## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

This Level 1 RSMP applies to: a facility with a total propane storage capacity of 5,000 USWG or less; or a facility with a fixed propane storage capacity of exactly 5,000 USWG and no more than 500

	U	SWG of portable propane storage	capacity on site	The second secon
	Failure to fully complete this for Making a false statement may res under the <i>Technical Stand</i>	ult in a fine or prosecution		
icence Number	New Application			
✓ Cylind		Filling Plant Card/Keylo	ck	
Submit along with the	s completed application a Facility Site F	Plan and a Map of the Surrounding Area.		
	SE	CTION A: GENERAL IN	FORMATION	
Propane Store	ige and Handling Regulati	review for an RSMP under on.	Ontario's Technical S	tandards and Safety Act,
A Costco Who				Corporation No.
	lesale Canada Limited e (if different from above)			1924764
Telephone No.	Fax No.	E-mail		
1-800-463-3		andy.mcdonald@costco.com		
Street No. 45940	Street Name / 911 Number / Horseshoe Drive, Suite 1			
1	Township / County		Province	Postal Code
Sterling	- 12 mg		VA, USA	20166
Street No.	Street Name / 911 Number / West Hunt Club Road	Address, if applicable		
Ottawa	Fownship / County		Province	Postal Code K2E 1C5
Street No.	n Container Refill Centre or Fi  collity.  Street Name / 911 Number /  South Service Road  Township / County	and any Contraction ()	Nearest Major Intersection Fifty Road and South Se	
City of Hamil	ton (Stoney Creek)		ON	TBD
Name of a Sen Robert Moyer	, Manager of Propane Operations, for Management person as defined in to r, Manager of Propane Operations r municipalities if the facility or its haza on	on behalf of Costco Wholesale Cana he regulation holding the Record of Traini and distance touches multiple borders)		ROT type 100-08
This docume	Declaration: I am aware t	e renewal date. You are required that it is an offence to give false hat the information I have given	information in this docu	ment and
	Printname	nat the information i have given	Signature	Date (dd-mmm-yyyy)
	lder Robert Moyer on behalf of Co	estro Wholesale Canada Limited	R. J. M	15-06-2017

Name of Senior Management person as defined in the Regulation holding the Record of Training Robert Moyer



### Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION A: GENERAL INFORMATION (cont'd)

ndicate the year the 2017	e facility was established	None	of any significant mod	lifications, as defined in s.1, O.Reg 211/01, since establishment.
dentify the psig rati	ng and serial number fo	each fixed propane st	orage tank on site.	
0.50	PSIG	Serial N		
Tank 1: 250	PSIG		er not yet available	
Tank2:		- new construction	1	
Tank3:				
nter capacity of pr	opane in USWG, fixed,	portable, and mobile, a	nd provide detailed i	nventory that includes the number of tank/vessel for
ach type (fixed, po	rtable, and mobile) and	the capacity of each ta	ink/vessel, on a sepa	arate document.
Fixed: 19	999 USWG	Portable: 72 - 201	b Cylinders	Mobile:

Name of person completing this form (please print)	Official Title	
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager	
Signature /	Telephone No. 416-229-2636 x238	Date (dd-mmm-yyyy) 15-06-2017



## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

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### SECTION A: GENERAL INFORMATION (cont'd)

Activity Information

Name of Propane Supplier(s)			Fo	For Office Use - Party No.	
Superior General Partner	o/a Superior Propane				
Street No. Street	t Name / 911 Number / Ad	dress, if applicable		CONTRACTOR DESCRIPTION CO.	
6750 Centur	y Avenue, Suite 400				
Town / City or Township City of Mississauga	o / Country		Province ON	Postal Code	
Telephone No.	Fax No.	Contact Name			
(705) 738-7033	613-822-5221	Ron Taylor - Field Operat	ons Manager		
E-mail		=94			
TaylorR@SuperiorPropand	e.com				
Name of Propane Trans	sporter. If same as abo	eve, please check box.	Fo	r Office Use - Party No.	
Superior Propane			in the second		
	t Name / 911 Number / Ad nal Road 12	ddress, if applicable			
Town / City or Township Smithville	/ Country		Province ON	Postal Code L0R 2A0	
Telephone No. (905) 979-1129	Fax No.	Contact Name Mac Sutherland			
E-mail SutherlandM@superiorpro	ppane.com				
Off-site Cylinder and/o	r Mobile Storage	, Capacity s	tored off-site, in USWG	r Office Use - Party No.	
Street No. Street	Name / 911 Number / Ad	dress, if applicable			
Town / City or Township	/ Country		Province	Postal Code	
Telephone No.	Fax No.	Contact Name			

