



Policy Title: Residential Street Design Policy

Policy Number: TP018

Report Number: TT-2012-0322

Approved by: Council

Effective Date: 2012, November 5

Business Unit: Transportation Planning

BACKGROUND

Sustainable policy initiatives in the City encourage and support a transportation network characterized by greater connectivity, a balance for pedestrian and vehicular traffic, reduced environmental impacts (air, water), and development that makes the most efficient use of land. More efficient use of land has led to narrower residential lots and more front driveway housing product. This, in conjunction with current residential street design standards, yields a functional but austere street design that is prevalent in today's suburbs as compared to older communities. Recent sustainable policy has also highlighted the critical importance that the streetscape (including green infrastructure*) plays in creating a sense of place for communities, reinforcing the neighborhood concept and promoting non-motorized modes of travel.

*defined as engineered green elements designed to mimic ecological functions or reduce impacts on ecological systems (e.g. bio-swales).

PURPOSE

The intent of the Policy is to improve community livability through design including increasing the quantity of trees and pedestrian facilities in new residential communities.

The industry and Council approved Sidewalk and Tree Guidelines for Local Residential Streets (C2011-70) containing general principles, design principles (including low impact and innovative design), and process principles. The Guidelines form the basis for this policy. The policy replaces the current residential street design standard with three and provides direction on their application, and the approval process including evaluation of variance to the policy.

POLICY & PROCEDURE

1.1 Design

1.1.1 Residential Street Design Standards

Residential Street Design Standards 'Separate Walk with Rear Lane (SW-L)', 'Monowalk with Rear Lane (M-L)', and Monowalk with no Rear Lane (M)' as contained in Appendix A, shall be applied at the Outline Plan and Subdivision Plan approval stages in accordance with the policies contained herein.

1.1.2 Innovative Residential Street Design Standards

- (1)** In addition to Standards 'SW-L', 'M-L' and 'M', an "Innovative" Standard may be approved by Council and applied at the Outline Plan and Subdivision Plan approval stages as a replacement for Standards 'SW-L', 'M-L' and 'M'.
- (2)** An Innovative Standard shall only be approved where it is determined that it,
 - (a) creates an equivalent or, preferably, an improved streetscape appearance over the standard that it replaces,
 - (b) results in a cost efficient design in terms of long term maintenance and replacement,
 - (c) provides for efficient pedestrian and vehicle movements, and
 - (d) allows for low impact development in its design unless determined impractical (e.g. insufficient right-of-way, slope design)
- (3)** In order to evaluate an Innovative Standard, Council may limit its application to select areas or for a predetermined timeframe.

1.2 Application

1.2.1 Local Street Design Standard 'SW-L'

- (1)** Standard 'SW-L',
 - (a) may be applied in any area determined appropriate as an alternative to Standard 'M-L' or 'M', and
 - (b) shall be applied in the following areas as determined appropriate:
 - (i) Neighborhood Activity Centres;
 - (ii) Community Activity Centres;
 - (iii) Major Activity Centres;
 - (iv) Transit Oriented Development;
 - (v) Other situations determined appropriate involving concentrated mixed use and transit-oriented development.
- (2)** The area and extent of applications of Standard 'SW-L' shall be,
 - (a) defined at the Outline Plan and Land Use Amendment stage, and
 - (b) required to extend beyond the areas identified under (1)b. where it is logical to do so due to the road pattern.

1.2.2 Local Street Design Standard 'M-L' and 'M'

- (1) Standard 'M-L' or 'M', may be applied in any area, where
 - (a) Standard 'SW-L' is not required to be applied, and
 - (b) An innovative standard is not applied.

1.3 Lanes

1.3.1 Lane Requirements

- (1) Where the application of 'SW-L' is required, access will be limited to Rear lanes only.
- (2) Where safety or design concerns prohibit front access to the street, alternate access shall be provided as approved by Transportation.
- (3) Where rear lane access is required, a restrictive covenant shall be registered against the title of the subject parcel(s) prohibiting front access to the street.
- (4) If a lane is constructed, but rear access is not required, either front street access or rear lane access shall be allowed.

1.4 Sidewalks

1.4.1 Sidewalk Requirements

Where a cul-de-sac, or an equivalent self-contained road design, is proposed that serves 30 dwelling units or less and pedestrian connections are not present, only one sidewalk on one side of the road should be required to be provided with Standards 'M-L' and 'M'.

