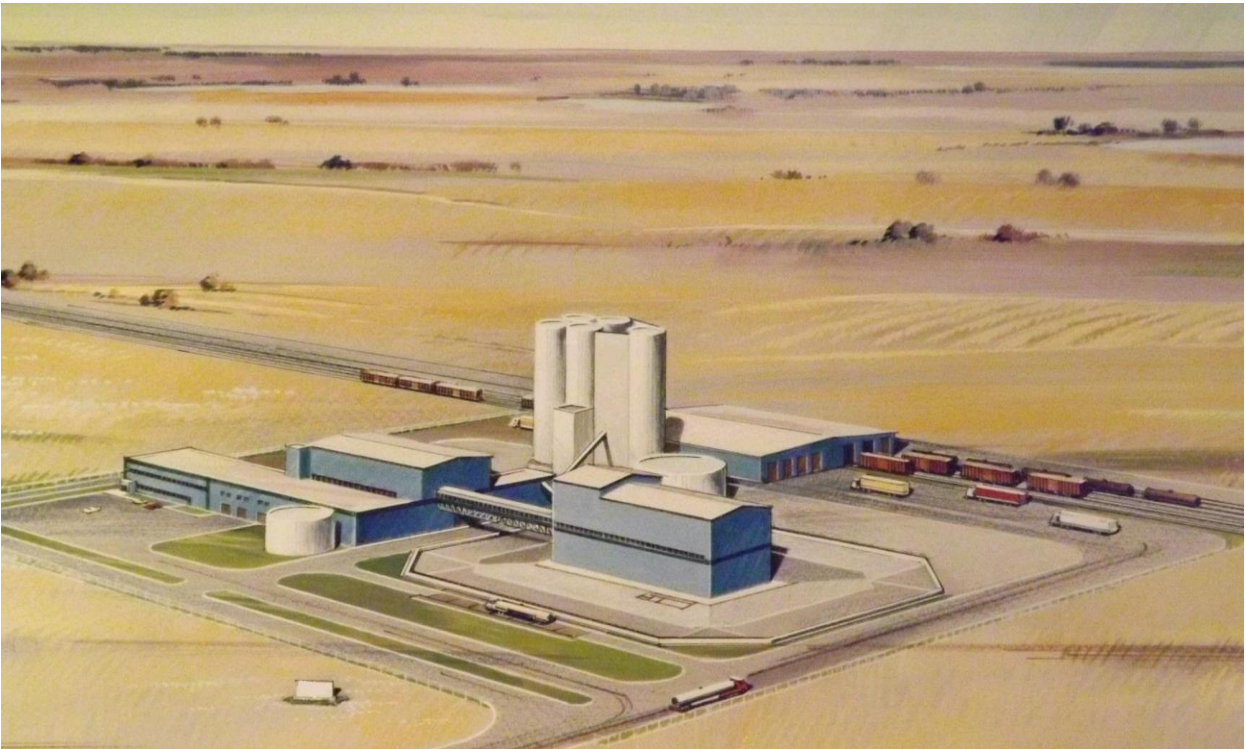


**AREA STRUCTURE PLAN FOR  
CARGILL LIMITED – PROPOSED CAMROSE  
CANOLA CRUSHING PLANT  
CAMROSE ALBERTA**



Submitted to:

**CAMROSE COUNTY and CITY OF CAMROSE**

Submitted by:

**AMEC ENVIRONMENT & INFRASTRUCTURE**  
Edmonton, Alberta  
**ON BEHALF OF CARGILL LIMITED**

**November 2012**

**EE312051**

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## **1.0 INTRODUCTION**

### **1.1 AMEC AUTHORIZATION**

Cargill Limited (Cargill) retained AMEC Environment & Infrastructure (AMEC) to prepare and submit this document on their behalf. The majority of the information related to the plant infrastructure and operations were provided by Cargill.

### **1.2 PURPOSE**

The primary purpose of the Cargill Area Structure Plan (ASP) is to provide Camrose County (County) and the City of Camrose (City) detailed information regarding the proposed greenfield development of a canola crushing plant (the Plant) and associated infrastructure. The ASP focuses on describing how the Plant will be constructed and operated within the current setting. Detailed information is provided regarding utilities, road and rail traffic changes and stormwater control. Measures to mitigate the effect of the Plant on the physical and human environments are described as are the benefits the development will bring to the communities.

While efforts have been made to provide as much accurate information as possible, this ASP reflects the intentions of Cargill in constructing the Plant as of the date hereof. As planning progresses, the final specifications of the Plant may be subject to alteration. Further, final construction of the Plant will be subject to Cargill receiving all required internal and external approvals to proceed.

The ASP also provides preliminary concepts for other developments within the City and in a more generalized way for the lands within the County for the lands north of the proposed Cargill plant. The concepts described within the City lands are intended to provide a general planning framework. However, more detailed planning will be required for both City and County lands beyond the Cargill development.

The Railway Junction Intermunicipal Area Structure Plan provides direction on lands and parcels within Section 25-46-24-W4.

B-3178-21

All figures referenced in this document are provided in Appendix A.

### **1.3 REGULATORY AND POLICY CONTEXT**

The Plant and associated rail yard will be constructed within E½ 24-046-20-W4 (the Property) which lies within the County, less than one kilometre south of the City boundary, as illustrated on Figures 1 and 2. Two rail spurs are proposed to branch off of the Canadian Pacific main line (along highway 13) and cross the highway in two locations east of the intersection of Highway 13A (Camrose Drive) and Highway 13 into NE 1/4 Section 25-046-20-W4 located within the City of Camrose through SE 1/4 Section 25-046-20-W4 located within the Camrose County to the Property. Another rail spur will connect the Property through SW24 and SE23-046-20-W4 to the Canadian National rail line.



The Property and rail lines are within the area included within the Camrose Intermunicipal Development Plan (IDP) adopted by the County and City in 2010. For this location, the IDP identifies potential future land use as commercial/industrial but lies just outside of the Cooperation Zone for lands directly adjacent to the City boundary.

The applicable policies within the IDP applicable to this project include the following.

1. An ASP must be submitted and approved by County Council. In this case, as the project also requires services from the City of Camrose, the ASP will also be submitted for approval by City Council.
2. Industrial land uses may be allowed in rural areas if the development such as the one proposed:
  - a. has all weather road access;
  - b. ideally has rail access;
  - c. has minimal impact on neighbouring farms and houses; and
  - d. and pays all its own capital costs.
3. At the discretion of the County, the development may be allowed on better agricultural land.
4. The provisions of the Municipal Development Plan with respect to Rural Industry and Commerce will apply for matters not specifically included in the IDP. The key additional item for this project being that the development must have a confirmed water supply.

Area Structure Plans are described in the *Municipal Government Act* as a process intended to provide a framework for subdividing and developing land. The plan must include the sequence of development, the proposed land uses, density of population, transportation routes, utilities and any other matters the council(s) considers necessary.

This document is structured closely on the Camrose County Area Structure Plan Requirements that is similar to the City requirements. The specific elements include:

- detailed description of the lands proposed for development;
- site development plan;
- intended form of ownership;
- utility providers and corridors related to the project;
- site specific investigations;
  - water table evaluation;
  - developable area;
  - drainage considerations – stormwater management plan;
  - geotechnical investigations;
  - traffic impact assessment;

- environmental impact assessment; and
  - historical resource protection.
- public consultation.

## **2.0 CARGILL CANOLA CRUSHING PLANT**

### **2.1 ABOUT CARGILL**

Cargill Incorporated is an international producer and marketer of food, agricultural, financial and industrial products and services. Founded in 1865, the privately held company employs 139,000 people in 65 countries. Subsidiary Cargill Limited is headquartered in Winnipeg, Manitoba and employs over 8,000 people across Canada. The company had been recognized in *The Globe and Mail's Best Companies to Work For in Canada* and was recently awarded the Canada's Top Employers for Young People award for 2011.

Cargill Limited is one of Canada's largest merchandisers and processors. Their interests include the processing of meat, eggs, malt and oilseed, and the manufacturing of livestock feed and salt. In addition, they are involved in crop input product retailing, as well as grain handling, milling and merchandising. Cargill currently operates a grain handling facility in the County nine kilometers southeast of the City and an animal nutrition facility to the west of the City at the junction of Highway 21 and Highway 13.

### **2.2 DESCRIPTION OF THE FACILITY OPERATIONS**

#### **2.2.1 Plant Operations**

Cargill is proposing to construct a canola crush Plant in Camrose County southeast of the City of Camrose as illustrated on Figure 3. The Plant will be constructed along Driedmeat Lake Road and will receive the majority of canola seed by truck from local growers. New rail spur lines will connect the Plant to both the Canadian National (CN) rail line to the west and the Canadian Pacific (CP) rail line to the north. A rail yard capable of storing approximately 340 rail cars will be constructed west and north of the Plant. The property will require rezoning from agricultural to industrial land use which is in keeping with the IDP for the area. The proposed Plant location lies approximately six kilometres southeast of the Camrose Airport southern property boundary.

The plant will have the capacity initially to process up to 2,500 tonnes per day of canola seed. The initial annual crush volume is expected to be approximately 850,000 tonnes. The finished products will include approximately 1,000 tonnes per day of crude canola oil – a food ingredient, and 1,500 tonnes per day of canola meal to be used for animal feed. A future expansion of the plant is contemplated to process up to 3,500 tonnes per day of canola seed with a corresponding increase in oil and meal production.

The Plant will be connected to the City of Camrose raw water and wastewater system. There will also be a potable water connection to the County water line. Modern environmental control systems are an integral part of the plant design to minimize air emissions, odour, noise and dusts.

When the canola seed arrives at the facility, it is weighed, cleaned, dried and preheated to approximately 80 °C. The canola seed is flaked in a series of roller mills and conditioned in a cooker. Oil is first pressed out of the flaked conditioned seed by means of screw presses known as expellers. The oil removed by this pre-pressing step is sent to a settling tank to remove entrained solids, decanted for further clarification, degummed and dried.

The prepressed solids, known as press cake, are washed by a series of countercurrent solid-solvent (commercial n-hexane) washers in a shallow-bed extractor to remove the remaining oil. The press cake (canola meal) goes to the desolventizer-toaster to remove hexane by steam and to toast the meal to deactivate enzymes. Lastly the meal is sifted to obtain a product of uniform size. Meanwhile, the solvent oil mixture (miscella) from the extractor is separated using a multiple-stage distillation process to produce oil with less than 100 ppm of residual hexane. Gums and fatty acids (FFA's) are removed and the oil is dried.

The final products are canola meal and crude canola oil (approximately two-thirds directly from pre-pressing and one-third from solvent extraction). The crude canola oil produced will be transported offsite to be further refined for food grade use. The canola meal is then pressed into a pelletized form for easy shipping.

Cargill will apply to Alberta Environment and Sustainable Resource Development (AESRD) for an approval to construct, operate and reclaim the Plant under the Environmental Protection and Enhancement Act (EPEA) and the Water Act. A high level of environmental stewardship will be documented by monitoring, reporting and inspection.

### **2.2.2 Rail Operations**

Rail operations will consist of the following elements.

1. A relatively small portion (likely less than 5 %) of the canola seed will arrive to the Plant by rail. No incoming raw materials, chemicals or products are anticipated to be shipped to the Plant by rail.
2. Empty rail car trains will be stored in the rail yard and will be moved to the loading tracks as needed. Long term storage for out of service rail cars is not contemplated.
3. Rail cars will be periodically loaded with canola oil and pelleted canola meal on every day the Plant is operating. Cars may be loaded at any time of the day.
4. Loaded cars will be marshaled in the rail yard until a full train is compiled.

5. Full trains, both empty and loaded will move from the rail yard to either the CN or CP main lines. On average, there would be approximately 10 total train movements per week on the CN and CP spur lines for the servicing of the Plant. The split each week for CN and CP will vary. For each of 8 road crossings, 7 would be a smaller number of cars and take approximately 3 minutes and three would take 5 to 8 minutes for a full train. Section 4.5 of this document describes rail movements in more detail.
6. Rail car loading and train movements will decrease during maintenance periods.

## **2.3 BENEFITS TO THE COMMUNITY**

The project will require a large capital investment with approximately 800,000 man hours of employment to construct the Plant and rail yard. Approximately 50 permanent full time positions and as many or more indirect jobs will be required to operate and maintain the facility. The types of jobs created would consist of the following positions.

### **Cargill**

- Plant Manager;
- Production Supervisors – Engineers;
- Boiler Supervisors;
- Production Operators/technicians – Grade 12 education. Prefer an agricultural / manufacturing background;
- Maintenance – Journeymen and Apprentice Millwrights;
- Commercial/Logistics; and
- Administration, / environment, health and safety / laboratory.

