

PROJECT NO: 1284-4979

AUGUST 30, 2019

SENT VIA: EMAIL:

C/O CWIEBE@MHBCPLAN.COM

Transportation Services
Grey County
595 9th Avenue East
Owen Sound, ON N4K 3E3

Attention: Pat Hoy
Director of Transportation Services

RE: TRAFFIC OPINION LETTER
PROPOSED RESIDENTIAL DEVELOPMENT
ASHBURY EAST – 61 ALFRED STREET
TOWN OF THE BLUE MOUNTAINS, GREY COUNTY

Dear Pat,

C.F. Crozier & Associates Inc. (Crozier) was retained by Carey Builders Group to prepare a traffic analysis in support of the applications for Draft Plan of Subdivision and Zoning By-Law Amendment (ZBA) for the proposed residential development located at 61 Alfred Street (County Road 113) in the Town of the Blue Mountains, Grey County. This Traffic Opinion Letter contains analysis of the following components:

- Forecasted trip generation and distribution of the proposed development;
- Qualitative assessment of traffic operations on the boundary road network;
- Sight distance requirements at the site accesses; and
- Justification for the proposed dwelling units fronting Alfred Street.

It is understood that a primary focus of the traffic study is to justify the proposed driveways fronting Alfred Street. Thus, it was assumed that a scoped Traffic Opinion Letter would be sufficient in lieu of a comprehensive Traffic Impact Study, given the low trip generation of the proposed development.

1.0 DEVELOPMENT PROPOSAL

The development proposes the construction of 17 residential dwellings, with 15 of the dwelling units proposed to front a cul-de-sac intersecting with Victoria Street (south of Alfred Street), and the remaining two dwelling units proposed to front Alfred Street east of Victoria Street. The residential dwellings will consist of a mix of single-detached, semi-detached and row house dwelling units.

The Draft Plan of Subdivision prepared by MHBC Planning (dated August 22, 2019) is attached to this letter.

2.0 EXISTING CONDITIONS

2.1 Subject Property

The property is bound by Beaver Valley Community Center to the north, Thorncroft Court to the south, Ashbury Court to the west and Orchard Drive to the east. The property is currently zoned in the Town as Development (D) and Residential (R3).

2.2 Boundary Road Network

The boundary road network is described in **Table 1**.

Table 1: Boundary Road Network

Feature	Roadway	
	Victoria Street	Alfred Street
Direction	Two-way (North-South)	Two-way (East-West)
Jurisdiction	Town of the Blue Mountains	Grey County (County Road 113) – Class 3,4,5 Road ¹
Classification	Local Road	County Road
Surrounding Uses	Residential Community Centre (north-east corner of Victoria Street and Alfred Street)	
Speed Limit	50 km/h assumed ²	50 km/h (posted)
Span	Duncan Street West to King Street	Highway 26 to County Road 13
Number of lanes	Two	Two
Pedestrian Facilities	None	Pedestrian sidewalk (north side; east of Victoria Street)
Cross-Section	Rural	Urban
Stop Control	Alfred Street	None

Note 1: Roadway classification from Grey County's Corporate Procedure for issuing entrance permits

Note 2: Speed limit of 50 km/h assumed per municipal regulation.

3.0 TRIP GENERATION

Trip generation during the weekday a.m. and p.m. peak hour was forecasted for the proposed development using published data from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. The ITE Trip Generation Manual is a compendium of industry collected trip generation data across North America for a variety of land use and is used industry-wide as a source for trip generation forecasts.

Land Use Category (LUC) 210 "Single-Family Detached Housing" was applied to the proposed 15 units fronting the cul-de-sac and the proposed 2 units fronting Alfred Street. Trip generation was forecasted separately for these locations.

Table 2 outlines the trip generation for the site.

Table 2: Trip Generation

Land Use	Location	Units	Peak Hour	Trips Generated		
				Inbound	Outbound	Total
LUC 210 “Single-Family Detached Housing”	Cul-de-sac	15 units	A.M.	3	8	11
			P.M.	9	6	15
	Alfred Street	2 units	A.M.	0	1	1
			P.M.	1	1	2
Total		17 units	A.M.	3	9	12
			P.M.	10	7	17

4.0 IMPACTS TO TRAFFIC OPERATIONS

The proposed development is expected to generate 12 and 17 total two-way trips during the weekday a.m. and p.m. peak periods, respectively. These trip generation forecasts are low and are typically not associated with traffic operational issues nor external roadway improvements.