Name of person completing this form (please print)  J+B Engineering Inc. (c/o: Fereshte Joghataei)	Official Title Project Manager		
Signature Kerman	Telephone No. 416-229-2636 x238	Date (dd-mmm-yyyy) 15-06-2017	



Level 1 Risk and Safety Management Plan (RSMP)

Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN

The licence holder will complete Section B in consultation with the local Fire Services.

Description of the maximum volume, types and storage location of other hazardous materials on site, if any.

A Costco fuel facility is located to the west of the propane facility. A maximum of 300,000 L of gasoline would be on-site, stored in underground tanks below

the Gas Bar. An MSDS for regular gasoline is provided herein (the MSDS for premium gasoline is similar), Approximately 1000 gallons of motor oil (4 drums

@ 250 gallons each) will be stored in the oil room within the Tire Centre. A 2,900L underground tank for storing waste oil from the tire centre is located in a landscape island east of the facility.

Description of fire and emergency equipment indicated on facility site map.

- 1. Fire extinguisher are located at: a) the inside pillar of the canopy by the propane filling station; b) inside the Tire Centre; and, c) inside the tire sales
- 2. Emergency stop push buttons are located at: a) on the propane filling station pedestal; b) on the wall of the tire centre opposite the facility; and, c) inside the tire centre. The emergency stop push buttons will shut down the pump and close a solenoid valve upstream of the hoses.

List of fire protection controls (e.g., fire detection systems, fire notification systems, alarm systems, automatic shut off devices, fusible links, etc.) and describe their function, use and operation.

- 1. ISC Flow Valve: Closed by fusible link melting in fire scenario, or by closing door of pump enclosure. This will stop the flow from the tank.
- 2. System contains 3 leak detectors (2 scale units; 1 pump enclosure) which trigger system shutdown @ 40% LEL (cuts all power except 24 VDC)
- 3. E-stops: 1 propane pedestal, 1- on wall outside tire centre, 1 inside tire centre. The E-Stops cuts all except 24 DC; will shut down pump and closes the solenoid valves to stop flow. 4. Leak Detection System triggers an audible alarm 5. A Fire Sprinkler system has been installed inside the warehouse.

Maintenance and testing schedule for fire protection controls and devices.

The Fire Extinguishers will be replaced as per manufacturer's recommendations. The gas detection/auto-shutdown/auto alarm system will be maintained and tested every 6 months by a certified service technician. All other equipment - e.g. pumps, valves etc. will be maintained/tested by Superior Propane according to the requirements in the Superior Propane Maintenance Standard. According to this Standard, ISC valves will be tested every 6 months; pumps will be maintained every 3 months. Fusible links will be inspected every 6 months. Extinguisher will be maintained, inspected and tested per NFPA 10.

Name of person completing this form (please print)	Official Title		
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager		
Signature /	Telephone No.	Date (dd-mmm-yyyy)	
te	416-229-2636 x238	15-06-2017	



## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN (cont'd)

