

Compaction Highway Trailer

Prepared For: Continuous Improvement Fund Project #413

Prepared By: City Of Kenora

March 2016

FINAL REPORT

COMPACTION HIGHWAY TRAILER

CONTINUOUS IMPROVEMENT FUND PROJECT #413

SUBMITTED BY

CITY OF KENORA

March, 2016

TABLE OF CONTENTS

Introduction	1
Project Background	3
Delivery of the trailer	5
Performance, Impact & Learning	6
Monitoring and reporting	9

Introduction

The City of Kenora is located in Northwestern Ontario and is remote from other major Ontario cities. The nearest city is Winnipeg, Manitoba which is 220 kms westerly. The population of the City of Kenora is 15,884 (2015). In the summer, the population increases significantly from tourism.

The City of Kenora provides weekly curbside garbage and recycling collection service. In addition to the collection service, the City has a public recycle depot located at the Waste Transfer Station which is open seven days a week. The City also has three remote depots for collection of recycling and garbage in rural areas. The public recycle depot at the Transfer Station is located within the urban area and is easy accessible and used frequently by the public.

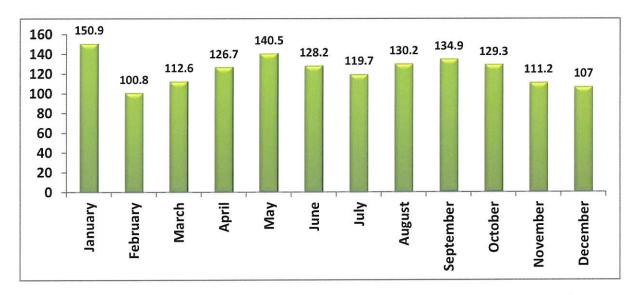


Public recycle depot at the transfer station



Typical recycling depot in a rural area

There is no materials recovery facility (MRF) in the City of Kenora to sort and process recyclable materials, so they must be transported. The nearest MRF is located in Winnipeg. Prior to 2013, the City of Kenora had one Highway truck and one compaction trailer to transport the recycle to the MRF in Winnipeg. In 2014, the city transported 1493 tonnes of recyclable materials. The monthly breakdown of the recycle collected at the transfer station in the City of Kenora is shown on the chart below



Monthly collection of recyclable materials in tonnes at the transfer station in 2014

The City of Dryden, with a population of 7,712, is located 140 kms east of Kenora. Dryden collects recycling from the community and also receives recycling from nearby towns. The City of Kenora has an agreement with the City of Dryden to haul Dryden's recyclable materials to the MRF facility in Winnipeg. Prior to receiving the third trailer, this meant that each City had one 53 foot compaction trailer to use for their recycle hauling. In 2014 the City of Kenora made 113 trips of Kenora recycle and 86 trips of Dryden recycle to the recycling facility in Winnipeg.



Tractor trailer used to transport recycle to Winnipeg

Project Background

For five years, the City of Kenora was running the recycle transportation operation for both cities with only 2 compaction trailers. During this time, it was realised that the transportation of recycle from both Cities is difficult with only two trailers. This problem is compounded during the peak (summer) season. Due to the volume of recyclable materials to be hauled, one of the trailers was always on the highway, which meant that one of the cities was without a trailer to load. In the case of a breakdown or when one of the trailers required maintenance or a safety check, either Dryden or Kenora went without a trailer for a week. In such a time, both Cities would face an issue with handling the buildup of recyclable waste due to inadequate storage space at their respective transfer facilities. This created unnecessary pressure on the waste transfer station staff and added to their workload.



Recycle building for comingle, paper and cardboard at the Kenora Transfer Station

To avoid a situation where excess recyclable materials would build up, the City of
Kenora paid overtime to its staff to complete the Dryden trip in one day. The trip to
Dryden for the City of Kenora staff took between 11.5 and 12 hours round trip, to return
an empty trailer for reloading after dropping their materials at the MRF. The City of
Kenora does not support driving such long hours due to health and safety concerns,
and the excess overtime became costly.

