ECOfarm apart, such as solar energy use on a macro scale. People from the lake communities and nearby cities will be encouraged to visit. Visitors can walk through the market gardens, natural areas and perennial beds, and view lambs, sheep, alpaca, chicken and pigs. This seemingly ordinary, classic farm experience will help urban folks understand and repair lost connections to the land and their food. The ECOfarm gives these people the chance to see livestock up close and to see where their food actually comes from, as well as other aspects of rural living.

[1] Silver Sage Village. Elder Co-housing Communities, 2004. http://www.abrahampaiss.com/ElderCohousing/SilverSage.htm

3.10 Education

In addition, education will also be an important component. We are not just passionate about food; we want to help people remake the food connection. There will be an interpretive kiosk located outside the retail store. Visitors to the kiosk can learn about sustainable farming practices and how things are done at the ECOfarm. They will learn about the animals, about composting, and about alternative energy. During the winter months, the ECOfarm will hold seminars on food preparation, slow food, eating and buying "locally and seasonally", classes on solar energy and energy efficiency, food preservation and canning, root cellaring and food storage, and sustainable design.

The ECOfarm will build on the existing economic assets of Wetaskiwin County's Central Region to bring more prosperity to the area. The ECOfarm will strive to develop a reputation that will make it a destination for people from throughout the province.

3.11 Development Phases and Integration of Uses

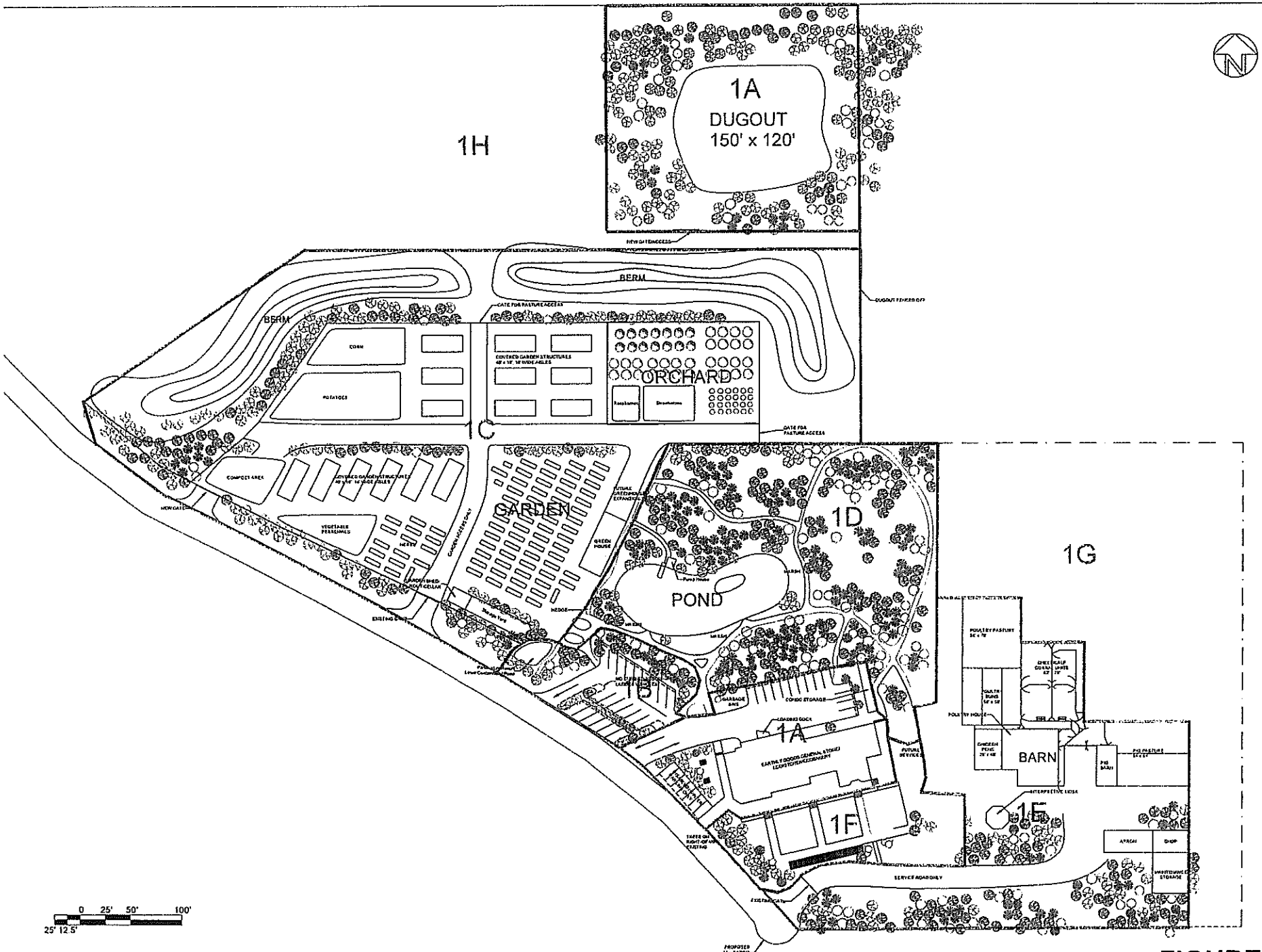
There will be a buildup of activity and development on the site (see Phases of Development Figure on following page), although almost all development will happen simultaneously in Phase 1. Phase 1A will see the construction of the main building and will encompass the commercial, condominium, and retail portions of the development which includes the ECOkitchen (commissary kitchen), the ECObakery, and Earthly Goods Trading Company Ltd., the organic and sustainables retailer. This also includes development of the required dugout and water lines. Phase 1B will incorporate the initial parking needs of the condominiums and the retail space. Phases 1C will also see the construction of more retail parking, a parking drainage holding pond, the orchard, berry patches, and the building of the market gardens raised beds. Phase 1D will also allow for the development of the parks and gardens as well as substantially complete the farm and maintenance outbuildings, with the restoration or replacement of the old barn (Phase 1E). Phase 1F will be completed with landscaping and park gathering areas in front of the main building, as well as the interpretive kiosk. Also shown are the pasture and hay fields, which already exist (Phases 1G & 1H). The soils here will be tested and mitigated as required and the forage assessed. Phase 2 will be the development of small cottages and an assembly space, to be determined at a later date.