1. Contacts for Emergency Response

1. Facility Contact Personnel - I	Key Contact	5. Facility 24-Hour Contact Pe		
Name Robert Moyer	For Office Use - Party No.	Name Andy McDonald	For Office Use - Party No.	
Official Title Manager of Propane Operations		Official Title Assistant Director, Operations, Tire	e Centre - Canada	
Telephone No. (703) 626-8398	Fax No.	Cell No. (613) 221-6113	Fax No. N/A	
E-mail		E-mail		
robert.moyer@costco.com	unau.	andy.mcdonald@costco.com	2000	
Role and responsibilities in emerge Identify the person(s) authorized to sand include persons authorized to ta	set emergency procedures in motion	Role and responsibilities in emerging lidentify the person(s) authorized to include persons authorized to take	set emergency procedures in motion and	
2. Facility Contact Personnel -	Alternate Contact	6. Name of Facility Manager		
Name Andy McDonald	For Office Use - Party No.	Name Andy McDonald	For Office Use - Party No.	
Official Title Assistant Director, Operations, Tire	Centre - Canada	Official Title Assistant Director, Operations, Tire	Contro Conodo	
Telephone No.	Fax No.	Telephone No.	Fax No.	
(613) 221-6113	N/A	(613) 221-6113	N/A	
E-mail andy.mcdonald@costco.com		E-mail andy.mcdonald@costco.com		
Role and responsibilities in emerge		Role and responsibilities in emergency		
Identify the person(s) authorized to set emergency procedures in motion and include persons authorized to take charge of the premises.		Identify the person(s) authorized to set emergency procedures in motion and include persons authorized to take charge of the premises.		
3. Local Fire Services - Key Cor	ntact	7. Propane Supplier Key Conta	ct Person	
Name Dave Cunliffe	For Office Use - Party No.	Name Shaun Mounsteven	For Office Use - Party No.	
Official Title Fire Chief	E-mail david.cunliffe@hamilton.ca	Official Title Market Manager	E-mail shaun mounsteven@superiorpropane.c	
Telephone No.	Fax No.	Telephone No.	Fax No.	
905-546-2424 x3346	905-546-3344	(613) 920-1339	N/A	
Role and responsibilities in emerge Coordinate/advise on Fire Service resp	ncy onse and serve as liaison with Police	The role of the key contact is to mana procedures appropriate to the type of	gency ge the situation by putting in place specific emergency.	
Fire Services Address		Propane Supplier Address		
2141 Major Mackenzie Drive, Vaughan		6750 Century Avenue, Suite 400, M	Aississauga, Ontario, L5N 2V8	
4. Local Fire Services - Alternate		8. Municipal Contact		
Name Randy Moss	For Office Use - Party No.	Name Rose Caterini	For Office Use - Party No.	
Official Title Deputy Chief	E-mail randy.moss@hamilton.ca	Official Title City Clerk		
Telephone No. 905-546-2424 x3376	Fax No. 905-546-3344	Telephone No. 905-546-2489	Fax No. 905-546-2095	
Role and responsibilities in emerge Assist with coordination of Fire Service	ncy response and serve as liaison with Police	E-mail clerk@hamilton.ca		
Fire Services Address		Municipality Name and Address		
1227 Stone Church Road East, Ham	ilton, ON	City of Hamilton, 71 Main Street West	t, 1st Floor, Hamilton, ON L8P 4Y5	

Name of person completing this form (please print)	Official Title		
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager		
Signature /	Telephone No.	Date (dd-mmm-yyyy)	
f e-	416-229-2636 x238	15-06-2017	

## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN (cont'd)

2. Additional Safety Measures

Describe any other measures in place at the facility that exceed the minimum Code and Standards requirements.  1. The Controller uses an employee access card to activate dispenser. The propane dispenser will not operate if employee's training has expired.
2. The facility has three (3) Emergency Shut Off Push Buttons to shut down thepump and close the solenoid valve upstream of dispensing hoses: one at
the facility pedestal, one on the wall of the tire centre opposite the facility, and one inside the tire centre.
3. Gas detections systems (3 monitors) with visible and audible alarm
4. Dispenser automatic shutoff at 80% preventing overfill situations
5. Redundant overfill protection checks - weight and volume
6. Tank level monitoring: detection when product is being removed
7. Tank capacity has remote access reading - available to Fire Dept in case of an emergency
8. Data logging - each entry is logged and associated to an employee
9. The proposed Costco warehouse will incorporate wall-mounted, down-cast lighting along all frontages and mast lighting will be provided in the
parking areas including the propane facility area.

