



Project Development Plan

Daybreak Farms Modernization Project

Address: 4423 Eby Street, Terrace, BC

Legal Description: LOT 1, PLAN EPP7399, DISTRICT LOT 977, RANGE 5, LAND DISTRICT 14



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Project Number:	2101260
Date:	25 January 2022

DOCUMENT INFORMATION

Project Number:	2101260
File Number:	
Filename:	220125-mbky-rpt-Daybreak Farms Modernization - Project Development Plan - rev0.docx
Document Revision:	0

REVISION HISTORY

Rev.#	Date of Issue	Prepared By	Approved By	Description
A	15 July 2021	MB	KY	Draft release for stakeholder review and input.
B	23 July 2021	MB	KY	Draft release for client input.
C	07 Aug 2021	MB	KY	Draft release for client input.
DRAFT-1	16 Aug 2021	MB	KY	Draft1 Release for BCEMB
DRAFT-2	22 Sept 2021	MB	KY	Draft2 Release for Review & Consultation
DRAFT-3	05 Nov 2021	MB	KY	Draft 3 Release for Review & Consultation
0	25 Jan 2022	KY	KY	For Submission to Council

EXECUTIVE SUMMARY

Introduction

Daybreak Farms requires a City of Terrace zoning amendment to permit the proposed modernization and upgrade of their egg production facility. This is required to meet modern production and environmental standards and to remain an economically viable farm operation.

Daybreak Farms is a local egg farm and the only large-scale federally and provincially inspected egg farming facility in the northwest. They have been operating on Eby Street in the City of Terrace since the 1950's previously as Sampson's Poultry Farm and with the present owners as Daybreak Farms since 1992. As the only large-scale commercial egg farm supplying fresh food to the Northwest, Daybreak Farms' operation has grown significantly over the past 20 years. Daybreak currently produces over 37,000 eggs per day with all eggs graded and packed on-site. Daybreak continues to contribute to Terrace and surrounding communities by offering locally sourced fresh eggs which would otherwise be brought in from neighbouring provinces or from lower mainland producers.

In addition to providing fresh local food, the Farm employs nine full time staff, three part-time staff and 32 casual positions. Daybreak is proposing to modernize by completing substantial upgrades and building replacement at their agricultural operation. The proposed modernization is necessary to grow the business, keep it financially viable and continue to supply the Northwest with a secure quality food source. Diversifying the farm operation will result in more local jobs and a wider range of products.

The property is located at the north end of Terrace, approximately three kilometers from the city center. The main operation including the barns and grading station is located on an approximately 15.3 acre land parcel at 4423 Eby Street. The feed mill component of the operation which mills natural and antibiotic-free feed is located across the street at 4418 Eby. Adjacent development includes rural acreages to the north and residential to the east and south along Vesta and Dairy Avenues.

The main operation at 4423 is separated from the residential area by an average 50-meter-wide treed buffer contained within Daybreak's property. The infrastructure at the farm is aging and the pit manure system presently used to dispose of waste generated on the farm is outdated and may be a contributor to excessive flies in the neighborhood. There have been complaints regarding flies in the neighbourhood during the summer months and Daybreak strongly believes that for their property, the complaints can be addressed with the proposed modernization and substantial upgrades that will be done.



Proposed Upgrades

Daybreak Farms wants to invest approximately 10 million dollars over the next 15 years on their Modernization and Renewal Project described in more detail in this report. The project will centralize their operation on 4423 Eby Street and provide significant production and environmental upgrades to all facets of the operation. A significant environmental upgrade will be to the barns and include installing a closed-loop organic commercial composting system that allows 98 percent of the farm's waste to be transformed into a garden and landscape quality compost product.

The barns presently utilize a pit manure system which means that the chicken waste sits in pits beneath the barns. This is not an ideal system and most farms in BC have alternative and more modern systems in place. The modernization project will also reduce the waste stream of the farm, reduce the farm's carbon footprint by cutting methane emission, allow the company to grow their operation and create new jobs in the community.

The structures at 4423 Eby Street currently consist of two main cage barns, one free run barn, a grading station, and a storage building. Daybreak has been operating with these facilities for the past 30 years and the structures need to be replaced or undergo significant upgrade. To create efficiencies, Daybreak also wants to consolidate their operation onto their main site and move the feed mill from its current located at 4418 Eby Street. The feed mill is also intended to be upgraded with this modernization project and rebuilding the barns will provide superior conditions for the poultry due to advanced ventilation, cage free housing and cleaner manure processing.

The barns housing the chickens are aging and in need of repairs and upgrade, or replacement. The barns were designed as an "all in, all out" system, meaning that only one flock was intended to be in the barn at one time. Daybreak has their own grading station and therefore requires multiple egg types at any one time, so several aged flocks are housed in one barn. To increase the effectiveness of sanitization between flocks and capitalize on flock productivity, walls need to be erected between flocks and the housing systems need to be modernized. The existing barns are too narrow to reasonably accommodate the more modern poultry housing systems that are on the market today.

Zoning

The subject land parcel at 4423 Eby Street is currently zoned as AR2 - Rural. The present zoning does not permit Daybreak Farms to rebuild and expand their agricultural operation. The AR2 zoning puts requirements on the number of 'Agricultural Units' (poultry) permitted with 3.0 Units per hectare of land to a maximum of 10 units. For poultry, 25 are permitted per "Unit", and with 10 units available with AR2 zoning, the maximum number of poultry permitted on the site under the current zoning is 250. The AR2 designation puts the agricultural operation into "non-conforming" status pursuant to the Local Government Act. Non-conformity prohibits rebuilding structures or the expansion necessary to allow the operation to modernize.

With the limitations of the current zoning, and the non-conforming status the best use for this property and the only way to remain as a farm is to continue to operate as "legal non-conforming". Daybreak would be permitted to carry out only minor improvements that would not increase the scale, would not replace buildings, or expand the use. If the farm is not allowed to modernize, it will not be able to meet new industry practices and standards, will become uncompetitive and faces the possibility of ceasing operations.

With non-conforming status it doesn't make economic sense for the owners to make significant financial investments in the farm while the long-term competitiveness of their operation remains constrained by zoning. A preferred alternative is for Daybreak Farms to be allowed to make a significant investment in upgrading their facility to meet new environmental and industry standards and remain competitive and financially viable. A cleaner, more efficient operation as presented in Section 3 of this report would significantly improve the compatibility with adjacent land uses.

The Farm property is outside the City of Terrace's "Urban Containment Boundary" and is also outside of the "Specified Environmentally Sensitive Area". With the AR2 zoning designation, the property could be potentially subdivided to create a maximum of 3 lots. Displacing a productive farm to create 3 additional rural residential lots does not make economic or agricultural sense for either the owner or the community.

City of Terrace Agricultural Policies

The Greater Terrace Agricultural Area Plan adopted by the City in 2015 is a commitment to increasing agricultural production in the Greater Terrace area and affirms that agricultural production contributes to economic activity, increases self-sufficiency, food security and opportunities for obtaining fresh food. The Plan notes that while local food production has seen a decline in the past 20 years, there is overwhelming community support for locally sourced food with most residents surveyed willing to pay more for local food with reasons for buying local including freshness and better taste, supporting local farmers, supporting the local economy, and creating less of a carbon footprint.

The Plan recognizes the importance for local government to support local large scale agricultural business through implementing supportive planning and land use regulations.

"Recommendation 77...Work with local and potential large scale agricultural operations and businesses to ensure that they are able to function with a minimum of land use and regulatory conflicts".

"It would be beneficial for these businesses and for potential and new agribusinesses to have clear guidelines from local and regional governments as to how and where they can conduct intensive agriculture or undertake larger scale agricultural operations. In order to make investments at these levels, the businesses need certainty as to the appropriateness of their locations and activities, and, wherever possible, avoidance of current and future land use conflicts." (*City of Terrace & Regional District of Kitimat Stikine Greater Terrace Agricultural Area Plan Report 2015*)

Daybreak Wants to Invest in the Property they Own

Daybreak Farms has a long history on this property. The property is owned by Daybreak Farms who have been operating at this location for over 30 years. The land is a flat parcel that is suited for this use. Finding, purchasing, relocating stock and equipment, and developing on a similar size land parcel with the same qualities required to operate a similar farm in Terrace is extremely challenging and cost prohibitive.

At 15+ acres in size, the property provides sufficient site area for the proposed new and upgraded buildings and to keeping a vegetative (treed) buffer with the residential development immediately to the south. There is very good road access to the property which is paved and maintained by the City, and this is very important for delivery vehicles. It's also a short commute for employees, most of which reside in Terrace. The property is serviced by a community water system which is essential for the farm. There is also access to three phase power provided by BC Hydro and natural gas provided by Pacific Northern Gas. The property is not in a floodplain as with some of the other larger farm acreages in Terrace.

Remaining on this property will allow the Farm to continue to operate during construction and maintain a positive cash flow. It will also allow the Farm to continue supplying their established clients so that they will not need to source eggs from an outside supplier and risk losing their current market.

Daybreak has considered an option to relocate their operation to the ALR lands south of Graham Ave. These lands tend to be in the Skeena River floodplain and are subject to ALR restrictions on removing or filling over favourable soils. Daybreak's facilities need to be built up out of the floodplain to protect the vulnerable flocks and expensive mechanical equipment in the barns, so any such relocation would be subject to the review and approval of the Agricultural Land Commission. Suitable properties are limited to a few dozen, which only occasionally become available to purchase. Most importantly, the cost to develop a complete new farm is estimated to be about 20 million dollars, about double the 10 million dollars to modernize the existing facility.

Next Steps

The proposed environmental upgrades that will come with the modernization are essential as Daybreak Farms looks to the future in providing clean and efficient egg farming practices in the northwest. With the growing population of Terrace and the surrounding communities, there is room for expanding the business. The upgrades would also provide superior conditions for the chickens due to advanced ventilation processes, cage-free housing, and cleaner manure processing methods. The benefits of these improvements will also extend to the neighborhood in proximity to the Farm, especially from the new waste management system that will be implemented. Daybreak Farms is of the opinion that with the proposed upgrades, the Farm can co-exist with their neighbours.

Daybreak Farms is committed to working with the City of Terrace to identify potential concerns and issues with the modernization project and the proposed new development, and to ensure the Farm's objectives and the City's objectives can be mutually addressed. Daybreak is also amiable to working with the City to set a building schedule that will comply with City requirements and expectations. For example, if the primary issue is that of nuisance concerns with flies in the neighborhood, Daybreak Farms is willing to start the project with upgrades to the barns to accommodate the new manure belt system that eliminates the existing manure pits.

Daybreak is flexible in their approach to the renewal project but would like to begin as soon as possible so that all issues are identified, and a plan for addressing the issues is developed. This Daybreak Farms' Modernization Project Development Plan presents a vision for the future upgrade of this unique farm venture. The egg farm has been operating on the same property since the 1950's and has contributed to the local economy and provided a secure low-cost food source for the northwest. The expectation is that this will continue.