It is noted that the two dwelling units proposed to front Alfred Street are expected to generate a total of 1 and 2 total two-way trips during the weekday a.m. and p.m. peak periods, respectively. These trip generation forecasts are considered negligible from a traffic operations perspective.

5.0 JUSTIFICATION FOR DRIVEWAYS FRONTING ALFRED STREET

Grey County has a Corporate Procedure for issuing entrance permits, and as such proposed accesses to County Roads must conform to the guidelines in the Corporate Procedure. The Corporate Procedure has been attached to this letter.

5.1 Entrance Location

Per item 2.8.1, accesses to County Roads for residential, farm or field lots must be a minimum of 55 metres from an intersection. The nearest intersection to the proposed driveways on Alfred Street is at Victoria Street, which is located approximately 85 metres to the west. Therefore, the minimum spacing requirement from the nearest intersection is satisfied.

There are no pedestrian facilities on the south side of Alfred Street. Therefore, the proposed driveways fronting Alfred Street will not impede pedestrian circulation on Alfred Street.

It is also noted that there are existing residential dwellings in the surrounding area with driveways fronting Alfred Street on both sides of the roadway.

5.2 Sight Distance

Table 1 (Item 3.3) outlines minimum sight distances that must be satisfied at the proposed driveways fronting Alfred Street depending on the speed limit of the roadway. For County Roads with a posted speed limit of 50 km/h, a minimum sight distance of 110 metres must be satisfied at the proposed driveways looking in both directions.

Alfred Street has a straight horizontal alignment and a flat vertical profile in the study area with sight distance in excess of 300 metres in both the east and west directions.

Therefore, the proposed driveways fronting Alfred Street are supportable from a sight distance perspective.

6.0 SIGHT DISTANCE ANALYSIS – VICTORIA STREET ACCESS

The available sightlines at the proposed cul-de sac access to Victoria Street were measured and compared to the standards set out in the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads (GDGCR). Victoria Street is a local road and thus the County's sight distance requirements are not applicable to the cul-de-sac access on Victoria Street. Sight distance was measured from the proposed cul-de-sac access on Victoria Street using the following assumptions:

- A standard driver eye height of 1.08 metres for a passenger car, and
- A 4.4 metre setback from the approximate extension of the outer curb to represent a vehicle waiting to exit the site.

Per Table 9.9.4 from the TAC GDGCR, the minimum sight distance required for passenger cars turning onto a two-lane highway with a design speed of 60 km/h is 130 metres. Victoria Street has a straight horizontal alignment and a flat vertical profile in the study area with sight distance in excess of 300 metres in both the north and south directions.

Therefore, the proposed cul-de-sac access to Victoria Street is supportable from a sight distance perspective.

7.0 CONCLUSIONS

The analysis contained within this letter has resulted in the following key findings:

- The proposed development is expected to generate 12 and 17 total two-way trips during the weekday a.m. and p.m. peak periods, respectively.
- These trip generation forecasts are low and are typically not associated with traffic operational issues nor external roadway improvements.
- The two dwelling units proposed to front Alfred Street are expected to generate a total of 1 and 2 total two-way trips during the weekday a.m. and p.m. peak periods, respectively.
- These trip generation forecasts are considered negligible from a traffic operations perspective.
- The proposed driveways fronting Alfred Street are supportable for the following reasons:
 - the number of trips entering and exiting the proposed dwelling units on Alfred Street is considered negligible from a traffic operations perspective;
 - the proposed driveways satisfy the County's minimum spacing requirements from the nearest intersection;
 - the proposed driveways satisfy the County's minimum sight distance requirements;
 - the proposed driveways will not impede pedestrian circulation on Alfred Street as there are no existing pedestrian facilities on the south side of the roadway; and

- there are existing residential dwellings in the surrounding area with driveways fronting Alfred Street.
- The proposed cul-de-sac access to Victoria Street is supportable from a sight distance perspective.

The analysis contained within this report was completed using the Draft Plan of Subdivision prepared by MHBC Planning (dated August 22, 2019). Any minor updates to the development proposal are not expected to materially change the conclusions contained within this report.

