

MINIMUM DISTANCE SEPARATION STUDY

2285 BATTERSEA ROAD

1

March 1, 2019

Jason Sands, MCIP RPP

Senior Planner, City of Kingston
1211 John Counter Boulevard
Kingston ON, K7L 2Z3

**RE: Minimum Distance Separation Study
2285 Battersea Road**

Dear Mr. Sands,

Fotenn Consultants Inc. was retained by BPE Development Inc. to prepare a Minimum Distance Separation (MDS) study in relation to the proposed development at the subject property 2285 Battersea Road in the City of Kingston. The site is at the northwest corner of the intersection of Battersea Road and Unity Road. The applicant intends to apply for official plan and zoning by-law amendments to redevelop the subject lands for a boutique inn and spa which will include a corporate event venue. The site will also include separate cabins, a craft brewery/winery and areas for a vineyard and other agricultural use.

Our MDS review applies the March 2017 MDS formulae and guidelines as detailed in Publication 853 issued by the Ministry of Agriculture, Food and Rural Affairs (OMAFRA). Publication 853 includes the MDS formulae which are applied using the AgriSuite software provided by OMAFRA to determine required MDS setbacks. In addition to detailing the formulae, Publication 853 includes a preamble and detailed guidelines describing the intent, purpose, implementation, and interpretation of MDS formulae and setbacks in Ontario.

Publication 853 provides two categories for MDS formulae: MDS I and MDS II. MDS I formula are used to determine the setbacks between proposed new development and existing livestock facilities. MDS II formula are used to determine setbacks between new, enlarged or renovated livestock facilities and existing or approved development. The proposal seeks to permit new development in proximity to existing livestock facilities and is therefore subject to MDS I formula and guidelines.

Requirement for MDS Setback

MDS Guideline #2 requires an MDS setback for re-zonings or re-designations, in accordance with Guideline #10. Guideline #10 requires an MDS I setback for zoning by-law amendments and official plan amendments in rural lands zoned or designated for agricultural use, including amendments to add non-agricultural uses to the list of permitted uses on a lot. As the application seeks to redesignate and rezone the subject land to add non-agricultural uses, the proposed redevelopment is subject to MDS I setbacks as implemented through the City of Kingston's Zoning By-laws.

MDS I setbacks are calculated based on the nature of the proposed land use. Type A (less sensitive) land uses, as described in Guideline #33 and #35, are characterized by lower density of occupancy, habitation or activity and include agriculture-related and on-farm diversified uses, industrial uses, agricultural lot creation and residential lot creation that does not result in a concentration of four or more lots in immediate proximity. Type B (more sensitive) uses are generally higher density in terms of occupancy, habitation or activity as described in Guideline #34 and include official plan and zoning by-law amendments to permit development, excluding industrial uses. Given the nature of the proposed development, and in accordance with Guideline #34, the separation distance has been calculated based on a Type B (more sensitive) land use. Type B land uses are subject to MDS I setbacks that are twice the distance of Type A land uses.

Livestock Facilities

Guideline #6 states that all existing livestock facilities or anaerobic digesters within 1,500 metres of a proposed Type B land use must be investigated. Thirteen barns were identified within 1,500 metres of the subject property using aerial photography.

Guideline #12 allows for a reduced MDS setback distance when there are four or more uses of equal or greater sensitivity (i.e. Type B) in the intervening area between the subject site and identified barns. The intervening area is described as an area within a 120-degree arc extending from the barn in question towards the subject site. There are an insufficient number of Type B uses separating the site from Barn #1 and Barn #2, therefore the actual MDS setback was calculated for each barn. As shown on Figure 1, below, each of the barns numbered #3 through #13 are subject to Guideline #12 in that a minimum of four Type B lots or land uses are located in the intervening area between the barn and the proposed redevelopment. As such, the MDS I setback distances for Barns #3 through #13 have been reduced as shown. It is noted that while the distances could be further reduced through a detailed evaluation of each barn if required, the setbacks could not be greater than those shown below without changes occurring to the intervening land uses. The reduced setback distances for Barns #3 through #13 do not affect the subject site and are therefore not calculated or evaluated in further detail.