sufficient and will be dedicated to allow a 90° intersection with Hwy 13.

4.0 Roads and Traffic

4.1 Vehicular Access and Site Circulation

Vehicle access will be from Highway 13, which brings traffic along the west side of the ECOfarm development. Access to the commercial and retail parking is directly off the abandoned County road right-of-way. The County of Wetaskiwin will be approached for a long-term lease of this abandoned right-of-way. If leased, the ECOfarm will not restrict access to any neighbouring properties. Visitors and retail customers will be able to access parking but will have no access beyond the main parking areas. Staff and condo residents will have exclusive access to the parking on the north side of the building complex.



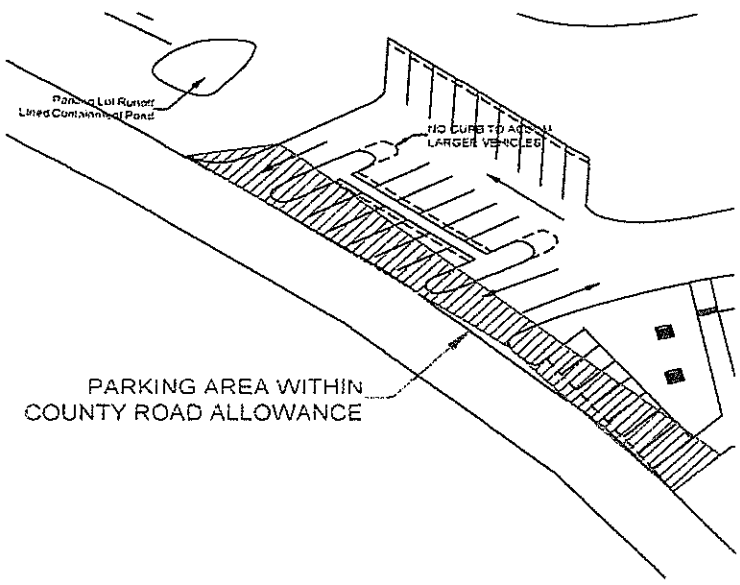
SCALE 1" : 120.0'