This situation made the City of Kenora determine that it would require an additional compaction trailer for its recycle operation. With this objective, the City of Kenora submitted an application for purchasing an additional compaction trailer through CIF. The application was approved with 50% funding through the CIF. CIF also requested the City of Kenora to extend the current recycle haulage agreement by another 5 years with the City of Dryden



Picture of the compaction trailer received in Kenora

Delivery of the Compaction Trailer

The initial proposal called for the City to purchase a new trailer complete, and modifications to our existing trailers to maximize our loads in to Manitoba. (Weight restrictions are different than Ontario's)

In conversations with CIF, used trailers of similar design were coming available with some changing programs in southern Ontario, it was agreed we would purchase one of the trailers and have it retro-fitted to mirror our two existing units in service while still carrying the original application amount of \$181,584.00. Modifications were also to be made at our Recycle Facility for a "Stationary back-up" hydraulic system to operate the trailers, as well as modifications in Dryden to improve operations overall.

According to Schedule C of the agreement with CIF, the compaction trailer was planned for delivery in July 2014. The City of Kenora received the reworked trailer on March 19, 2015. The onsite retrofitting work was completed by the end of April 2015 in Kenora and May 2015 in Dryden. Suspension modifications to the three trailers were completed

throughout the summer as trailers were available for modifications. With the addition of this trailer, the City now operates three compaction trailers and two truck tractors for the transportation of recyclable materials.



Repair and replacement of the existing hydraulic power pack at the recycle building

Performance, Impact and Learning

The City of Kenora has a full time long haul truck driver to transport the recycle to Winnipeg from Kenora and Dryden. Prior to receiving the third trailer, this truck driver worked 10 hour shifts (4 days a week). However, the trip to Dryden took between 11.5 and 12 hours, so the City was paying overtime each time the driver did a trip to Dryden (amounting to 86 times in 2014). Once the third trailer was received, the City was able to change the working shift of the long haul truck driver from 10 hour shifts to 8 hour shifts (5 days per week) and reduce the overtime required.

When the driver would haul the Kenora recycle load to Winnipeg, the City of Kenora did not have a trailer to use. The transfer station operators would have to wait for the return of the trailer to load that day's recycle. Most of the time, the trailer would return between 3:00-3:30pm (with the Transfer Station closing at 6pm). This meant that the transfer station staff did not have enough time to load recycle to make another load ready for the

next day. When this happened, the City would have to pay overtime to complete the recycle loading before the next day's trip.

With the addition of the third trailer, the recycle hauling operation has become economical, smooth and simple. The overtime has reduced significantly, and it is easy to schedule the recycle trips to Winnipeg. Dryden is also getting an empty trailer whenever they need one rather than having to wait and store their excess recyclable materials. When Dryden needs a trailer, the City of Kenora uses another operator (relief driver) and another truck to send them an empty trailer.

Before Receiving the Trailer		After Receiving the Trailer			
Months	Numbers of Trips with OT	OT Hours	Months	Numbers of Trips with OT	OT Hours
1. Overtime Costs			New trai	ler is in service in May 2015	
Jan-14	6	9	May-15	1	1.5
Feb-14	8	12	Jun-15	0	0
Mar-14	7	10.5	Jul-15	1	1.5
Apr-14	7	10.5	Aug-15	0	0
May-14	5	7.5	Sep-15	0	0
Jun-14	6	9	Oct-15	2	3
Jul-14	10	15	Nov-15	0	0
Aug-14	8	12	Dec-15	0	0
Sep-14	8	12	Jan-16	0	0
Oct-14	6	9	Feb-16	0	0
Nov-14	5	7.5	Mar-16	0	0
Dec-14	7	10.5			
T	02	124.5			6 hrs
Total	83	Hrs			01113
OT Hours Saved				118.5 hrs	
Of Hours Saved				110.5 1113	
OT Amount Saved				7,110.00	Annually
Of Amount Saveu				,,110.00	

Table: 1 Annual saving from the overtime after new trailer is in service

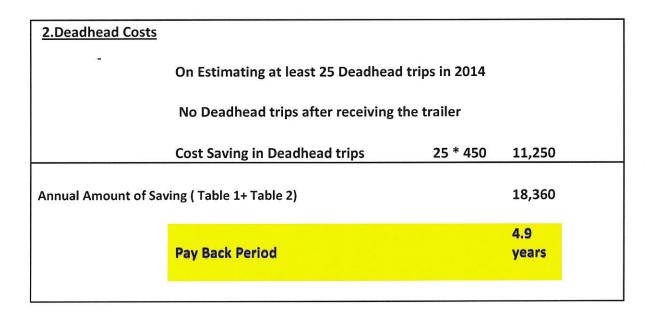


Table: 2 Annual Saving and Payback period

Table 1 and 2 shows the annual saving on the operation with the significant reduction of overtime and deadhead trips. With this saving the payback period of CIF funding is almost 5 years.