Name of person completing this form (please print)	Official Title	
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager	
Signature /	Telephone No.	Date (dd-mmm-yyyy)
ter	416-229-2636 x238	15-06-2017

## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN (cont'd)

3. Record of Emergency Training Provided - For most recent 12-month period.

Training on Emergency Res	sponse Plan and Procedures provided to facility key contacts.
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:
Training on the facility's Em	ergency Management Procedures provided to staff.
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:
On-site specific training pro	vided to certificate holders / persons with Records of Training.
Training Date (dd-mmm-yyyy)	Print Name of Training Provider: FSN
11-May-2016	Print Name of Instructor: Dave Kennedy 905-649-7670
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:
Training Date (dd-mmm-yyyy)	Print Name of Training Provider:
	Print Name of Instructor:

Name of person completing this form (please print)	Official Title	
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager	
Signature	Telephone No.	Date (dd-mmm-yyyy)
ten	416-229-2636 x238	15-06-2017

## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN (cont'd)

4. Emergency Training Plan for Coming Year

Training on Emergency Re	sponse Plan and Procedures provided to facility key contacts.	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider: New Facility. Training date TBD	
	Print Name of Instructor:	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider:	
	Print Name of Instructor:	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider:	
	Print Name of Instructor:	
Training on the facility's Em	nergency Management Procedures provided to staff.	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider: New Facility. Training date TBD	
	Print Name of Instructor:	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider:	
_	Print Name of Instructor:	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider:	
	Print Name of Instructor:	
On-site specific training pro	ovided to certificate holders / persons with Records of Training.	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider: New Facility. Training date TBD	
	Print Name of Instructor:	
Target Date (dd-mmm-yyyy) Print Name of Training Provider:		
	Print Name of Instructor:	
Target Date (dd-mmm-yyyy)	Print Name of Training Provider:	
	Print Name of Instructor:	

Name of person completing this form (please print)	Official Title	
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager	
Signature Le	Telephone No. 416-229-2636 x238	Date (dd-mmm-yyyy) 15-06-2017



## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN (cont'd)

The licence holder will complete Section B in consultation with the local Fire Services.

5. Emergency Response Communications Plan

Warn	inge	and	Act	ione
waiii	IIIUS	anu	MUL	IUIIS

Describe who gives warnings to whom, and how and when the warning will be given (including public notification as appropriate). The Key Contact/operator or alternate (both ROT staff) will contact emergency services by calling 911 and will provide warnings as outlined in the attached Propane Emergency Response Procedures (to be posted at site and will be part of employee training). If it is safe to do so, this could involve advising neighbours to evacuate. The Key Contact will also contact Superior Propane via the emergency number provided in the ERP.

Describe what action is to be taken and by whom when a warning is issued (including details of a meeting place in a safe identified area and activating the evacuation plan, if necessary).

The Key Contact/operator or alternate will follow the actions listed in the ERP's provided. If the release of propane cannot be stopped by cutting electrical power, staged evacuation may be required. The initial muster location will be determined by the Warehouse Safety Plan, which will be away from the site and a possible dispersing propane cloud. Subsequent evacuation instructions potentially up to the Hazard Distance to be provided by municipal emergency responders. Residences and businesses beyond the site boundary will be notified by municipal emergency responders.

### **Communication with Emergency Response Authorities**

Describe when and how the licence holder will give early warning to emergency response authorities (including a process to ensure that a call is placed to 911).

When the system is operation, site staff will be on duty within the propane tank area. The Key Contact or alternate will be implementing emergency response actions and notifications, includign notifying emergency responders. 911 will be called immediately after any attempts to shut down the system. When the system is not in operation, the ISC valve (main isolation valve) is closed and the system is shutdown.

Describe provisions for fire department entry when there are no operations or staffing at the propane site.

The propane tank system is located in a wide, open area that is easily accessible from Vince Mazza Way and South Service Road. The access routes for emergency responders (e.g. Fire Trucks and Ambulances etc.) are identified in the Site Plan submitted as part of this TSSA application.

Describe how the licence holder will ensure continual flow of updated information to authorities.

The license holder will provide critical information on how to shut down the system. This information will be provided either verbally (if on-site) or via cellular phone. Further, if known, the fill level of the tank will be provided to authorities. ill level information is relevant from a time-to-BLEVE perspective, as a near empty tank will BLEVE sooner than a full tank, if there is a fire impingement on the tank. Costco can provide authorities with an on-line link to the tank fill level

How long will it take the facility liaison person to respond to the site.