1.5 Street Trees

1.5.1 Quantity Requirements

One tree shall be planted within the road right-of-way in front of each lot. In the case where a tree cannot be accommodated within the road right of way, it shall be provided elsewhere in the community.

1.5.2 Growing Area Requirements

- (1) Growing area is defined as a permeable surface that is open to the air, free of utilities to a 1.0 metre depth, and is supported by topsoil as per Parks Development Guidelines and Standard Specifications for Landscape

Construction. The calculation for the growing area shall follow the methodology as specified in Appendix B of this Policy.

- (2) No tree shall be planted where a growing area of less than 10 square meters is available except as stated in 1.5.2 (8).
- (3) Where a minimum growing area of 10 square meters is available, a small size species tree (e.g. crab apple tree) as approved by the Parks Department shall be planted.
- (4) Where a minimum growing area of 20 square meters is available, a medium size species tree (e.g. Ash tree) as approved by the Parks Department shall be planted.
- (5) Where a minimum growing area of 30 square meters is available, a large size species tree (e.g. Elm tree) as approved by the Parks Department shall be planted.
- (6) A variety of tree species shall be provided across the community as approved by Parks.
- (7) Notwithstanding the above, growing area may be shared between trees where appropriate and approved by Parks.
- (8) Reduced growing minimum area requirements for trees may be considered where techniques that improve growing conditions are provided including, but not limited to, Low Impact Development.

1.6 Variances

1.6.1 Variance

- (1) Notwithstanding any provision in this policy, a relaxation of a numerical, design or regulatory standard or policy may be granted by the Subdivision Authority where it is determined that the relaxation,
 - (a) does not compromise the achievement of the intent of the policy, and
 - (b) is necessary to address a unique or unforeseen circumstance and does not set precedence or reflect an overall problem or deficiency in the standard or policy that is the subject of the relaxation.
- (2) A street width of 9.0 metres may be permitted on cross-section submissions other than Standard 'M' subject to the approval of the Fire Chief.