We trust that this letter addresses any traffic you may have. Should you have any questions or require any further information, please do not hesitate to contact the undersigned.

Yours truly,

C.F. CROZIER & ASSOCIATES INC.



Alexander J. W. Fleming, MBA, P.Eng.
Associate

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Encl.

Draft Plan of Subdivision (MHBC, August 22, 2019)
Grey County Corporate Procedure for Entrance Permit

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C.F. CROZIER & ASSOCIATES INC.



Darren J. Loro, C.E.T.
Transportation Technologist

Entrance Permit

Approved by: County Council

Last Modified Date: October 23, 2014

Date Approved: November 4, 2014

Replaces: ROADS-01-01

Scheduled for Review by: 2019

Procedure Number: MS-TS-001-001

Parent Policy: MS-TS-001

Author: Clerk's Department

References and Related Documents

[Single Permit for Moving Heavy Vehicles Procedure](#)

[Annual Permit for Moving Heavy Vehicles Procedure](#)

[Encroachment Permit Procedure](#)

[Highway Traffic Act](#)

[Specifications and Standards for Trailer Coupling](#)

[Vehicle Weights and Dimensions for Safe, Productive and Infrastructure Friendly Vehicles](#)

Forms

[Encroachment Permit Application](#)

[Schedule A - Encroachment Permit Insurance Requirements](#)

[Encroachment Permit Holdback Release Form](#)

[Entrance/Encroachment Final Inspection Request Form](#)

[Entrance Permit Application](#)

[Entrance Permit Schedule A - Insurance Requirements](#)

[Entrance/Encroachment Final Inspection Request Form](#)

[Entrance Permit Holdback Release Form](#)

[Road Permits Fee Schedule](#)

[Permit - Single Oversize Move](#)

[Permit - Annual Oversize Move](#)

Purpose

The purpose of this procedure is to outline criteria when reviewing applications for new entrances or alterations to entrances in order to ensure:

- Protection of the public through the orderly control of traffic movement onto and from County roads
- Maintenance of the traffic carrying capacity of the County road network

- Protection of the public investment in County road facilities
- Minimizing County expenditures on maintenance of private entrance ways
- Providing legal access onto County roads from adjacent private property

Scope

This procedure shall cover all entrance permits related to Grey County roads.

Section 1 - Definitions

Boulevard - means the portion of the highway paved or unpaved between the County property line and the Curb Line but does not include the sidewalk.

Bridge - means a public bridge formed part of the highway or on, over or across which a highway passes.

Commercial/Industrial Entrance - means an entrance opening on to a County Road from a commercial/industrial, institutional or multi-residential development with six units or more.

County - means the Corporation of the County of Grey.

County Road - means all common and public highways, any part of which is intended for or used by general public for the passage of vehicles and pedestrians and includes the area between the lateral property lines thereof within the geographical limits of the County of Grey over which the County has jurisdiction, including where jurisdiction is obtained by agreement with the lower tier municipality.

Curb Line - means the line of the curb, or where no curb is constructed, the edge of the traveled portion of the highway.

Entrance - means an area of ingress and egress to a privately or publicly owned parcel from a County Road.

Entrance Permit - means a permit issued by the Transportation Services Department of the County.

Farm Entrance - means an Entrance opening on to a County Road from an active farm and is to be used for access to one or more barns, out-buildings and/or a farm residence.

Field / Farm Entrance - means an Entrance opening on to a County Road from an agricultural field.

Institutional Entrance - means an Entrance opening on to a County Road from an institutional facility.

Intersection - means an intersection of a County Road with another public road.

Local Road - means a public highway under the jurisdiction of a lower tier municipality in the County of Grey.

Minimum Sight Distance - means the distance measured from the centerline of the entrance at a height of 1.05 m above grade.

Multi-Unit Residential Entrance - means an Entrance opening on to a County Road from a multi-unit residential dwelling containing two or more separate, self-contained dwelling units and includes apartment buildings, condominiums and all other forms of multi-unity ownership.

Mutual Entrance - means an Entrance opening on to a County Road that provides shared access to serve separate existing lots or for two or more main buildings on one lot.

Owner - means the person that is the owner of the property abutting the County Road that is accessed by an Entrance.

Person - means the applicant whether an individual or a corporation and the successors, assigns, heirs, executors, administrators, or other legal representatives of a person to whom the context may apply according to law.