It would take Andy McDonald, or the authorized alternate contact approximately 60 minutes to arrive on site after having received the emergency call.

Name of person completing this form (please print)	Official Title	
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager	
Signature	Telephone No.	Date (dd-mmm-yyyy)
Fe	416-229-2636 x238	15-06-2017



Level 1 Risk and Safety Management Plan (RSMP)

Technical Standards and Safety Act

Propane Storage and Handling Regulation

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### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN (cont'd)

The licence holder will complete Section B in consultation with the local Fire Services.
6. Building and Site Security and Procedures

1351			The second second		
		Yes	No		
1.	Does the propane location have controlled access to limit unnecessary risk and entry (lock out procedures)?	<b>✓</b>			
2.	Is there adequate night lighting at the site?	1			
3.	Are procedures in place that ensure access routes, aisles, storage area, filling areas and the grounds are kept clear from unwanted materials?	<b>✓</b>			
4.	Are there procedures that capture and record the daily inspection of hoses and inspection requirements for filling systems and mechanical devices used in the transfer of propane?	<b>√</b>			
5.	Does the facility have procedures that include a process to isolate and purge any overfilled propane cylinders? (note: isolation, not purging)	<b>✓</b>			
6.	Are weighing systems validated for accuracy?	<b>✓</b>			
7.	Are storage areas clearly marked with the vessels' capacity status (i.e., filled, empty, purged and other hazardous materials)?	<b>√</b>			
8.	Are quality assurance procedures in place to ensure that all valves are closed after the propane cylinders are filled?(e.g., QCC valves)	1			
9.	Is the schedule of maintenance and testing activities retained on site?	<b>✓</b>			
	7. Water Supply				
	propane licence holder should work with the local fire department to determine water ply capabilities that are available based on the propane facility's location.	Yes	No		
1.	Is a pressurized water system available at the propane facility site?	1			
2.	Can the municipal fire department pump 375 GPM (1420 LPM) of water at this location?	<b>√</b>			
3.	What is the unobstructed distance to the closest water supply that could be used for firefighting activities? (distance in metres only)	18.3m			
4.	What is the unobstructed distance to the closest approved water supply with year round access if there are no hydrants? (distance in metres only)	N/A			

Name of person completing this form (please print)	Official Title		
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager		
Signature Le	Telephone No. 416-229-2636 x238	Date (dd-mmm-yyyy) 15-06-2017	

## Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION B: EMERGENCY AND PREPAREDNESS RESPONSE PLAN (cont'd)

The licence holder will complete Section Bin consultation with the local Fire Services.

8. Licence holder and local Fire Services Review

8. Licence holder and it	ocal Fire Services Review		
To be completed by the Local Fire Services Has the local fire service had an opportunity to review the Emergency F	lesponse and Preparedness Plan?	Yes	No
If not, please explain (e.g., no fire services).			
Fire services comments, if any:  1) Propane Safety Plan to be included in warehouse fire safety plan as an appearance.	CONTRACTOR OF CO		
and ISC valve control handle; 4) Has any canvassing been made to nearby res			
demonstrating the safety features, operating procedures, and emergency procedures	edures in the event of an incident. This con	dition to be	satisfied before opening.
To be completed by the Licence Holder In response to the above comments, the following action(s) is required:  1) Provide fire and propane safety plan and site orientation before opening; 2) will advise if further action is required by Costco; 3)Fire Dept contacts to be upon the safety plan and site orientation before opening; 2) will advise if further action is required by Costco; 3)Fire Dept contacts to be upon the safety plan and site orientation before opening; 2) and site or safety plan and site orientation before opening; 2) and 3) are site orientations of the site of the site of the site of the site orientation before opening; 2) and 3) are site orientations of the site of the s		Statement Learning	
confirmed (3 switches and ISC valve control handle).	20 MAD 2017		
The licence holder will respond to the Local Fire Services comments		mm-yyyy)	
LOCAL FIRI	ESERVICES		
The undersigned has reviewed Section B of the Risk and Safety M	anagement Plan Fire Services.		
Print name	Signature		Date (dd-mmm-yyyy)
Local Fire Services Name Robert J. Simpson	#Ange	r	lay 24/17