Development Phases and Integration of Uses **FIGURE 2**

Farm and maintenance access from the abandoned County road to the farm outbuildings will be from a service road south of the main building. The gardens, walking paths and interpretive area are foot access only.

4.2 Parking

There will be parking for staff and residents on the north of the main building complex. Customer parking will be off the County road and to the west of the main building.



Parking – Figure 3

The parking lot design takes into account many environmentally responsible initiatives. Two main strategies are employed to reduce runoff volume and provide water quality benefits in the parking lots: reducing paved surface area and incorporating plant and infiltration swales into designs.[2]

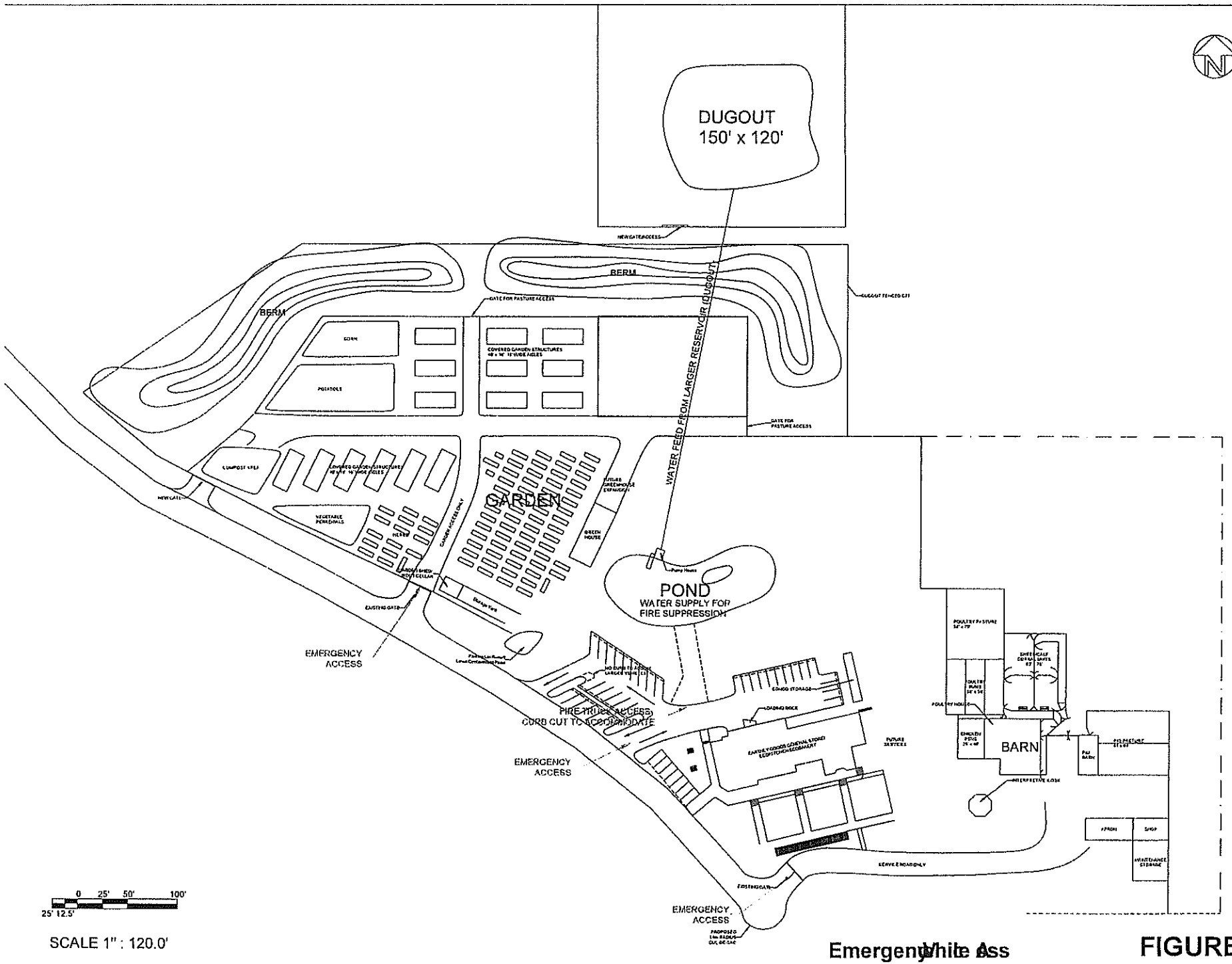
Reduction of paved surface areas is achieved by reduced stall dimensions through efficient design: angled parking to reduce driving lane width and one-way traffic flow. Also, spill-over parking areas use pervious paving surface to reduce runoff (such as pavers or grass), as well as generous planting of native deep-rooted grasses and trees that hold water that is then evaporated, reducing runoff. Water not used by plants will runoff into a lined holding pond to contain any contaminants picked up from the parking lot.