Currently on average the City is hauling 5 loads of recycle to Winnipeg a week. The table below shows the schedule of the recycle transportation to Winnipeg in a typical week. On Tuesday and Friday, the city uses two trucks and two trailers in order to reduce the overtime needed and keep the operation running smoothly.

Day	Date	Recycling Activities		
		Morning	Afternoon	
Monday	2-Nov	Haul Dryden Comingle	Load Kenora Comingle	
Tuesday	3-Nov	Haul Kenora Comingle	Drive to Dryden	
Wednesday	4-Nov	Haul Dryden Comingle	Load Kenora OCC	
Thursday	5-Nov	Haul Kenora OCC	Load Kenora Comingle	
Friday	6-Nov	Haul Kenora Comingle	Drive to Dryden	

Table: 3 weekly recycle transportation schedule for long haul staff

The addition of the 3rd trailer also means that the routine maintenance or regular servicing of one of the trailers when required can be accommodated by planning ahead and does not impact the recycle operation.

It is also observed that the self-compaction trailer increases the quantity of haulage waste materials per load which reduces the operation cost. The loading and unloading operation of the recycle materials into the self-compaction trailer is also simple.

It takes 3 hours to finish the loading of paper and comingle into the self-compaction trailer but the loading of cardboard takes almost 5 hours with the loader.

It is also learned that the transportation of recycle with two trailers is very difficult, complicated and uneconomical because two trailers are not enough to transport existing volume of the recycle materials from both cities.

With the addition of third trailer, the transportation operation becomes very simple and reliable. There was very minimal breakdown of the equipment.

The City of Kenora also has extended the current haulage agreement with the City of Dryden for the next 5 years as shown in the City of Kenora Council Resolution #29 (Copy Attached)

Monitoring and Reporting

One of the objectives of this project was to run the recycle operation in an economical and efficient manner. Overtime payments by the City of Kenora to its staff were one of the major issues. It is observed that the overtime has been reduced significantly after operating with three trailers and the recycle operation becomes very simple, smooth, reliable and economical.

According to the agreement between City of Kenora and CIF, the City of Kenora has to prepare a final report with project performance, impact and learning. It is also in the

agreement that the funding amount will be released after receiving the final report. The City Of Kenora has prepared this final report to CIF as per the agreement.

APPEXDIX 1

The Corporation of the City of Kenora Council Resolution

	К	ENORA		
19		4		
Resolution No.	Move	d by	m	***************************************
	Secon	nded by	Roy M2	
February 17, 2015		·~~~~~~	~~~~~~~~~	,~~~~~
That Council hereby a (5) year agreement be Dryden, effective Ja	etween the Corp	poration of the	City of Kenora ar	nd the City of
That effective January from the Corporation include all regularly so	of the City of	Dryden be \$1	,125.00 per trip,	plus HST to
That By-Law 180-201 between the Corporat Dryden, be hereby rep	ion of the City	of Kenora and	the execution the Corporation	of a contract of the City of
That three readings be	given to a by-l	law for this purp	oose.	
Defeated Carried O and full Mayor or A/Mayor				
Recorded Vote	AYE	NAY	Dec. of Interest	Absent
Councillor Goss				
Councillor McMillan				
Councillor Reynard				
Councillor Roussin				
Councillor Smith				
Councillor Wasacase				
Mayor Canfield				
DISTRIBUTION:				

The Corporation of the City of Kenora

By-Law Number 17 - 2015

A By-Law to Authorize the Execution of a Contract Between the Corporation of the City of Kenora and the Corporation of the City of Dryden

Whereas the Corporation of the City of Kenora deems it necessary to execute a Contract between The Corporation of the City of Kenora and the Corporation of the City of Dryden for the intent to enter into an agreement to supply haulage services to The City of Dryden and subject to the terms herein set out;

Now Therefore be it Resolved that:- the Council of the Corporation of the City of Kenora enacts as follows:

- That the Mayor and Clerk of the Corporation of the City of Kenora are hereby authorized to execute a Contract between The Corporation of the City of Kenora and the City of Dryden for a term of five (5) years from date of signing in accordance with the Terms and Conditions therein and affix the Seal of the Corporation thereto. The parties agree that it is their intent to negotiate an extension of this agreement at the end of the term for an additional term as agreed.
- That the attached agreement becomes and forms part of this by-law and the terms and conditions of this agreement binding.
- That this by-law shall come into force and be in effect from and after the final passing thereof.