Name of person completing this form (please print) J+B Engineering Inc. (c/o: Fereshte Joghataei)	Official Title Project Manager	
Signature	Telephone No. 416-229-2636 x238	Date (dd-mmm-yyyy) 15_06_2017



### Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION C: SUBMISSIONS

Applicant must include a Facility Site Plan and Map of Surrounding Area

#### Facility Site Plan.

The licence holder will submit a copy of the original facility site plan updated with the following information:

- 1. The storage location of fixed, portable, and mobile vessels.
- 2. The maximum volume, types and storage location of hazardous materials.
- 3. Location of permanent structures on site.
- 4. Access and egress points and location of barriers.
- Location of fire and emergency equipment (e.g., sprinkler systems, extinguishers, suppression systems) on site and location of fire hydrant or water supply where available.
- 6. Location of emergency shut off/shut down switches/valves.

#### Map of Surrounding Area.

The licence holder will submit a scaled aerial map of the surrounding area showing the following information:

- 7. The capacity and placement of the single largest propane storage vessel, including its setback from the front, rear and side property lines.
- 8. GPS co-ordinates of the single largest vessel.
- 9. Visual indication of the single largest fixed vessel and a circle made using the distance in Table 1 as the radius from the single largest fixed vessel.
- 10. Clear indication of the municipality or municipalities present within the circle.
- 11. Visual indication of property line information.
- 12. The location and name of roads within or abutting the site.
- 13. Key note to the drawing indicating the facility's municipal address, municipal lot number(s) and concession lines as applicable, and the date the map was prepared.
- 14. Address and contact information for each municipality (municipal clerk or secretary-treasurers of planning board). (Refer to page 5.)
- 15. Complete "Required Mapping Information from Updated Site Plan" in table below .

#### Required Mapping Information from Updated Site Plan

Date map prepared (dd-mmm-yyyy) 2017-03-15	Capacity of single largest propane storage vessel (USWG) 1999 USWG		
Tank setback coordinates. Indicate placement on the ma Front: 101.13 m west	Right side property line:	138.16 m north	
Rear: 183.82 m east	Left side property line:	59.67 m south	

Name of person completing this form (please print)  J+B Engineering Inc. (c/o: Fereshte Joghataei)	Official Title Project Manager	
Signature Ke	Telephone No. 416-229-2636 x238	Date (dd-mmm-yyyy) 15-06-2017

### **SECTION C: SUBMISSIONS (cont'd)**

Applicant must include a Facility Site Plan and Map of Surrounding Area

Table 1: Distance Table

Water Capacity (litres)	Nominal Water Capacity (USWG)	Distance to 1 psi overpressure (m)
1,890	500	155
3,780	1,000	195
4,920	1,300	213
6,620	1,750	235
7,130	1,885	241
7,560	2,000	246
18,900	5,000	333

Formula:

 $D= 16.94 \times (1.524 \times C)^{1/3}$ 

D = Distance to overpressure of 1 psi (meters)

C= Tank Total Capacity in USWG

Parameters:

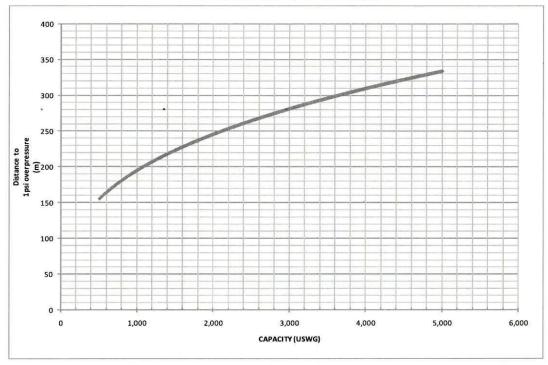
Density of Propane is 0.5033 kg per litre @ 15 C

Assume all vessels are 80% full

1 gallon [US, liquid] = 0.003785411784 cubic meter

1 cubic metre = 264.17 USWG

### Hazard Distance Chart (EPA-TNT model)



## TSSA PARTY AUTHORIZE

Technical Standards and Safety Authority 345 Carlingview Drive Toronto, Ontario M9W 6N9 Fax: 416.231.4078 Customer Service: 1.877.682.8772

www.tssa.org

### Level 1 Risk and Safety Management Plan (RSMP) Technical Standards and Safety Act

Propane Storage and Handling Regulation

### SECTION C: SUBMISSIONS (cont'd)

Applicant must include a Facility Site Plan and Map of Surrounding Area

As an accompaniment to the Map of Surrounding Area, provide the following information about buildings and features present within the circle in Table 2.