1.7 Implementation

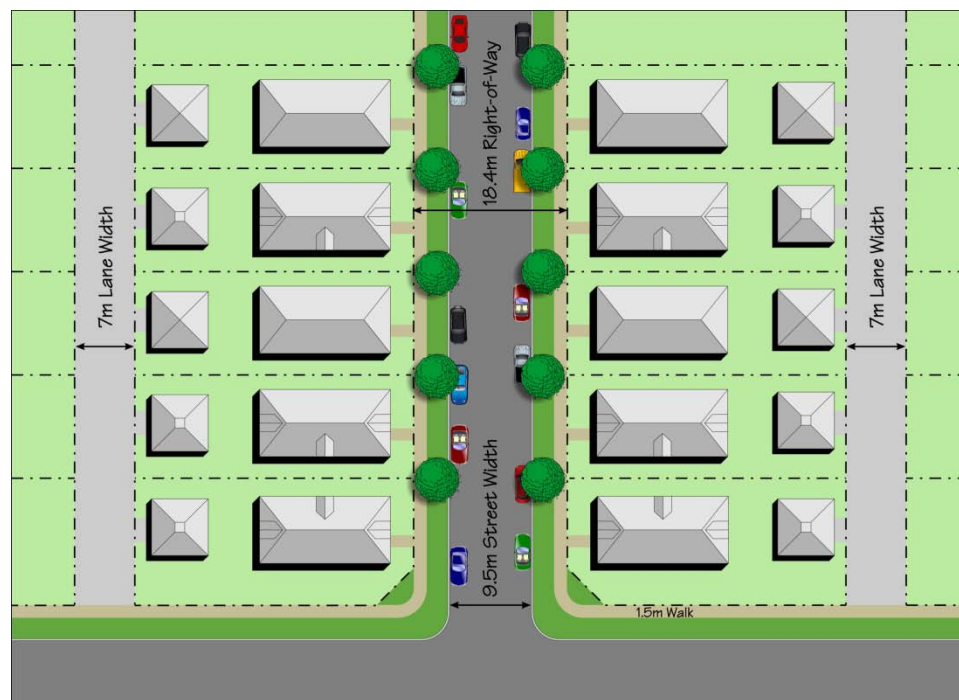
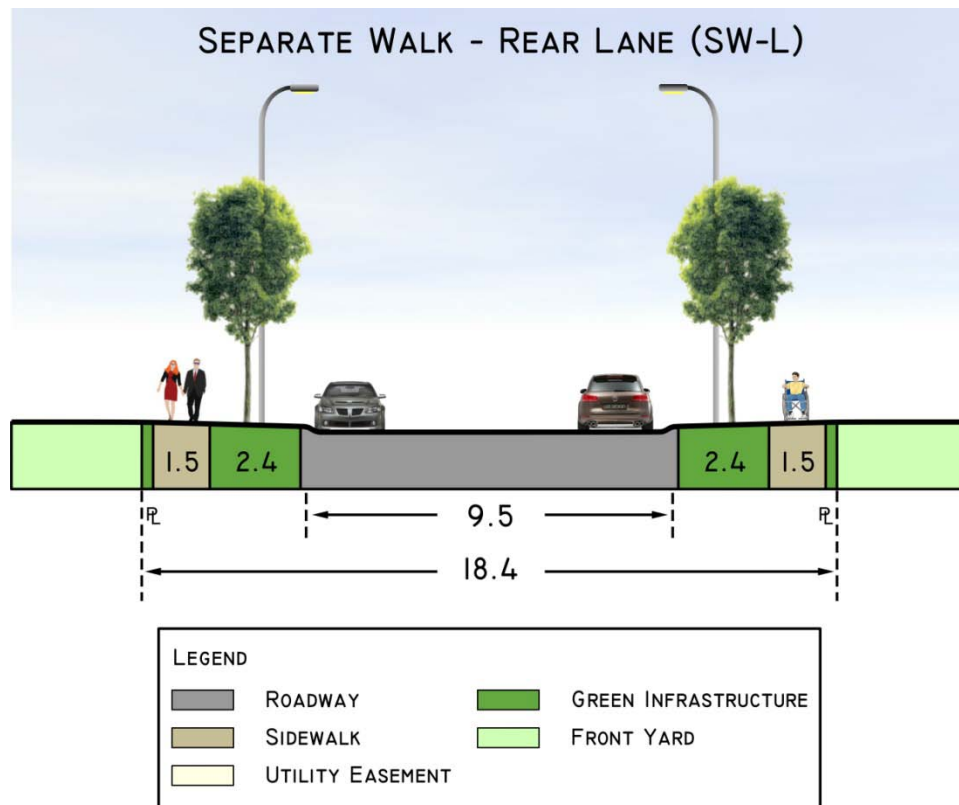
1.7.1 Policy Status

- (1)** This policy is non-statutory and shall be implemented,
 - (a) in the majority of cases, through the Outline Plan and Subdivision Plan approval processes, or
 - (b) where appropriate, through statutory and non-statutory plans or the Land Use Bylaw.