Public Road - means all common and public highways, any part of which is intended for or used by the general public for the passage of vehicles and pedestrians and includes the area between the lateral property lines thereof.

Residential Entrance - means an Entrance opening on to a County Road from a private residence or from a multi-unit residential dwelling containing not more than two separate, self-contained dwelling units.

Temporary Entrance - means an Entrance opening on to a County Road that provides access to property for a limited period, not to exceed six (6) months, for the purpose of construction, repairs or improvements to that property or to facilitate a staged development.

Section 2 - Entrances and Permits

2.1 General Considerations

The staff of the County administering this procedure will consider the following criteria when reviewing applications for new entrances or alterations to entrances:

- 2.1.1 Public safety
- 2.1.2 Protection of the public through the orderly control of traffic movement onto and from County Roads, including possible requirements for left and/or right turn lanes
- 2.1.3 Providing legal access onto County Roads from adjacent private or public property
- 2.1.4 Required sight distance, safe grade, and alignment conditions for all traffic using the proposed entrance
- 2.1.5 Maintaining the orderly flow of the traffic traveling on the County Roads
- 2.1.6 No undue interference with the safe movement of through traffic
- 2.1.7 Protection of the public investment in the County Roads and minimizing County expenditures on the maintenance of private or public entrances
- 2.1.8 Reducing future maintenance and reconstruction costs

2.2 Permits Required

Entrance permits are required for:

- 2.2.1 Construction of a new entrance
- 2.2.2 Changing the design of an existing entrance
- 2.2.3 Changing the location of an existing entrance
- 2.2.4 Changing the use of or classification of an existing entrance (i.e. from field/farm to residential)
- 2.2.5 Paving or repaving an existing entrance
- 2.2.6 Construction of a temporary entrance or the use of any part of the county road right-of-way as a means of temporary access

2.3 Entrance Permit Application

- 2.3.1 The Entrance Permit Application Form is available at the County Administration Building or at the [County of Grey Website](#).
- 2.3.2 All applications are to be completed and delivered or mailed to the attention of the Director of Transportation Services with the application and fee as found in the Fees and Services By-law and detailed plans and specifications to the satisfaction of the Director of Transportation Services.

- 2.3.3 For Commercial, Industrial, Institutional and Multi-Unit Residential entrances and Public Road intersections, engineering drawings (plans and profile) of the entrance, including related grading and drainage details, shall be submitted to the Director of Transportation Services as part of the application for an Entrance Permit.
- 2.3.4 A sketch of the proposed location of the entrance must accompany every application. The sketch must provide information to enable staff to locate the entrance in the field/farm such as; civic address, legal description, dimensions to buildings and/or landmarks such as fences, hedgerows, tree lines, property lines. In addition, the applicant shall stake out or suitably mark the location of the proposed entrance for inspection by County staff.
- 2.3.5 Upon approval, staff shall determine the insurance coverage required from among the options provided under Schedule A of this procedure.
- 2.3.6 The Entrance Permit, along with the request for insurance, will be forwarded to the applicant. Entrance Permits will expire one (1) year following the date of issue if the entrance is not completed. An Entrance Permit may be extended from the date of issue upon written request. In the event of a plan of subdivision for which draft approval has lapsed, any Entrance Permit issued applicable to the plan will become null and void.
- 2.3.7 The applicant or their contractor shall notify the Director of Transportation Services at least 48 hours prior to the commencement of construction of the entrance.
- 2.3.8 It is the responsibility of the applicant to ensure that the construction of the entrance is in accordance with the requirements of all applicable regulatory agencies having jurisdiction.
- 2.3.9 Applicants are bound by the conditions contained in the Entrance Permit.
- 2.3.10 If in the sole discretion of the Director of Transportation Services the entrance may have a negative impact on the traffic movement the Director of Transportation will require the completion of a Traffic Impact Study.
- 2.3.11 If in the sole discretion of the Director of Transportation Services the entrance may have a negative impact on the structural integrity of County Roads the Director of Transportation will require the completion of an acceptable Road Impact Study.

2.4 Existing Entrances

- 2.4.1 One legally existing entrance to each lot of record will be permitted.
- 2.4.2 All upgrades and changes to entrances must conform to this procedure.