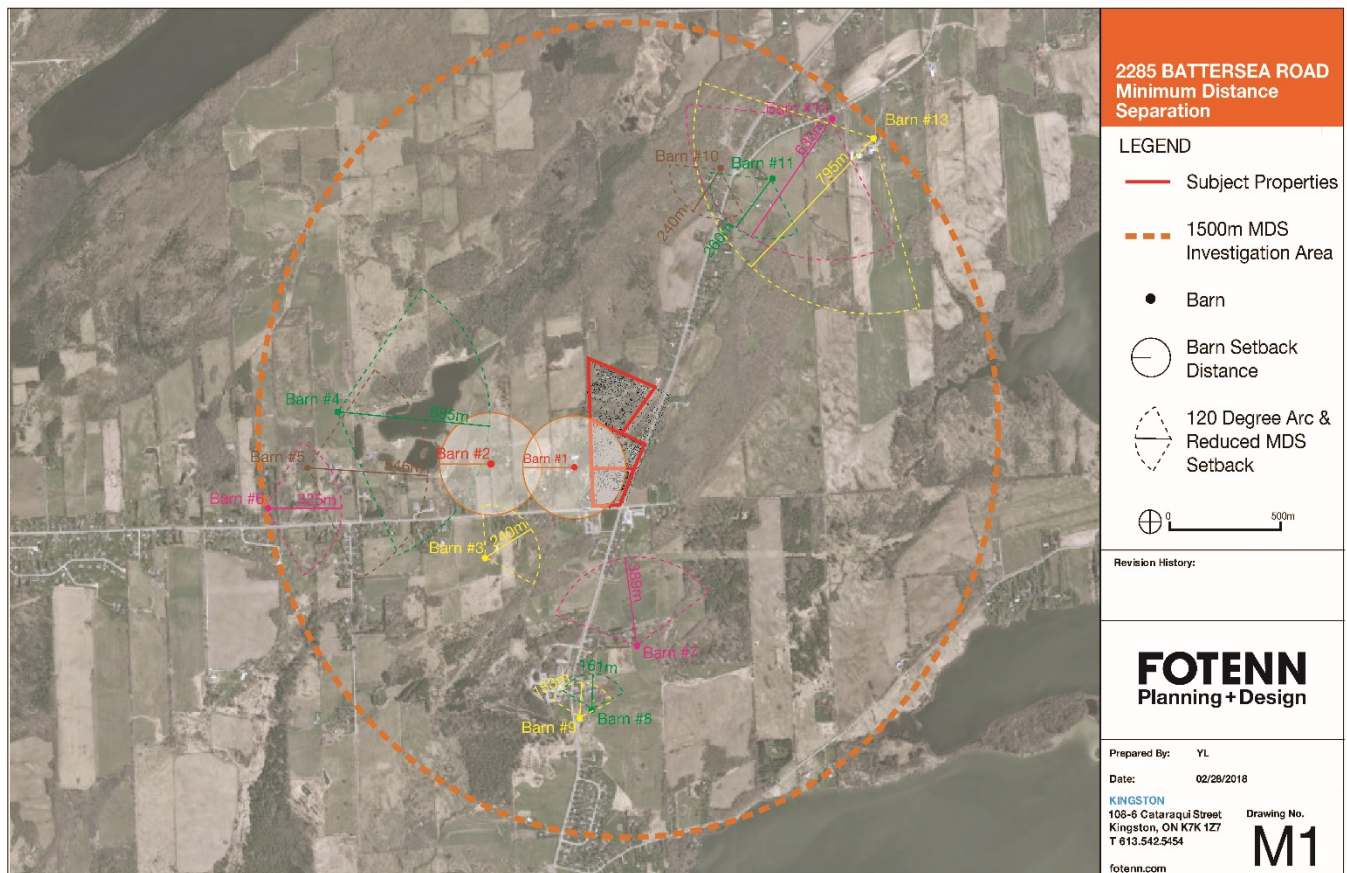


Figure 1: Minimum Distance Separation Diagram (source: Fotenn, with software from OMAFRA)

Disclaimer: Distances on Figure 1 and in the below calculations are approximate and have been determined using a combination of aerial imagery and online GIS software available through OMAFRA and the City of Kingston website.