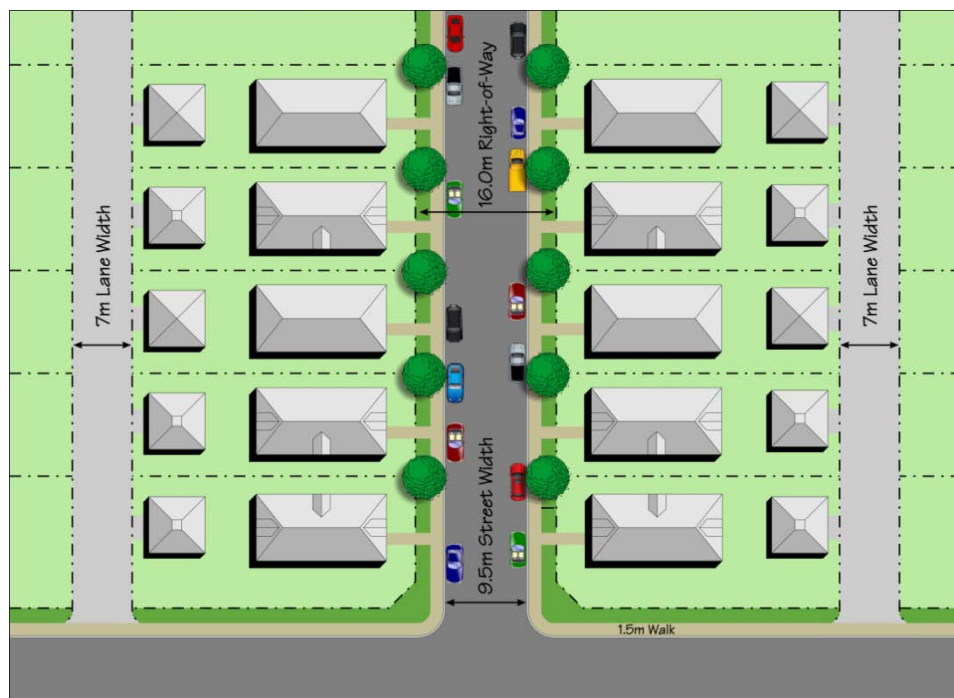
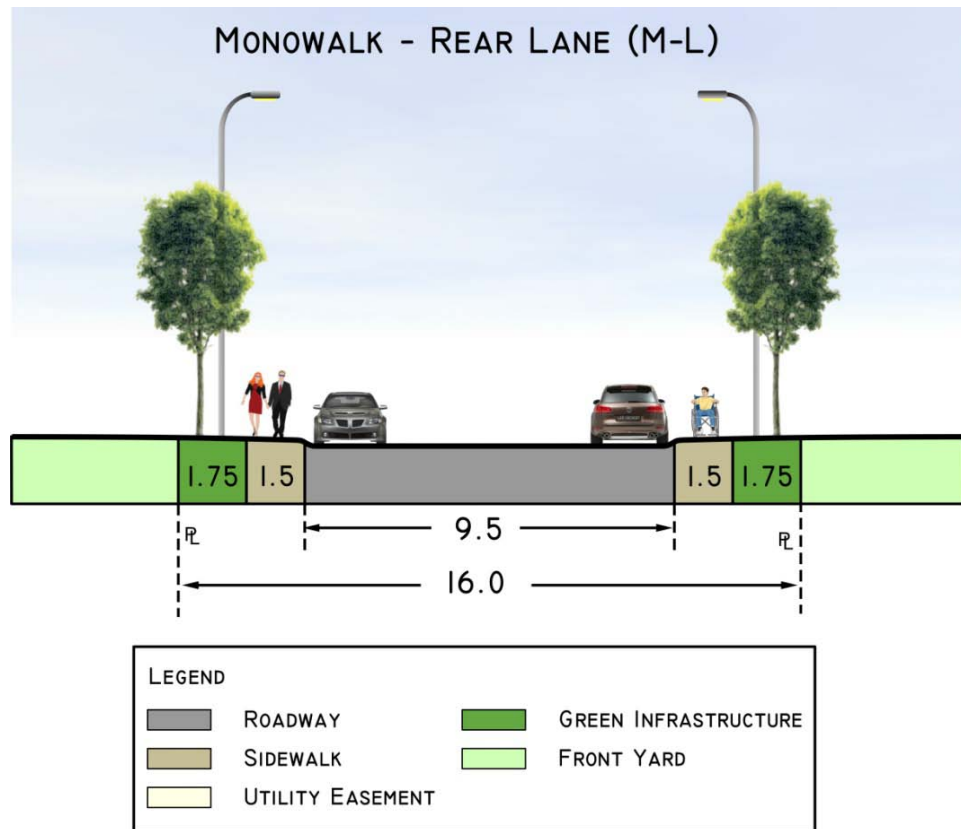
1.7.2 Transitional Application

- (1)** Subject to (2), (3) and (4) below, this policy shall be applied upon its approval by Council.
- (2)** In the case where there is a previously approved Outline Plan and Land Use Amendment application in place upon the approval of this policy,
 - (a) Standard 'SW-L' shall be applied on a voluntary basis by the developer, and
 - (b) Standard 'M-L' or 'M' shall be applied where Standard 'SW-L' is not applied and where it is determined appropriate.
- (3)** In the case where there is a previously approved Subdivision Plan, this policy shall not apply.
- (4)** In the case of a dispute in the application of this policy within an approved Outline Plan and Land Use Amendment area, the proposed subdivision application should be referred to Calgary Planning Commission for a decision.

