



APPENDIX 9

Long Term Maintenance Policy for Decorative Landscape Features and Structural Elements

**Township of King
Design Criteria and Standard Detail Drawings**



ENGINEERING, PUBLIC WORKS AND BUILDING DEPARTMENT
POLICIES, GUIDELINES AND PROCEDURES

LONG TERM MAINTENANCE POLICY for Decorative Landscape Features and Structural Elements on Municipally owned and Private Lands	Policy No. EPW-P001/2013
Maintenance Responsibilities	Effective Date:
Revision No: 1 Date: Jan.2015	Approved by: Council Date: January 12, 2015
Repealed:	Scheduled for Review:

1. Policy Statement:

The Township of King identifies that certain works constructed by Developers on public lands or private lands must be maintained by the Municipality and in turn funding for these purposes is required.

2. Definitions:

- 2.1 “Decorative Landscape Features” (refer to the Appendix A Listing)
- 2.2 “Structural Elements” (refer to the Appendix B Listing)
- 2.3 “Works” shall refer to both Decorative Landscape Features and Structural Elements
- 2.4 “Long Term Maintenance Costs”: All costs for the maintenance and eventual replacement of any installed decorative landscape feature and/or structural elements based on the equivalent value of replacing/reconstructing defined features at the end of its originally estimated useful life.

3. Procedures:

Decorative landscape feature and/or structural elements are typically constructed by developers to enhance their respective development projects or to address issues related to property location and grading. The installation of such works in new development projects may be considered for approval subject to guaranteed future access by the municipality and the provision of a financial contribution for long term maintenance being received from the applicant.

3.1 Decorative Landscaping Features:

- i. Works shall be constructed according to approved designs
- ii. Works shall be maintained by the Developer to be in good condition and repair; throughout their ownership until assumption by the municipality.
- iii. Parcel blocks containing the works will be dedicated to the Township of King in co-ordination with the registration of the plan of subdivision or site plan;
- iv. All temporary works, installed for the sole purposes of marketing, may be placed entirely within a dedicated parcel block on the plan of subdivision or within the public right-of-way provided:
 - i. Prior approval is granted by the Director of Engineering, Public Works and Building;
 - ii. Temporary works shall be placed as not to encroach onto utility infrastructure or traffic control devices, both above and below ground;
 - iii. Temporary works shall be situated so to not cause a visual obstruction to the traffic lanes.
 - iv. An agreed to program for removal has been approved

3.2 Noise Walls/Barriers:

- i. Works shall be constructed according to approved designs
- ii. Works shall be maintained by the Developer to be in good condition and repair; throughout their ownership until assumption by the municipality.
- iii. Noise Walls/Barriers including all decorative pillars and appurtenances shall be installed along municipal owned or placed entirely on a dedicated parcel block on the plan of subdivision.
- iv. Noise Walls/Barriers installed on private property shall require a registered easement in favour of King Township and the respective property owners to undertake any maintenance or repairs to the structure.

3.3 Communal Retaining Walls:

- i. Works shall be constructed according to approved designs
- ii. Works shall be maintained by the Developer to be in good condition and repair; throughout their ownership until assumption by the municipality.

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- iii. Communal retaining walls placed along municipal owned lands or lands conveyed to King Township shall be placed entirely on a dedicated parcel block on the plan of subdivision.

4.0 Right of Access:

In order to carry out maintenance on work not constructed on public lands, the property owner shall be required to:

1. Deed the parcel of land containing the entrance features to the municipality;
- or
2. Grant the municipality right of access to undertake maintenance by registering an easement in favour of the Township which encompasses the full limits of the works.

4.0 Short Term Maintenance:

Until assumption of the development project is issued by the Township of King, the developer shall be responsible, as a condition in the development agreement, for all costs for the maintenance and repairs of the works.

5.0 Long Term Maintenance (Financial Contribution):

A discretionary reserve fund shall be created by King Township and shall be put forth for annual municipal budget consideration. A financial contribution equal to the present value of the construction costs including material and labour shall be implemented under the "Amounts Payable to The Township of King" Schedule in the development agreement for long term maintenance costs for the life of the permanent decorative landscaping as per the following:

5.1 Entrance Features:

The Developer shall be required to provide 100% of the construction costs including landscaping, labour and material for the life the structure

5.2 Noise Wall/Barriers:

Financial contribution for the perpetual maintenance shall be calculated as follows:

- 5.2.1 The Developer shall be required to provide 100% of the construction costs including landscaping, labour and material for the life of the structure.

5.3 Communal Retaining Walls:

For those communal retaining walls having potential municipal impacts, the Developer shall be required to provide 100% of the construction costs including labour and material for the life the structure.

6.0 Approvals:

- 4.1 All proposed entrance features as outlined above shall be submitted to the Director of Engineering, Public Works and Building for approval and shall be prepared in coordination with the overall Master Landscape Plan.
- 4.2 The proposed decorative landscaping shall comply to the design elements for the overall streetscaping plan.
- 4.3 The applications shall include proposals for the design of the structures and landscaping of features that are complimentary to the identified development and compatible with the adjacent neighbourhoods.
- 4.4 The proposed design shall be indicated with accurate dimensioning and elevations and shall be duly notarized by a registered landscape architect and approved by the developer's engineering consultant;
- 4.5 Upon receipt of all required documents for the said feature, the Director of Engineering, Public Works and Building shall render a decision identifying works the Township is prepared to accept including the approval or required modification or denying the proposal if the design is not in keeping with municipal standards.

