Urban Agriculture and

Residential Gardening

May 2017

A Blueprint Developed by the Cass Clay Food Systems Initiative

Residential Gardening: Front Yard & Boulevard Gardens

This issue brief will provide background information related to residential gardening and address the common concerns and benefits from a health, environmental, social, and economic standpoint. Appendices have been provided to share how regional jurisdictions are managing their residential gardening as well as example policy language from other jurisdictions.

Background

Since the 1940's American suburbia has been defined by white picket fences and perfectly green turfgrass lawns. It is estimated that turfgrass lawns in the United States cover more acres of land than corn, alfalfa, soybeans, orchards, vineyards, cotton, pastures, wheat, and hay combined, totaling around 40.5 million, and use more water than the top eight agricultural commodities combined.[1] Not only do turfgrass lawns use tremendous resources (water, chemicals, etc.) but they also take up space that could otherwise be used to grow food.

Food Not Lawns is an organization seeking to build community through growing and sharing food urban neighborhoods. With local chapters all over the country, Food Not Lawns hosts seed sharing gatherings, gardening workshops, and provides detailed information for how to transform your lawn into a beautiful organic growing space. This transformation not only benefits homeowners and neighborhoods with access to healthy food, it also creates community and encourages people to reconnect with how their food is grown regardless of where they live.[2] Urban access to local, healthy food can be easily improved by allowing and encouraging residents to grow food in their front and back yards.

Some cities across the United States also allow boulevard gardening. Boulevards are the space between sidewalks and streets, and can be owned by the resident or the jurisdiction. Minneapolis and St. Paul allow boulevard gardening. The cities provide residents with a fact sheet defining species that are best suited for boulevards with considerations such as height, spreading, chance for runoff, etc. Appendix C provides a list of species that can be successfully grown in boulevards. Because the primary purpose of boulevards is as utility corridors, residents are to understand that if their provider needs to access the boulevard, the garden may be damaged.

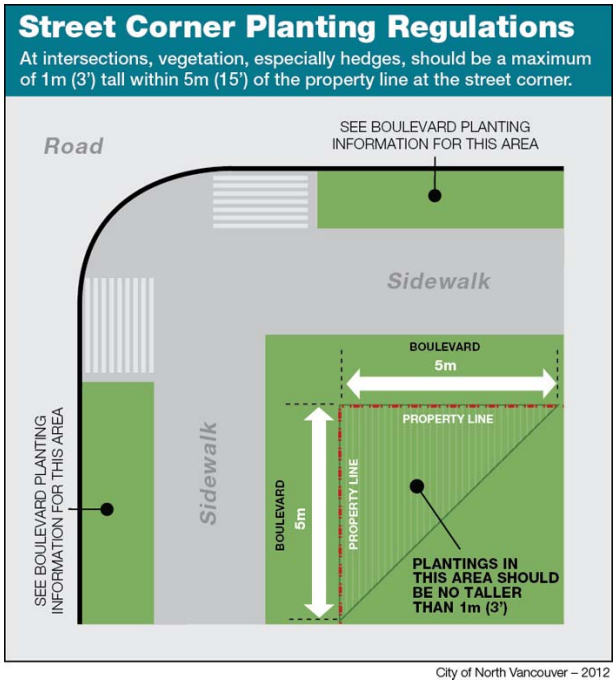

Image 1. Sample boulevard planting information and restrictions from the City of North Vancouver.[3]

[1] Diep, Francie. 2011. *Lawn vs. Crops in the Continental US*. Science Line. URL: http://scienceline.org/2011/07/lawns-vs-crops-in-the-continental-u-s/

[2] Food Not Lawns. 2015. URL: http://www.foodnotlawns.com/

[3] Boulevards. City of North Vancouver. (2012) URL: http://www.cnv.org/city-services/streets-and-transportation/driving-and-traffic/street-use-regulations/boulevards

Incentive programs are available in the Fargo/Moorhead area through River Keepers and the Cass and Clay County Soil Conservation Districts. Clay County SWCD offers cost share assistance for residents hoping to establish pollinator habitats. Cass County Soil Conservation District offers guidance and opportunity for partial reimbursement for pollinator gardens, as well as cost sharing for rain barrels, compost systems, pervious paving, pocket prairies, and some other practices. For more information and eligibility information in Clay County, contact Amanda Lewis (amanda.lewis@i29.net), and Ashley Fisk (ashley.fisk@nd.nacdnet.net) in Cass County.

Table 1. Summary of residential gardening approval in local jurisdictions*

Moorhead	Dilworth	Clay County	Fargo	West Fargo	Cass County
Permitted**	Permitted	Not addressed	Permitted***	Permitted in select zones	Not addressed****

**This table only addresses regulations at the county and city level. Some living communities, associations, or covenants further regulate yard use.*
***Section 3.3.3 of the City Code states that 30% or more of the land cannot be weeds exceeding the height of 8 inches or an area of 250 contiguous square feet and this section also allows for property owners to submit a natural lawn application for grasses and other growth over 8 inches in height.*
****Residential gardens (both commercial and non-commercial) are permitted uses within city limits. 11.0807 of the City Municipal Code states that "'noxious or other weeds' exceeding the height of 8 inches are deemed a public nuisance." Additionally, landscaping may not be allowed "to impede vision between a height of 2 feet and 8 feet above curb grade within the required corner visibility area of a street intersection or driveway intersection with a street" (per ordinance 20-0706).*
*****The county does not have regulations pertaining to residential gardening. If covered, they would be addressed in each separate township zoning ordinance. Generally, gardens are permitted in most land use zones.*