### **Third Party**

- Contract Electricians;
- Contract Pipefitters;
- Truck Drivers;
- Uniforms for employees;
- Snow removal services;
- Trash Removal; and
- Landscaping, weed control.

The development is expected to result in an increase in home ownership within the County and City. Cargill and / or their contractors will also utilize local suppliers where practical during the construction phases of the work.

The Plant will also service canola growers within a wide radius of up to 200 km and is expected to result in higher prices paid for crush grade seed. The unused portions of Cargill lands in Sections 24 and SE 25 will remain in wetland or agriculture with canola planted on a sustainable rotation. Lands to the north of the Property where just rail lines are currently contemplated may

in the future be subdivided and redistricted in accordance with proposed land uses described in Section 5 of this document.

### **3.0 DESCRIPTION OF LANDS PROPOSED FOR DEVELOPMENT**

#### **3.1 PLANT SITE AND RAILYARD**

Cargill has signed an agreement to purchase the E½ 24 from the current landowners subject to conditions such as their ability to obtain all of the necessary permits, licenses and approvals. This Property consists of approximately 129.4 hectares and is in agricultural land use with no temporary or permanent residences. As illustrated on Figure 3, there are approximately 22 rural residences within 1,600 m of the Plant. The nearest residences to the Plant are located in SW 24 and NW 24 approximately 500 m west and 700 m northwest respectively.

Figure 4 illustrates the proposed development within E½ 24, with the following key elements:

- the Plant will be located in the northwest portion of SE24;
- an access road will connect the Plant to Driedmeat Lake Road to the east;
- loading tracks will be located adjacent to the west and north of the Plant with capacity for approximately 140 rail cars;
- a rail yard for short term storage of approximately 340 rail cars will be located west of the loading tracks; and
- spur lines extend off the Property to the west and north to connect the rail yard to both the CN and CP rail lines.

#### **3.2 RAIL SPUR CONNECTIONS TO CN AND CP MAIN LINES**

CP has advised Cargill that they will design, build and maintain the two rail spurs and signals from their line to the southwest boundary of the Highway 13 right of way. CN will build the spur line and connection within their right of way. Cargill will design (to CN and CP standards), build and maintain the remaining rail infrastructure.

The railroads have advised that no Canadian Federal approvals are required for the Cargill owned rail tracks, or for the short portions of new track that they will construct and own.

##### **3.2.1 CN Rail Connection**

As illustrated on Figure 5, the rail spur line connecting the Plant railyard to the CN line will extend west from the Plant approximately 800 m along the south boundary of SW 24-046-20-W4 across Gravel Pit Road (Range Road 201) and approximately 50 m across SE 23-046-20-W4. Two rail manifest tracks for short term storage of up to 50 mixed rail car types will be constructed parallel to the spur line in SW 24.

As illustrated on Figure 6, Cargill has signed an agreement with the current landowners to purchase a 0.56 ha parcel in SE 23-046-20-W4 and an adjacent 0.79 ha parcel in NE 14-046-20-W4 to accommodate the rail spur connection to the CN line. The current landowners have also agreed to sell land to Cargill for the rail spur along the southern property line of SW 24.

### **3.2.2 CP Rail Connection**

As illustrated on Figure 5, the rail spur line connecting the Plant railyard to the CP line will extend north from the Plant across Township Road 464, approximately 1,600 m along the west boundary of E½ 25-046-20-W4 with the track splitting to join the CP line in NE25 and in SE 36-046-20-W4. Two rail manifest tracks for short term storage of up to 50 mixed rail car types will be constructed parallel to the spur line in E½ 25.

An agreement has been signed with the current landowners for Cargill to purchase lands that would provide access to the CP rail line across E ½ 25. Cargill will request a closure of Township Road 464 as illustrated on Figure 7 to reduce the number of road crossings required and because this is a relatively low volume of traffic road. The closure will allow for the construction of a rail yard that can hold a full unit train. This will mean that building a unit train on CP tracks will not be required which would have blocked traffic either in the City or on the main line. The Road Closure application will be submitted concurrently with the ASP for approval. If denied, the road will remain open and a crossing developed.

As illustrated on Figure 8, the two rail spur connections to the CP line will result in two crossings of Highway 13 and a relocation of the CP mainline track a few metres to the northeast. The crossing will not be in use at the same time as they are intended for rail movements in different directions on the CP tracks as described in more detail in Section 4.5 of this document. Any lands acquired to relocate the track will be consolidated into the federally regulated CP right of way.

### **3.3 UTILITY EASEMENTS**

This section of the document presents an overview of the infrastructure required to provide water and wastewater service to the Plant. The key existing and proposed water and wastewater infrastructure is depicted in Figure 9. A Water and Wastewater Servicing Report will be prepared and submitted to the City for approval. Power, natural gas and telephone/cable services have not yet been fully determined.

At this time, no formal servicing agreements have been signed with provider municipalities or utility companies. However, available information is provided in the following sections. Figure 9, illustrates the approximate location of the expected water and wastewater utility easements to and from the Plant.

The water and wastewater lines would be installed in steel casings under the rail tracks and installed by directional drilling under all County and City roads.



### **3.3.1 Raw Water**

Based on discussions with the City, Cargill intends to construct a water supply pipeline that would connect to the City 600 mm raw water line that lies in a right of way parallel to the east of the CN line approximately one kilometer west of the Plant. The connection point for a raw water line to the Plant would be adjacent to Gavel Pit Rd. (RR201) on the south side of the CNR tracks and would extend approximately 900 m to the Plant.

It is expected that the easement to the Plant will lie parallel to the north of the spur line to the CN mainline. Average daily water demands for the processing plant during normal operations are expected to be approximately 800 m<sup>3</sup> initially and up to 1,100 m<sup>3</sup> should the Plant be expanded in the future. Approximately 50 % of the water will be returned to the City and once fully treated, released back to the watershed.

Crossing permit submissions will be prepared for the water and wastewater lines and sent to CNR and both municipalities for their approval.

### **3.3.2 Potable Water**

Based on discussions with the City and County, Cargill intends to construct a potable water service that would connect to the County 200 mm water line to Ohaton in SE 25, adjacent to the north of the Property. The connection point for the 100 mm potable water line would be adjacent to the County's Pumphouse located on Twp. Rd. 464 north of the plant. The new water line would be located on the east side of the north rail line and would extend approximately 900 m to the Plant.

An easement across Range Road 464 will be required. Average daily potable water demands during normal operations are expected to be approximately 10 m<sup>3</sup>. The water would be used exclusively for potable purposes and none would be used by processing or other needs within the plant itself.

### **3.3.3 Wastewater Sewer**

Based on discussions with the City, Cargill intends to construct a wastewater sewer forcemain that would connect to the City wastewater treatment plant approximately 3.5 km west in E½ 22-046-20-W4. It is expected that the easement will lie parallel to the north of the spur line to the CN mainline and then extend primarily due west to the treatment plant. A lift station would pump the wastewater through a forcemain located adjacent to the proposed rail spur from the Plant to the CN tracks and then in the County road ditch to the treatment plant connection point.

Average daily wastewater production for the processing Plant during normal operations is expected to be approximately 400 m<sup>3</sup> for the initial development and up to 600 m<sup>3</sup> if the Plant is expanded. Pretreatment of the process wastewater will be completed at the Plant to meet the City sewer bylaw and the servicing agreement. Treated water is returned by the City to the Battle River watershed.

Sanitary wastes from the Plant will be tied into the same forcemain downstream of the treated process wastewater.

### **3.3.4 Power**

The Plant will require a 25 kV power service which will be provided by Fortis Alberta (Fortis) which currently has above ground power lines for residential service along Range Road 464 adjacent to the north of the Property. The route for the new power service has not yet been certainly determined, but will likely originate from the Fortis substation in SW 06-47-19-W4 and follow existing road allowances and then south on the east side of Driedmeat Lake Road. The power line is expected to cross major roadways and the CP rail line in subsurface borings as illustrated on Figure 10. Alternate substation connections and routes are also being considered.

Cargill is considering co-generating power as part of their steam and boiler system.

### **3.3.5 Natural Gas**

An Ankerton Gas Coop natural gas line for residential service crosses SE 24 from east to west. This line may require relocation and / or protection prior to Plant and railyard construction.

The Plant will require a natural gas service capable of providing up to 4,000 m<sup>3</sup> / hr. TransCanada Corporation owns and operates high pressure gas lines approximately 3 km south of the Plant that are expected to provide the service required. The details on the line ownership, routing and easements are not yet confirmed.

### **3.3.6 Cable**

The Plant will require telephone and high speed internet connection. The route of the new cable/telephone service has not yet been determined but will likely utilize power poles.

## **4.0 CARGILL DEVELOPMENT PLAN**

### **4.1 EXISTING PHYSICAL SITE CHARACTERISTICS**

#### **4.1.1 Current Land Use and Vegetation**

As illustrated on Figure 2, the majority of the Site and directly adjacent lands are under agricultural production. In 2012, the Site was planted to canola and grain, except a few areas too wet to cultivate, and a small treed area near the boundary between NE and SE 24. Figure 10 is based on a 2011 aerial photograph that illustrates the Property and includes 2010 LiDAR bare earth topographic data. Due to the wet spring in 2011, fewer acres were under cultivation than typical in NE24 as equipment access was limited to the best drained areas.

#### **4.1.2 Soil, Geology, Hydrogeology**

The majority of the Plant site and surrounding lands have soils classified as black solonchic with the Camrose Loam as the most common subtype (Bowser, et al, 1962: Soil Survey of the Edmonton Sheet, Canada Department of Agriculture). This soil type, developed on glacial till, may contain significant stones and have a saline C horizon. These soils typically have a land capability for agriculture rating of Class II with moderate limitations that may restrict the range of crops or require some conservation practices.

Surficial deposits below the agricultural soil horizon are reported to consist of glacial till (Shetson, 1990: Surficial Geology of Central Alberta). The uppermost bedrock below the Site is composed of deltaic and fluvial fine grained sandstone, siltstone and shale of the Horseshoe Canyon Formation. Groundwater yields in the area of the Site are typically relatively low with dry water testholes not uncommon. Chemistry data from the upper bedrock identifies total dissolved solids above 1,000 mg/L and sodium above 200 mg/L. Shallow and regional groundwater flow is expected to be south towards the Battle River (Hydrogeologic Consultants Limited (HCL), 2005: County of Camrose Regional Groundwater Assessment).

The depth to groundwater is expected to vary seasonally with shallow water tables most common in areas where water seasonally ponds.

Additional site specific information will be obtained during a two week geotechnical drilling program currently planned for the later part of September 2012.

#### **4.1.3 Surface Water**

Two ephemeral drainage ways arise in Section 25 to the north of the Site and enter the Property via culverts under TWP Road 464 as illustrated on Figure 11. The drainageways join and cross NE 24 from north to south where it then turns sharply east and crosses through a culvert under Driedmeat Lake Road. Two other culverts under Driedmeat Lake Road are present in NE 24 and SE 24, the latter of which connects a small slough that was severed by the roadway.

A second smaller poorly defined drainageway or draw arises in SW 24 and drains from north to south across the southwest corner of SE 24 and into a semi-permanent slough wetland in the northwest portion of NE 13. Based on historical air photos, virtually the entirety of SE 24 is cultivated and cropped in drier years.

A small high point of land is present in NE 25 from which runoff from the northern half of this property southwest of Highway 13 flows northward to the highway ditch. Flow in the ditch appears to be both northwest into a small water body and southeast following local terrain.

Surface waters in this area all eventually drain south to the Battle River and Driedmeat Lake approximately 7 km southwest at the closest point to the Site. Camrose Creek lies approximately 5 km west of the Site which also drains into Driedmeat Lake. Figure 12 is based on National Topographic Services mapping and illustrates topography and drainage patterns

between the Site and the Battle River valley. This map does not identify any drainage way within the Property.

#### **4.1.4 Built Features**

There are currently no buildings on the Plant site and a review of historical air photos dating back to 1949 indicates that no permanent structures have been present since that time. County Township Road 464 road forms the northern boundary and Driedmeat Lake Road lies adjacent to the east.

### **4.2 DEVELOPABLE AREA**

Approximately 20 ha of the 129.4 ha Property are intended for development. This includes approximately:

- 12 ha for the Plant;
- approximately 1 ha for stormwater pond(s);
- 1 ha for the access road to Driedmeat Lake Road; and
- 7 ha for the railyard and spur lines in E ½ 24.

At this time, the remainder of the Property will remain in agricultural use growing canola in rotation with other crops.