By-Law Read A First & Second Time This 17th Day of February, 2015.

By-Law Read A Third & Final Time This 17th day of February, 2015.

The Corporation of the City of Kenora:-

w. JustMayo

David S. Canffeld

Heather Laieunesse

This Agreement is made as of the 17h day of February 2015,

Between:

The Corporation of the City of Kenora in the Province of Ontario. Hereinafter referred to as the "City"

and

The Corporation of the City of Dryden in the Province of Ontario. Hereinafter referred to as the "Customer"

Whereas the City intends to acquire and operate transport equipment designed for the haulage of Non-Hazardous Solid Waste/Recyclables, the City wishes to enter into an agreement to supply haulage services to The City of Dryden and subject to the terms herein set out;

Now Therefore, in consideration of the mutual promises, terms, conditions and covenants contained herein, the parties hereto, intending to be legally bound, do hereby agree as follows:

1.0 Definitions:

In this Agreement and any Schedules hereto, the following terms where capitalized will have the following meanings unless the context otherwise specifically provides:

- (a) "Agreement" shall mean this Agreement and any Schedules and amendments thereto;
- (b) MRF means the Municipal Recycling Facility located in Winnipeg, Manitoba where the recyclable materials are unloaded for further processing.
- (c) "Business Day" means 8:00 a.m. to 4:30 p.m. Monday through Friday excluding statutory holidays;
- (d) "Contracted recyclable material" means all recyclable material as listed for curbside collections as specified through Waste Diversion Ontario.
- (e) "Transfer Facility" means the City of Kenora Solid Waste Transfer Facility which is located at the intersection of Fourteenth Street North and Mellick Avenue (Barsky's Hill) in the City of Kenora, and/or the location of Dryden's Transfors on Highway 502 south of the City of Dryden.

2.0 Representations:

The City hereby represents and warrants unto the Customer that:

(a) It has completed all Corporate requirements necessary to enter into and

carry out its obligations under this Agreement and

(b) It is not a non-resident of Canada within the meaning of Section 116 of the Income Tax Act (Canada).

3.0 Solid Waste Haulage:

The City agrees to haul recyclables as the Customer requests, at such time as the Customer deems necessary, from the Customer's transfor location on Highway 502 and to deliver such material to the MRF and deliver an empty trailer as needed.

4.0 City's Obligations:

The City shall at its own expense:

- supply all labour, equipment and materials necessary to carry out its obligations hereunder, save and except for that labour, equipment and materials which this Agreement specifically provides are to be supplied by the Customer;
- (b) use only such equipment and material as meets with the approval of the Customer;
- exercise extreme caution on public and private roadways and on the Customer's property, and to comply with all federal, provincial and municipal laws, and the Customer's safety rules while carrying out its obligations under this Agreement;
- (d) designate a supervisor who shall be responsible for overseeing the operations of the City's employees in carrying out this Agreement and to provide the Customer with a name, location and telephone number;
- (e) submit, on a form approved by the Customer, regular reports showing particulars of the work performed by the City to a designated Customer representative who shall, if satisfied that the report accurately sets out the work performed by the City, approve and sign the report;
- (f) at all times enforce discipline and good order among its employees and not to employ any incompetent person or anyone not skilled in the work assigned to them.

5.0 Customer's Obligations:

The Customer agrees:

- (a) to provide adequate lighting at its Transfer Facility;
- (b) to provide a weigh scale at its Transfer Facility;

- to provide the necessary labour, equipment and facilities to load Solid Waste/Recyclables onto the Transport trailers;
- to load the trailers in such a manner as to minimize freezing of Contracted Solid Waste/Recyclables to the trailer body;
- to locate, load and close the trailers in such a manner as to ensure compliance of the highway traffic regulations in effect for the designated route as advised by the City
- to compensate the City for any damage to the equipment that occurs at the Transfer Facility or is caused by the actions of the Customer's employees or equipment, normal wear excluded;
- (g) to supply third party liability, fire, theft and vandalism insurance on the Customer's equipment and to include the City as a named insured on the liability coverage.

6.0 Term:

This agreement shall be for a term of five (5) years from January 1, 2015 to December 31, 2019. The Parties agree that it is their intent to negotiate an extension of this Agreement at the end of the term for an additional term as agreed.

7.0 Payment For Work:

The Customer shall, within 30 days of receipt of invoices prepared by the City, pay to the City such sum as is determined to be payable to the City pursuant to paragraph 8 hereof, less any amount which is owed by the City to the Customer.