This is a critical time for the Farm to bring certainty to their future. This will be accomplished by upgrading their infrastructure to keep up with modern egg farming practices in British Columbia. New infrastructure will improve living conditions for the chickens, will minimize waste through clean composting, will reduce neighbourhood

impacts and will ensure an economically viable local food supply in the northwest for years to come. The alternative is that operating at the present state will eventually make the Farm less competitive and no longer financially viable.

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1 INTRODUCTION

This Project Development Plan presents the Daybreak Farms (Daybreak) Modernization Project, a proposal to undertake substantial upgrades to the Daybreak Farms facility on Eby Street in Terrace, British Columbia. Daybreak Farms (Daybreak) is an egg farm and the only local and large-scale egg farming facility serving northwest BC. Daybreak would like to modernize their facility to continue serving the growing northwest market and to ensure viable and successful long-term operation of the business.

The farm is located within the City of Terrace municipal boundary. There is large, treed buffer to the south, dividing the farm from its neighbors. The infrastructure at the farm is aging and the pit manure system is outdated, potentially contributing to excessive flies in the neighborhood. Complaints have been filed with the BC Farm Industry Review Board about flies during the summer months in 2005 and again in 2020. During the 2005 complaint process, experts from the Ministry of Agriculture and the Egg Board Production Management Committee concluded that if the source of the fly issue was Daybreak Farms, it could be addressed by modernizing the manure and composting system which Daybreak Farms is committed to undertaking with this modernization project.

The Daybreak Farms Modernization Project would include barn renovations to install a modern conveyor waste collection system and closed-loop commercial composting system, allowing the farm's waste to be transformed into a garden and landscape quality compost product. This will be a significant improvement towards eliminating the fly breeding area, reducing the waste stream of the farm, reducing the farms carbon footprint by cutting methane emissions from landfills, and creating new jobs in the region.

1.1 Objectives

The objectives of this document are as follows:

- To describe the existing facility at Daybreak and the zoning issues that they are facing with the proposed modernization project.
- To describe the Terrace Official Community Plan (OCP) as well as other planning and zoning documents explaining the community vision.
- To describe and present the proposed Daybreak Farms Modernization Project as envisioned by Daybreak.
- To describe the nuisance elimination that will result from the modernized farm equipment.
- To highlight the environmental benefits of an updated closed loop composting system.
- To describe the financial and local food production benefits to the community of the proposed upgrades.
- To summarize the required building updates to ensure the business remains economically viable to meet the growing market in the northwest.

1.2 Location and Population

The City of Terrace is located adjacent to the Skeena River in northwestern British Columbia. The unincorporated community of Thornhill is located across the Skeena River. The City of Terrace provides

business and community services for the residents of Thornhill, the Greater Terrace area, two First Nations communities, and the surrounding rural areas. The location of the site is shown on Figure 1.

The population of Thornhill, Terrace and Greater Terrace (2020 Census) are as follows:

- City of Terrace 12,700
- Thornhill 3,993 (Electoral Area E including Kulsapai)
- Greater Terrace 19,073 (includes Terrace, Thornhill, Kitsumkalum, Gitau, and Census Subdivision C – Part 1)

Daybreak sells eggs to communities from Smithers to Haida Gwaii and from Kitimat to Dease Lake. As mentioned, Daybreak serves the entire northwest, which include a service area of approximately 100,000 people.



Figure 1: Project Location

1.3 Physical & Historical Context

The farm on North Eby has been supplying fresh eggs to the northwest since its inception as Samson Poultry in the 1950's. It was purchased by two partners, Ian Christison and Roy Jenson in 1992 and they began Daybreak Farm. The farm has been a staple of northwest BC for many years, selling over one million dozen eggs annually to customers like Wal-Mart, Bulkley Valley Wholesale, J&F, Save On Foods, as well as numerous independent grocers and restaurants.

Daybreak has been a prominent member of the Terrace community for many years, donating to various non-profit organizations and employing ten full time staff, two part-time staff and 32 casual labourers. Unlike most other BC egg producers, Daybreak eggs are not sent to a secondary grading station, but are graded right on site, ensuring peak farm-to-table freshness and superior quality control. The on-site grading station also minimizes egg transport and reduces the carbon footprint of the farm. Daybreak has the only registered grading station west of Dawson Creek and north of Salmon Arm. The facilities are frequently inspected by several regulatory agencies including the Canadian Food Inspection Agency, a third-part safety auditor, the BC Egg Marketing Board, and Egg Farmers of Canada.

The farm also consists of a feed mill, milling hormone and antibiotic-free feed on site which minimizes the need for excessive shipping and transportation. The feed mill sources local ingredients, further contributing to the local economy of the Terrace area.

1.4 Project Site

The property is located at the north end of Terrace, approximately three kilometers from the city center. The barns and grading station are set back approximately 200 m west of Eby Street. There is a treed area about 50m north and a treed buffer zone to the south, between the farm operations and the residential block on Dairy Avenue. The existing forest buffer to the south has an average width of 50 m and is located within the Daybreak Property. Figure 2 provides a conceptual overview of the project site.

Currently, the barns and the grading station are located at their main operations site at 4423 Eby Street (Figure 2) and the feed mill is located at 4418 Eby Street. Daybreak would like to consolidate their operations and build a feed mill at 4423 Eby Street. The site is shown in Figure 2.

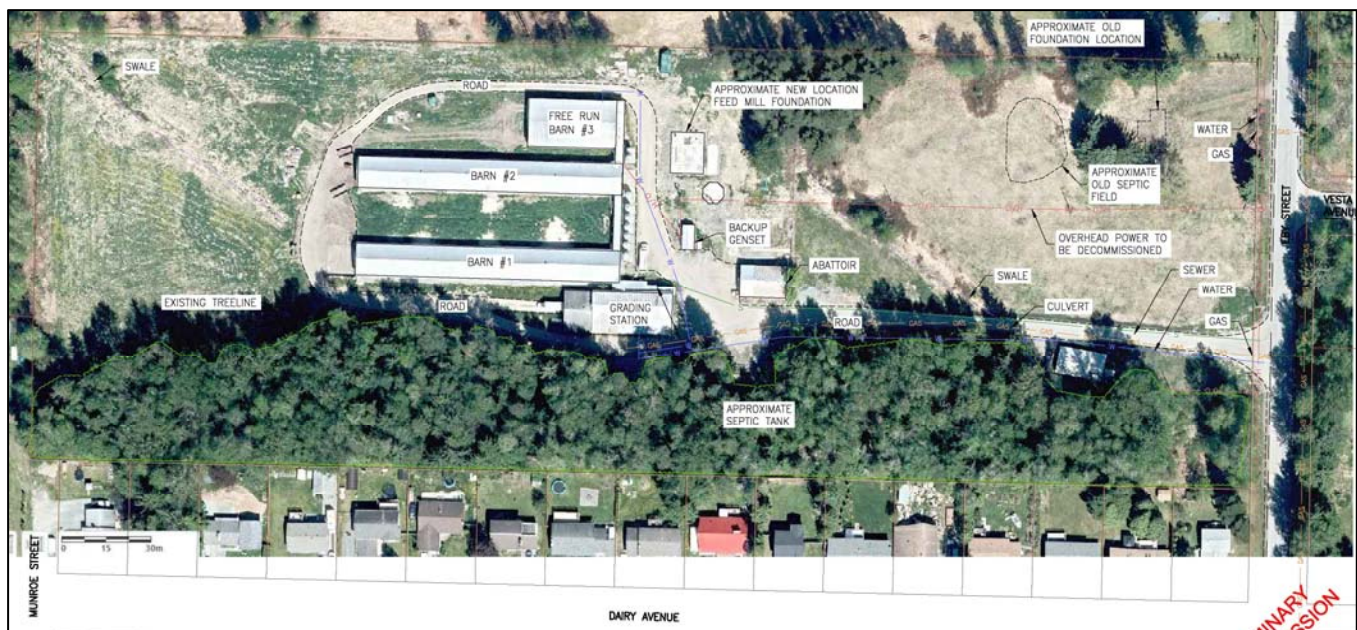


Figure 2: Existing Project Site Sketch



The existing Daybreak Farms operations are divided between two properties. Table 1 shows the descriptions of these properties.

Table 1: Existing Daybreak Farms properties

Civic Address	Legal Description	Size (Acres)	Structures
4423 Eby Street	LOT 1, DISTRICT LOT 977, RANGE 5, LAND DISTRICT 14, PLAN EPP7399	15.246	Barns, Grading Station, Liquid Egg Facility
4418 Eby Street	LOT 21, DISTRICT LOT 977, RANGE 5, ;AND DDISTRCIT 14, PLAN PRP14813	4.349	Feed Mill

One of the goals of the Daybreak Farms Modernization project is to consolidate the farm's operations by relocating the feed mill onto the 4423 Eby Street property. Further details regarding the modernization project are described in Section 2.



2 EXISTING CONDITIONS

2.1 Existing Farm Operation

As the only large-scale commercial agriculture venture supplying food to the northwest, Daybreak Farms has grown significantly over the past 20 years. There are currently approximately 41,000 laying hens producing over 37,000 eggs per day with all eggs graded and packed on-site. Daybreak has contributed to the Terrace and the surrounding communities by offering a locally sourced egg which would otherwise be brought in from neighbouring provinces or from the lower mainland producers.

The main structures at 4423 Eby Street currently consist of two main cage barns, one free run barn, a grading station, and a storage building. Daybreak has been operating in these facilities for the past 30 years and the structures need to be replaced or upgraded. To create efficiencies of operations, Daybreak wants to consolidate their buildings onto their main site. The intent is to move the feed mill currently located at 4418 Eby Street to their main property at 4423 Eby Street along with the other structures. The feed mill is also intended to be upgraded as part of the scope of the modernization project.

Occasionally, the BC Egg Marketing Board (BCEMB) offers small incremental increases in poultry quota to farmers to meet growing demand resulting from a population increase in the service area. Daybreak would like to be able to increase the number of hens in a safe and hygienic way to continue providing locally sourced eggs to the growing communities of the northwest.

Daybreak Farms plays an essential role in providing food security to the northwest. In fact, it was noted during the global COVID-19 pandemic that while some items were difficult to keep stocked on store shelves in the Terrace, area Daybreak eggs were always available. The current projected growth of the farm will result in more jobs and will introduce \$5-6 million into the local economy during the construction and operation phases.

2.2 Building Conditions

The farm at 4423 Eby Street contains the majority of structures and houses the hens. Only the feed mill is located across the street at 4418 Eby Street. The barns that house the chickens are aging and would benefit from repairs/upgrades, or replacement. The barns were designed as an "all in, all out" system, meaning that only one flock was intended to be in the barn at one time. Daybreak has their own grading station and therefore requires multiple egg types at any one time, so several aged flocks are housed in one barn. To increase the effectiveness of sanitization between flocks and capitalize on flock productivity, walls need to be erected between flocks. This allows the farmers to produce all different types of eggs at the same time (small, medium, large, etc.) and enhances biosecurity. With the original, "all in, all out" design, the barns are too narrow to reasonably accommodate the more modern chicken housing systems that are available on the market today.

The barns presently utilize a deep pit manure system which means that the chicken waste sits in pits beneath the barns. This is not an ideal system and most farms in BC have moved away from the deep



pit system because of flies and odours. The manure is moved from the Farm and brought to New Haven Ventures in the rural North Terrace to be composted approximately twice per year. This leaves the manure sitting on site under the barns for half of the year which can contribute to a potential breeding ground for flies.