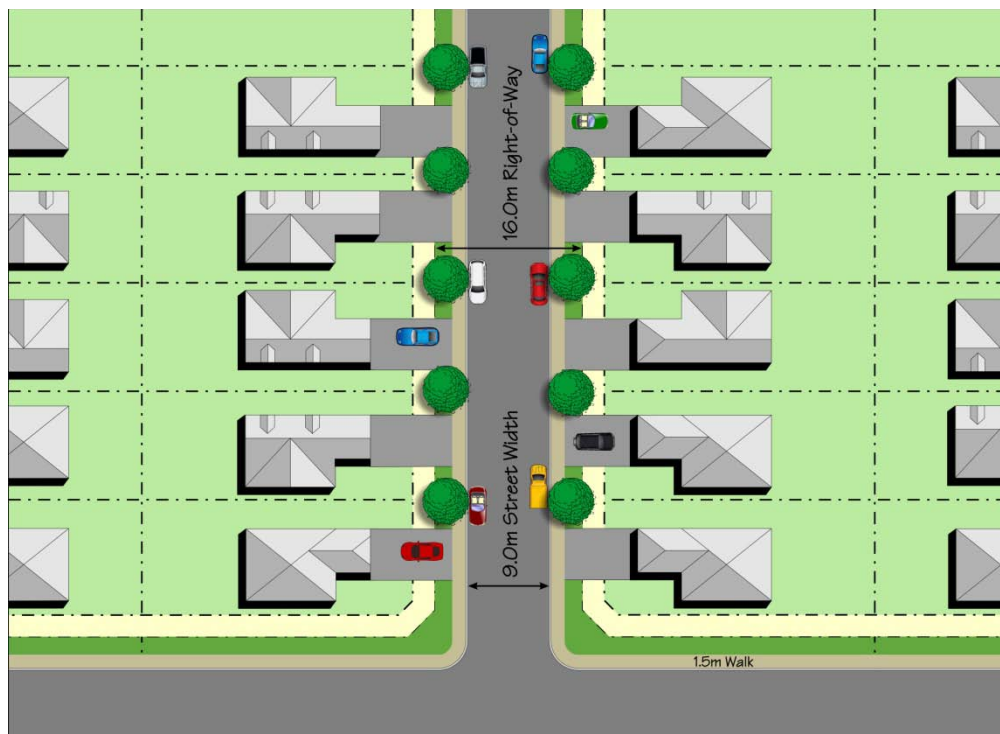
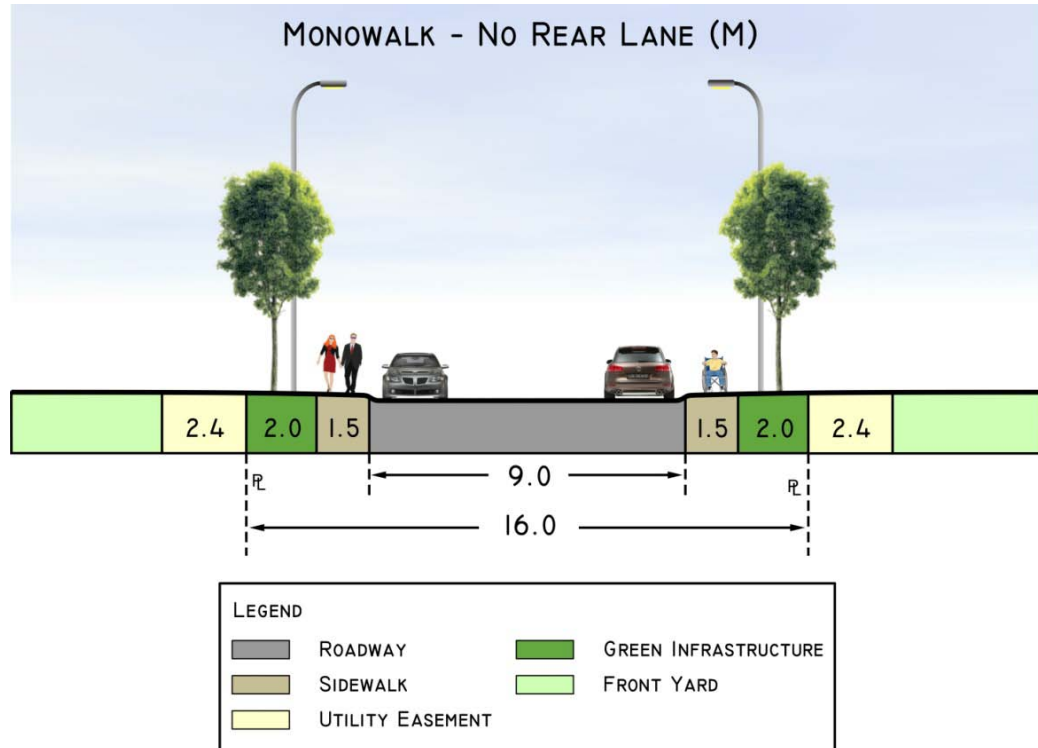
Appendix A Residential Street Design Standards