8.0 Price:

The Customer agrees to pay for the services set out in this agreement at the following rate:

- (a) The cost for Recyclables hauled from the Transfer Station is \$1,125.00 per trip plus HST; this rate shall include all regularly scheduled maintenance costs for the equipment in service.
- (b) Haulage of materials, not usually hauled as part of this contract, shall be at such rates as are agreed upon from time to time by the parties;
- (c) The rate set out in Paragraph 8.0 (a) hereof is based on an allowable gross vehicle weight of 45,500 kilograms in effect as of August 1, 2010. In the event that the allowable weight is increased or decreased by an appropriate government body, the payload shall be altered, but the rate per load shall

remain the same:

- (d) The rate set out in Paragraph 8.0 (a) is based on supply of Recyclables from the Transfer Station of 75 trips per year. This volume will fluctuate from month to month and the City must alter their hauling schedule to meet these fluctuations. There will be no adjustment in the price per load for any such alteration unless such change in the opinion of the City significantly alters the City's costs;
- (f) The customer shall pay waiting time for truck and driver at the rate of \$40.00 per hour only in the event that the Customer has requested a pick up, and the trailer is not ready for pick up at the Transfer Station sixty (60) minutes after the request was made. No waiting time will be paid if the request for pick up is canceled prior to the truck leaving the City's yard in Kenora.
- (g) The customer will give notice of request for turnaround trips. Reloading of trailers will be carried out in a timely manner. There will be no waiting fees while a trailer is reloaded for a turnaround trip

9.0 Escalation:

The Customer agrees that the rates herein will be subject to annual escalation or reduction as follows:

- (a) The Parties agree that the rates provided for in this Agreement shall be adjusted on each anniversary of this agreement, the first such adjustment to take place 12 months from signing, and thereafter on each anniversary date during the term of the contract, as follows:
 - by the actual costs of operation of the equipment based on the ratio of actual use by the City versus that of the Customer.
 - by a factor of 100% of the percentage change in the Kenora price of diesel fuel during the previous 12 months, as ascertained by the City;

10.0 Protection of Life Property and Public Utilities:

The City is responsible for taking appropriate safety precautions in carrying out its obligations under this Agreement. The City shall protect all property from damage or losses resulting from the performance of this Agreement and shall minimize the disturbance and inconvenience to the public. In the case of any emergency arising during the performance of this Agreement affecting or threatening the Customer's facilities, or safety of life, or adjoining or other property, the Customer may, unless directed to the contrary by emergency authorities, at their discretion, take such steps as deemed proper to prevent or lessen any such effect or threat, provided, however, that in case of such emergency, the Customer shall forthwith notify the City of any action taken.

11.0 Insurance:

- (a) The City shall maintain such insurance, or pay such assessments, as will protect them and the Customer from all claims:
 - (i) under the Workers Compensation Act;
 - (ii) for damages for personal injury including death; and
 - (iii) for property damage;

which may arise as a consequence of City performance or non-performance of obligations under this Agreement;

(b) Certificates of such insurance shall be furnished to the Customer and shall be subject to its approval as to the adequacy of protection. Such insurance shall be maintained until the Customer certifies that performance of this Agreement is complete.

12.0 Permits, Licences:

The City, its agents and assigns shall obtain, pay for and maintain all permits and licences, whether of a permanent or temporary nature, necessary for it to carry out its obligations hereunder and to operate and do business in any province, municipality or other jurisdiction in which the parties carry out any part of this Agreement.

13.0 Assignment or Sub-Contract:

It is agreed that this Agreement and the rights and obligations of the City may not be assigned or subcontracted without the express written consent of the Parties, which consent will not be unreasonably withheld. The Parties agree that this contract may be assigned to an operator authorized under the terms of any Extended Producer Responsibility (EPR) legislation or regulations imposed by the Province of Ontario.

14.0 Liens:

The City undertakes and agrees to take all necessary and proper steps to ensure that no claims for liens will be filed against the property of the Customer. If, notwithstanding the foregoing undertaking, any claim for a lien shall be filed, and so often as the same shall happen, the City agrees that they will, at their own expense, within ten (10) days of the City receiving notice of the filing thereof, cause the same to be canceled and removed. The City further agrees to indemnify the Customer against all loss, costs, charges and expenses occasioned by, resulting from or in any way arising out of such claims.

