

Minimum Distance Separation II

Worksheet 1

Prepared By: Youko Leclerc-Desjardins, Fotenn Consultants Inc

Description: 2285 Battersea Road

Application Date: Friday, January 24, 2020


Municipal File Number:

Applicant Contact Information

BPE Group

Location of Subject Livestock Facilities

County of Frontenac, City of Kingston

Roll Number: 1055 

Calculation Name: **2245 Battersea**

Description: Type B, Institutional Use at 2245 Battersea Road

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)	Total Maximum Number	Total Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	4	0.5	4	0.5	6 m ²
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	2	2.9	2	2.9	60 m ²
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	12	12.0	40	40.0	929 m ²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Cages	20	0.1	20	0.1	Unavailable

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

Existing design capacity (NU): 15.5

Design capacity after alteration (NU): 43.5

Factor A (Odour Potential) Factor B (Size) Factor C (Orderly Expansion) Factor D (Manure Type) Building Base Distance 'F' (minimum distance from livestock barn)

0.7 X 246.98 X 0.9760 X 0.7 = 118 m (388 ft)

Storage Base Distance 'S' (minimum distance from manure storage)

140 m (460 ft)

MDS II Setback Distance Summary

Description	Minimum Livestock Barn Setback Distance	Actual Livestock Barn Setback Distance	Minimum Manure Storage Setback Distance	Actual Manure Storage Setback Distance
Type A Land Uses	118 m 388 ft	TBD	140 m 460 ft	TBD
Type B Land Uses	236 m 775 ft	TBD	280 m 920 ft	TBD
Nearest lot line (side or rear)	12 m 39 ft	TBD	14 m 46 ft	TBD
Nearest road allowance	24 m 78 ft	TBD	28 m 92 ft	TBD

Calculation Name: **2285 Battersea**
Description: Type B, Corporate Event Venue at 2285 Battersea Road

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)	Total Maximum Number	Total Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	12	12.0	36	36.0	836 m ²
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	2	2.9	2	2.9	60 m ²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Cages	20	0.1	20	0.1	Unavailable
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	4	0.5	4	0.5	6 m ²

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

Existing design capacity (NU): 15.5

Design capacity after alteration (NU): 39.5

$$\begin{array}{ccccccc}
 \text{Factor A} & \text{Factor B} & \text{Factor C} & \text{Factor D} & & \text{Building Base Distance 'F'} & \\
 \text{(Odour Potential)} & \text{(Size)} & \text{(Orderly Expansion)} & \text{(Manure Type)} & & \text{(minimum distance from livestock barn)} & \\
 0.7 & \times & 238.98 & \times & 0.9433 & \times & 0.7 = 110 \text{ m (362 ft)}
 \end{array}$$

$$\begin{array}{c}
 \text{Storage Base Distance 'S'} \\
 \text{(minimum distance from manure storage)} \\
 133 \text{ m (435 ft)}
 \end{array}$$

MDS II Setback Distance Summary

Description	Minimum Livestock Barn Setback Distance	Actual Livestock Barn Setback Distance	Minimum Manure Storage Setback Distance	Actual Manure Storage Setback Distance
Type A Land Uses	110 m 362 ft	TBD	133 m 435 ft	TBD
Type B Land Uses	221 m 725 ft	TBD	265 m 871 ft	TBD
Nearest lot line (side or rear)	11 m 36 ft	TBD	13 m 44 ft	TBD
Nearest road allowance	22 m 72 ft	TBD	27 m 87 ft	TBD

Calculation Name: **2285 Battersea**
Description: Type A, Renovated Farmhouse at 2285 Battersea Road

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Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Total Maximum Number	Total Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	12	12.0	76	76.0	1,765 m ²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Cages	20	0.1	20	0.1	Unavailable
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	4	0.5	4	0.5	6 m ²
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	2	2.9	2	2.9	60 m ²

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

Existing design capacity (NU): 15.5

Design capacity after alteration (NU): 79.5

Factor A (Odour Potential) Factor B (Size) Factor C (Orderly Expansion) Factor D (Manure Type) Building Base Distance 'F' (minimum distance from livestock barn)

0.7 X 297.42 X 1.0597 X 0.7 = 154 m (507 ft)

Storage Base Distance 'S' (minimum distance from manure storage)

176 m (576 ft)

MDS II Setback Distance Summary

Description	Minimum Livestock Barn Setback Distance	Actual Livestock Barn Setback Distance	Minimum Manure Storage Setback Distance	Actual Manure Storage Setback Distance
Type A Land Uses	154 m 507 ft	TBD	176 m 576 ft	TBD
Type B Land Uses	309 m 1,013 ft	TBD	351 m 1,152 ft	TBD
Nearest lot line (side or rear)	15 m 51 ft	TBD	18 m 58 ft	TBD
Nearest road allowance	31 m 101 ft	TBD	35 m 115 ft	TBD

Calculation Name: **874 Unity**

Description: Type A, 874 Unity Road

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)	Total Maximum Number	Total Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	12	12.0	93	93.0	2,160 m ²

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Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Cages	20	0.1	20	0.1	Unavailable
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	4	0.5	4	0.5	6 m ²
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	2	2.9	2	2.9	60 m ²

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

Existing design capacity (NU): 15.5

Design capacity after alteration (NU): 96.5

Factor A (Odour Potential) Factor B (Size) Factor C (Orderly Expansion) Factor D (Manure Type) Building Base Distance 'F' (minimum distance from livestock barn)

0.7 X 312.61 X 1.0904 X 0.7 = 167 m (548 ft)

Storage Base Distance 'S' (minimum distance from manure storage)

188 m (616 ft)

MDS II Setback Distance Summary

Description	Minimum Livestock Barn Setback Distance	Actual Livestock Barn Setback Distance	Minimum Manure Storage Setback Distance	Actual Manure Storage Setback Distance
Type A Land Uses	167 m 548 ft	TBD	188 m 616 ft	TBD
Type B Land Uses	334 m 1,096 ft	TBD	376 m 1,233 ft	TBD
Nearest lot line (side or rear)	17 m 55 ft	TBD	19 m 62 ft	TBD
Nearest road allowance	33 m 110 ft	TBD	38 m 123 ft	TBD

Preparer Information

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Signature of Preparer: _____

Youko Leclerc-Desjardins

Date: January 24, 2020

NOTE TO THE USER:

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