Barn #1: 896 Unity Road

The property at 896 Unity Road includes a horse barn and a chicken coop. The lot area is approximately 47.3 hectares (116.8 acres). The area of the barn is approximately 332 square metres (3,573 square feet). The area of

the chicken coop is approximately 31 square metres (333 square feet). A site visit was conducted on June 19, 2017. During the site visit, a building associated with the barn was identified as a riding arena or indoor horse-run and the building that is currently identified as a chicken coop was not identified by the owner. In accordance with Guideline #40, MDS setbacks are to be measured from the livestock occupied portions of livestock barns and riding arenas are not considered livestock occupied portions per the Definitions section of Publication 853. Two shade shelters were also identified on-site, which are not subject to MDS I setbacks in accordance with Guideline #3. At the time of the site visit, the horse barn included thirteen (13) horse stalls, as verified with the owner of the property at the time. There has since been a change in ownership. A telephone interview with the current owner verified that, notwithstanding the June 2017 study, there are 12 medium-framed horses, 2 large-framed horses, 4 goats and sufficient nesting boxes to house up to 20 chickens. The horses are housed within the existing barn previously identified and the goats and chickens are housed in a separate chicken coop, located south of the horse barn.



Figure 2: 896 Unity Road, Annotated Aerial Image (source: Fotenn, using K-Maps imagery)

The owner indicated that additional horses were present on-site, making use of the field shelters. The owner also expressed an intent to purchase pigs and to expand the horse barn. Neither the expansion to the horse barn nor the conversion of the chicken coop to house the pigs had been undertaken at the time of the interview, therefore

these additional livestock were not factored into the calculation. Horses housed in field shelters were also not included in the MDS calculation, in accordance with the definition for “livestock occupied portion” provided in Publication 853.

The required minimum distance separation for a Type A use is **120 metres (+-393 feet)**. The required minimum distance separation for a Type B use is **240 metres (+-787 feet)**. Guideline #40 requires that the MDS setback for new development be measured from the livestock occupied portion of the livestock barn (in this case) and the “area to be rezoned”. The rezoned area will be the entirety of the property at 2285 Battersea Road, therefore the property line represents the extent of the area to be rezoned. The actual separation distance to the property line is approximately **81 metres (+- 265 feet)**. A reduction to the minimum distance separation is required and will be addressed in a separate planning rationale report.

MDS II Calculation

Given that the proposed development is within the MDS I setback distance of the livestock barns at 896 Unity Road, we have conducted MDS II calculations for the existing livestock facilities at 896 Unity Road. The MDS II calculations are appended to this letter and demonstrate that the MDS II setback requirement for a Type B land use is **178 metres**, based on the number and type of existing livestock. The subject property is 81 metres from the nearest occupied livestock barn and is therefore within the MDS II setback radius of the existing livestock facilities at 896 Unity Road.

Barn #2: 962 Unity Road

The property at 962 Unity Road includes a single horse barn, which was identified through conversations with nearby property owners. Efforts to contact the owner of 962 Unity Road by telephone were unsuccessful. The lot has an area of approximately 6.43 hectares (15.8 acres). The area of the barn is approximately 116 square metres (+-1,248 square feet) as measured using aerial imagery and the City of Kingston’s K-Maps software. The approximate area of the barn was entered into the AgriSuite software to yield an estimate of design capacity, indicating a maximum of 5 medium-framed horses or 3 large-framed horses. Through conversations with nearby property owners (owners of 2285 Battersea Road), the horse barn was identified as having a total of seven (7) horse stalls. Although the total number of horses housed within the barns could not exceed 5 medium-framed horses, we calculated the required minimum distance on the basis of 7 large-framed horses to yield a conservative estimate of **216 metres (+-708 feet)**. The actual distance from the barn to the subject property is approximately **410 metres (+-1,345 feet)**. The subject property is therefore in compliance with the MDS setback from the barn at 962 Unity Road using this conservative estimate. The actual minimum distance separation may be less than 216 metres, subject to further review with the current owner.