15.0 Arbitration or Mediation:

All matters in dispute under this Agreement that are not resolved in a timely fashion shall be referred to mediation, or failing resolution at mediation, to arbitration by a single arbitrator, if the Parties agree upon one, otherwise to an arbitrator appointed by the Superior Court of Justice of Ontario, pursuant to the Arbitration Act of Ontario.

16.0 Termination:

This Agreement may be terminated by the City or the Customer in the event of a material change in circumstances on six (6) months notice.

17.0 Default:

In the event that the City is in default of its obligation under this Agreement, the Customer may correct the default and charge the reasonable cost to the City.

In the event that either party is in default of its obligations hereunder, and such default continues after thirty (30) days written notice, or in the event that either party becomes insolvent or bankrupt, then the other party may forthwith terminate this contract.

18.0 Performance Bond:

The City shall not be required to supply the Customer with an irrevocable letter of credit or other performance bond.

19.0 Notice:

Any notice, direction or other instrument required or permitted to be given to the City hereunder shall be in writing and may be given by mailing same, postage pre-paid, or delivering same to the City at 1 Main Street, Kenora, Ontario P9N 3X2. Any notice, direction or other instrument required or permitted to be given to the Customer hereunder shall be in writing and may be given by mailing same, postage pre-paid, or delivering same to the City of Dryden at 30 Van Horne Avenue, Dryden, ON P8N 2A7.

20.0 Force Majeure:

If either party shall be prevented from performing any of its obligations hereunder, except for any obligations to pay money, by reason of fires, power shortages, strikes, walk-outs, in ability to obtain suitable machinery, labour or supplies, wars, riots, acts of God or the Queen's enemies, including but not limited to acts of any surface rights' owner, any groups asserting aboriginal rights or any environmental agencies or pressure groups, litigation, legislative enactments, Orders-in-Council by any legislative or regulative authority (provincial or federal), orders or by-laws by any municipal authority (not including the City) having proper jurisdiction or any other

cause or causes (whether or not of the same class or kind as those enumerated above) beyond the reasonable control of such Party, except lack of finances, then in every such event, any such failure or on the part of such Party to so perform shall not be deemed a breach of this Agreement and the time within which that Party is obligated to perform such obligations shall be extended by the total period that is so prevented, or in case of permanent prevention the contract will be terminated.

21.0 City to Assume Custody of Contracted Solid Waste:

The City shall assume custody and control of the contracted recyclable material once it has been loaded into the haulage equipment and leaves the property of the Transfer Facility. Drop off fees and or payment for the delivered product remains the responsibility of Dryden.

22.0 Waiver:

No provision of this Agreement will be deemed to be waived, and no breach excused, unless such waiver or consent excusing the breach is in writing and signed by the party to be charged with such waiver or consent. A waiver of any provision of this Agreement or of any breach of any provision is not deemed or construed to be a waiver of any provision of this Agreement or of any other breach, whether of the same or of any other provision, nor shall any delay or omission on the part of any party to this Agreement to exercise or avail itself of any right it has or may have under this Agreement, operate as a waiver or any such breach or right, nor will any waiver or failure to enforce any of the provisions of this Agreement in any way affect the validity of the Agreement of any part of it.

23.0 Time of the Essence:

Time shall be of the essence hereof.

24.0 Schedule

Schedules to this Agreement may be added by the Parties from time to time as required.

25.0 Entire Agreement:

This Agreement supersedes all prior negotiations and agreements including, without limitation, any previous agreement, with respect to the haulage of Recycle material and contains the entire understanding between the Parties.

26.0 Governing Law, Currency Headings and Interpretations

(a) This Agreement shall be construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein;

- (b) All sums of money referred to herein are expressed in Canadian currency;
- (c) Headings appearing in this Agreement are for general information and reference only and this Agreement shall not be construed by reference to such headings;
- (d) Materials or work described in words which, so applied, have a well known technical or trade meaning shall be held to refer to such recognized standards;
- (e) In interpreting this Agreement, where the context so requires, the singular shall include the plural and the masculine and the feminine shall include the neuter and vice-versa.

In Witness Whereof the City and the Customer have signed this Agreement by their duly authorized officers as of the day and year first above mentioned.

Date: Jebniary 17,201	THE CORPORATION OF THE CITY OF KENORA Per: D.S. Canfield, Mayoor
	Per: A. Layeunesse Clerk Heather Lajeunesse
	Deputy Clerk THE CORPORATION OF THE CITY OF DRYDEN
	Per: Mayor
Date:	Per: Dulia La Lanca Clerk