Approximately 3 ha will be developed for spur line and manifest tracks to the CN line to the west and 7 ha for the railyard, manifest tracks and the spur lines to the CP line to the north. Actual areas disturbed may vary depending on the amount of earthworks required to grade the track alignments.

Properties within the footprint of the project will require redistricting from agricultural land use to industrial.

### **4.3 GEOTECHNICAL AND WATER TABLE CONDITIONS**

A geotechnical investigation of the Property has been undertaken on the Property. Approximately 80 boreholes were completed in the area of the Plant, railyard, spur lines and access road to provide subsurface information for foundation, rail bed and roadbed design. Standpipes will be installed in some boreholes to allow water levels to be measured. Based on aerial photograph interpretation, the depth to the water table will be relatively shallow in lower lying portions of the Property; however this is not expected to materially affect the development of the property for industrial use.

A geotechnical report is expected to be completed by mid November. The drilling program confirmed regional mapping of the surficial deposits typical to the area. Below approximately 0.3 m of topsoil, more than 10 m of glacial till was intersected at all deep drill sites and more

than 25 m at the Plant site where weathered shale was intersected at 26 to 27 m below ground. The till contained relatively infrequent sand units that do not appear to be laterally continuous over large distances. Preliminary findings indicate relatively good ground conditions relative to construction requirements. Once finalized, a copy of this report will be provided to each municipality.

#### **4.4 STORMWATER DRAINAGE PLAN**

This section of the document presents an overview of the infrastructure required to provide stormwater drainage and runoff management to the Plant. The key existing and proposed conceptual drainage patterns and infrastructure for the Plant are depicted in Figure 11.

AESRD guidelines and standards will be used to determine the control area requiring stormwater management, the storm runoff volumes that will require storage and the design of the storage pond. This information will be submitted to AESRD, with the application for an Approval under EPEA. Any existing wetlands that are affected by the project will be assessed and a wetlands compensation submission prepared for approval by the Province under the Water Act. Compensation can include replacement constructed wetlands at the agreed to compensation ratio or cash payment to an accredited agency who will use the funds towards restoring wetlands or constructing new ones.

Conceptually, the runoff management system will include ditches, culverts and berms to contain the runoff from the Plant and rail yard onsite and direct the flows to one and possibly two lined storage ponds with control gates on their outlet(s). The quality of the runoff stored in the pond(s) would be tested and only released into the downstream wetland and drainage course if the stipulated quality parameters are met.

The natural drainage pattern is from north to south along the drainage course through the Site and then crossing under Driedmeat Lake Road via an 800 mm culvert. From this point, the natural drainage pattern follows a network of wetlands interconnected with by an unnamed creek that eventually drains in to Driedmeat Lake to the south. Based on the intermittent expression of a defined channel, the Crown is not expected to claim this offsite drainageway. As such, drainage easements may be required to protect the flow path to Driedmeat Lake.

As illustrated on Figure 11, a storage pond could possibly be located on the north side of the access road near the existing drainage course to the 800 mm culvert under Driedmeat Lake Rd. One or more additional ponds may also be required once detailed design is completed. Other than for the Highway 13 and CP rights of way, most of the runoff from the rail development from the north will drain south. Runoff patterns and volumes within the rights of way are not expected to change significantly. Runoff from the rail yard in SW24 will drain to the east.

## **4.5 TRAFFIC IMPACT ASSESSMENT**

This section of the document presents an overview of the rail facilities and road improvements and closures required to provide transportation service to the Plant. The key existing and proposed transportation infrastructure is depicted in Figure 5. Cargill is responsible for road access and intersection upgrading and the rail infrastructure to be constructed inside their development boundaries. CP Rail and CN Rail are planning, designing, and constructing rail crossings of Hwy. 13 and Gravel Pit Road (RR 201) and will be addressing traffic impacts of their rail infrastructure on these roads in separate submissions to approving authorities.

A Traffic Impact Assessment and Report will be prepared in accordance with Alberta Transportation (AT), Transport Canada, Canadian Transportation Agency (CTA), CPR, and CNR guidelines and submitted for approval in the near future.

### **Road Network Evaluation**

Based on detailed analyses by Cargill, approximately 50% the canola will be coming from farms northwest of Camrose and 50% from southeast of Camrose. The canola will be hauled by farm trucks to Cargill's local receiving terminals. From these terminals, Super B (WB23) trucks will be directed to take the designated route to the plant along Highways 13 and 56. From the northeast, they would use the Hwy. 13 and Hwy. 13A (Camrose Drive) route on the south side of Camrose. From the southeast, they would use Hwy 56 and Hwy. 13. From the intersection of Hwy. 13 and Driedmeat Lake Rd. (RR200), the Super B trucks will be directed to use a short section of a service (frontage) road and an internal plant access road adjacent to the Rail yards and tracks (illustrated on Figure 5). The exact location and of the intersection of the plant access road and Driedmeat Lake Rd. will be determined based on the design of the new interchange at Highway 13 and input from the City. Only a few trucks would use routes from the south or haul canola directly to the plant rather than to a terminal.

Cargill estimates 80-100 super B trucks per day initially to haul the canola seed from the receiving terminals to the Plant. There would be approximately 120 to 140 trucks per day should the Plant be expanded. Under normal operations, deliveries will take place from Monday to Friday from 7 AM to 7 PM. Other traffic would include courier service and approximately 35 staff or visitor vehicles daily, and up to five covered van or truck deliveries weekly. During the typical annual three week maintenance periods, and additional 20 to 30 vehicles would travel daily to and from the Plant.

In preliminary discussions with Camrose County, key County roads were identified as already being included in existing upgrade plans to accommodate maximum or full load capacity. Driedmeat Lake Rd. is presently paved with a 75% road ban and is one of the roads identified in existing County plans to receive such upgraded paving. The County is also planning to create a bypass route from Highway 21 to Highway 56 that would lie 2,000 m south of the access road into the Plant. The key intersections along Hwy. 13, 13A (Camrose Dr.), and 56 will be reviewed during completion of the Traffic Impact Assessment to determine if any upgrading is



required to accommodate the large super B trucks and the rail crossings of Highway 13. The portion of Driedmeat Lake Road between the access road and the new bypass would also need upgrading to allow truck traffic.

The expected capture zone for canola seed by truck would be from all compass directions. However, relatively little canola is grown west of Highway 2. Under normal operations relatively little canola seed will be delivered by rail. If seed is delivered by this method, it would typically be in the summer months and may include one unit train movement per week or two to four smaller deliveries.

Another road access to the Plant will be required from Driedmeat Lake Rd for staff, visitor, and smaller truck deliveries. The intersection and road will be designed and improved to accommodate the turning movements and increased number of the large super B trucks and other Plant traffic.

### **Rail Crossings of County Roads and Highway 13**

The new rail tracks to the north will cross Twp. Rd. 464 and a 200 mm water line to Ohaton and be in close proximity to the County's Water Pumphouse. The closure of Twp. Rd. 464 is proposed to avoid another road crossing. Access to the County's Pumphouse would still be maintained from the west.

Rail service will be provided from the CN tracks located southwest of the Plant site. The single rail connection to the CN tracks will require a new un-signalized crossing of Gravel Pit Rd. (RR201) just north of the existing crossing. Cargill will store smaller deliveries for customers ranging from approximately 3 to 25 cars on manifest tracks in SW24.

The Traffic Impact Assessment will evaluate the additional CN rail movements within the City particularly at Rge Rd 202 / Twp Rd 464. These locations are located ~2.4km and 2.1km away from the Cargill spur line location, respectively, and may be affected by slower moving /stopped trains. The lands to the west of these locations are within the City and are anticipated to be developed in the mid-term (~15-25 years). The lands to the east are in the County, but are in the Cooperation Zone of the IDP; the development of these lands is not currently known. Both existing roads will likely become part of the arterial road network within areas that are anticipated to develop as industrial lands in the future, so understanding the anticipated rail demands at these locations is important.

The proposed connection to the CP tracks to the north will require 2 new signalized crossings of Hwy. 13 just southeast of the Hwy. 13A (Camrose Dr.) intersection in the City of Camrose. The two spur line crossings of Highway 13 are required to allow efficient movement of empty and full rail cars in both directions on the CP Mainline without lengthy delays for Highway 13 traffic and / or north – south roadways with the City of Camrose to the east. Empty rail cars will typically be delivered as unit trains of 110-120 cars. Cargill will also store smaller deliveries for customers ranging from approximately 3 to 25 cars on manifest tracks in NE25. If a full unit train or manifest delivery is ready at the same time as empty car delivery, then the locomotives will hook

up and transport those cars on the same day. Otherwise the locomotives may leave without cars attached. The intent of the CP operating plan is to minimize traffic delays due to train movements on both Highway 13 and within the City of Camrose as well as on the CP main line which serves many other customers.

CP/CN unit trains will be pulled as they are completely built. The empty cars will be returned directly to the plant as they return from their destination. The pulling of loaded trains and returning of empty cars may or may not be in sequence. When the train is completed, the railroad will send locomotives from Edmonton for CN and Red Deer for CP. If that railroad does not have an empty train to return, they would send solo locomotives to Cargill to connect to the train and proceed directly out of the plant. If they bring empty cars, they will set these empty cars on one of the unit train spurs, disconnect and then connect to the loaded train. If they have empty cars but no loaded train to pull, they will set the empty train on one of the unit train spurs and then return to their respective yard.

There will be roughly one loaded train per week that will be pulled when completed and thus there is no set time for this. Roughly twice per week a train of empty cars will be returned to the plant. Both railroads will bring them directly so this also is not on a regular schedule. Assuming a roughly 50 / 50 split between the CN and CP (Cargill is in negotiations with both to determine share for each), this would imply a full unit crossing Highway 13 every other week and a train of empties returning every other week. They could be coincidental or at different times as determined by the railroads. Unit trains will represent about 50% of the total freight. Cargill intends to construct sufficient internal tracks that neither CN nor CP will need to do any switching, stopping or manipulation of cars outside the plant. They will basically grab and go thus minimizing the time crossing Highway 13, going through the city of Camrose or crossing Gravel Pit Road.

The manifest service will consist of roughly 3 to 25 car packets. This will consist of both meal cars and oil cars. As neither railroad has a yard in Camrose, both would use their regular scheduled trains to service the plant. There are two manifest tracks of 23 cars for the CN and two manifest tracks of 25 cars for CP that will be used to assemble shipments. The rail road would break their train, enter the plant, drop empties on one of these tracks and then pull the assembled cars from the other track. CN service is simpler as they will travel down the Alliance line and service the plant.

The CP service is a bit more difficult to describe. In addition to the two spur entry tracks, CP is intending to build a second spur parallel to their main line to the northeast. Both east and west bound trains on the CP will stop on their main line to the east between Driedmeat Lake Road and Legacy. They will break the train and then enter the plant. If the train is east bound, they will enter on the east crossing and then connect to our cars. They would then exit on the west crossing to enter their main line. They would then back our cars easterly to connect to the train. They will then use the parallel spur to move the locomotive to the front of the train and then depart to the east. If the train is west bound, they will break the train in roughly the same location, enter the plant from the east, exit on the west crossing and then back down to connect to the train and depart. By doing it this way, two crossings are required so as to not block roads

in Camrose during switching. If there were not two crossings, in order to not block the city, the CP would need to go to a junction almost 8 miles east of the Plant to break the train.

Again, assuming that there is a 50 / 50 split, switching would occur roughly every other day by each railroad. At the initial start-up rate, we would make 11 to 12 cars of oil per day or 80 per week and 15 to 16 meal cars per day or 105 per week. This would imply roughly one 110 car unit train per week and six 20 car manifest movements per week. At full production rate after expansion there would be 15 to 16 oil cars per day or 110 per week and 20 to 21 meal cars per day or 145 per week. This would imply roughly on 110 car unit train every 6 days and seven 25 car manifest cars per week.

The ability of Cargill to fully build unit trains within their railyard will eliminate the need for switching and train building on either the CN or CP lines. This will limit the blocking of area roads to the movements described above.

#### **4.6 PLANT COMPONENTS AND ENVIRONMENTAL PROTECTION**

Figure 13 illustrates the Plant site layout in more detail including:

- perimeter fencing and entrance gate / scales
- hexane unloading / storage;
- canola oil extraction;
- oil processing / degumming;
- canola meal and crude canola oil storage; and
- rail car load loading / unloading.

Environmental protection measures for the Plant and associated monitoring and reporting will be included within the Approval issued by AESRD. An overview of the intended protection and mitigation measures include the following.