The MDS I calculations are appended to this letter. The following table summarizes the MDS I setback distances for the thirteen identified barns:

Barn identifier	Municipal Address	MDS Setback	Calculated?	Reduced Per Guideline #12?
Barn #1	896 Unity Road	240 m	Yes	No
Barn #2	962 Unity Road	216 m	Yes	No
Barn #3	971 Unity Road	240 m	No	Yes
Barn #4	1088 Unity Road	685 m	No	Yes
Barn #5	1112 Unity Road	546 m	No	Yes
Barn #6	1166 Unity Road	325 m	No	Yes
Barn #7	2130, 2132, 2134 Battersea Road	389 m	No	Yes
Barn #8	2100 Battersea Road	161 m	No	Yes
Barn #9	2076 Battersea Road	153m	No	Yes
Barn #10	2593 Battersea Road	240 m	No	Yes
Barn #11	2590 Battersea Road	260 m	No	Yes
Barn #12	2720 Patterson Road	635 m	No	Yes
Barn #13	2750 Patterson Road	795 m	No	Yes

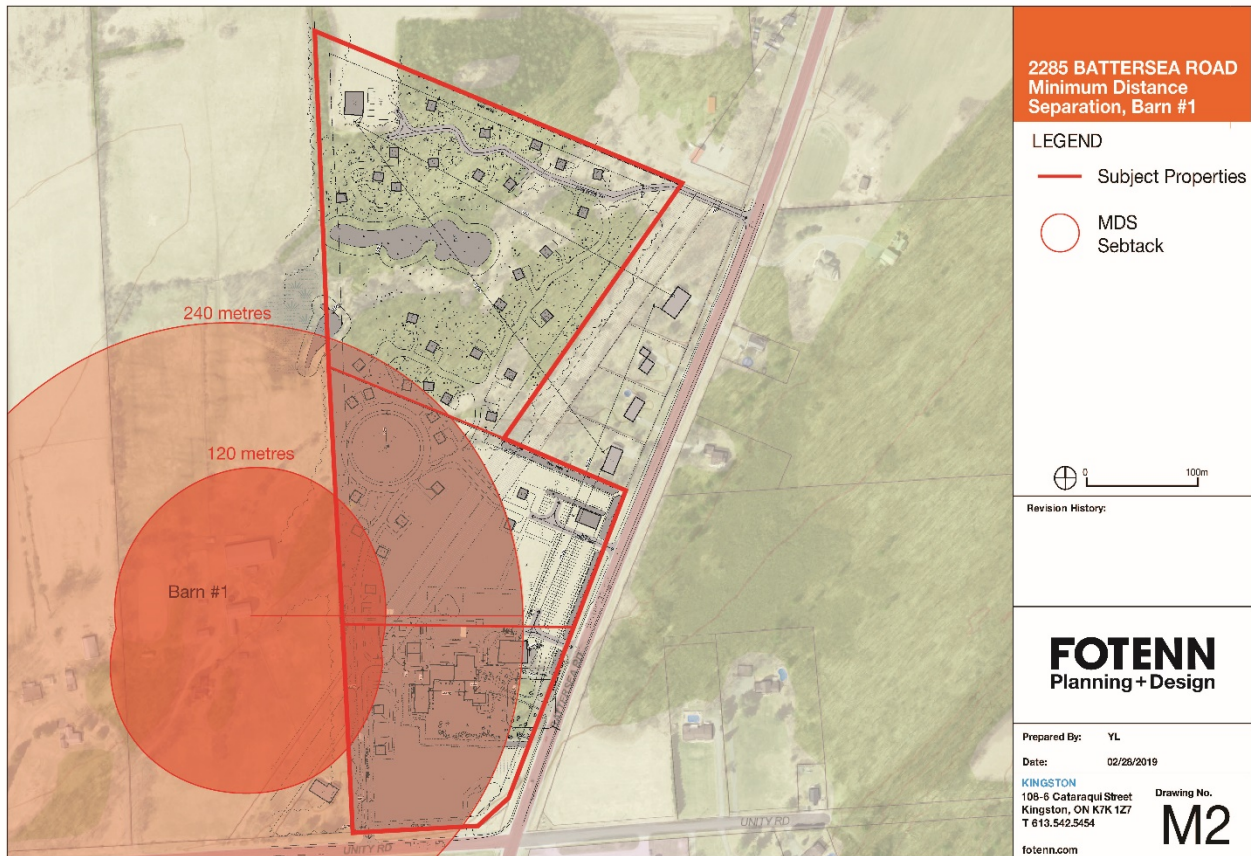


Figure 3: Barn #1 Minimum Distance Separation Requirement (source: Fotenn, with software from OMAFRA)

Conclusions

Thirteen barns were identified to be within the search radius of 1,500 metres of the subject property. Barn #1 was calculated to require a separation distance of 240 metres. Barn #2 was calculated to require a separation distance of 216 metres. Barns #3 through #13 were not evaluated in detail as a sufficient number of intervening uses of equal sensitivity were present to reduce the MDS distance accordingly. The setback distances for Barns #3 through #13 could be reduced further through a more detailed evaluation. The subject property is located approximately 81 metres (265 feet) from Barn #1 and approximately 410 metres (1345 feet) from Barn #2. The subject property falls within the calculated MDS distance of Barn #1.