Less paving means lower development and maintenance costs, and reducing parking surface reduces the need for storm water runoff management. Shade from trees over impermeable surfaces also helps reduce the "urban heat island" effect (also keeping storm water cool) This makes the area more comfortable for people, as well as creating a more interesting and aesthetically pleasing environment and providing native habitat for wildlife.

4.3 Emergency Vehicle Access

Emergency vehicle access for the main building will be via the parking lot on the north side of the main building complex. Access to the barn and maintenance area will be from the south gate off the county road and through the north gate off the county road next to the market garden area. (See Emergency Vehicle Access Figure following this page)

[2] Impervious Surface Reduction: Parking Lot Design. Minnesota Urban Small Sites BMP Manual, Metropolitan Council Environmental Services, 2003. http://www.metrocouncil.org/environment/



SCALE 1" : 120.0'

Emergency White Ass

FIGURE 4

5.0 Services and Utilities

5.1 Water Supply

Current water supply on the property is provided by an old water well from the original farmstead. There are no water records of the well. This water well is also poorly located for the rest of the development. The feasibility of utilizing this well is under investigation, but will likely be abandoned and reclaimed as per Alberta Environment guidelines. There will be a new well drilled in proximity to the main complex.

Appendix B contains a hydrology and groundwater assessment produced for this ASP by AMEC Earth and Environmental. This report examined available well reports within two miles of the proposed ECOfarm project and reviewed the well-known geology and hydrology of the area and groundwater yield sufficiency for the requirements of the ECOfarm development. Water volume is shown to be adequate. Also, ground water quality was surveyed from surrounding well data. It was found that most well surveyed exceeded the water quality aesthetic guidelines for sodium content. This may impact consumption for individuals on sodium restricted diets. Water quality will be followed and maintained under the Code of Practice for High Quality Groundwater from Alberta Environment, and will meet or exceed the Canadian Drinking Water Quality Guidelines.

5.2 Sewer

It currently appears that a municipal sewer system for the South Pigeon Lake Sewer project is now all but a faint hope. Therefore, holding tanks will be incorporated for human waste and commercial water disposal with waste being trucked off-site to the Mulhurst Bay disposal facility. This will serve as a temporary measure until an approved system of engineered wetlands, solar aquatics and/or similar technologies are constructed to deal with the sewer on site within a 2 year timeline. Water conservation measures and possible grey water utilization will be explored and implemented.