2.5 New Entrances

- 2.5.1 Entrance Permits may be issued for the following:
- For existing lots where no access has been previously established
 - For new Public Roads which intersect with County Roads
 - Where a new entrance replacing an existing entrance can be shown to establish superior entrance standards and specifications
- 2.5.2 Where a subdivision or individual lot fronts on both a County Road and a Local Road, the entrance will be from the Local Road where feasible.
- 2.5.3 Direct access from single lots on to County Roads from a new plan of subdivision or condominium is not permitted.
- 2.5.4 Only one (1) new entrance will be permitted for each existing lot of records, if no alternate access exists and required safety measures can be provided.
- 2.5.5 One (1) field/farm entrance will be permitted if the land is zoned agriculture, there is at least 300 m of frontage and the field/farm entrance is placed at least 150 m away from all other entrances on this property (Class 2 road).
- 2.5.6 Two (2) field/farm entrances will be permitted if the land is zoned agricultural, there is at least 300 m of frontage, the fields are physically separated (residential entrance in the middle) and the field/farm entrance is placed at least 150 m away from all other entrances on this property (Class 2 road). For Classes 3, 4 and 5 roads, the frontage is 200 m and the separation is 100 m on this property.
- 2.5.7 Motels or hotels with at least ten (10) units may have two (2) entrances, provided they are separated by at least 25 m.
- 2.5.8 Gas stations are eligible for two (2) entrances.
- 2.5.9 Commercial properties may apply for a second entrance, based on unique circumstances.
- 2.5.10 The distance between municipal intersecting roads shall be at least 400 m.
- 2.5.11 The Director of Transportation Services may approve a variance to this section if in his/her opinion the variance is a result of sight, physical or existing conditions and will not affect the safety or the operation of the County Road.

2.6 Temporary Entrances

- 2.6.1 Entrance Permits may be issued for the construction of an entrance for a specified period of time. Entrance Permits, when issued, will be clearly marked as “temporary” and will specify the date of expiry. In the event that the application requires an extension to the expiry date of a Temporary Entrance Permit, the applicant may apply in writing requesting an extension, provided this application is made at least 15 days prior to the current expiry date. The applicant will be required to submit the applicable fee for the entrance classification. The Director of Transportation Services may require a security deposit for Temporary Entrances as a condition of approval. The amount of the security will vary with the circumstances.

- 2.6.2 Upon the expiry of a Temporary Entrance Permit, the applicant will be required to remove the entrance and to restore the Boulevard to its original condition.
- 2.6.3 If at the expiry of a Temporary Entrance Permit, the applicant fails to remove the entrance and restore the Boulevard to its original condition, the County may use the security deposit to perform the work on the applicant's behalf. If additional funds are required above and beyond the security deposit to complete the work, the County may request that the Treasurer of the local municipality include any part of the fees and charges imposed by the County to the tax roll pursuant to the provisions of sections 398 and 446 of the *Municipal Act, 2001*.

2.7 Mutual Entrances

- 2.7.1 Mutual Entrances are discouraged due to potential ownership problems and should only be considered if individual entrances are not possible due to physical constraints or because it is impractical to build a road due to the small number of lots involved. Entrance Permits may be issued for new Mutual Entrances, the conversion of an existing entrance to serve separate existing lots, or for two or more main buildings on one lot provided that:
- The main buildings have the same use and qualify for the same entrance standards set out above.
 - The County Road frontage to be combined lots is 50 meters or greater
 - Minimum Sight Distance requirements are met.
 - The proposed Mutual Entrance will not adversely affect traffic safety on the County Road.
 - An easement is granted by each lot in favor of all the other lots sharing the easement.

2.8 Entrance Locations

- 2.8.1 Generally, entrances onto County Roads must be a minimum of:
- 2.8.1.1 55 meters from an intersection for residential, farm or field lots.
- 2.8.1.2 100 meters from an intersection for commercial, institutional, industrial or multi-use residential lots; and
- 2.8.1.3 25 meters from an "at grade" railway crossing (measured from center-line of entrance to the property line abutting the railway right-of-way).
- 2.8.2 Generally, entrances onto County Roads are not permitted:
- 2.8.2.1 Adjacent to a lane which is identified for the purpose of an exclusive turning movement including but not limited to, channelization, acceleration or deceleration
- 2.8.2.2 Where Minimum Sight Distance requirements are not met; and
- 2.8.2.3 Where the entrance would violate the design guidelines of the Geometric Design Standards for Ontario Highways, Transportation Association of Canada and County, whichever guideline is more restrictive.