Separate Walk - Rear Lane (SW-L)



Monowalk - Rear Lane (M-L)



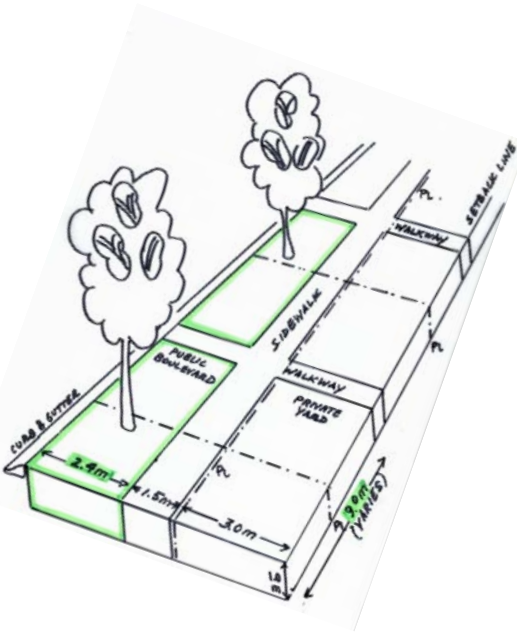
MONOWALK - NO REAR LANE (M)

Appendix B

Methodology for Calculating Public Tree Growing Area (Sample Calculations Based on a 10 metre wide residential lot)

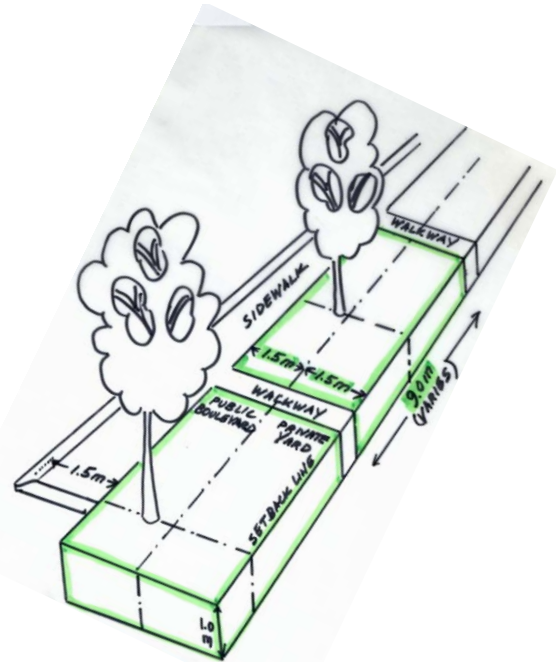
Standard SW-L

The growing area for 'SW-L' standard streets is calculated by multiplying the public boulevard width (2.4 metres) by the lot width less the walkway width (9 metres). For 10 metre wide lots, therefore, the growing area per tree is **22 square metres**, sufficient for supporting medium size tree species (Policy 1.5.2(4)). This can be improved upon through strategies to allow roots to travel under the sidewalk to the private yard soil (e.g. culverts).



Standard M-L

The growing area for 'M-L' standard streets is calculated by multiplying the public boulevard width (3.0 metres) by the lot width less the walkway width (9 metres). For 10 metre wide lots, therefore, the growing area per tree is **27 square metres**, sufficient for supporting a medium to large size tree species (Policies 1.5.2(4,5)).



Standard M

Policy 1.5.2 (1) states that the growing area must be free of utilities to a 1.0 metre vertical depth. Shallow utilities are located at a 1.2 metre depth. The growing area for 10 metre wide lots is calculated by multiplying the width between driveways (3-4.5 metres) by the full front yard depth (6.0 metres). A Deeproot barrier (or similar) shall be installed between each public tree and the shallow utilities to minimize shallow utility / tree root conflicts. This yields a growing area of **18 to 27 square meters**, sufficient for supporting medium to large size tree species (Policies 1.5.2(4,5)).