5.3 Storm Water Management

Appropriate steps will be taken to contain the small amount of storm water runoff anticipated. Through innovative design, water retention by swales & plants, and generous planting of native vegetation will mitigate most of the need for storm water runoff management from impermeable surfaces (such as the parking lot). The ECOfarm will also incorporate a holding pond to contain any possible parking lot runoff contaminants.

5.4 Agricultural Run-off and Manure Management

The ECOfarm has developed an Environmental Farm Plan that covers the handling of animal waste. We do not anticipate a large number of livestock on site, only as much as the acreage can support. Most large meat animals required for retail and commercial kitchen stock will be sourced from local producers. This should keep the amount of manure down to manageable levels. The manure will be composted and stored far enough away from the main building complex site as to avoid nuisance odors and water contamination. We will be consulting the Agricultural Operations and Practices Act and the local health authority for assistance in the proper handling and storage of manure. The compost area will

require some engineering assistance to ensure containment. A response plan to deal with spills will be developed.

The stock will be wintered in relatively close proximity to the barn with small shelters providing cover from the elements. Feeding and watering will occur in these winter pens. Drainage and flood control will be incorporated in the design of these sites to catch or direct spring runoff.

5.5 Power, Telephone and Natural Gas Utility

All utilities are currently available within easy access of current corridors. The ECOfarm will be making application to have the existing power lines re-routed off the property and onto the existing road allowance. Local wire line, telephone, and gas providers will be consulted. (See Existing Services and Utilities Figure on next page).

5.6 Geothermal and Solar Domestic Hot Water Systems

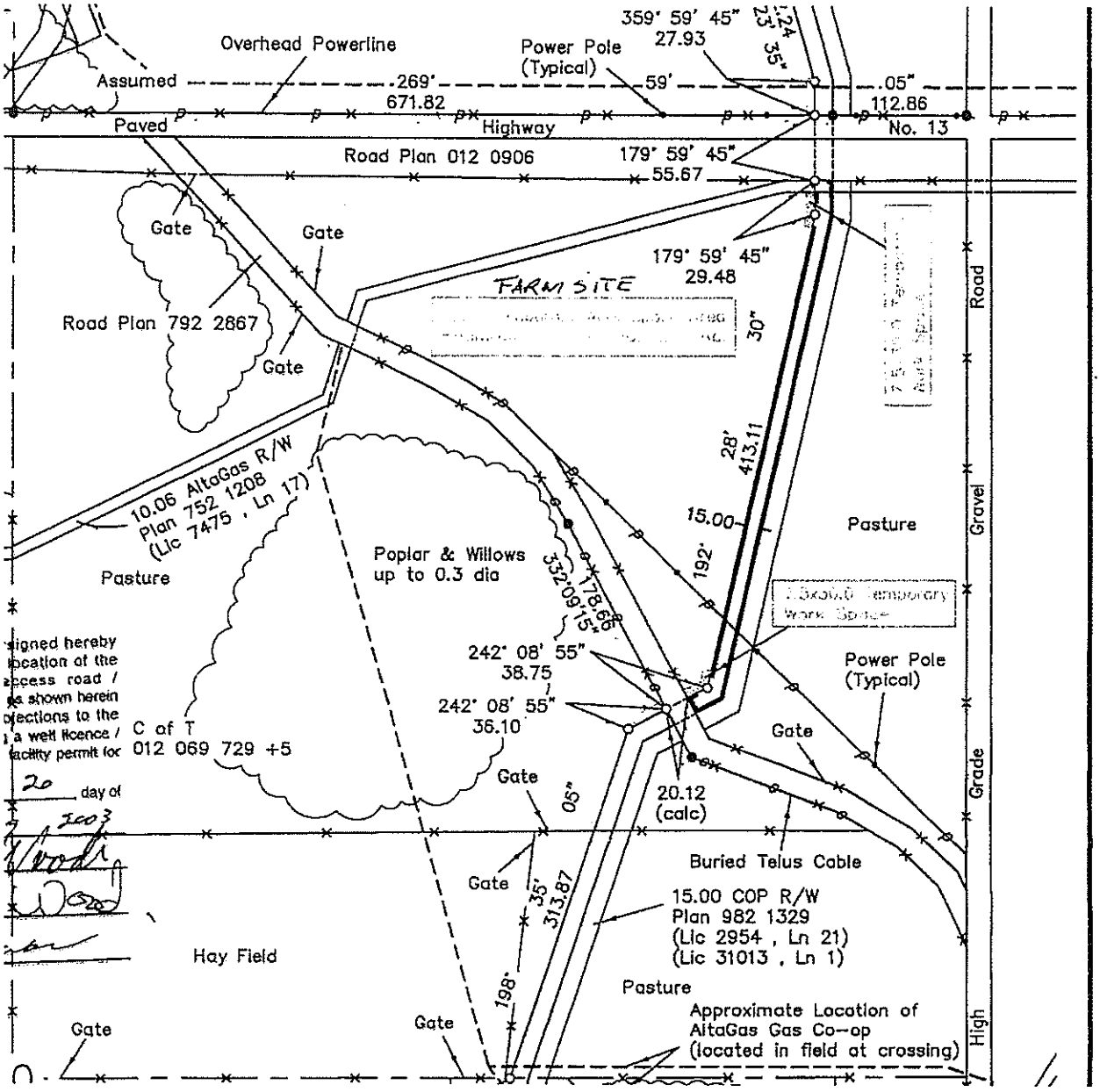
The ECOfarm will incorporate engineered geothermal and solar heated domestic hot water systems. Geothermal heat pumps will provide energy efficient space heating while the solar hot water system will provide up to 75% of the domestic hot water requirements. This will be augmented by a philosophy of conservation and the use of energy saving and low flow devices throughout the complex.