A complaint reported with the BC Farm Industry Review Board in 2005 regarding excessive flies in the neighborhood and provincial experts were brought in to investigate the potential source of the flies. It was not confirmed that Daybreak Farms was the sole contributor to the fly problem and in fact, most of these experts stated that they saw few flies within the barns. One of the barns did not have a concrete floor at the time, and it was noted that some storm and ground water was entering this barn and ending up in the manure pits. Despite the inconclusive finding of the complaint report, the owners of Daybreak took action to comply with all requests to clean up the facility to the best of their ability. Today, all three barns have concrete floors and there are no further issues with water ingress or pooling water.

The feed mill is currently located across Eby street from the main operation on a neighbouring property under private agreement with the property owner. Daybreak would like to relocate and upgrade the feed mill from 4418 Eby Street to 4423 Eby Street and has started with the pouring of a foundation at the new feed mill site. Placing the feed mill at the same location as the barns and chickens will streamline the operations at Daybreak, eliminate unnecessary transportation costs, and reduce traffic in the neighborhood. This project has not progressed further due to uncertainty surrounding the broader upgrades required to make the operation economically viable. Daybreak believes that the replacement of the feed mill is a component of the larger modernization project necessary to upgrade the facility and bring it to the highest standards. Daybreak is only interested in investing in the new construction if there is certainty that they will be able to carry out the broader upgrade plan.

The mechanical equipment in the barns that provide ventilation and dry excess moisture that may accumulate also needs replacement. Daybreak has initiated discussions with suppliers and has obtained quotes to purchase the equipment necessary to improve barn ventilation and climate control. For efficiencies and financial viability, these components of the overall modernization plan for Daybreak need to be coordinated with the proposed barn and waste processing upgrades.

2.3 Community

Daybreak Farms has been a proactive member of the Terrace community for many years. Daybreak also acknowledges that because of encroaching residential development, they have unfortunately received complaints about excessive flies in the immediate area. A complaint was filed with the BC Farm Industry Review Board in 2005. This was subsequently investigated, and it was determined that while Daybreak may play some role in the increased number of flies in the neighborhood during summer months, they are not solely responsible for the increase. In fact, a report by a Ministry of Agriculture agrologist stated that flies were likely from several sources in the neighborhood. The agrologist noted that during a site inspection, he observed multiple neighbors had placed yard debris and other compostable material over their fences onto the Farm property which would also contribute to the fly problem [Complaint Report, 2005].



Following the complaints from 2005, the owners of Daybreak undertook a significant cleaning of their property. Daybreak wanted to demonstrate that they are willing to invest the time and effort necessary to continuously improve their operation. Other more substantial upgrades that could be undertaken to further address the fly problem were limited by the change in zoning that occurred the farm property in the 1990's. Zoning was unilaterally changed to AR2, which does not permit *Intensive Agriculture* and limits expansion. The zoning limitations will be discussed in more detail in Section 2.4. This limitation on expansion makes it difficult for Daybreak to properly modernize and renovate their aging barns. Due to the imposed zoning limitations and the challenges with obtaining approvals to upgrade buildings, unfortunately the concern with flies in the neighborhood has resurfaced with some additional complaints received in the summer of 2020.

The report from 2005 that resulted from complaints received generally concluded that Daybreak may play some role in the fly problem with the most likely causes at the farm being (1) the manure pits and (2) the feed mill. At the time of the 2005 report, water that entered the barn from storm runoff or from groundwater may have entered the manure pit, where the chicken waste products are deposited. Fresh manure with a high-water content can be an attractive breeding ground for flies. This issue was mainly remedied with the addition of concrete floors in all barns; however, the manure pit system is still in place today. The feed mill was also identified as a potential fly attractant in the 2005 complaint report. Undertaking upgrades to address the mentioned issues with the manure pits and the feed mill will be significant steps in addressing the fly concern in the neighborhood.

While the 2005 report did not identify Daybreak as being the sole contributor to the fly issues in the neighborhood; Daybreak Farms is still willing to do what they possibly can to mitigate potential sources of flies. The upgrades to the Farm presented in Section 3 will address the two most likely sources of flies including the manure pit and the feed mill, and how Daybreak proposes to address this.

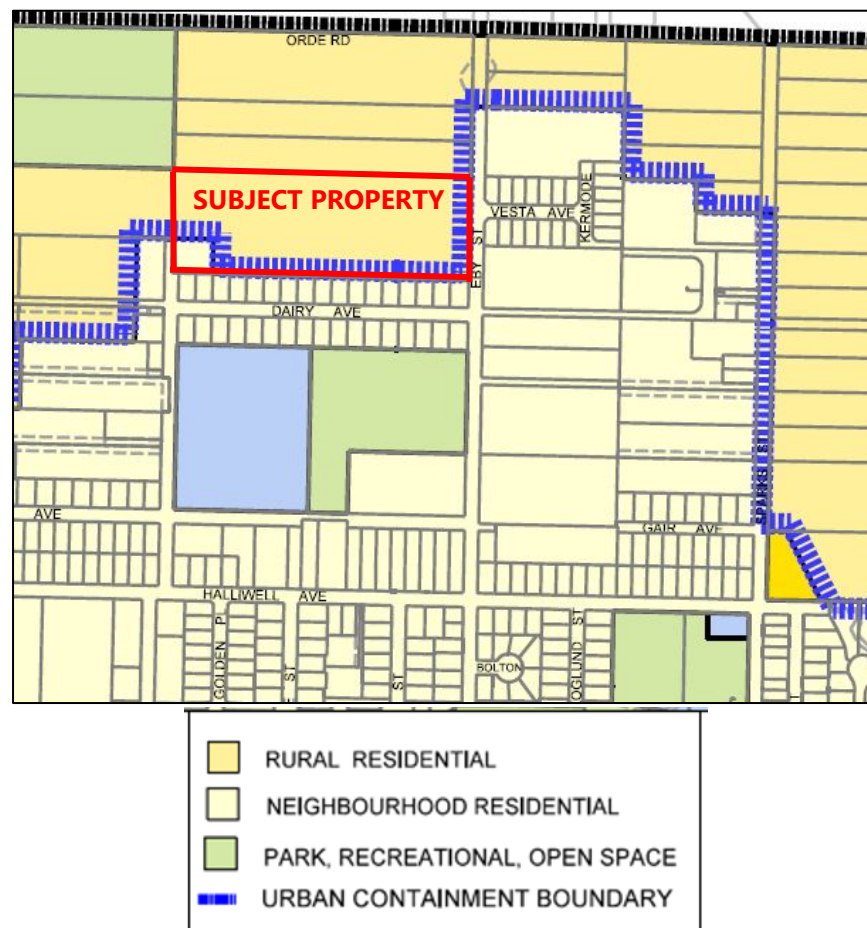
2.4 Zoning and Future Land Use

The current zoning at the subject property is AR2. The future land use is classified as Rural Residential. Figure 3 shows the Future Land Use map from the Terrace Official Community Plan. The Urban Containment Boundary shown in the figure shows the anticipated land that should be developed to meet population growth projected to 2050.

The subject property is located outside of the Urban Containment Boundary, indicating that there are limited services, and the property would not play a major role in providing housing for the projected population growth. The future land use designation indicates that the City of Terrace would ideally like to have rural residential properties on the subject property without full city services. The large minimum lot size would not generate the sales revenue to support construction of roads and partial services; the best use of the property would be to subdivide into 3 lots without building significant new infrastructure. This proposed density would have little to no value towards increasing the number of building lots available in the city. In fact, the benefit of creating two to four more building lots would result in potentially eliminating a local food supply opportunity. This is contrary to the policies in the City of Terrace Official Community Plan (OCP) in support of local food production.

Table 2: Zoning and Future land use of subject property

Category	Type	Meaning
Zoning Status	AR2 (Rural)	Provide compatible agriculture and residential uses on large un-serviced parcels in a rural setting
Future Land Use (OCP for 2050)	Rural Residential	Low-density residential development in a rural setting. Allows less intensive agricultural uses on parcels smaller than two hectares

**Figure 3: Future Land Use as defined by Terrace OCP**

2.4.1 Zoning History

The zoning bylaw adopted in 1966 (Bylaw No. 401-1966) had the property zoned A1 (Rural). The permitted use of "Agriculture" was defined much more broadly than it is now. From 1966 until 1994 under the A1 designation, the subject property was in conformance with the zoning bylaw. In 1995, the City adopted a new zoning bylaw (Bylaw No. 1431-1995) that defined many new and more specific zoning designations. Among those new zoning designations were AR1 (Agricultural) and AR2 (Rural). These two categories are described below.



AR1: “Intensive Agriculture” such as commercial agricultural operations that involve the confinement of poultry or livestock. Mostly located on Agricultural Land Reserve (ALR) along the south side of Graham Avenue.

AR2: Limited to field agriculture with constraints on the number of Agricultural Units.

In 1995, the subject property at 4432 Eby Street was rezoned to AR2, perhaps because it was not within the Provincial Agricultural Land Reserve (ALR). This immediately placed the property into non-conforming status, pursuant to Part 14, Section 528 of the Provincial Local Government Act (LGA). The current zoning bylaw (Bylaw No. 2069-2014) continues to differentiate between “Agriculture” and “Intensive Agriculture”, and the Daybreak Farms facility therefore remains with non-conforming status thus limiting modernization and potential expansion. Section 528 requires that a legal non-conforming use cannot be expanded but can be maintained with constraints. Section 4 discusses these development constraints in more detail.

2.4.2 Zoning Status

The subject parcel at 4423 Eby Street is currently zoned as AR2 (Rural). This zoning designation has been in place since 1995. The purpose of AR2 Rural Zoning is to provide compatible agricultural and residential uses on large parcels in a rural setting. Permitted uses include only one residential building/structure per lot, and an unlimited number of agricultural buildings/structures per lot. The zoning places strict requirements on the number of Agricultural Units permitted (further defined in section 4.2.1). The current use far exceeds the maximum number of Agricultural Units allowed and would be considered as intensive agriculture, a condition that existed prior to adoption of the current zoning designation. Division 14 of the BC Local Government Act regulates how an existing and non-conforming use should be treated.

2.5 Highest and Best Use

Given the limitation of the OCP designation, the current zoning, and the non-conforming status placed on the farm as described above, the highest and best use for this property is to continue operating as “legal non-conforming”. Under this scenario, Daybreak would carry out minor improvements that do not increase the scale or extent of the use. Over time, the lack of major upgrades will make the operation become uncompetitive. If the farm is not allowed to modernize, it will not be able to meet new industry standards and will likely be put out of business. At some future point in time, Daybreak will be forced by market forces to close their Terrace farm. In the meantime, it does not make economic sense to make significant investment in the farm while the long-term competitiveness of their operation remains constrained by the zoning.

A preferred alternative scenario is for Daybreak to make a significant investment in upgrading their facility to meet new environmental and industry standards, and to remain competitive and financially viable. A cleaner, more efficient operation as presented in Section 3 of this report would reduce nuisances to neighboring residents and would significantly improve the compatibility with adjacent land uses.