1. Topsoil will be conserved and stored in screening berms adjacent to the Plant.
2. Weed / agricultural pest control (e.g. Clubroot) will be implemented.
3. Odour Control will be included as part of the facility design using biological scrubbers for extraction and preparation processes. Hexane vapours will be recovered and reused in the extraction process. The performance of these processes will be monitored and corrected as necessary to ensure satisfactory operation.
4. Dust control - dry particulate emissions from the process will be controlled by bag house filters and / or cyclones. Plant roads will be paved and maintained to minimize dust from vehicle traffic.

5. Noise Mitigation:

- both process buildings will be enclosed;
- steam vents will be equipped with silencers;
- the Plant will be located a minimum of 30 meters from property lines with the intent for noise at night not to exceed 40 dba (quiet library) at property lines;
- rail yard train connections may periodically exceed 40 dba, however, rail loading will be completed inside the load out structure that will reduce noise levels;
- there will be traffic control for trucks / rail cars entering and leaving site with seed receiving by trucks during the Plant business hours of 7 AM to 7 PM, 5 days per week; and
- screening berms will be utilized.

6. Light minimization - off site nighttime light will be minimized by a setback of approximately 250 meters from property lines and the use of screening berms.

7. Storage Tank Containment Methods include the following.

- Liquid crude oil tanks will be arranged to have concrete spill containment basins or will be located in depressed areas with clay or fabric liners. Valves will be included for release of non contaminated rain water.
- Hexane will be stored in a double walled underground storage tank with continuous interstitial monitoring.

8. As required by Alberta Environment, surface runoff will be controlled by ditching with temporary pond(s) storage. Stored water will be tested prior to release to the watershed.

9. Equipment inspection and maintenance programs will be part of normal operations.

10. Monitoring / testing programs to demonstrate environmental compliance are typical requirements of an AESRD approval. Hexane has been identified as a primary substance of concern with respect to protection of surface water, groundwater and soil. Annual reports will be part of the public record.

11. An Emergency Response Plan will be developed in conjunction with the City and County of Camrose.

12. Fire protection, policing, solid waste management, emergency rescue response and other necessary services will be provided through agreements with the municipalities.

#### 4.7 HISTORICAL RESOURCE PROTECTION

Historic Resources are protected by the Alberta Historic Resources Act (HRA). The *Listing of Historic Resources ("Listing")* identifies lands that contain or are believed to contain historic resources. The "Listing" must be consulted for all developments requiring conservation and

reclamation approval by Alberta Environment and is also a requirement of the Camrose County policy concerning the content of an Area Structure Plan. If the development includes lands that are on the "*Listing*", then an application for HRA clearance is required.

AMEC screened the lands slated for development of the proposed Plant and rail infrastructure using the current "*Listing*" (Sept 2012). The development does not include any HRA listed lands. The lands screened are NE25, SE 25, NE24, SE 24, SW 24 and SE 23, all 46-20 W4M. Therefore the applicant does not need to apply for HRA clearance or undertake further Historic Resource management; with the following condition:

1. Pursuant to Section 31 of the Historical Resources Act, should any historic resources be encountered during the conduct of any excavation activity, the Ministry of Alberta Culture and Community Spirit (or said representative) is to be contacted immediately.

## **5.0 PHASED DEVELOPMENT PLAN FOR E ½ 24 AND 25-046-20-W4**

The Railway Junction Intermunicipal Area Structure Plan provides direction on lands and parcels within Section 25-46-24-W4.

B-3178-21

## **6.0 PUBLIC CONSULTATION**

Cargill intends to complete the following public consultation steps.

1. Prior to public announcement of the project, direct face to face contact if possible, or contact by telephone will be made by Cargill to all property owners within 1,600 m of the Property and rail spurs.
2. Open Houses will be held in the afternoon / evening in late October to provide information about the proposed development, the Area Structure Plan elements, the jobs and other benefits to the communities. A separate Open House will be held for the County residents and City residents.
3. Information regarding the proposed development will also be mailed out by the County to residents beyond 1,600 m from the Property where there may be interest due to changes in transportation.
4. Cargill will participate in County Week with a public presentation to be made on 25 October 2012.
5. A public hearing will be held by both County and City Councils to review the ASP.
6. Public notifications will be made as part of the AESRD approval processes under the EPEA and the Water Act.

## 7.0 CONCLUSIONS

Cargill has an excellent track record locally, regionally and internationally as high quality employer, producer and supplier. Approximately 8,000 people are employed by Cargill across Canada.

Cargill proposes to construct and operate a state of the art canola crushing plant and railyard in E½ 24-046-20-W4. The project will create approximately 50 full time jobs at the Plant and 50 to 75 secondary jobs providing services. Contracting producers to grow specialty canola varieties and demand for canola seed will benefit the agriculture industry.

The majority of canola seed will be trucked to the Plant. Crude canola oil intended for food grade use will be produced. Pelletized canola meal will produced for animal feed. These products will be loaded into rail cars with spur line connections to both the CN and CP rail systems. A traffic impact assessment will be completed to identify what infrastructure improvements are likely to be required.

Cargill intends to construct and operate the Plant and associated infrastructure to a high standard. The design and operating plan are intended to minimize disturbances to neighbours and to provide protection to the environment. In addition to municipal permitting, environmental and transportation approvals for the development will be required from AERSD and AT.

## 8.0 CLOSURE

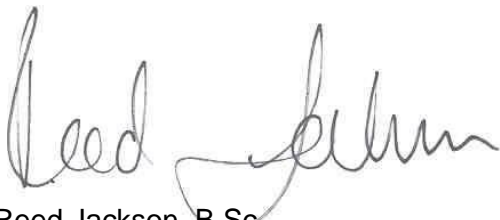
The work described in this report was conducted in accordance with the Contract for Services (#171030) between Cargill and AMEC and generally accepted engineering and assessment practices.

This document has been prepared for the exclusive use of Cargill Limited to support the proposed development described herein. The work was conducted in accordance with the agreed scope of work approved verbally and in writing by Cargill, and generally accepted practices. No other warranty, expressed or implied, is made.

Should any questions arise, please contact Reed Jackson (780 989 4501) at your convenience.

**Respectfully submitted for approval of Camrose County and City of Camrose Councils.**

### AMEC Environment & Infrastructure



Reed Jackson, B.Sc.  
Senior Associate Environment



Alex Nagy, P. Eng.  
Senior Infrastructure Manager/Engineer



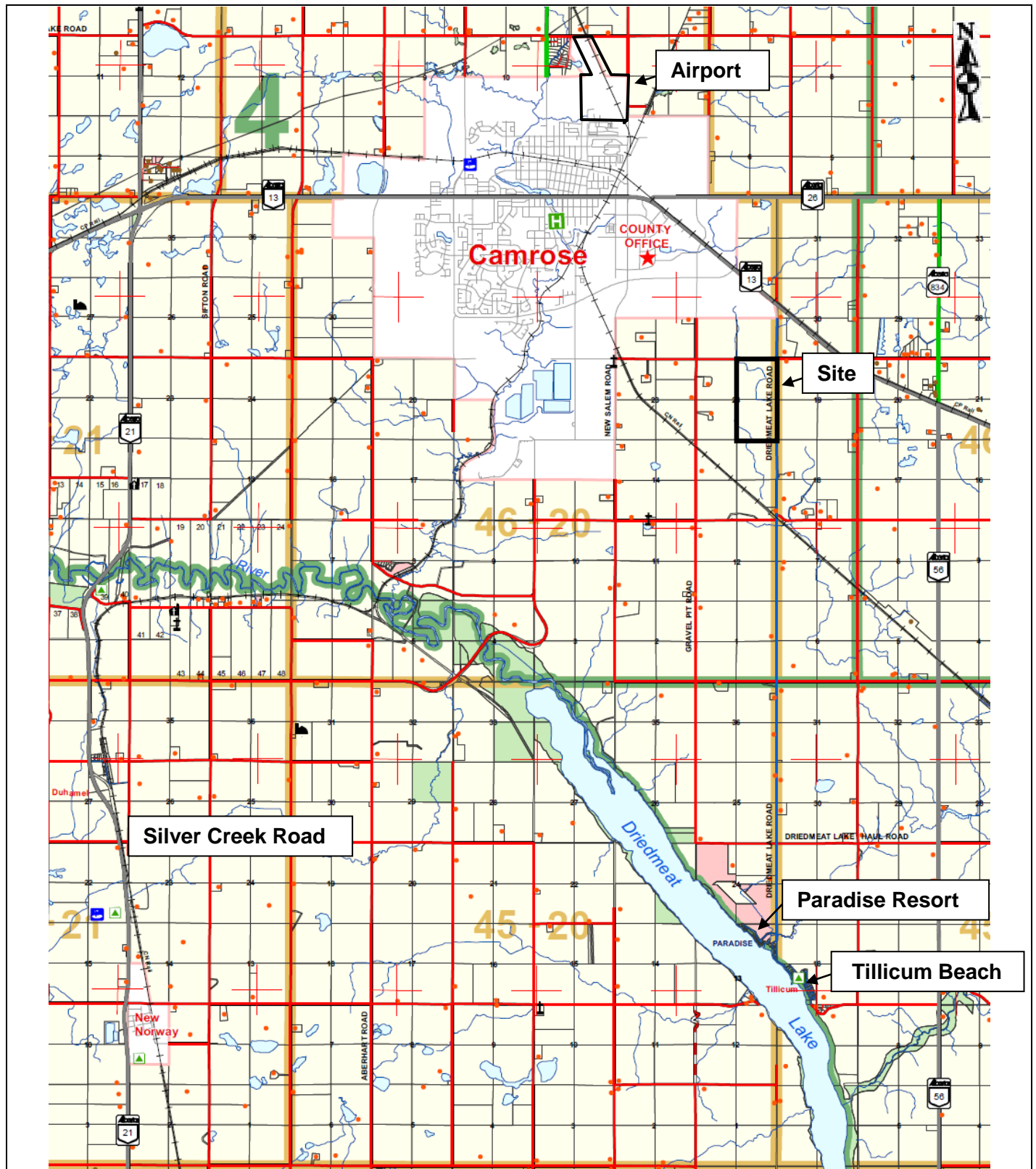
Reviewed by:


A handwritten signature in black ink, appearing to read "Fred Apon", written over a light blue horizontal line.

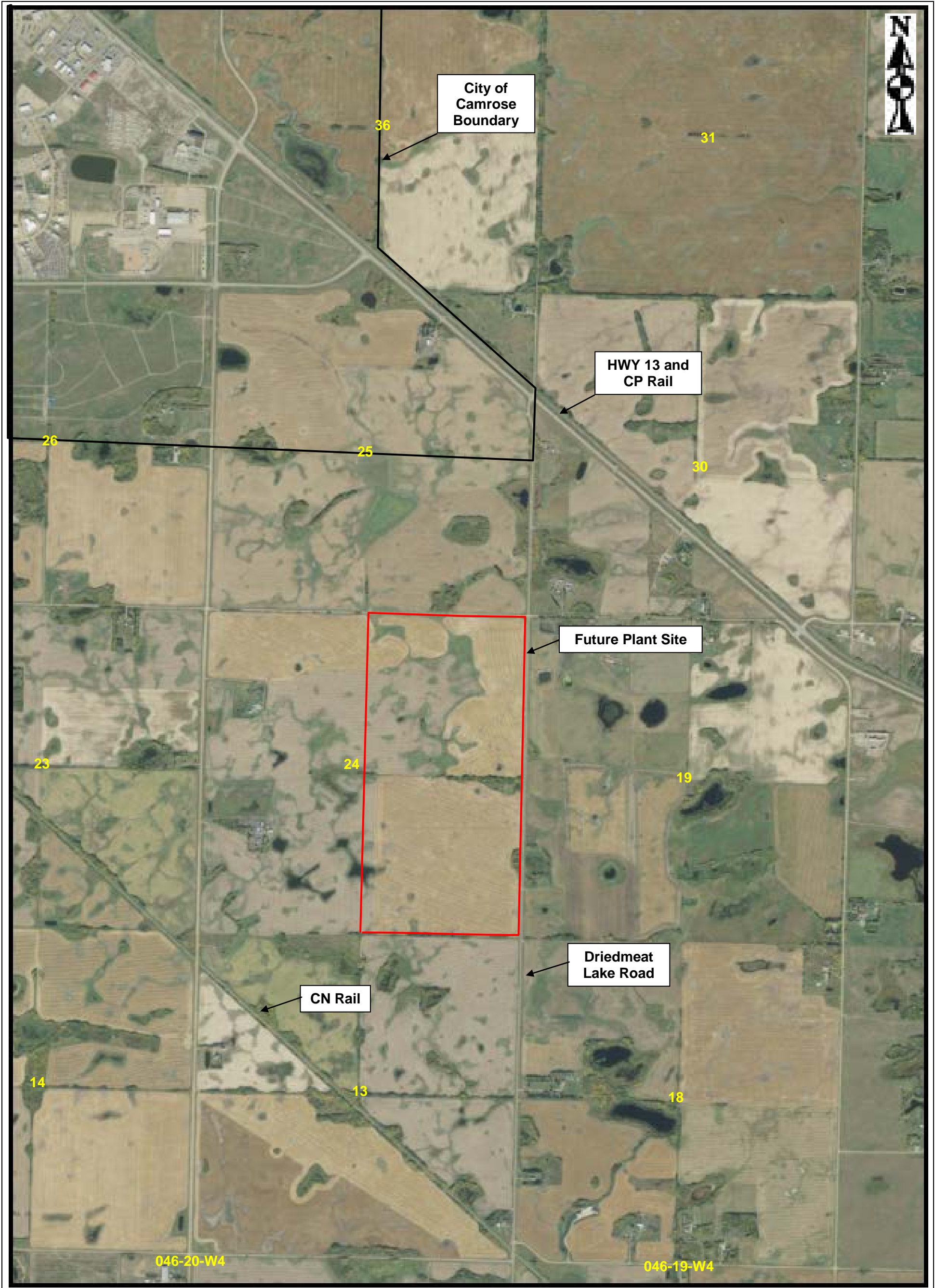
Fred Apon, M.Sc.  
Unit Manager, Environment