5.7 Wind Power and Photovoltaic

As conventional oil, gas and electricity continue to increase in cost and scarcity, the ECOfarm will be supplying an ever-increasing amount of its energy needs by augmenting with solar and wind power. The implementation of this technology is partially constrained by current legislation under the Electrical Utilities Act that makes "net-metering", which is essentially tying local power production to the electrical grid and running the power meter backwards, illegal. However, all Canadian provinces, with the exception of Alberta, have policy or are developing policy to allow this practice. Alberta has recently started discussions regarding net-metering. Its practice is occurring in at least 37 states in the USA and it is inevitable that net-metering will come to Alberta, of which the ECOfarm will be ready to respond. Utility rooms and rough-ins for on-site power generation will be incorporated in the construction phase. In addition, energy conservation and efficiency will be the foundation of operations at the ECOfarm.

5.8 Fire Protection

Dry hydrants will be located close to the main buildings that will draw from the pond area. Access to buildings for emergency vehicles are designed in to the site plan. This includes fire truck access to the pond. (See Emergency Vehicle Access Figure following page 11)



Existing Services and Utilities - Figure 5

6.0 Potential Land Use Conflicts

6.1 Possible Areas of Conflict

There is some potential for conflict with neighbouring farms due to increased traffic and noise. The ECOfarm site will house several condominium residences, therefore noise issues will be of concern to all parties. Distances to neighbouring residences should be far enough to mitigate noise issues. Increased traffic will take place only during regular business hours, and this all comes from a highway that is already seeing increased use from lake users and patrons of other area developments. Access to neighbouring property from the abandoned county road will be maintained unobstructed.

6.2 Public Consultation

It is the sincere intent of the ECOfarm to add to the quality of life in the area. The ECOfarm will do its utmost to address all of the concerns of area residents. We will meet with neighbours who might be affected to inform them of the plans at the ECOfarm and to hear and address their concerns. Appendix D contains the public information document that we will be circulating.