3 PROJECT DESCRIPTION

3.1 For the Community, By the Community

This section of the Project Development Plan presents an updated vision for the renewal of this farm as a clean and modern contributor to the region's economy and food security. While developing this Project Development Plan, the community engagement work done by Daybreak Farms was thoroughly reviewed and efforts have been made to incorporate that community input into this plan.

3.2 Expansion

The proposed environmental upgrades that will come with the modernization at the Daybreak Farms facility are essential in continuing clean and efficient egg farming practices in the northwest. With the growing population of Terrace and the surrounding communities, there is room for expanding the business. The alternative is that the farm is forced out of business and an existing facility in the Northeast, Fraser Valley, or out of Province will step in to supply Greater Terrace and the Northwest with this food source. If Daybreak Farms is put out of business, there is no requirement that other producers build a new facility as a condition of supplying the local area with eggs. Rather, competitors would simply up their production to address the increased demand left by the closure of Daybreak Farm.

The BC Egg Marketing Board (BCEMB) is responsible for ensuring that there are enough eggs for the people of BC, and they occasionally offer additional quota to egg producers throughout the province. A modernized Daybreak Farms would like to acquire some of this additional quota but is limited to expand by the restrictive zoning. The proposed upgrades described in the following sections could increase the capacity of Daybreak Farms to continue supplying the growing population of the northwest. The upgrades would also provide superior conditions for the chickens due to advanced ventilation processes, cage-free and community housing, and cleaner manure processing methods.

In addition to the improvements for the chickens, residents in the neighborhood in proximity to the Farm would also see some benefits. The proposed composting system described in Section 3.3.2 would likely lessen the number of flies in the area during the summertime months. The relocation and expansion of the feed mill would contain the farm operation to one property, minimizing cross-street traffic in the neighbourhood. It would also enclose some of the operation, switch all motorized parts of the feed mill operation to electrical motors, reduce operating time to once per week (from 3 times) and would reduce spillage.

A summary of the proposed upgrades is provided in Section 3.3.

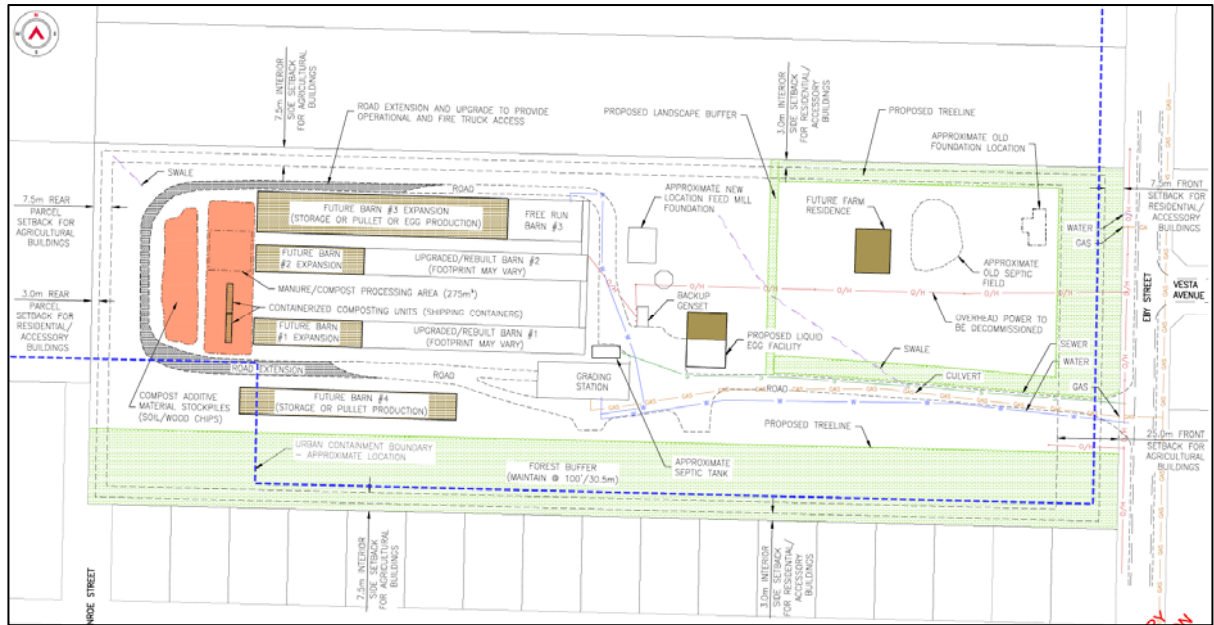


Figure 3: Proposed Upgrades Layout (See Appendix A for full size drawings)

3.3 Proposed Upgrades

There are ten major proposed upgrades to the farm that are summarized in Table 3. Each of these upgrades addresses the concerns of the neighborhood and considers the Official Community Plan (OCP) for Terrace. The timeline is split into short term projects that Daybreak is willing to commit to complete within 3 years, and longer term projects that will be completed as business considerations allow. The schedule will depend on approval from the city and financing availability for the farm.

One milestone date is that major renovations or replacement of older barns will be required by 2036. Daybreak hopes to complete these renovations or replacement, including replacement of the manure pit waste management system, well in advance of that date.

**Table 3 – Summary of Daybreak Farms Modernization Project Upgrades**

Timeline	Existing System	Proposed Upgrades	Benefits of Project
3 Years	Immediate Upgrades to Reduce Neighbourhood Impacts		
3 years	Aging Barn 2	Significant renovations / reconstruction of Barn 2	- Reduced likelihood of flies in neighborhood.
3 years	Individual chicken cages – Barn 2	Install chicken housing system such as <i>Big Dutchman Avech III</i> or equivalent enriched system.	- Improved living conditions for chickens.
3 years	Pit manure system- Barn 2	Install manure conveyor collection and drying system.	- Dries chicken droppings/manure to a dried state that doesn't support insect breeding.
3 years	Separately located feed mill	Modernize and relocate feed mill to 4423 Eby Street	- Improves waste management for 2/3 to 3/4 of the birds allowed under the current quota.
3 years			- Reduced traffic in neighbourhood through feed mill relocation.
3 years			- Consolidates operations onto one property.
3 years			- Reduced noise nuisance.
15 Years	Additional Upgrade / Impact Mitigation Projects to be Undertaken Incrementally as Operations and Finances Allow		
	Pit Manure Systems & Truck to Offsite Composting	Install onsite sealed composter such as <i>Big Dutchman Compoliner</i> or equivalent.	- New revenue stream through pelletized composting.
	Inadequate storage for fiber cartons	Construct a storage facility on the property	- Reduced likelihood of flies in neighborhood.
	No egg breaker facility	Renovate existing storage building to turn it into a breaker facility	- Offering eggs in fiber cartons, minimizing waste.
	No pullet barn	Pullet barn construction to south of existing barns	- Reduce GHG emissions by constructing a breaker facility and reducing egg transport.
	Aging Barn 1 with Pit Manure System	Replace or significantly upgrade Barn 1 structure. Install chicken housing system such as <i>Big Dutchman Avech III</i> or equivalent enriched system. Install conveyor based manure collection and drying system.	- Reduced traffic in neighborhood through pullet barn construction with less hen delivery required.
	Barn 3 with Pit Manure System	Replace or significantly upgrade Barn 3 structure. Install chicken housing system such as <i>Big Dutchman Avech III</i> or equivalent enriched system. Install conveyor based manure collection and drying system.	- Reduced likelihood of flies in neighborhood.
			- Improved living conditions for chickens.
			- Dries chicken droppings/manure to a dried state that doesn't support insect breeding.
			- Reduced likelihood of flies in neighborhood.
			- Improved living conditions for chickens.
			- Dries chicken droppings/manure to a dried state that doesn't support insect breeding.



3.3.1 Barn Expansion and Improvement

The existing barns are old but serviceable. They need some upgrades to remain in service. They also have dimensions that are not compatible with an efficient configuration of modern caged housing systems. Daybreak is proposing to reconstruct or significantly modify the barn structures to current industry standards and building codes. A phased approach would be required to allow the egg production operation to continue during construction.

3.3.2 Chicken Housing System

Due to the limited space at Daybreak and the zoning which limits expansion, they continue to use a dated, conventional, caged housing system. This limits the hens' social interactions with other hens and means that they are unable to roam and explore. It is also not compatible with newer waste management systems that remove dry waste daily by conveyor rather than wet waste once or twice a year by skidsteer as is currently the practice.

For the reasons stated above, the BC Egg Marketing Board (BCEMB) has mandated that all egg farms must be free of conventional cages by 2036. Conventional caged producers are being penalized until they switch to an accepted housing system. To improve conditions for the hens and to remain competitive in BC, Daybreak must begin the transition to either an enriched system or an open access aviary. A side effect of this upgrade is that a newer waste collection system will be installed that reduces potential fly breeding conditions.

The proposal for an enriched and aviary facility at Daybreak requires barn renovations that are currently not permitted according to the City's interpretation of Bylaw 2069-2014 (discussed further in Section 4). The initial specification from Daybreak for an updated system is to install either an open access aviary such as a *Big Dutchman Natura Sunrise* or an enriched system such as a *Big Dutchman Avech III*. The open access aviary is a multitiered system that is fully open and promotes easy movement throughout the facility. Figure 5 shows a photo of the open access aviary system.

Open Access Aviary

The *Natura Sunrise* (aviary) is a self-supporting system that include feeding, watering, and perching. There are various perches throughout the structure and nesting areas that allow eggs to roll back onto an egg belt. These perches also encourage flock movement which relaxes the flock and maximizes proper air circulation. The ventilation and open aisle design allow the poultry litter to dry thoroughly which promotes dust bathing, scratching, foraging, and other natural behaviour. One of the most effective methods in avoiding fly infestation is to manage water and moisture in the litter. Having a drier litter will therefore lessen the risk of a fly infestation.



Figure 5: Big Dutchman Natura Sunrise Multi-tier open access aviary

Enriched Housing System

The enriched system is made up of compartments of smaller groups of hens with amenities to maintain cleanliness and keep the chickens happy. The *Avech III* or an equivalent enriched system gives the chickens more space than conventional housing and keeps them in smaller groups than the open access aviary systems. These smaller groups prevent conflicts among the chickens and often result in a happier and healthier chicken. They have scratch pads for scratching, branches for perching, and waterers fitted into each section. The enriched system also allows for multiple flocks in each barn, meaning that all egg sizes can be produced at one time. Figure 6 shows a photo of an enriched system.





Figure 6: Big Dutchman Avech III enriched housing system

The floor of both systems is a wire mesh that is smooth to allow for easy cleaning. Manure easily drops through the wire mesh and onto a manure belt (further discussed in Section 3.3.2). The manure belt runs from one end of the barn to the other, relocating the manure outside of the chickens' living area. Once the manure exits the barn, it can be run directly into the proposed sealed composting system presented in Section 3.3.2.

In many cases, modern cage housing systems require more square footage per bird. More barn space is often required just to accommodate the same number of birds.