7.0 Agreement Terms

Development agreements shall include but not be limited to conditions outlining the foregoing

8.0 Liability Insurance:

The developer shall indemnify and save harmless the Township from and against all claims, damages, debts, dues, suits, actions and causes of actions, costs or sums of money that the Township may suffer by reason of the placement, location or existence of the Entrance Feature, or anything done or omitted to be done by the developer in the operation, repair and maintenance or removal of the Entrance Feature and rehabilitation of the site, until assumption by the Municipality.

Appendix A DECORATIVE LANDSCAPE FEATURES

Subdivision Entrance Features

Entrance Features are defined as any combination of decorative structures and landscape elements located within a development, created with the expressed purpose of identifying or drawing attention to the development. Entrance features have traditionally been installed in new developments as a marketing tool to advertise the respective sites, and are not a mandatory requirement. These features have typically been situated entirely on private property and the Developer transfers the responsibility to the home owner for maintenance once the development has been assumed by the municipality. In some instances, the entrance feature has been located partly or entirely on blocks of land transferred into Township ownership.

Traffic Islands and Roundabouts

Engineered traffic roundabouts provide for efficient movement of traffic through busy intersections because a full stop is not required in any direction. As a result, they have become more common in subdivision developments as a preferred alternative to four-way stops on busy collector roads. Typically, the centre of the island and the traffic splitting islands have been designed and installed with landscaping and enhance decorative features such as walls, pillars, and landscaping marketing information similar to entrance features.

Decorative traffic islands do not serve as engineered traffic control elements and are typically installed within the centre of cul-de-sac bulbs. They serve a decorative purpose and are typically landscaped with shrubs, vines and flowers. In addition to aesthetics, they provide benefit by reducing the total amount of impervious asphalt and therefore reduce stormwater runoff, and may also provide a cooling effect in the summer.

Maintenance of these features is required on a regular basis.

Other Decorative Landscape Features

Other Decorative Landscape Features include fences, gardens, landscaping, pillars, artwork, etc. that are installed by Developers on municipal property to enhance the aesthetic appeal of the development. Similar to decorative traffic islands, these features are not required, but may have been included in the development approval process to create an enhanced or “upscale” development as a community benefit. Typically, these features are commonly installed by the Developer for marketing purposes and can include materials such as:

- Masonry or Cut Stone Walls
- Decorative landscaping
- Fencing
- Decorative Lighting
- Engraved stone or concrete
- Landscape planting

These features also require regular maintenance or they quickly deteriorate and risk becoming a liability rather than a community benefit.

Appendix B STRUCTURAL ELEMENTS

Noise Attenuation Fences/Barriers

Noise Attenuation walls are installed when the location of the development lands require mitigative measures due to proximity to noise sources. Noise barriers are typically located along Regional Roads, highways, rail corridors or adjacent to industrial areas. The barriers are required to meet the Ministry of the Environment (MOE) criteria for noise levels within new developments. These barriers must be maintained wholly intact to remain effective. Any deterioration or gap can affect many properties. The Regional Municipality of York requires all noise attenuation walls adjacent to Regional Roads to be located on private property. In some instances Developers have incorporated large decorative pillars as part of the wall structure. These structures will also be the homeowner's responsibility to maintain. Failure to maintain them may cause the walls to fail.

Other Similar Features eg Engineered Communal Retaining Walls

Retaining walls located entirely on private property, installed to facilitate grading and drainage, are entirely the responsibility of the private property owner. These retaining walls are typically masonry walls and if installed correctly remain in stable condition for many years. Property owners tend to undertake maintenance and repairs individually.

Engineered communal retaining walls are typically located across numerous properties for grading, drainage and in conjunction with noise attenuation fencing/barriers. They are installed to permit the development of lots within a subdivision that would not otherwise have been possible due to grade differences and required engineered slopes. They are often located along the side or rear lots abutting municipal lands such as open spaces, valley lands and buffers, roads or corridors and serve to maximize the developed area without impacting the open space.

Maintenance or repairs on these types of retaining walls becomes complicated when each property may or may not wish to co-ordinate with neighboring properties. These types of retaining walls tend to be considerably larger and become very expensive to undertake maintenance or repair. This tends to lead to walls to remain in poor maintenance and in some cases, may lead to a failure in the retaining wall. In instances where these works are installed adjacent to publically owned lands, failure of the retaining walls represents a potential municipal impact.

ATTACHMENT “D”

Proposed Calculation Methodology for Long Term Maintenance Contributions

To determine adequate funds for long term maintenance, it is proposed that each respective entrance feature design be reviewed through the engineering review of the development project and that the developer be required to provide an analysis of the life cycle of the proposed entrance feature and to provide funds equal to the replacement cost of all intended hard and soft landscaping.

A solution to determining a long term maintenance amount would be the present value of the construction costs which would include both labour and material costs. This financial contribution would be collected at the time of approval of the development agreement and be placed in a Maintenance Reserve fund to offset maintenance costs.

The calculation to determine the financial value for long term maintenance is calculated utilizing the following formula:

$$C_t = C (1 + i)^t$$

Where:

- C_t = Present Value = long term maintenance value
- C = Construction Costs
- t = Number of years of the life of the feature
- i = The net interest rate or net rate of return

The long term maintenance takes into account the construction costs, including landscaping, labour and materials, and further assesses the life cycle of the structure. Material items such as concrete, brick and stones will typically have much longer life cycles than wooden material structures. The present value calculation provides us the long term maintenance value.