Should you have questions or comments, please do not hesitate to contact the undersigned at 613.542.5454.

Respectfully submitted,

Mike Keene, MCIP RPP
Principal, Planning + Development
Fotenn Consultants Inc.

Youko Leclerc-Desjardins, MCIP RPP
Senior Planner
Fotenn Consultants Inc.

Description: 2285 Battersea Rd - Unity Spa

Application Date: Tuesday, February 12, 2019

Municipal File Number:


Proposed Application: New or expanding zone or designation for a commercial use outside of a settlement area
Type B Land Use

Applicant Contact Information

Ben Pilon
BPE Group

Location of Subject Lands

County of Frontenac, City of Kingston
KINGSTON, Concession: 6, Lot: 33

Roll Number: 101108027020500 

Calculation Name: **Barn #1**


Description: 896 Unity Rd

Farm Contact Information

Paul Kerby
Stone City Performance Horses
896 Unity Road
, ON, Canada

Location of existing livestock facility or anaerobic digester

County of Frontenac, City of Kingston
KINGSTON, Concession: 6, Lot: 32

Roll Number: 101108027025400 

Total Lot Size: 47.3 ha


The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	12	12.0	279 m ²
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	2	2.9	60 m ²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Cages	20	0.1	Unavailable
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	4	0.5	6 m ²

Existing Manure Storage: L1. Solid, outside, no cover, 18-30% DM, with uncovered liquid runoff storage

Design Capacity (NU): 15.5

Potential Design Capacity (NU): 31.0

Factor A (Odour Potential)	Factor B (Size)	Factor D (Manure Type)	Factor E (Encroaching Land Use)	Building Base Distance 'F' (minimum distance from livestock barn)	(actual distance from livestock barn)
0.7	X	221.96	X	0.7	X
		2.2			
				=	
				240 m (788 ft)	82 m (269 ft) 

Storage Base Distance 'S'	
(minimum distance from manure storage)	(actual distance from manure storage)
259 m (850 ft)	N/A

Calculation Name: **Barn #2**


Description: 962 Unity Rd

Farm Contact Information

Not Specified

Location of existing livestock facility or anaerobic digester

County of Frontenac, City of Kingston
KINGSTON, Concession: 6, Lot: 31

Roll Number: 1011080270262100000 

Total Lot Size: 6.43 ha

The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Minimum Distance Separation I

Worksheet 1

Prepared By: Youko Leclerc, Fotenn Planning + Design

Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	5	7.1	151 m ²



The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Existing Manure Storage: L1. Solid, outside, no cover, 18-30% DM, with uncovered liquid runoff storage

Design Capacity (NU): 7.1

Potential Design Capacity (NU): 14.3

Factor A (Odour Potential)	Factor B (Size)	Factor D (Manure Type)	Factor E (Encroaching Land Use)	Building Base Distance 'F' (minimum distance from livestock barn)	(actual distance from livestock barn)
0.7	X 180.95	X 0.7	X 2.2	= 195 m (640 ft)	410 m (1345 ft)

Storage Base Distance 'S' (minimum distance from manure storage)	(actual distance from manure storage)
215 m (706 ft)	410 m (1345 ft)

Preparer Information

Youko Leclerc
Fotenn Planning + Design

Email: leclerc@fotenn.com



Signature of Preparer: _____

Youko Leclerc

Date: February 12, 2019

NOTE TO THE USER:

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has developed this software program for distribution and use with the Minimum Distance Separation (MDS) Formulae as a public service to assist farmers, consultants, and the general public. This version of the software distributed by OMAFRA will be considered to be the official version for purposes of calculating MDS. OMAFRA is not responsible for errors due to inaccurate or incorrect data or information; mistakes in calculation; errors arising out of modification of the software, or errors arising out of incorrect inputting of data. All data and calculations should be verified before acting on them.