## **APPENDIX A**

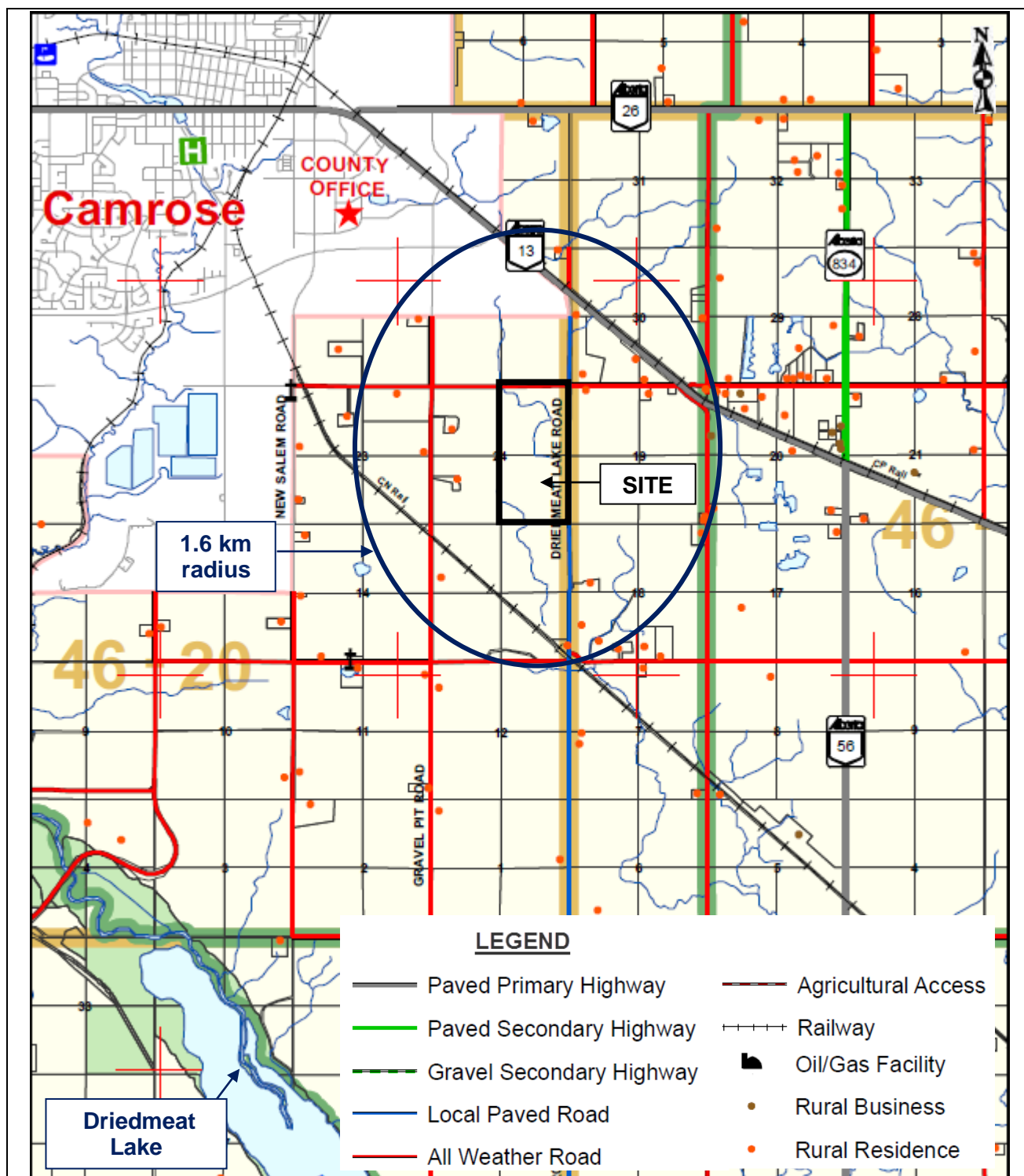
### **Figures**



		<b>County Map Showing Regional Site Location Proposed Cargill Canola Crush Plant and Rail Yard E ½ 24-046-20-W4M</b>		
<b>Cargill Limited</b>				
Drawn: KR	Scale: ~1:90,000	Date: September 2012	Project No.: EE31205.1	<b>Figure: 1</b>



		<b>Aerial Photograph of the Property and Surrounding Lands Proposed Cargill Canola Crush Plant and Rail Yard E ½ 24-046-20-W4M</b>		
<b>Cargill Limited</b>		Air Photo Reference: Abacus Data Graphics Photo Date: July – Oct. 2011		
Drawn: KR	Scale: ~1:9,000	Date: August 2012	Project No.: EE31205.1	<b>Figure: 2</b>



**County Map Showing Local Site Location  
Proposed Cargill Canola Crushing Plant and Rail  
Yard E 1/2 24-046-20-W4M**

**Cargill Limited**

Air Photo Reference: Abacus Data Graphics  
Photo Date: July – Oct. 2011

Drawn: KR

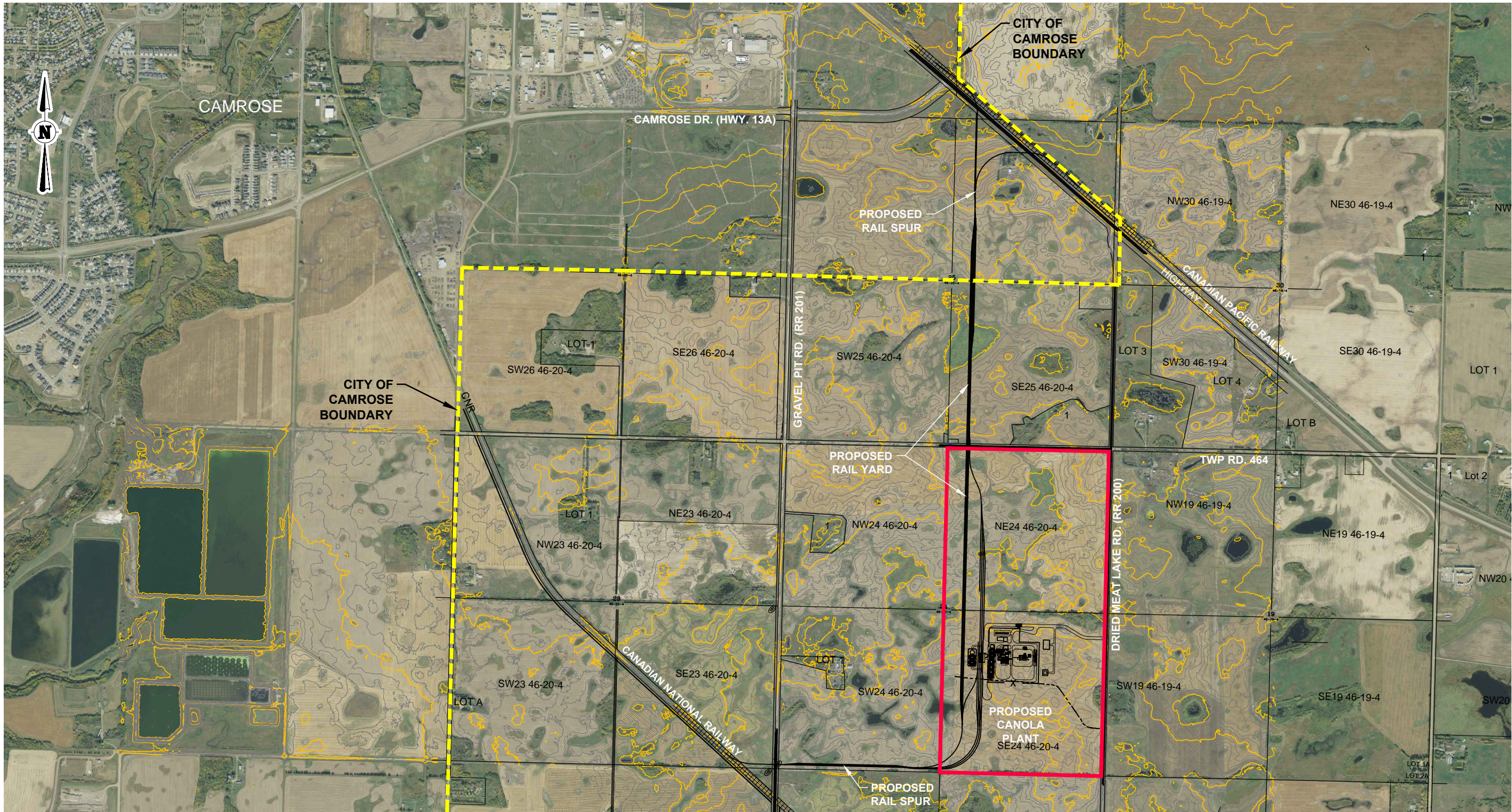
Scale: ~1:9,000

Date: September 2012

Project No.: EE31205.1

**Figure: 3**





NOTE:  
1. PLANT AND RAIL POSITIONS ARE APPROXIMATE.

- REFERENCES:
1. VALTUS: NORTH WEST GEOMATICS 0.4 m PREMIUM COLOR ORTHO TWP 046 RGE 20 W4M, IMAGE DATE: 5 JULY TO 7 OCTOBER 2011.
  2. AIRBORNE IMAGING INC.: AUGUST 2009 LIDAR DATA, 0.30 m VERTICAL, 0.45 m HORIZONTAL RESOLUTION, PROJECT CAMROSE 1223.
  3. CONTOURS SHOWN ARE AT 0.5m INTRAVALS.