2.8.3 The County may restrict the placement of an entrance onto a County Road in the interest of public safety. New Entrances must be located so as to provide, in the opinion of the Director of Transportation Services:

2.8.3.1 No undue interference with the safe movement of public traffic, pedestrians, or other users of the County Roads

2.8.3.2 Favorable vision, grade and alignment conditions for all traffic using the proposed entrance to the County Road

2.9 Entrances Adjacent to Bridges

2.9.1 An entrance adjacent to a Bridge or other structure which may interfere with the clear vision of traffic using the entrance must be located so that it meets the minimum stopping sight distance requirements identified in section E. 3 of the Geometric Design Standards for Ontario Highways Manual, as amended.

2.10 Exceptions

2.10.1 Exceptions may be granted for proposed entrances on existing lots where Minimum Sight Distance requirements cannot be met, subject to approval of being granted by the Director of Transportation Services.

2.10.2 The applicant is required to submit a written request (with the applicable fee) to the Director of Transportation Services which sets out the reason an exception is requested.

2.10.3 If an exception is granted, it may be granted with conditions and the applicant may be required to enter into a Development Agreement with the County to be prepared and registered on title to the property in question at the applicant's expense.

Section 3 - Entrance Standards and Sight Distances

3.1 Entrance Standards

3.1.1 Residential/Field/Farm shall comply to the applicable Ontario Provincial Standards Drawings (OPSD) such as 301.010, 301.020, 351.010. It is to be noted that 5 m is generally applied for maximum width.

3.1.2 Farm entrances shall comply to FSAS-01 or FSAS-02

3.1.3 Commercial Entrance

3.1.3.1 In recognition of the great variety of business establishments and their different needs, the County employs a multitude of entrance designs for commercial access. These designs are outlined in the Commercial Site Access Policy & Standards Manual. The appropriate entrance design is determined by the nature of the business and the specific use of the property and should be in accordance with the following guide:

NOTE: Grading for CSAS shall be in accordance with OPSD's 301.010 or 301.020 in rural areas and 350.10 for urban areas.

CSAS-1 to 22	To be used for service stations, motels (over 10 units), etc.
CSAS-23	To be used for commercial and industrial sites, patrol yards, public boat launching sites, etc.
CSAS-24 TO 27	To be used for shopping centers, large parking areas, drive-in theatres, race tracks and other large traffic generators.
CSAS-28	To be used for campgrounds, trailer parks and park sites.
CSAS-29	To be used for small utility stations.
CSAS-30	To be used for large utility stations.
CSAS 31 & 32	To be used for small business, convenience stores, real estate offices, doctors' offices, etc.

NOTE: Where turning lanes are required, the entrance design should be based on the Geometric Design Manual standards, not the Commercial Site Access manual. Director of Transportation Services should be consulted. A road occupancy agreement may be required.

3.1.3.2 Commercial Entrances must be constructed and, where applicable, must be paved before the establishment is opened for business. Pavement shall consist of least two (2) layers of asphalt 50 mm deep as required by the Director of Transportation Services. All asphalt shall conform to OPSS 310.

3.1.3.3 To qualify for County Road access, commercial sites must have sufficient frontage to accommodate the appropriate commercial entrance design. The required minimum frontage for Commercial Entrances is 45 m (150 ft.) where the posted speed is 70 km/h or more and 31.5 m (105 ft.) where the posted speed is less than 70 km/h.

3.1.4 Public Roads shall be designed and constructed as per the geometric design manual and the applicable Ontario Provincial Standards Drawings (OPSD).

3.1.5 All entrances shall either have a surface of asphalt or granular material from the edge of the road asphalt to at least three (3) meters away from the edge of the road.

3.1.6 Drainage

3.1.6.1 Surface Water Drainage

- a. Each entrance must be designed, constructed and maintained in a manner that will prevent surface water from being discharged from the property onto the County Road.
- b. The grade of each entrance must meet the grade of the shoulder of the County Road at a point no closer to the travelled portion than the outer extremity of the shoulder.

3.1.6.2 Bridges

- a. Where the flow of water or the width of a ditch makes the use of a pipe or a culvert impractical, a bridge may be permitted. The design of any such bridge must be approved by the Director of Transportation Services. The construction of the bridge is paid by the owner. Subsequent maintenance is the County's responsibility.