3.3.3 Sealed Composter

The new proposed system for the barns will include a modern waste management system utilizing a conveyor belt to transport manure out of the barn. The manure will drop through a wire mesh onto continuous polypropylene belts that will carry the manure into a closed holding tank. This holding tank will be about 15 m (50 ft) long and have multiple compartments for the different stages of waste. A built-in auger mixes the waste and moves it along to the next stage. The composter is completely sealed so no heat needs to be added and no smell is emitted. Daybreak will be able to compost 100% of their biowaste.

This closed loop system composting system will address many of the concerns raised in the neighborhood. It will eliminate the standing manure pits and lessen the chance of having a fly breeding ground. Frequently removing the manure from the barn via conveyor belts and into the holding tank will eliminate the possibility of the fly larvae hatching. The auger will aerate and agitate the mixture ensuring an optimal mixture of oxygen and water to facilitate the aerobic composting process. Adding phosphate and carbon will be required as necessary to neutralize the manure material. The optimal environment created in the closed system allows the compost to be created much faster than if it was sitting out.

The output of the proposed composting system will be a bagged manure or compost product. This product can be sold locally and will create new employment opportunities by adding another revenue stream to Daybreak's operations to ensure viable growth in the northwest. The composting process will provide numerous benefits to the environment and to the long-term financial viability of the farm's operations. Figure 6 shows an image of the *Big Dutchmen Compoliner* system.

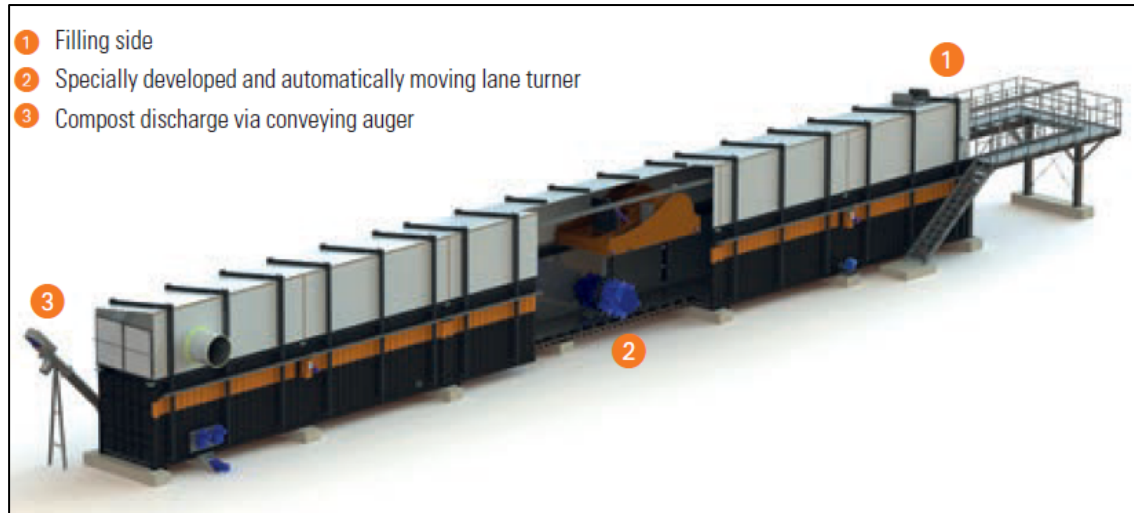


Figure 7: Big Dutchmen Compoliner System

The *Big Dutchmen Compoliner* is fully automated and can be easily adjusted to the amount of material that needs to be composted. The containerized modular design means that the capacity can be between 80 and 360 m³. The aerated floor ensures a direct supply of oxygen with a compressor continuously guiding the fresh air and the oxygen required for degradation into the material. Temperature and oxygen content in the compost are continually measured by a sensor and adjusted as required. The system is sealed, automated, and clean, and is an example of the type of system being proposed by Daybreak.



Figure 8: Inside the composting unit - container lined with stainless steel



3.3.4 Pullet Barn

The health and performance of an egg-laying flock begins with a good foundation. Starting the birds in a system that enables them to learn the necessary behaviours to thrive is key to maximizing the flock's performance while minimizing management effort. In short, birds that are going into an aviary/enriched laying system need to be reared in an aviary/enriched rearing system.

The addition of a pullet barn to the south of the existing barns (future barn #4 on drawings) will allow for Daybreak to raise chicks which will minimize the need to bring in larger truckloads of hens. This will reduce the handling and transportation of the hens and eliminate the risk of welfare issues. The pullet barn will reduce the carbon footprint of the farm by eliminating hen shipment in trucks from Alberta, which will also reduce large truck traffic in the neighborhood.

Daybreak anticipates having flock sizes of 7,500 to 10,000 birds. For a continuous operation, there may be times when two generations of chicks are present at the same time, so it's estimated that up to 15,000-20,000 chicks could be on site at a time to support the proposed modernized farm operations.

3.3.5 Increased Storage Abilities

Daybreak is having to purchase more cartons to keep up with the growing demand for eggs in the northwest. Their current building layout does not provide sufficient room for storage. Daybreak has recently switched from Styrofoam cartons to fiber cartons to minimize waste from their products and to promote recycling. The minimum order quantity for the fiber cartons is larger than it was for the Styrofoam cartons and the fiber cartons must be kept inside a building and away from any dampness. Daybreak requires some additional storage area to keep the fibre cartons until they are ready for use.

Daybreak will also require additional storage space for the bagged manure product acquired from the composting process. This will simply be a storage shed or barn space that can accommodate the product and keep it dry.

3.3.6 Feed Mill Relocation & Addition

The feed mill is currently located at 4418 Eby Street across from the rest of the operations. To centralize the operation, Daybreak would like to move the mill over to 4423 Eby Street. This would reduce emissions related to transport of the feed and lower the carbon footprint of the Daybreak operation. It would also minimize traffic in the neighborhood.

It is an enclosed operation that will reduce nuisances to neighbours. It will also use electric motors for all processes, which will eliminate the current practice of driving one process using the power take off on a tractor. Daybreak Farms is fortunate that the 3-phase power required for these electric motors is readily available for this property and it is scheduled to be installed in late August or early September 2021.

Daybreak has already completed engineering design and poured a concrete foundation for this feed mill to the east of the existing barns. The feed mill relocation would allow for a more efficient operation and ensure Daybreak could meet the growing demand in the northwest.



3.3.7 Breaker Facility

Daybreak currently sends undersized eggs such as mediums, smalls, and peewees to a breaker plant in Abbotsford, BC. This breaker plant cracks the eggs and produces liquid eggs. These liquid eggs are used extensively in places like camps, mines, restaurants, hotels, etc. Daybreak farms ships between 3600 and 9000 eggs per week to the breaker plant in Abbotsford. Eliminating this transportation and setting up a breaker facility at the current location would minimize emissions related to egg transport and create additional jobs at the farm.

3.3.8 Ventilation and Climate Control

Daybreak has been in contact with multiple suppliers regarding advanced agricultural ventilation fans to improve the barn conditions. Increased air flow in the barns will allow the litter to dry faster, lessening the chance for fly larvae to hatch and promoting dust bathing and other natural behaviour for the hens.

3.4 Community Benefits

This project will provide numerous benefits to the community, some of which are discussed below. In general, by cleaning up the operations of Daybreak Farm, the community will continue to have a reliable and economical food source in the northwest. Based on the 2005 complaint report, experts stated that manure and spilled feed may be potential sources of excess flies in the area. These upgrades address both issues and are expected to contribute to a reduced fly population.

The upgrades presented in this report will also minimize traffic in the neighborhood as the trucks that currently transport chicken feed across the road from 4418 Eby Street can be eliminated. The quantity and frequency of trucks required to deliver hens can also be minimized with the construction of a pullet barn. These upgrades will also lessen the carbon footprint of the facility through reduced vehicle emissions.

These projects will also require significant capital investment. The upgrades described in this report will insert approximately \$10 million into the local economy over the next few years. In addition to the jobs created during construction, Daybreak estimates an additional 5-6 jobs will be created with the addition of a breaker facility and the other upgrades.

3.5 Environmental Benefits

The Daybreak Farms management team envisions the property becoming a leader of sustainable egg farming in the north through innovative solutions such as the sealed composting system and the creation of a pelletized manure product. Figure 8 shows the final product of the sealed composting system, which is then bagged and sold.



Figure 9: Pelletized compost product from a sealed composting system

The product can be sold as a garden enricher because it is rich in multiple soil rejuvenates, the main one being nitrogen, which helps promote green, leafy growth in plants. It also has phosphorus, which releases slowly to promote root growth, and potassium, which promotes flowering and helps fruits and vegetable to ripen.

The reduction of waste is good for the environment, the economy, and the community and this concept of zero waste is very much in line with the Official Community Plan of Terrace. The processing, packaging, and distribution will create new jobs for the local people of Terrace, contributing to the economy. The product will benefit the environment as the local community will have a source of compost that does not need to be shipped from anywhere and is produced sustainably.

The benefits of the composting system extend into the community with the potential for community gardens and other projects focused on local materials. The composting is also likely to reduce the number of flies in the neighborhood, directly benefiting the area surrounding the farm.

The proposed composting system would result in aerobic composting, which releases carbon dioxide during the decomposition process. While carbon dioxide is a greenhouse gas, it is much less harmful than the methane gas emitted by the anaerobic composting processes that occur in manure pits. The upgraded composting system will therefore reduce the farm's greenhouse gas emissions.

3.6 Site Selection

Daybreak Farms has considered options to upgrade the farm at its current location, to relocate within the Terrace area to continue serving the northwest, and to relocate elsewhere in the province.

Relocating outside of the Terrace area would require re-building the business from the ground up. Suitable land in a promising market region would need to be identified and acquired. The site would need to be developed and new farm buildings and equipment constructed. New staff would need to be hired, new customers would need to be developed and new relationships with service providers would be required. This would not be a simple case of relocating a successful business; it would require Daybreak Farms to create a new business at a new location, in a new market, with new customers and new competition.

Relocating to another site in Terrace would also be a daunting venture. Daybreak would be able to maintain their existing staff, customers and service provider relationships. But they would need to



identify suitable land that is adequately serviced, flat and developable, free from floodplain hazards, appropriately zoned, and fairly priced for sale. Then they would need to develop the property with all new buildings and all new equipment. During construction, Daybreak would be carrying the cost of owning two large properties, and the existing site is not expected to be of particularly high value due to its current zoning designation and identified Future Land Use in the OCP. Daybreak has estimated that the cost of moving to a new site would be in the order of \$20million, as compared to a \$10million cost of upgrading at its current property.