LEGEND:  
 PROPERTY BOUNDARY

CLIENT:  
**CARGILL LIMITED**

AMEC Environment & Infrastructure  
5681-70 STREET, EDMONTON, ALBERTA, T6B 3P6  
PHONE 780-436-2152, FAX 780-435-8425



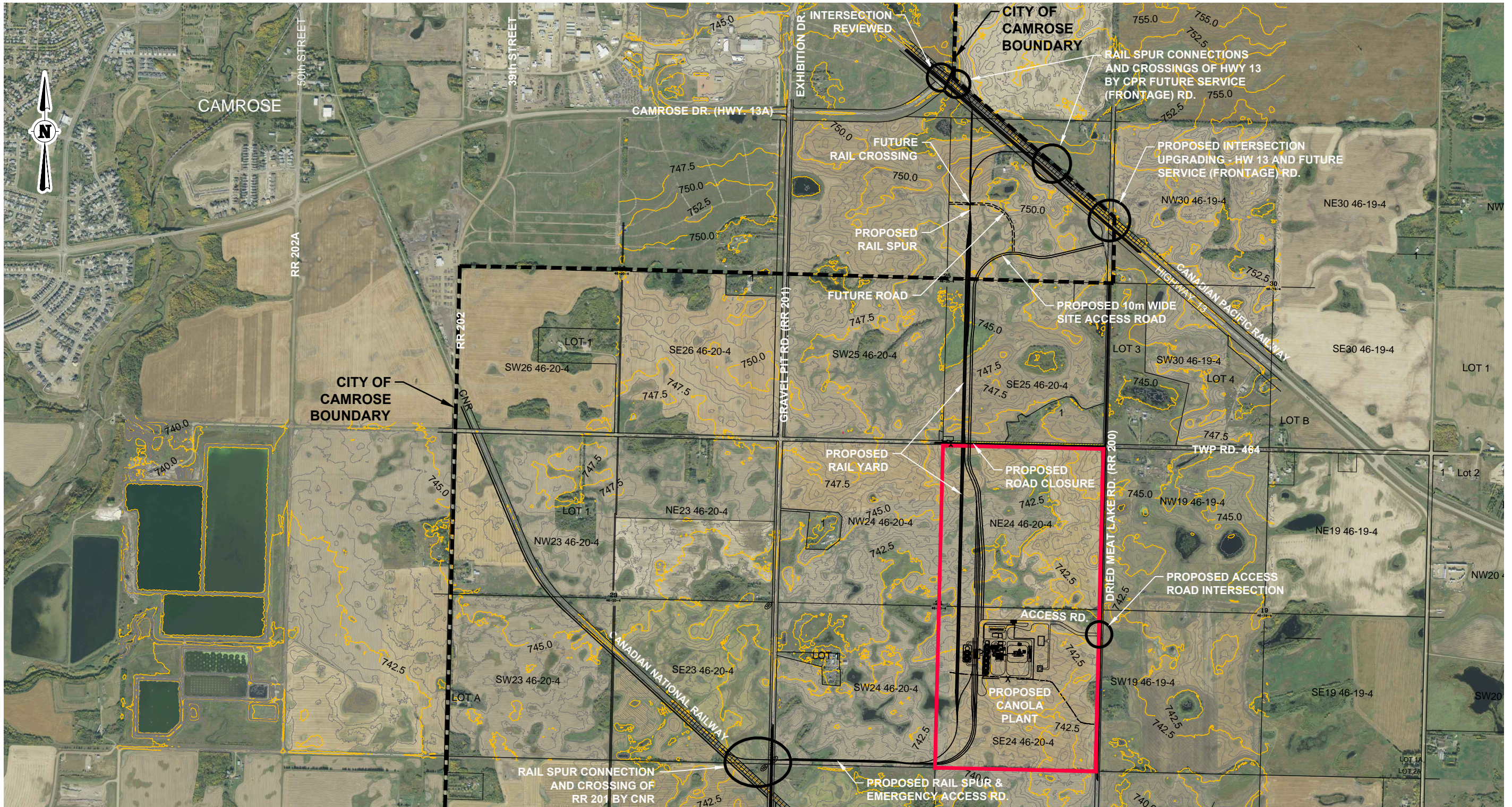
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CHK'D BY: AN  
DATUM: NAD 83  
PROJECTION: UTM Zone 12  
SCALE: 1:20,000

PROJECT:  
**CAMROSE CANOLA CRUSHING PLANT  
E1/2 24-046-20-W4M**

TITLE:  
**LOCATION PLAN**

DATE: AUGUST, 2012  
PROJECT No.: EE312051  
REV. No.: A  
FIGURE No.: **FIGURE 4**





NOTE:  
1. PLANT AND RAIL POSITIONS ARE APPROXIMATE.

- REFERENCES:
1. VALTUS: NORTH WEST GEOMATICS 0.4 m PREMIUM COLOR ORTHO TWP 046 RGE 20 W4M, IMAGE DATE: 5 JULY TO 7 OCTOBER 2011.
  2. AIRBORNE IMAGING INC.: AUGUST 2009 LIDAR DATA, 0.30 m VERTICAL, 0.45 m HORIZONTAL RESOLUTION, PROJECT CAMROSE 1223.
  3. CONTOURS SHOWN ARE AT 0.5m INTRAVALS.

LEGEND:  
 PROPERTY BOUNDARY

CLIENT:  
**CARGILL LIMITED**

AMEC Environment & Infrastructure  
5681-70 STREET, EDMONTON, ALBERTA, T6B 3P6  
PHONE 780-436-2152, FAX 780-435-8425



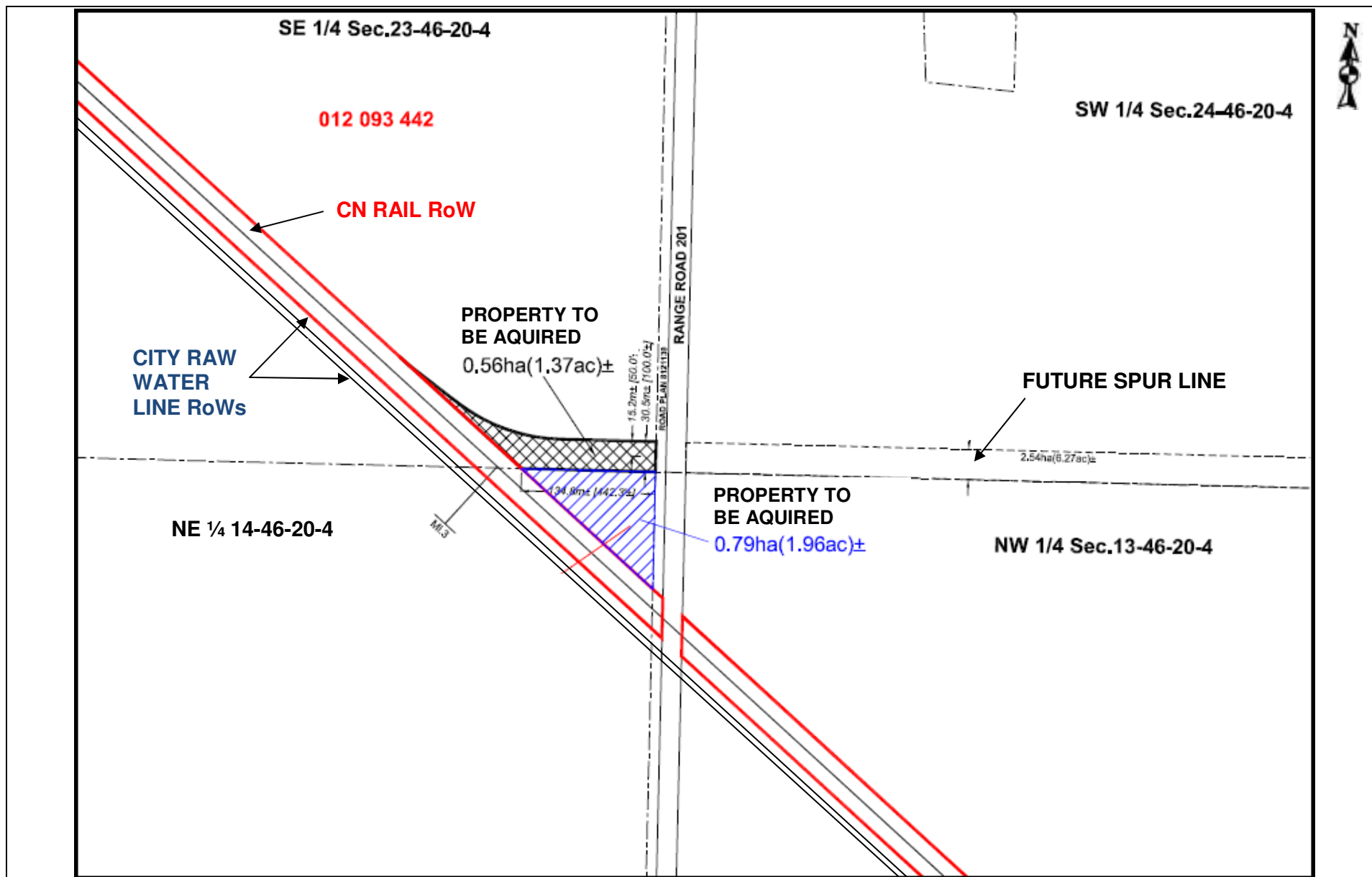
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CHK'D BY: AN  
DATUM: NAD 83  
PROJECTION: UTM Zone 12  
SCALE: 1:20,000

PROJECT:  
**CAMROSE CANOLA CRUSHING PLANT  
E1/2 24-046-20-W4M**

TITLE:  
**TRANSPORTATION PLAN**

DATE:  
NOVEMBER, 2012  
PROJECT No.:  
EE312051  
REV. No.:  
B  
FIGURE No.:  
FIGURE 5





**Access Route for Spur to CN Rail Line  
Proposed Cargill Canola Crushing Plant and Rail Yard  
E 1/2 24-046-20-W4M**

**Cargill Limited**

Date: September 2012

Project No.: EE31205.1

**Figure: 6**



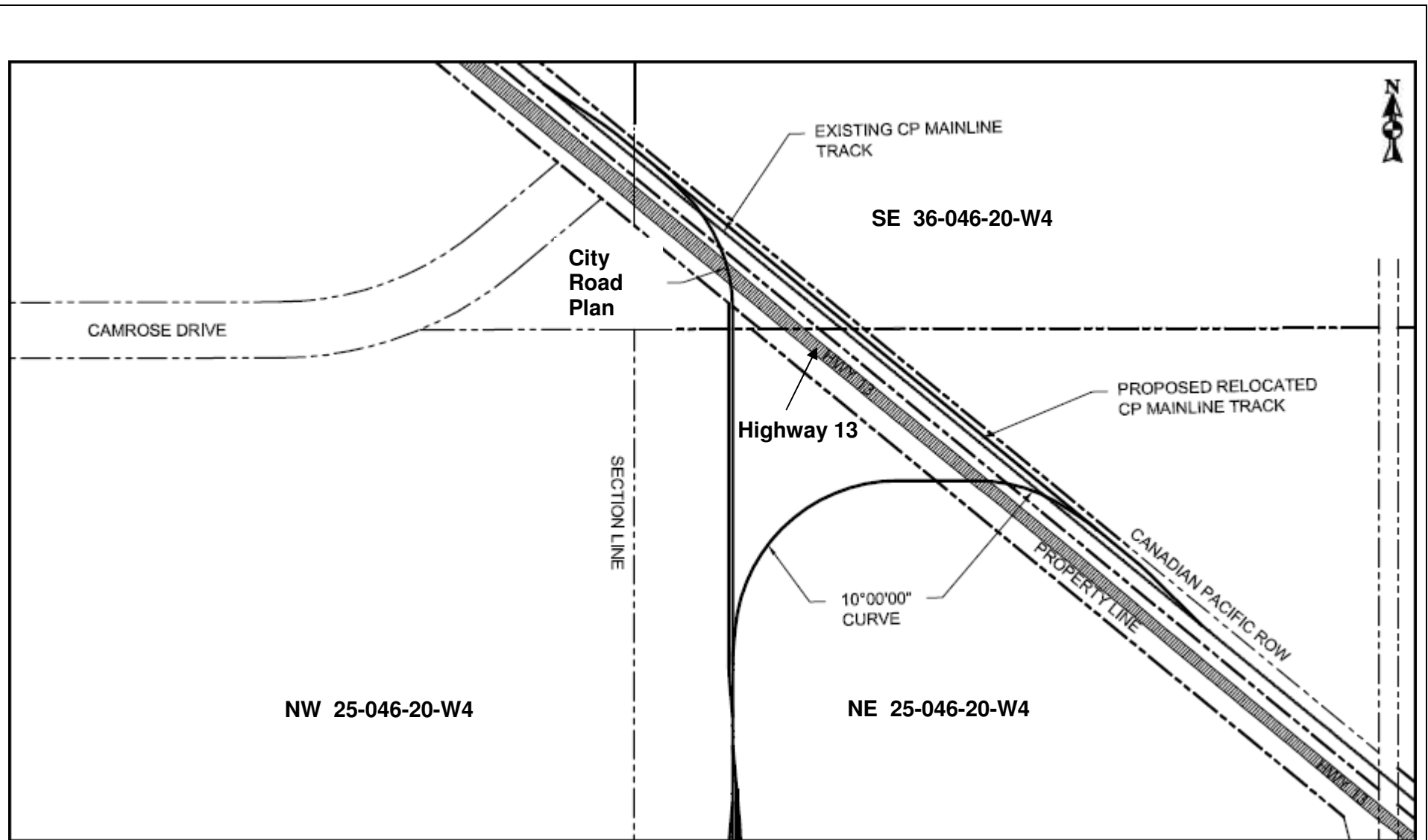
**Proposed Closure of a Portion of TWP RD. 464  
Proposed Cargill Canola Crushing Plant and Rail Yard  
E ½ 24-046-20-W4M**