### Table 2: Buildings and Features

Buildings and Features Present within the Circle on the Map of the Surrounding Area  AND Name and Address of Closest Building or Feature		* Number of Buildings and Features (mark with an "X")			Distance from Tank to Closest Building or	
AND Name and Address of Closest Building of Feature	0	1	2-10	11+	Feature	
Industrial buildings or parks or golf courses  Name: None within hazard distance  Address:		×			0 m	
City: Province Province Postal Code						
Residential building units specifically permanent single family dwellings, condominiums, and apartments.				x	m	
	214					
Commercial building units specifically retail, restaurants, entertainment, theatres, and sporting complexes.  Name: Proposed Commercial Development (as part of Phase 2 Development on Subject Lands)	_	x x		o m		
Address: TBD (located immediately west of the Subject Lands and east of New Huntington Road)  City: Vaughan Province ON Postal Code TBD	<b>-</b>   ^					
Commercial building units – continuous occupancy specifically hotels, campgrounds, and resorts.  Name: None within hazard distance					0 m	
Address:						
ensitive institutions specifically hospitals, schools and day cares, nursing and retirement homes, mental health stitutions, and prisons.  None within hazard distance					0 m	
Name: Notice within hazard distance  Address:	X	×				
City: Province Postal Code						
Emergency responders specifically fire stations, ambulance stations, and police stations.  Name: None within hazard distance					0	
Address:	X				m	
City: Province Postal Code		]				

<sup>\*</sup> For multi-unit buildings, count each unit as "1".

Name of person completing this form (please print)	Official Title			
J+B Engineering Inc. (c/o: Fereshte Joghataei)	Project Manager	Project Manager		
Signature	Telephone No.	Date (dd-mmm-yyyy)		
re	416-229-2636 x238	15-06-2017		



Level 1 Risk and Safety Management Plan (RSMP)