At the suggestion of City staff, Daybreak has compared the costs and risks of moving their operation from north Eby Street to a Agricultural Land Reserve lands south of Graham Avenue. There are dozens of suitably sized parcels on Graham Avenue, but the vast majority of them have an existing residence fronting the street and a large portion of the remaining property in the floodplain. Since the egg farm operation requires expensive equipment and vulnerable bird flocks in the barns, the buildings need to be built up out of the floodplain. Disturbing over 1,000m² of ALR land to raise it to safe building elevation, as would be required to construct a new 3,600m² of barns, is not a permitted use under section 35(a) of the ALR Use Regulation. Daybreak would need to file a Notice of Intent or Application with the Agricultural Land Commission to determine whether or not the proposed project could proceed on the Graham Avenue ALR lands, which presents a risk to the feasibility of such a relocation. Developing a new site for a relocated Daybreak operation would be prohibitively expensive, and is detailed in the following table:

**Figure 4 - Development Options Cost Comparison**

	Option A - Eby St	Option B - Eby St	Option C - Graham Ave
Description:	Upgrade current buildings without expansion. Upgrade Barn 2 only. (Re-Zone Unsuccessful)	Full modernization of farm operation, including reconfiguring some buildings. Rebuild Barn 2; Renovate Barn 1 (Re-Zone Successful)	Includes rebuilding current farm assets with upgrades similar to Option B, but at new location.
New Site Land Acquisition (assumes no house)			\$1,000,000
<u>SITE DEVELOPMENT</u>			
Servicing (water, sewer, drainage, 3-phase power, roads, etc)			\$500,000
Grading - fill for floodplains			\$700,000
Power Upgrade	\$100,000	\$100,000	
Road Upgrade		\$100,000	
<u>BARNs</u>			
Barn 1 New Building			\$1,200,000
Barn 1 Upgrades		\$150,000	
Barn 1 Equipment (housing/ventilation/etc)		\$800,000	\$1,000,000
Barn 1 Design/PM/Etc		\$100,000	\$100,000
Barn 2 New Building		\$1,200,000	\$1,200,000
Barn 2 Upgrades	\$150,000		
Barn 2 Equipment	\$800,000	\$1,000,000	\$1,000,000
Design / PM /Etc	\$50,000	\$100,000	\$100,000
Barn 3 - Building and Equipment			\$1,800,000
Replace Barns with New Building & Equipment			
<u>OTHER BUILDINGS</u>			
Proposed Liquid Egg Facility - Build breaker (equipment + building expansion)		\$2,500,000	\$3,000,000
Manure Shed		\$150,000	\$150,000
Containerized Composters		\$1,200,000	\$1,200,000
Packing / Grading Building			\$3,500,000
Packing / Grading Equipment		\$500,000	\$1,500,000
Loading Docks			\$500,000
Feed Mill		\$1,500,000	\$2,500,000
Storage Building		\$400,000	\$400,000
<u>OLD SITE</u>			
Demolition and Cleanup of Old Site			\$500,000
Disposition of Existing Eby St Land			-\$1,000,000
TOTAL SCENARIO COST:	\$1,100,000	\$9,800,000	\$20,850,000

**See assumptions on next page.



Cost Estimate Assumptions:

1. All equipment and construction cost estimates were provided by Daybreak Farms and Progressive Ventures Group.
2. Construction costs for new barns was confirmed to be approximately \$110/sqft for the buildings only.
3. Some upgrades show a different construction cost at the current Eby St property than at a new Graham Ave property. This is due to the reduced scope of work that will be required if existing assets are incorporated into the project.
4. Fill cost for construction in Eby Street floodplain was based on an engineered fill cost of \$65/m³, a total fill area of double the building footprints, and a fill depth of 1.5m. The required fill depth was estimated by reviewing City of Terrace floodplain mapping elevation bands and LiDAR-based ground contours. Allowance for 0.5m of topsoil was considered.
5. The cost of land acquisition (Graham Ave) was based on a review of BC Assessment sales information for acreage properties along Graham Avenue. Only two had sold in recent years, at a cost of \$650-675k in 2018. The land acquisition cost above is about 50% higher than that in recognition of housing cost escalation in the last 3 years, plus allowance for closing costs.
6. The cost of land disposition (Eby St) was based on a review of BC Assessment's assessed land value for AR2 properties in the surrounding Bench area. Five properties ranging from 4.5 acres to 10.2 acres in size were reviewed and had land assessments in the order of \$250k. A reasonable disposition of land would be to subdivide the property into 3 parcels allowed under the current zoning. This would not require significant infrastructure upgrades or the risks associated with land development and real estate markets.

Daybreak Farms has a long history on the current property. The property is owned by Daybreak Farms who have been operating at this location for over 30 years. The land is a flat parcel that is suited for this use. Finding, purchasing, relocating stock and equipment, and developing on a similar size land parcel with the same qualities required to operate a similar farm in Terrace is extremely challenging and cost prohibitive.

At 15+ acres in size the property provided sufficient site area for the proposed new and upgraded buildings and to keeping a vegetative (treed) buffer with the residential development immediately to the south. There is very good road access to the property which is paved and maintained by the City, and this is very important for delivery vehicles and it's also a short commute for employees most of which reside in Terrace.

Remaining on this property will allow the Farm to continue to operate during construction and maintain a positive cash flow. It will also allow the Farm to continue supplying their established clients so that they will not need to source eggs from an outside supplier and risk losing their current market.

Additional attributes that make this an ideal site is that the property is serviced by a community water system which is essential for the Farm. There is access to other utility services necessary to operate the Farm including three phase power provided by BC Hydro and natural gas provided by Pacific Northern Gas. The property is not in a floodplain as with some of the other larger farm acreages in Terrace.



4 DEVELOPMENT CONSTRAINTS, FUTURE LAND USE, AND IMPLEMENTATION

4.1 Planning & Development Regulations

This section summarizes pertinent City of Terrace documents as they apply to the proposed development.

4.2 Terrace Zoning Bylaw

The City of Terrace Zoning Bylaw No. 2069-2014 defines how a property can be used, including permitted and prohibited uses of land and structures, what can be built on a property, where a building can be built on a property, parking and other requirements.

The subject property is currently zoned AR2 (Rural). Details on this zoning can be found in Section 10.1 and 10.2 of the Zoning Bylaw.

4.2.1 The Dilemma

The challenge with the AR2 zoning for the subject property becomes apparent when we consider the maximum number of Agricultural Units permitted on the parcel. The requirements for AR2 zoning state that each AR2 parcel is permitted 3.0 Agricultural Units per hectare to a maximum of 10 Agricultural Units. In the case of Daybreak Farms, the maximum of 10 Agricultural Units is applicable. The City of Terrace defines one Agricultural Unit as 25 poultry, indicating that the maximum poultry for an AR2 zoned property is 250.

Table 4: Maximum number of chickens for AR2 Zoned Property

Criteria	Value
Size of Parcel (Acres)	15.246
Size of Parcel (Hectares)	6.170
Agricultural Units (three per hectare)	18.51
Max Agricultural Units for AR2	10
Agriculture Unit Equivalent	25 Poultry
Maximum Number of Chickens	250

In considering the present operation, the property is deemed to be legal non-conforming and has been since the City changed its zoning in 1994. Non-conforming status does not allow the farm operation to expand pursuant to Section 530 of the Local Government Act (LGA) which states:

In relation to land, section 528 [non-conforming uses] does not authorize the non-conforming use of land to be continued on a scale or to an extent or degree greater than that at the time of the adoption of the land use regulation bylaw.



This restriction has been discussed with City staff who clarified that this means the building footprint and envelope dimensions cannot be altered while the non-conforming status is in place. The existing building dimensions are not readily compatible with the modern cage-free equipment and composting systems described in Section 3. Installing these modern and cleaner systems in the existing buildings would yield fewer chickens per building, essentially forcing Daybreak to shrink their operation.

4.3 Greater Terrace Agricultural Plan

Agricultural production in the area has witnessed a rapid decline over the past 20+ years. To address the decline, the City of Terrace (and Regional District) prepared and adopted the Greater Terrace Agricultural Area Plan Report in 2015. The Plan was intended to address the lack of a comprehensive agricultural planning and economic strategy for the Greater Terrace area. Also, once adopted the Plan would serve as a local government commitment to increasing agricultural production in the Greater Terrace area and affirm that agricultural production contributes to economic activity and can increase self-sufficiency, food security, and opportunities for obtaining fresh food.

The 2015 Plan indicates that the number of farms, farm acreages and recorded farm activities have declined substantially in the North Coast and Greater Terrace. Using historical census records, the Plan notes that in some cases there was an 82% drop in the number of farms showing income from agriculture. While local food production is in decline, a survey completed with the Plan showed overwhelming support for local food with some 68% of respondents expressing a willingness to pay more for local food. Respondents placed a high value on buying local for reasons of freshness, supporting local farmers, better taste of local food, supporting the local economy, creating less of a carbon footprint among others.

Throughout the decline in local food production, Daybreak Farms has remained as the most significant large scale agricultural business located in the Greater Terrace Area making important contributions to the local economy and providing stable employment. A key recommendation in Page 59 of the Plan recognizes the importance of supporting local large scale agricultural business in Greater Terrace particularly through local government planning and land use regulations "Recommendation 77...Work with local and potential large scale agricultural operations and businesses to ensure that they are able to function with a minimum of land use and regulatory conflicts".

The Plan also provides the following recommendation. (pg. 59)

"It would be beneficial for these businesses and for potential and new agribusinesses to have clear guidelines from local and regional governments as to how and where they can conduct intensive agriculture or undertake larger scale agricultural operations. In order to make investments at these levels, the businesses need certainty as to the appropriateness of their locations and activities, and, wherever possible, avoidance of current and future land use conflicts."

4.4 Official Community Plan

The purpose of the Official Community Plan (OCP) is to provide a statement of objectives and policies to guide community planning and land use management decisions within the area covered by the plan.



The OCP helps communities adapt to changes and challenges and presents viable options for future growth. The continued development of a local food production is very much in line with the OCP.

According to the OCP, Agriculture is recognized as an important aspect of growth with a specific emphasis towards community food security and food production. The OCP and Daybreak Farms alignment with the document is further described in the following sections.

4.4.1 Future Land Use

The Future Land Use of Daybreak Farms is Rural Residential, and it is identified as outside of the Urban Containment Boundary. The subject property is also outside of the specified Environmentally Sensitive Area (ESA).

This designation of Rural Residential indicates that the City's future land use objectives for the subject property is to provide low density residential housing options. The Official Community Plan (OCP) states that these lands will also provide the opportunity for localized food production.

4.4.2 Community Vitality

This principle states that Terrace will "achieve community health by supporting healthy housing for all citizens and maximizing access to healthy food, as well as the amount of food that is grown, raised and produced locally [Terrace OCP, 2018]." The operations at Daybreak Farms align with this vision of community vitality in providing a local and healthy food source for the region.

4.4.3 Prosperous Economy

This OCP principle states that Terrace will "enhance economic vitality through encouraging local employment and small business opportunities." The OCP also promotes the notion of regional self-sufficiency in the northwest. Self-sufficiency in food production has many benefits including less transportation costs and a reduced carbon footprint, reducing disruptions to the local food supply, and ultimately a more reliable and cost-effective supply.

While all producers in the northern part of the province except for the Peace have essentially disappeared, Daybreak Farms continues to contribute to this principle of a prosperous economy by producing eggs locally in the northwest for customers in the region. To this end, the farm has been providing locally produced eggs since the 1950's.

4.4.4 Efficient Resource Use and Clean Energy

This guiding principle states that the community will develop careful practice on reuse and recycling of all resource materials and work to decrease dependence on fossil fuels. Daybreak currently has policies in place to minimize energy usage and reduce waste through open air manure composting and shifting to compostable cartons. The compost produced by the farm is currently shipped to New Haven Ventures, a topsoil and mulch provider in Greater Terrace. This system allows the manure to be composted and reused, however in the meantime the manure sits in piles for approximately six months each year prior to being transported to New Haven Ventures. This sitting compost can provide a breeding ground for flies.