**Cargill Limited**

Date: September 2012

Project No.: EE31205.1

**Figure: 7**



**CP Rail Spur Crossings of Highway 13  
Proposed Cargill Canola Crush Plant and Rail Yard  
E ½ 24-046-20-W4M**

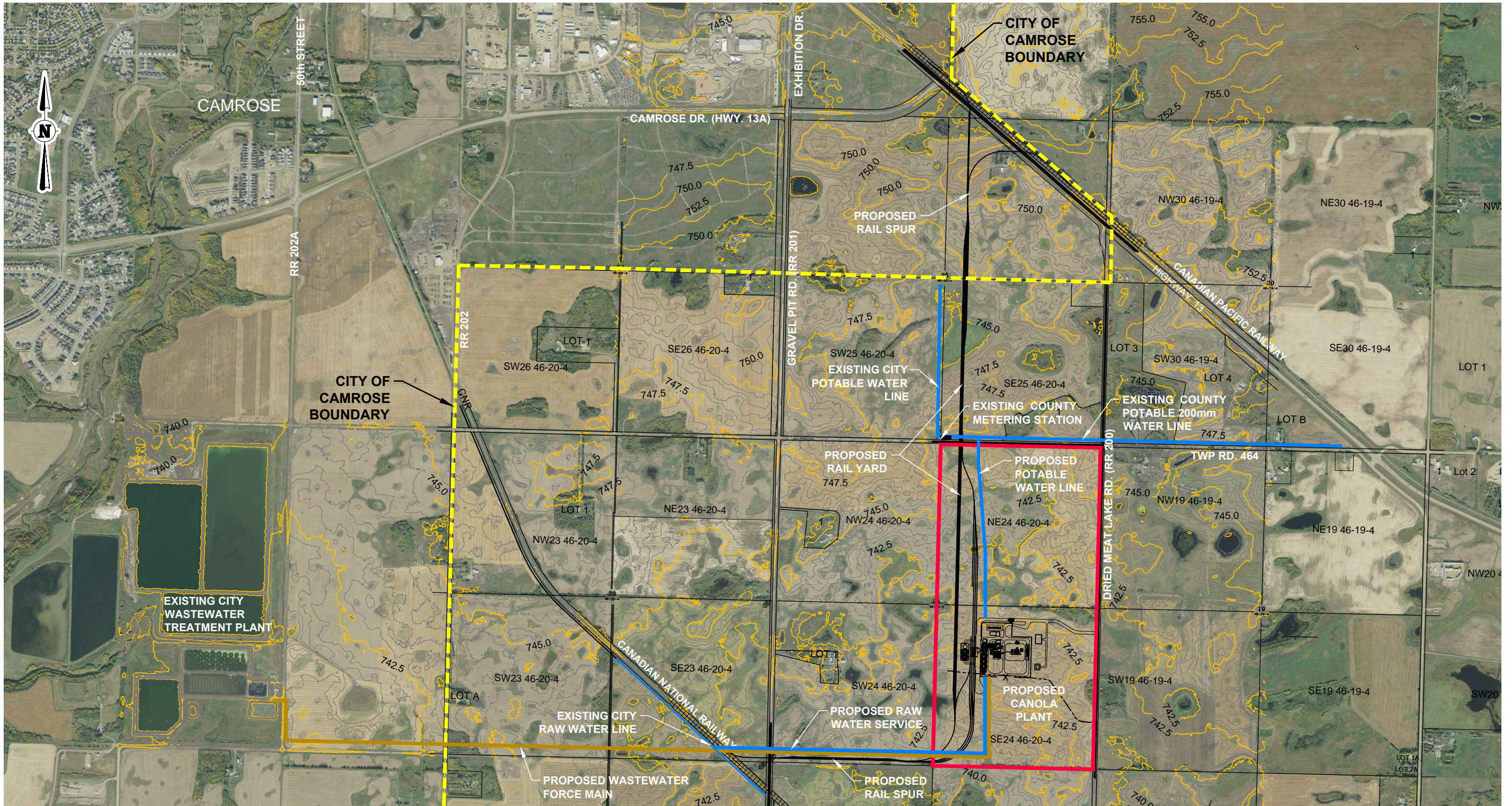
**Cargill Limited**

Date: September 2012

Project No.: EE31205.1

**Figure: 8**

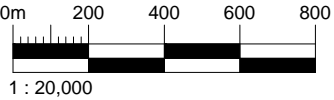




NOTE:

1. PLANT AND RAIL POSITIONS ARE APPROXIMATE.

2. POSITIONS OF WATER LINES AND WASTEWATER FORCE MAINS ARE APPROXIMATE.



- REFERENCES:
1. VALTUS: NORTH WEST GEOMATICS 0.4 m PREMIUM COLOR ORTHO  
TWP 046 RGE 20 W4M, IMAGE DATE: 5 JULY TO 7 OCTOBER 2011.
2. AIRBORNE IMAGING INC.: AUGUST 2009 LIDAR DATA, 0.30 m VERTICAL,  
0.45 m HORIZONTAL RESOLUTION, PROJECT CAMROSE 1223.
3. CONTOURS SHOWN ARE AT 0.5m INTRAVALS.

LEGEND:

PROPERTY BOUNDARY

CLIENT:

**CARGILL LIMITED**

AMEC Environment & Infrastructure  
5681-70 STREET, EDMONTON, ALBERTA, T6B 3P6  
PHONE 780-436-2152, FAX 780-435-8425



DWN BY: CMG  
CHK'D BY: AN  
DATUM: NAD 83  
PROJECTION: UTM Zone 12  
SCALE: 1:20,000

PROJECT:

**CAMROSE CANOLA CRUSHING PLANT  
E1/2 24-046-20-W4M**

TITLE:

**WATER AND WASTEWATER SERVICES PLAN**

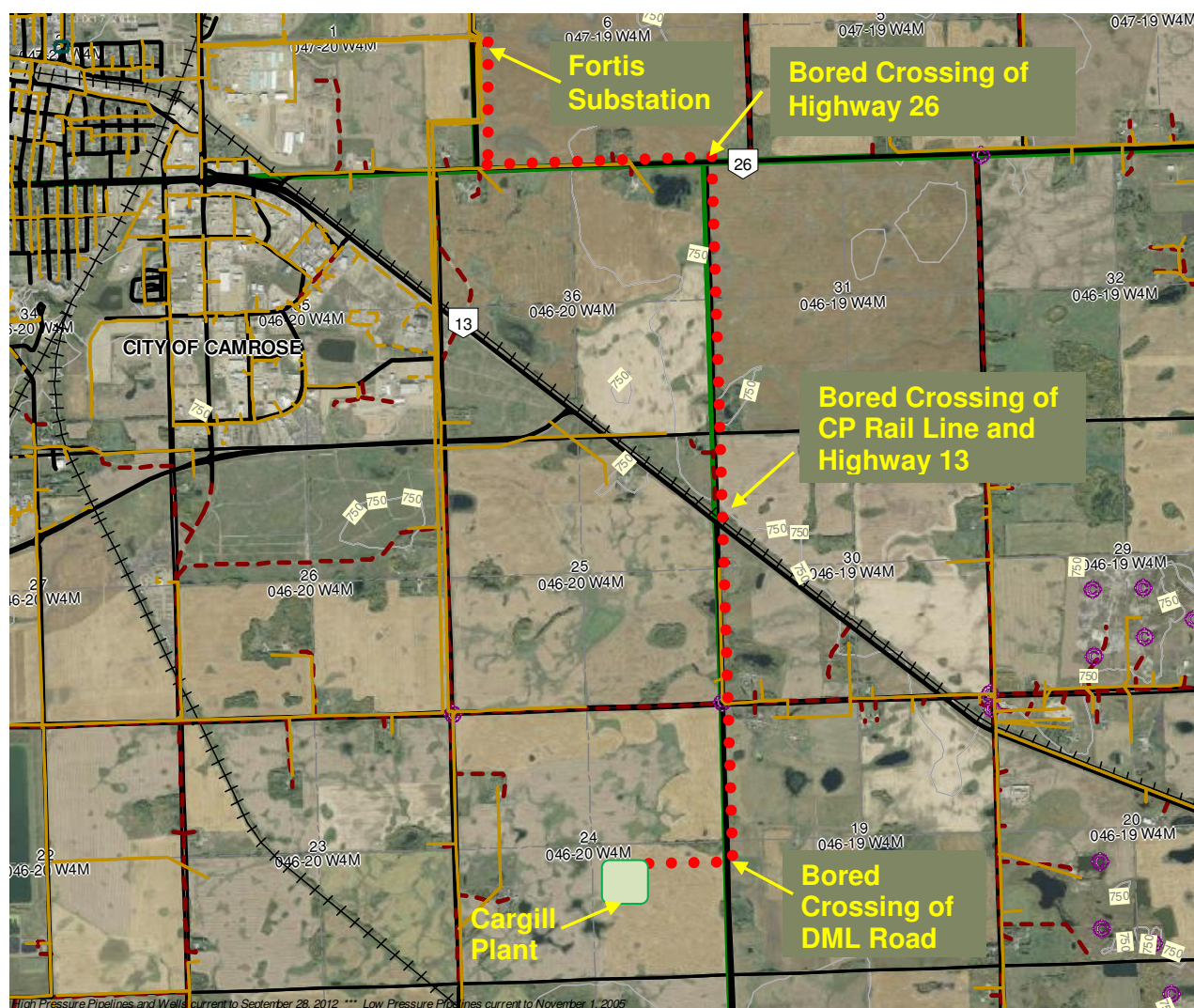
DATE:  
AUGUST, 2012

PROJECT No.:  
EE312051

REV. No.:  
A

FIGURE No.:  
FIGURE 9





- • • • Proposed Fortis Power Line – Preliminary Alignment
- Existing Fortis Power Line



**Preliminary Alignment  
Proposed Fortis Power Line  
For Cargill Plant in  
SE 24-046-2-W4**

**Cargill Limited**

Drawn: RJ

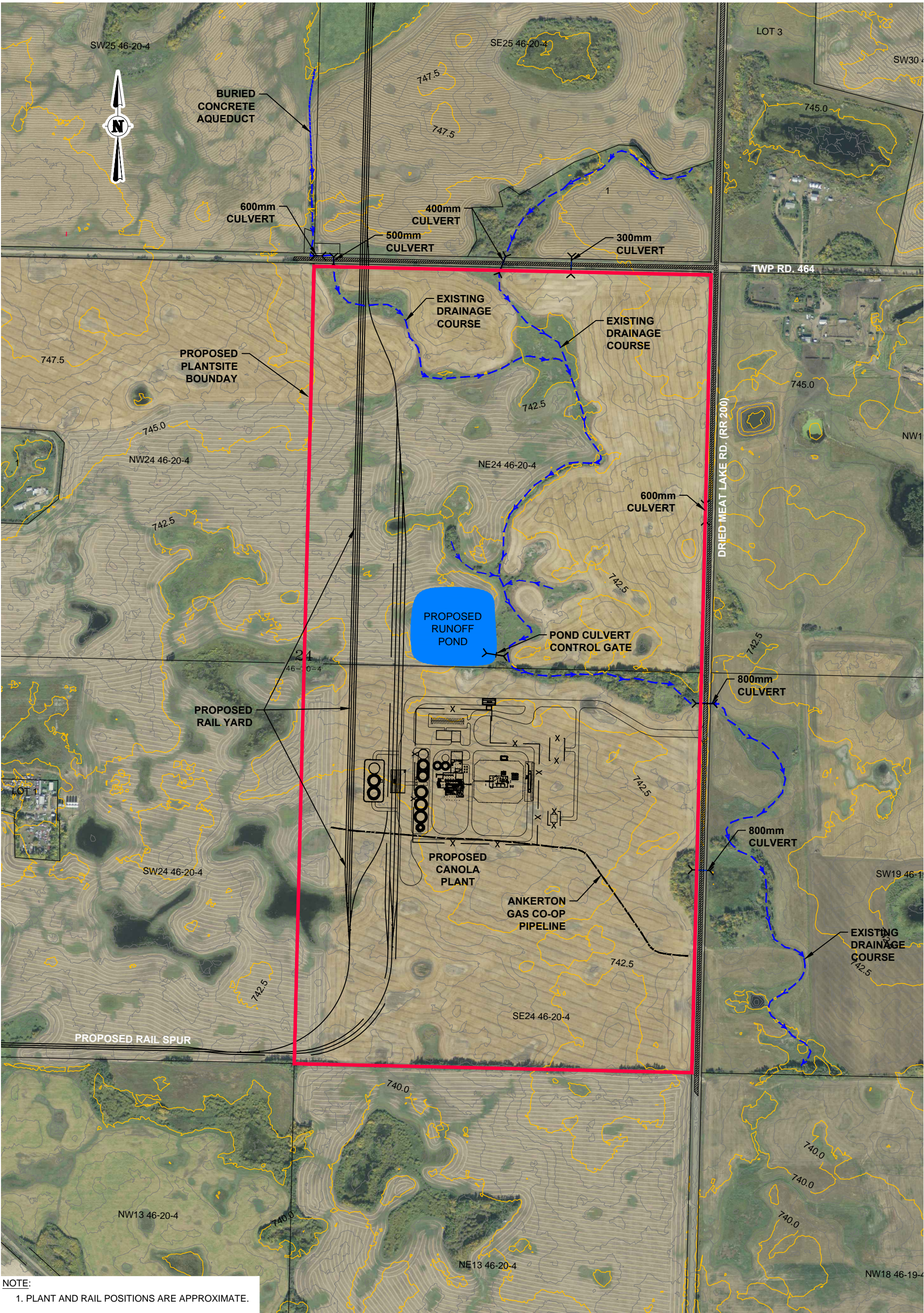
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Date: October 2012

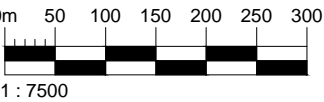
Project No.: EE31205.1

**Figure: 10**






NOTE:  
1. PLANT AND RAIL POSITIONS ARE APPROXIMATE.