Technical Standards and Safety Act

Propane Storage and Handling Regulation

### WORKSHEET

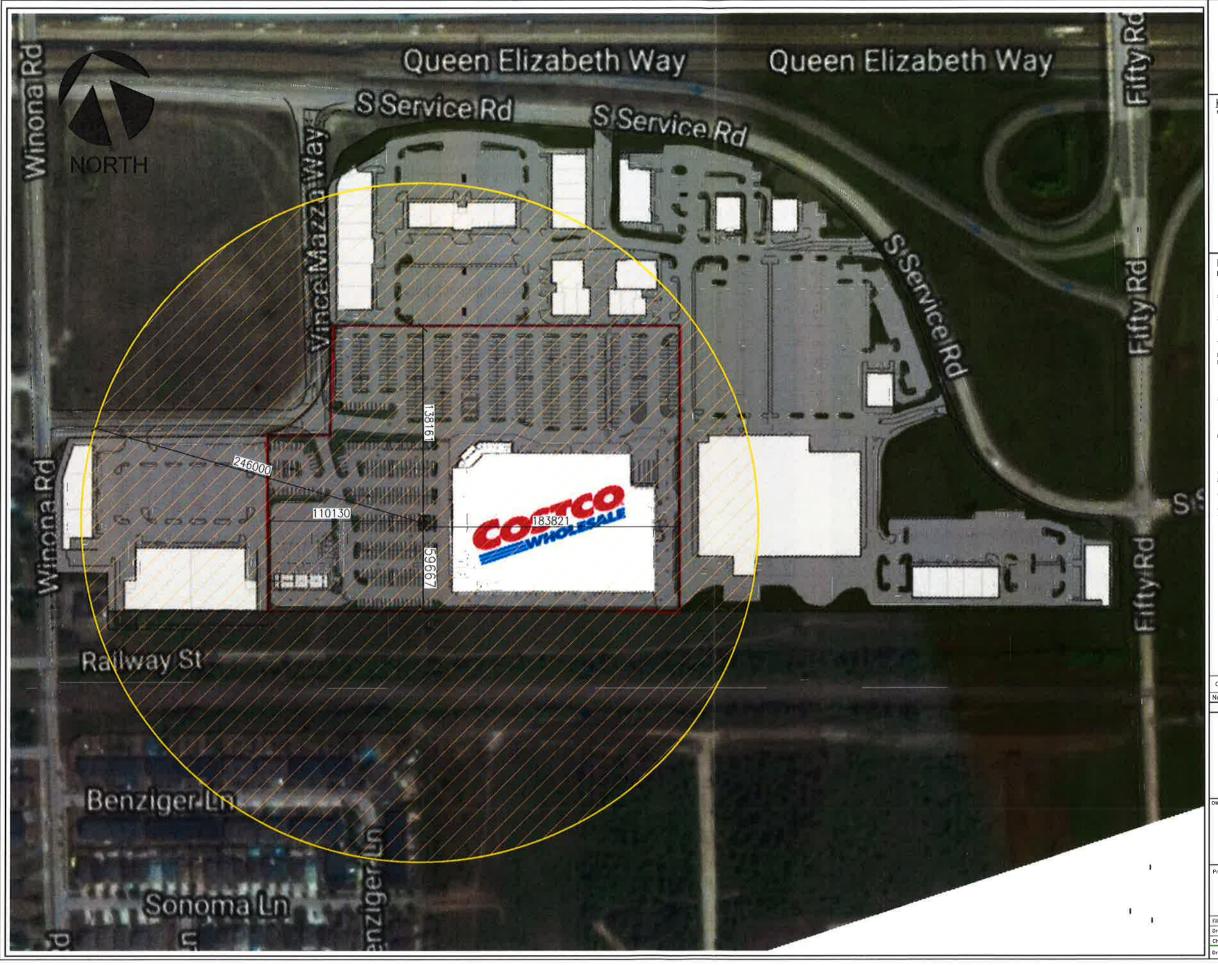
### Portable Storage Additional Information Worksheet

Cylinder Size	Capacity in USWG	Quantity	Total Volume in USWG
# 420	123.9		
# 100	29.5		
# 40	11.75		
# 33.3	9.62		1
# 30	8.8		4
# 20	5.8	72 (3 cages of 24)	417.6 USWG
# 10	2.9		
# 5	1.5		

### Tanks Stored On-site Not Connected for Use

Tank Size In USWG	Quantity	Total Volume in USWG
Tank Capacity		

Total Cylinder Capacity	418 USWG estimate
Total Tank Capacity	0 USWG
Total Portable Capacity (Total Cylinder Capacity + Total Tank Capacity)	418 USWG estimate



### COSTCO WHOLESALE CORPORATION

999 LAKE DRIVE ISSAQUAH, WA 98027 T: 425 313 8100 www.costco.com



### PROJECT DATA

CITY OF HAMILTON JURISDICTION:

THIS DRAWING IS BASED ON AN E-FILE FROM TURNER FLEISCHER ARCHITECTS INC DATED DECEMBER 4, 2014

SOUTH: 59 67m EAST: 183 82m WEST: 110 13m

MUNICIPAL CONTACT:

ROSE CATERINI CITY CLERK 905-546-2489 CLERK@HAMILTON CA

CIRCULAR DISTANCE TO

0 08 MAY '17 UPDATED AS PER MMM GROUP PROPANE DRAWING

No. Dote Description



Project: COSTCO WHOLESALE

AREA MAP

1330 SOUTH S	SERVICE ROAD EAST	STONEY CREEK, ON
le No: 120552	Date: 08 MAY 17	ACAD INFO
awn By: MBO	Scale: 1:1200	Dwg: File: 120552-P-251
necked By: GG	Sheet 1 of 1	Plotting Scale: 1=1
	Desired Steel D	