3.1.6.3 Culverts

- a. Culverts are open-ended underground pipes, conveying surface

stormwater across a County Road ('County Road culvert') or across an entrance ('entrance culvert').

- b. Culverts required for new or redesigned entrances must be of sufficient diameter to maintain the free flow of water in the ditch. It must also be properly installed in order to avoid future maintenance problems.
 - c. Generally, the minimum culvert diameter for residential and commercial entrances is 500 mm. For public road intersection the minimum size is 600 mm. However, to determine the actual size, a review of the existing drainage is required.
 - d. When the County Road ditch is part of a municipal drain, the diameter of the culvert is subject to municipal standards. The Director of Transportation Services must contact the municipal drainage superintendent to establish the appropriate diameter.
 - e. Where the upstream culvert is wider than the minimum standard, the culvert for the proposed entrance must be at least the same diameter in order to avoid "bottlenecks".
 - f. The length of an entrance culvert is determined by the width of the entrance plus the width of the slopes on both sides of the entrance, as measured at the bottom of the ditch.
 - g. The entrance slope shall be 3:1 or flatter.
 - h. The culvert should be placed in the center of the County Road ditch and be embedded a minimum of 100 mm – 150 mm (4"-6").
 - i. OPSD standards (800 series) should be used to determine the specifications of the culvert pipe (type, gage, and other relevant specifications) and the bedding requirements. Only polyethylene pipes will be permitted.
 - j. Headwalls of any type at either end of the culvert are not permitted.
 - k. All structures over 3 m shall be designed and stamped by a Professional Engineer of Ontario.
- 3.1.7 All curb and gutter and islands must be designed and constructed as per the Geometric Design Manual and applicable Ontario Provincial Standards Drawings (OPSD). The Director of Transportation Services must approve all applications.

3.2 Spacing

The following standards apply to Commercial/Farm/Field/Residential Entrances:

3.2.1 Class 2 Road

- Up to six (6) entrances per kilometer per side
- No more than one entrance for every 300 m of frontage
- The minimum separation distance between entrances shall be 150 m.

3.2.2 Class 3 Road and Class 4 Road

- Up to 10 entrances per kilometer per side
- No more than one entrance for every 200 m of frontage
- The minimum separation distance between entrances shall be 100 m.

3.2.3 Public Road Spacing

- Minimum of 400 m
- 3.2.4 Major Commercial Access – shopping centers, special activity (sports arena)
 - Minimum of 365 m
- 3.2.5 The Director of Transportation Services may approve a variance to this section if in his/her opinion the variances are a result of sight, physical or existing conditions and will not affect the safety or the operation of the County Road.

See Schedule A for the Road Classification Map.

3.3 Sight Distances

- 3.3.1 Minimum Sight Distance as per Table 1 and Table 2 as applicable.
- 3.3.2 1.05 m represents the driver's eye level, at an offset of 3.0 m from the edge of the pavement, to a point on the center of the upstream and downstream lane of the County Road at a height of 1.30 m, which represents the object height.

Table 1

Speed Limit km/hr	Minimum Sight Distance (meters)
50	110
60	135
70	155
80	175

Minimum sight distance established considering design speed.

Table 2

Posted Speed Limit km/hr	Decrease for Upgrade To Entrance		Increase for Downgrade To Entrance	
	3%	6%	3%	6%
50	-5 m	-5 m	Nil	+5 m
60	-5 m	-5 m	+5 m	+10 m
70	-5 m	-10 m	+5 m	+10 m
80	-10 m	-15 m	+10 m	+15 m

Tables provide factors (in meters) when the entrance is located on a grade on the County Road.

Section 4 Inspection and Maintenance

4.1 Inspection

- 4.1.1 A field inspection may be carried out by County staff during and/or upon completion of the entrance.
- 4.1.2 The County may require that modifications be performed if the installation of the entrance does not conform to the plans and specifications submitted to obtain the Entrance Permit.
- 4.1.3 In the event that modifications are required, the County shall provide written notice of the modifications to the applicant at the applicant's address as shown on the Entrance Permit application. The applicant shall carry out the required

modifications within 45 days of the date of the written notice and is responsible for the cost of the inspection and any modifications required.