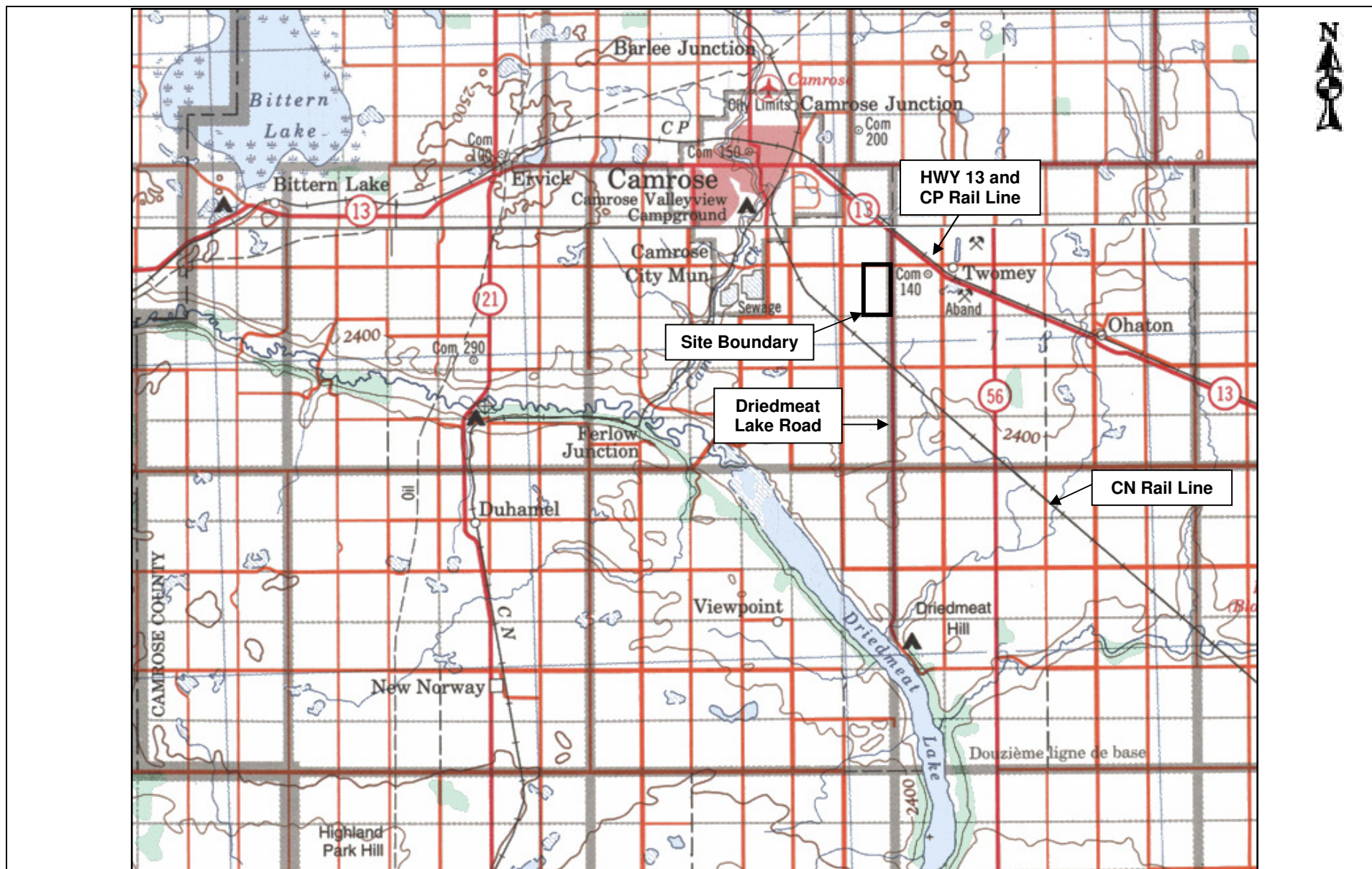



LEGEND:  
 PROPERTY BOUNDARY

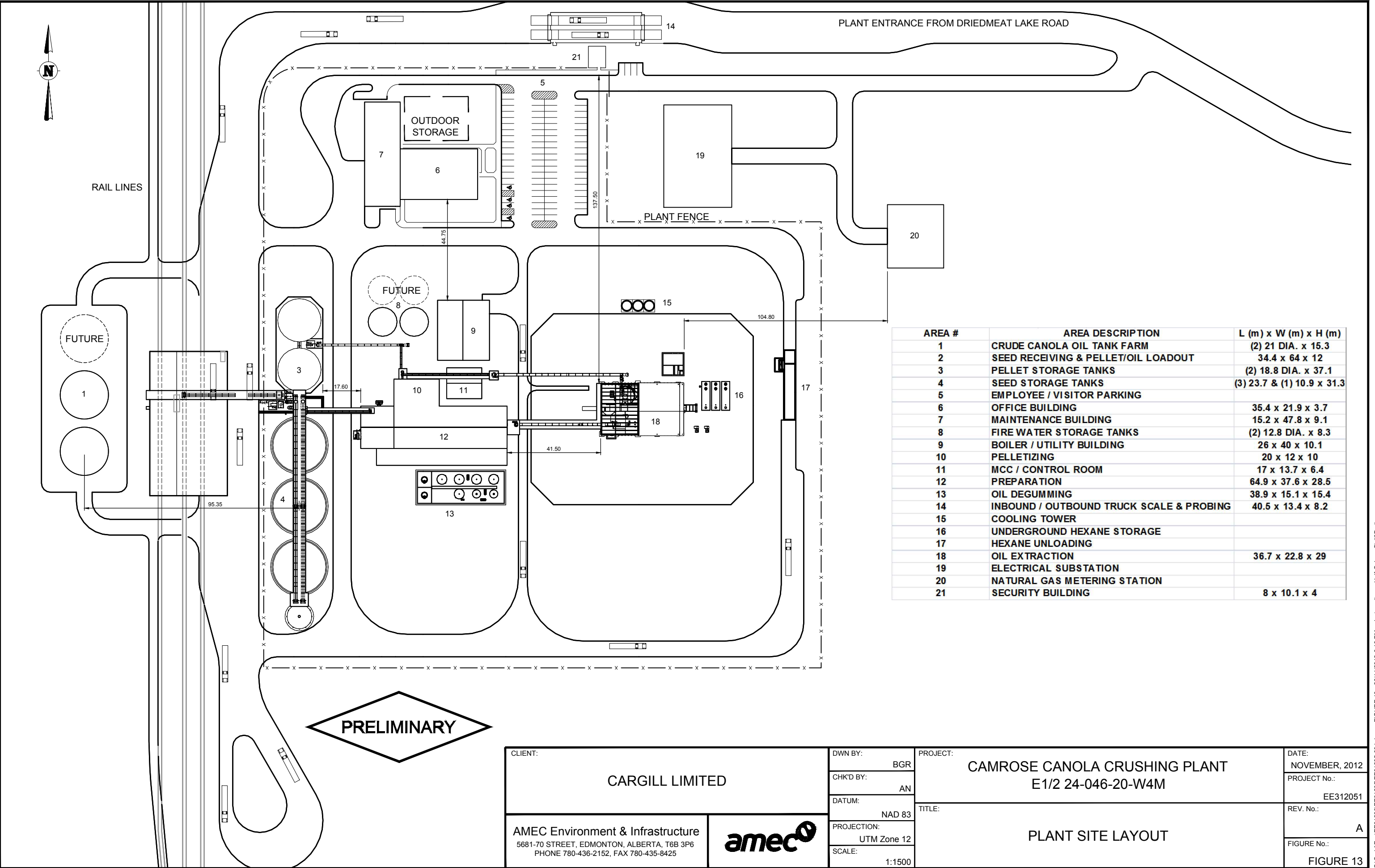
REFERENCES:  
1. VALTUS: NORTH WEST GEOMATICS 0.4 m PREMIUM COLOR ORTHO TWP 046 RGE 20 W4M, IMAGE DATE: 5 JULY TO 7 OCTOBER 2011.  
2. AIRBORNE IMAGING INC.: AUGUST 2009 LIDAR DATA, 0.30 m VERTICAL, 0.45 m HORIZONTAL RESOLUTION, PROJECT CAMROSE 1223

CLIENT:  <b>CARGILL LIMITED</b>	DWN BY: CMG CHK'D BY: KR DATUM: NAD 83 PROJECTION: UTM Zone 12 SCALE: 1:7500	PROJECT:  <b>CAMROSE CANOLA CRUSHING PLANT E1/2 24-046-20-W4M</b>	DATE: AUGUST, 2012
			PROJECT No.: EE312051
AMEC Environment & Infrastructure 5681-70 STREET, EDMONTON, ALBERTA, T6B 3P6 PHONE 780-436-2152, FAX 780-435-8425 		TITLE:  <b>CONCEPTUAL STORMWATER RUNOFF MANAGEMENT PLAN</b>	REV. No.: A
			FIGURE No.: FIGURE 11





	<p align="center"><b>NTS Map Showing Site Location</b>  <b>Proposed Cargill Canola Crushing Plant and Rail Yard</b>  <b>E ½ 24-046-20-W4M</b></p>		
<p align="center"><b>Cargill Limited</b></p>	<p>Date: September 2012  Scale: ~1:15,000</p>	<p>Project No.: EE31205.1</p>	<p align="center"><b>Figure: 12</b></p>



AREA #	AREA DESCRIPTION	L (m) x W (m) x H (m)
1	CRUDE CANOLA OIL TANK FARM	(2) 21 DIA. x 15.3
2	SEED RECEIVING & PELLET/OIL LOADOUT	34.4 x 64 x 12
3	PELLET STORAGE TANKS	(2) 18.8 DIA. x 37.1
4	SEED STORAGE TANKS	(3) 23.7 & (1) 10.9 x 31.3
5	EMPLOYEE / VISITOR PARKING	
6	OFFICE BUILDING	35.4 x 21.9 x 3.7
7	MAINTENANCE BUILDING	15.2 x 47.8 x 9.1
8	FIRE WATER STORAGE TANKS	(2) 12.8 DIA. x 8.3
9	BOILER / UTILITY BUILDING	26 x 40 x 10.1
10	PELLETIZING	20 x 12 x 10
11	MCC / CONTROL ROOM	17 x 13.7 x 6.4
12	PREPARATION	64.9 x 37.6 x 28.5
13	OIL DEGUMMING	38.9 x 15.1 x 15.4
14	INBOUND / OUTBOUND TRUCK SCALE & PROBING	40.5 x 13.4 x 8.2
15	COOLING TOWER	
16	UNDERGROUND HEXANE STORAGE	
17	HEXANE UNLOADING	
18	OIL EXTRACTION	36.7 x 22.8 x 29
19	ELECTRICAL SUBSTATION	
20	NATURAL GAS METERING STATION	
21	SECURITY BUILDING	8 x 10.1 x 4

PRELIMINARY

CLIENT:

CARGILL LIMITED

AMEC Environment & Infrastructure  
5681-70 STREET, EDMONTON, ALBERTA, T6B 3P6  
PHONE 780-436-2152, FAX 780-435-8425

DWN BY: BGR

CHK'D BY: AN

DATUM: NAD 83

PROJECTION: UTM Zone 12

SCALE: 1:1500

PROJECT:

CAMROSE CANOLA CRUSHING PLANT  
E1/2 24-046-20-W4M

TITLE:

PLANT SITE LAYOUT

DATE: NOVEMBER, 2012

PROJECT No.: EE312051

REV. No.: A

FIGURE No.: FIGURE 13

**FIGURE 14**

**“Removed via Bylaw 3178-21”**

**FIGURE 15**

**“Removed via Bylaw 3178-21”**