Should Daybreak be permitted to initiate upgrade projects, they will be installing new systems that will be in line with this guiding principle. The proposed composting system will be a closed system, eliminating the need for open manure pits and increasing the quality of the garden product produced from the manure. The proposed feed mill located at the same site as their barns will reduce emissions related to transportation of feed. More details regarding these upgrades are discussed in Section 3.

4.4.5 Community Resilience

This guiding principle states that “the City of Terrace is committed to meeting the present needs of the community without compromising the vitality and health of future generations.” These concepts of resilience and sustainability are common themes in the OCP. Resilience in the community refers to the ability to use available resources to respond to and recover from adverse situations such as extreme storm events or economic instability. Having a strong network of food producers in the region will significantly contribute to the region’s ability to remain strong during a crisis such as a road closure or other type of interruption in the food supply chain.

Climate resilience refers to the ability of a system to improve sustainably and leave it better prepared for future climate change impacts. With the relatively unknown effects that climate change has on local weather patterns, it is critical to be prepared. The likelihood of extreme rainfall and storm events is likely to increase with climate change and Daybreak requires upgrades to prepare for these situations.

To align with the OCP, the community would benefit from the proposed Daybreak Farms upgrades to ensure a viable and resilient food source for future generations. This principle of the OCP states the need to live within our carrying capacity. The region has seen a steady population growth since 2006 [OCP]. The modernization of Daybreak Farms will allow the owners to expand their operations in a healthy and sustainable manner to better serve the growing population of the northwest.

4.4.6 Community Goals

The OCP describes ten community goals with objectives for accomplishing each goal. The OCP serves as a guide for decision making and can be used as a reference document for anyone wishing to understand the vision and direction of the community [OCP, 2018]. To this end, the city should consider how the Daybreak Farms Modernization Project will contribute to meeting these goals.

Some key objectives from the OCP are listed below, along with an explanation of how they are met by the Daybreak Farms Modernization Project.

**Table 5 – OCP Objectives as Achieved by Daybreak Farms Modernization Project**

OCP Objective	Daybreak Farms Modernization Project Corresponding Features
Community Goal: Abundant and local food systems Objective #1: Promote land use choices that support community food security goals	✓ Land would otherwise be used as Rural Residential (no services) contributing little to the community and not providing high-density housing options. ✓ Retain a major local food producer in the Terrace area to serve the northwest.
Community Goal: Abundant and local food systems Objective #2: Increase overall percentage of food grown and consumed locally	✓ Provide a healthy food source that is produced locally to decrease the reliance on suppliers from outside the region. ✓ Provide long-term food security by increasing egg production and reducing reliance on foreign suppliers.
Community Goal: Diversified and Coordinated Economy Objective #1: Support for economic viability and vitality	✓ Modernization project will utilize local building contractors and local employees. ✓ Will ensure that Daybreak Farms will remain a local company producing food in Terrace for the people of Terrace with employees that live in Terrace.
Community Goal: Solid waste reduction and management Objective #1: Act as leaders in waste reduction	✓ A new closed loop composting system that would be cleaner than the current system and produce a higher quality garden product. ✓ Improve the barns to minimize water ingress and make it easier to manage waste.

4.5 Planning Concept for Parcel

The zoning and OCP challenges were described in more detail in Section 2.4, 2.5 and 4 of this report. To renew the aging equipment and expand the egg output of the farm, Daybreak needs to have the appropriate zoning in place. There are a few recommended options for how this can be achieved:

- (1) A site-specific permitted use that increases the allowable agricultural units on the Daybreak site without changing the zoning designation from AR2.
- (2) Create a site-specific zoning designation which would recognize Daybreak's longevity on this site and allow the operation to continue at the scale requested so that Daybreak can remain competitive and financially viable.



- (3) Re-zone to AR1 allowing *Intensive Agriculture*. This would eliminate the non-conforming status which is a constraint for Daybreak and their ability to modernize and increase production.

If the City is concerned with a potential expanded range of agricultural uses on the site beyond egg production, Option 1 may be the most appropriate solution to consider. This would be consistent with previous discussions between Daybreak and the City. In 2019, Daybreak submitted a proposal for a site-specific zoning amendment that would amend the permitted uses and regulations in the AR2 (Rural) zone. The amendment applied to *Section 10.2.2 Site Specific Permitted Uses* of the City of Terrace Zoning Bylaw No. 2069-2014. The amendment was proposed to update the section to the following:

In addition to the uses listed in section 10.2.1, the following site-specific use(s) are permitted in the AR2 zone, only at the location specified:

- a. *Intensive Agriculture (limited to an egg production facility with a maximum capacity of 60,000 birds) on the property legally described as Lot 1, District Lot 977, Range 5, Coast District, Plan EPP7339 (4423 Eby Street)*

The application was withdrawn by Daybreak Farms.

Daybreak Farms is committed to working with the City of Terrace to identify potential concerns and issues with the development of the farm and is willing to work closely with the city to ensure the Farm's objectives and the City's objectives can be addressed. Daybreak will continue to work cooperatively with the city to determine a more accurate schedule than described in the preceding sections to comply with their requirements. For example, if the primary nuisance to the city is the fly complaints, Daybreak will begin with the barn upgrades to accommodate the manure belt and composter.

Daybreak is flexible in their approach to the modernization project but would like to begin as soon as possible so that potential issues can be identified, and a plan can be developed to address the issues.

Daybreak has met and consulted with City staff and neighbours on multiple occasions over the past year. The specific feedback received from these discussions has informed how Daybreak is prioritizing their upgrades. A short letter that demonstrates this accommodation and Daybreak's commitment to the project will be submitted separately from this report.

After meeting with City of Terrace staff throughout 2021, Daybreak has decided to pursue Option (1) from the list above and is pursuing a zoning amendment with site-specific permitted use. If passed, this amendment will eliminate the *non-conforming* zoning status and allow Daybreak to complete the upgrades described in this report.



5 DEVELOPMENT STRATEGY

- Consult with City of Terrace to determine the best approach to address the required zoning and OCP amendments in order for this project to proceed.
- Consult and work with City of Terrace staff to identify any expected modifications to the Development Plans necessary to meet permitting requirements.
- Continue to engage with neighbouring property owners, the Ministry of Agriculture, industry experts, and other stakeholders to identify community issues and find reasonable ways to address them.
- Develop construction plans with the assistance of qualified and reputable construction and engineering professionals. To date, Daybreak has worked closely with two local companies including Allnorth Consultants and Progressive Ventures to develop the construction and business plans on which this development plan is based. Daybreak intends to continue working with these local professionals and utilize other local companies as required.
- Obtain the necessary OCP and/or zoning approvals from the City of Terrace.
- Obtain necessary building and other permits required to begin construction on Stage 1.

6 CONCLUSION

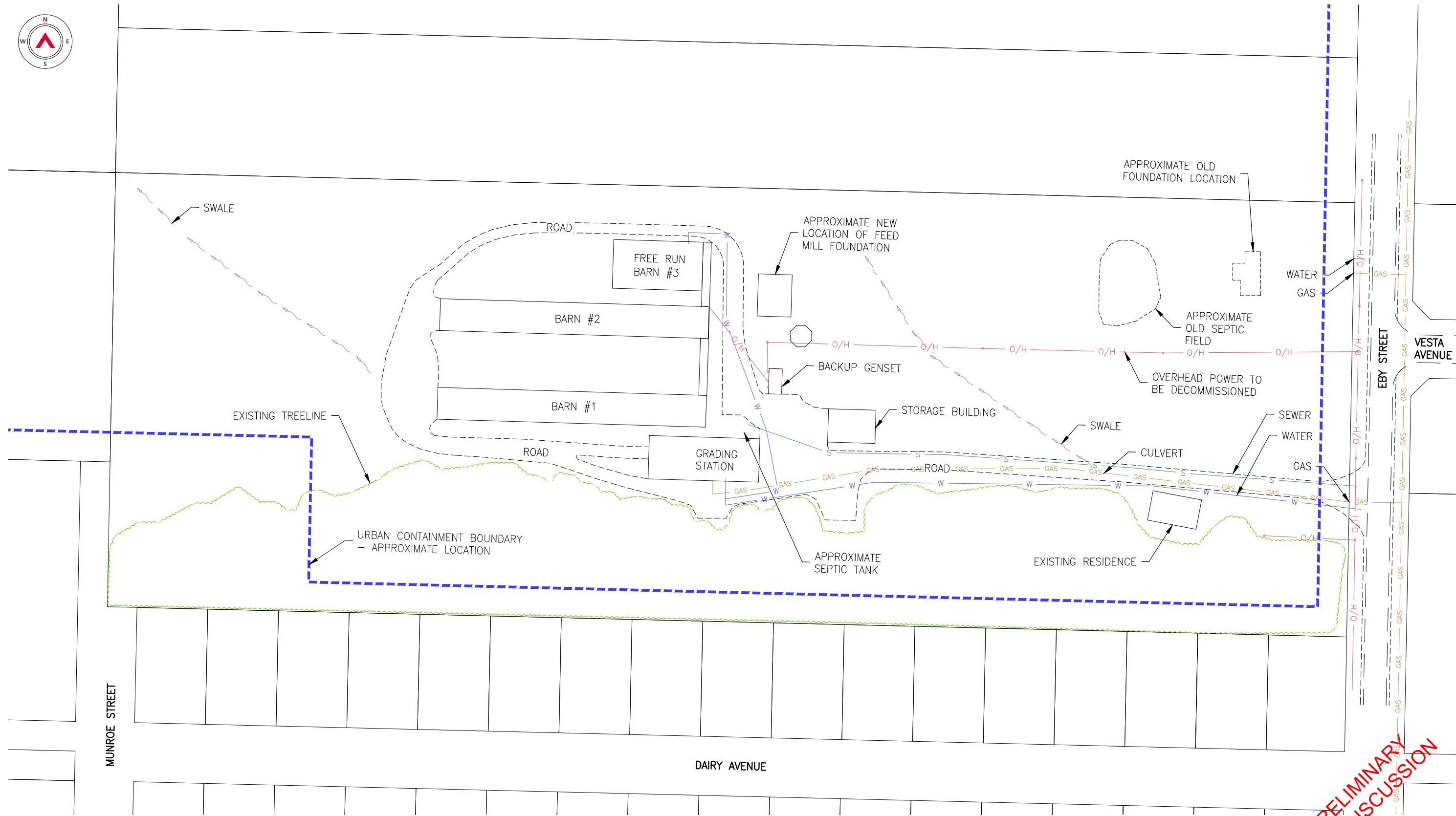
This Daybreak Farms Modernization Project Development Plan presents a vision for development and modernization of this unique farm venture in Terrace. The egg farm has been operational on North Eby Street since the 1950's and has contributed to the local economy and provided a resilient and low-cost food source for the northwest.