- 4.1.4 If the applicant fails to carry out the required modifications within 45 days, as set out above, the County may have the required modifications completed by employees or agents of the County. The County may request that the Treasurer of the local municipality include any part of the fees and charges incurred by the County to the tax roll pursuant to the provisions of section 398 and 446 of the *Municipal Act, 2001*.

4.2 Maintenance

- 4.2.1 Upon approval of a culvert installation, the culvert will become the property of the County and all subsequent maintenance and repairs will be the responsibility of the County.
- 4.2.2 The Owner of a property, served by and entrance shall be responsible for maintaining the surface of each entrance for a distance extending from the property line to the shoulder of the County Road
- 4.2.3 The County shall maintain only that portion of the entrance from the travelled portion of the road to the outer edge of the shoulder.

Section 5 Revocation, Appeal and Costs

5.1 Revocation of Permits

- 5.1.1 The County may revoke an Entrance Permit issued under this by-law for the following reasons:
- 5.1.1.1 It was issued based on mistaken, false or incorrect information;
- 5.1.1.2 In the opinion of the Director of Transportation Services, the construction is substantially suspended or discontinued for a period of more than one year;
- 5.1.1.3 It was issued in error;
- 5.1.1.4 The applicant requests in writing that it be revoked; or
- 5.1.1.5 A condition of the Entrance Permit has not been complied with.
- 5.1.2 In the event that the applicant breaches any of the conditions contained in the Entrance Permit, the County may use its own employees or agents to complete the work required under the Entrance Permit or to remove the entrance works and re-instate the prior roadway condition and may collect the cost of the work pursuant to the provisions of sections 398 and 446 of the *Municipal Act, 2001*.

5.2 Appeals

- 5.2.1 An applicant may appeal the decision of the Director of Transportation Services with respect to the issuance of the Entrance Permit or any of its conditions to the Transportation and Public Safety Committee.

- 5.2.2 The applicant is required to submit a written notice of appeal to the Director of Transportation Services which sets out the reasons for the appeal and must be accompanied by the applicable fee prescribed in Schedule "C" of the Fees and Services By-Law.
- 5.2.3 The decision of the Transportation and Public Safety Committee is final and binding.

5.3 Costs

- 5.3.1 All costs associated with an Entrance Permit are the responsibility of the applicant. These costs may include, but are not limited to, applicable Entrance Permit application fees, construction materials and labor, utilities, traffic control devices, layout, surveying, legal costs and removal of non-conforming works. Refer to the Fees and Services By-Law for applicable fees.
- 5.3.2 Where an applicant fails to comply with the requirements or provisions of this by-law, the County may recover the expense by requesting that the Treasurer of the local municipality include any part of these fees and charges incurred by the County to the tax roll pursuant to the provisions of section 398 and 446 of the *Municipal Act, 2001*.
- 5.3.3 All applications must be accompanied with the payment identified on the attached fee schedule for the corresponding type of application. The payment includes a fee to administer the application and a holdback. The administration fee is not returnable. If the work is not approved the holdback will be returned. If the permit is approved the holdback will be retained until the applicant has submitted a declaration that the work has been completed as per the requirements and has made all applicable payment and Grey staff have inspected the work site and agree that the work is completed properly.

Section 6 Administration and Enforcement

- 6.1 This procedure will be administered by the Director of Transportation Services or designate except the provisions regarding recovery of costs which will be administered by the County's Director of Finance or designate.
- 6.2 This procedure shall be enforced by the persons appointed pursuant to section 15 of the *Police Services Act* and referred to in this procedure as Municipal Law Enforcement Officers.
- 6.3 No Person shall create or alter an entrance or change the classification or use of an entrance onto a County Road without first having applied for and obtained an Entrance Permit from the County.
- 6.4 Any person who contravenes any of the provisions of this procedure is guilty of an offence and upon conviction is liable to a fine as provided for in the Provincial Offences Act, R.S.O. 1990, as amended, and such fine is recoverable under the Provincial Offences Act R.S.O. 1990 as amended.

- 6.5 If a person has been convicted of an offence under this procedure, pursuant to section 431 of the Municipal Act, 201, the court in which the conviction has been entered may, in addition to any other penalty or other remedy imposed, make an order prohibiting the continuation or repetition of the offence.

Schedule A
Road Classification Map