Daybreak is a leader of local food production in the northwest and strives to continually improve their operations. The upgrades presented in this report aim to ensure Daybreak remains competitive in the British Columbia egg producing market and continues to serve Terrace and the surrounding communities. The composting system is an innovative and clean method of processing waste manure and will minimize the release of methane gas and reduce the carbon footprint of the farm.

The time has come for the farm to upgrade their infrastructure to keep up with modern farming practices in British Columbia. The upgraded infrastructure will provide improved living conditions for the chickens, will minimize waste through clean composting, will work to reduce fly populations in the neighborhood, and will ensure an economically viable local food supply in the northwest for years to come. The alternative option to continue operating in the present state will eventually make the farm less competitive and no longer financially viable.



Appendix A Drawings



**PRELIMINARY
FOR DISCUSSION**

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

- NOTES:
1. SURFACE FEATURE LOCATIONS ARE APPROXIMATE AND ARE TAKEN FROM CITY OF TERRACE TERRAMAP ORTHOPHOTO.
 2. BURIED FEATURE LOCATIONS ARE APPROXIMATE AND BASED ON OWNER'S DESCRIPTION.

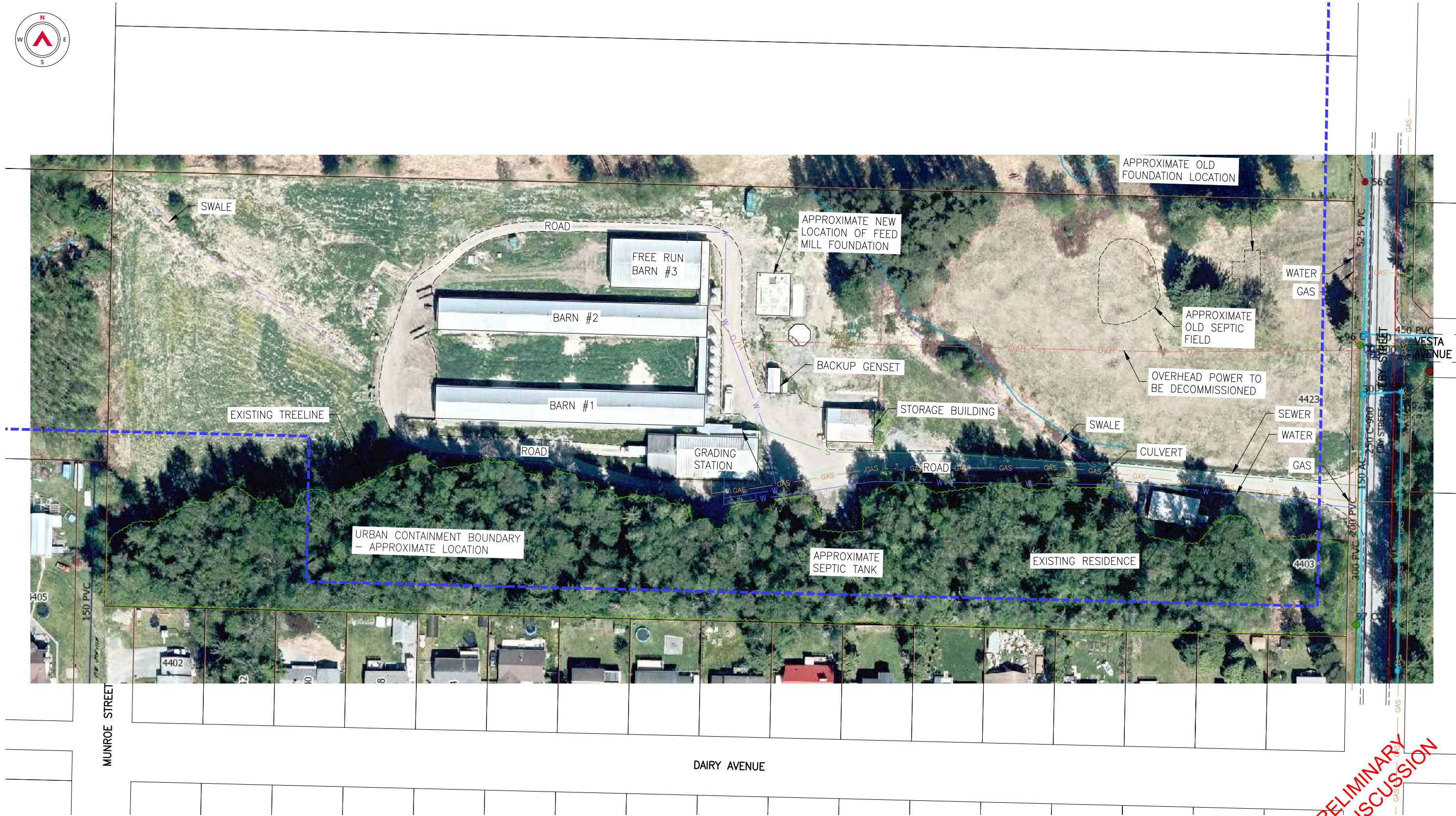
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C	22/01/31	ISSUED FOR REVIEW	OTH	-	-
B	21/08/12	ISSUED FOR REVIEW	OTH	-	-
A	21/06/21	ISSUED FOR REVIEW	OTH	-	-
REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD	APVD

CLIENT:



TITLE:			
EXISTING SITE PLAN			
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PROJECT NO:	2101260	DSGN:	-
DRAWING SIZE:	ANSI "B"	CHKD:	-
SCALE:	1:1250	APVD:	-

PROJECT:	
UPGRADE PLANS	
DWG NO:	2101260-000-1100-001
REV:	C



PRELIMINARY
FOR DISCUSSION

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

- NOTES:
1. SURFACE FEATURE LOCATIONS ARE APPROXIMATE AND ARE TAKEN FROM CITY OF TERRACE TERRAMAP ORTHOPHOTO.
 2. BURIED FEATURE LOCATIONS ARE APPROXIMATE AND BASED ON OWNER'S DESCRIPTION.

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C	22/01/31	ISSUED FOR REVIEW	OTH - -
B	21/08/12	ISSUED FOR REVIEW	OTH - -
A	21/06/21	ISSUED FOR REVIEW	OTH - -
REV	YY/MM/DD	DESCRIPTION	DRWN CHKD APVD

CLIENT:



TITLE:

EXISTING SITE PLAN
WITH ORTHOPHOTO

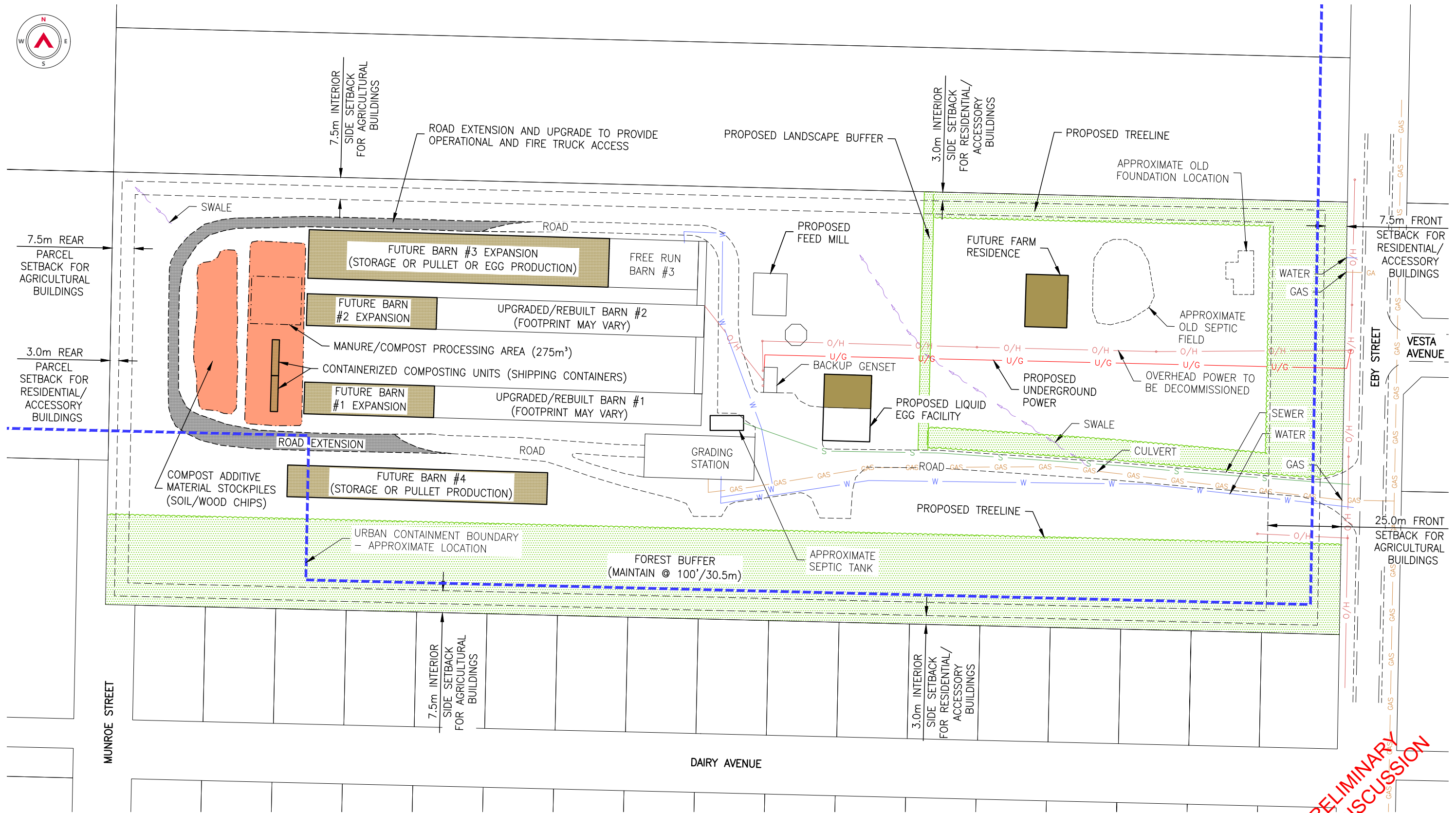
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SCALE:	1:1250	APVD:	-	DATE:	-

PROJECT:

UPGRADE PLANS

DWG NO:
2101260-000-1100-002

REV:
C



PRELIMINARY
FOR DISCUSSION

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

- NOTES:
1. SURFACE FEATURE LOCATIONS ARE APPROXIMATE AND ARE TAKEN FROM CITY OF TERRACE TERRAMAP ORTHOPHOTO.
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Revision History				
REV	YY/MM/DD	DESCRIPTION	DRWN	CHKD
C	22/01/31	ISSUED FOR REVIEW	OTH	-
B	21/08/12	ISSUED FOR REVIEW	OTH	-
A	21/06/21	ISSUED FOR REVIEW	OTH	-

CLIENT:



PROPOSED SITE PLAN AND 20 YEAR BUILD-OUT PLAN			
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PROJECT NO:	2101260	DSGN:	-
DRAWING SIZE:	ANSI "B"	CHKD:	-
SCALE:	1:1250	APVD:	-
DATE:	21/06/21	DATE:	-

PROJECT:		UPGRADE PLANS	
DWG NO:	2101260-000-1100-003	REV:	C