Table 2. Summary of boulevard gardening approval in local jurisdictions (as of October 2015)

Moorhead	Dilworth	Clay County	Fargo	West Fargo	Cass County
Not permitted*	Not addressed	Not addressed	Not permitted**	Not permitted	Not addressed

**Minimal landscaping (around mailboxes, trees, etc.) is permitted, but gardens or other significant landscaping projects are not permitted in the boulevard for the following reasons: the primary use of boulevards is a utility corridor; installation of rain gardens, for example, typically require excavation of soils/replacement with engineered soils and may include installation of an underdrain, which could cause conflict with utilities; pedestrian and vehicular site visibility; and overall look of a neighborhood.*
***Boulevards are typically located within the right-of-way, which is not private property. In Section 20-0705 of the Land Development Code, it is noted that all areas of the right-of-way for streets and utilities not covered by concrete, asphalt or such other material for vehicular, bicycle or pedestrian travel shall be covered by grass, unless otherwise approved by the Zoning Administrator.*

Table 3. Framework for evaluating residential gardening

DOMAIN	BENEFIT	CONCERN
Health	Stress-relief by lowering cortisol levels[4] Moderately-intense exercise decreases stroke and heart attack risk in seniors[5] May reduce risk of dementia or Alzheimer's[6] Boosts mental health; may improve depression symptoms[7] Increases vitamin D from sun exposure Increases food security for residents Access to fresh, healthy food Promotes healthy eating Increased outdoor activity	Risk of foodborne illness
Environment	Plants help create cleaner air Filters rainwater Provides a diversity of urban plants for pollinators Increases beauty in neighborhood Reduces food miles travelled by allowing residents to grow much of their own food	Need to design gardens so the soil stays in the garden and does not wash into the street
Social	Increases awareness of the food cycle and connection to agriculture Provides a positive family activity Increase food access to the FM area Promotes positive social interactions Provides opportunity for community or neighborhood interaction Increased quantities of fresh produce donated to local organizations such as food pantries	Aesthetically unpleasing for some residents

[4] Van Den Berg AE, Custers, M. 2011. Gardening Promotes Neuroendocrine and Affective Restoration from Stress. Journal of Health Psychology. 16(1): 3-11. doi: 10.1177/1359105310365577

[5] Topping, A. 2013. Gardening as good exercise in cutting hear attack risk, study shows. The Guardian [online]. [accessed 09 April 2015]. http://www.theguardian.com/society/2013/oct/28/gardening-exercise-cutting-heart-attack-risk-diy-60-plus

[6] Simons LA, Simons J, McCallum J, Friedlander Y. 2006. Lifestyle factors and risk of dementia: Dubbo Study of the elderly. Medical Journal of Australia. 184(2):68-70.

[7] Harding A. 2011. Why gardening is good for your health. CNN [online]. [accessed 09 April 2015]. http://www.cnn.com/2011/HEALTH/07/08/why.gardening.good/

Economic	Provides access to fresh fruits and vegetables for residents who may otherwise not have access	Jurisdiction cost of monitoring and addressing issues Boulevard gardens could be damaged if utility work needs to be done

Additional Tools:

- "The Best Plants for 30 Tough Spots" University of Minnesota Extension. http://www.extension.umn.edu/garden/yard-garden/landscaping/best-plants-for-tough-sites/docs/08464-complete.pdf
- "Twin Cities Boulevard Gardening" http://www.mppeace.org/downloads/boulevard.pdf

Resources

If you have questions, please contact Kim Lipetzky with the Fargo Cass Public Health Office at 701-241-8195 or klipetzky@cityoffargo.com.

Appendix A: Residential Gardening in Regional Jurisdictions

Bismarck, ND
Residents cannot plant in the *sight triangle**. Also, vegetation must be higher than eight feet (like a tree) or lower than eight feet for people to back out of driveways safely. Boulevard gardening is not addressed in city ordinance besides no gravelling in the boulevard.

**the triangle formed by measuring from the point of intersection of the two (2) property lines a distance of twenty-five (25) feet in both directions along the street right-of-way lines and connecting the points to form a sight triangle on the area of the lot adjacent to the street intersection*

Duluth, MN
The only restriction on front yard gardening is on front yard fence height (four foot maximum). Although there is no written policy, boulevard gardening is allowed as long as it does not interfere with the city sidewalk. Residents are supposed to receive verbal permission. They do not allow residents to use large rocks for landscaping, because they can damage snow plows.

Grand Forks, ND
No front yard gardening restrictions. Boulevard gardening is not allowed.

Lincoln, NE
No front yard gardening restrictions. As to boulevard gardening, residents are not allowed to have any vegetation higher than two feet six inches near the curb or pavement or in the sight triangle to keep driving views unobstructed. Only approved trees can be planted in this area, and vegetation may not extend over the sidewalk, curb, driveway, or alley.

Mankato, MN
No residential gardening restrictions. Boulevard gardening is not allowed unless approved by the city and approval is rare.

Rochester, MN
No front yard gardening restrictions. Boulevard gardens are not allowed. Should a resident like to plant anything on the boulevard, they must apply for a Natural Landscape Permit. Generally, the city likes to keep the boulevard clear so not many of these permits are approved.

Sioux Falls, SD
No restrictions for backyard gardens. In front yard, must have 90% “living ground cover.” The Planning Department usually tells people that as long as something is growing, it is acceptable. Boulevards are to be maintained by residents; they are limited to “sod, seed or other living ground cover approved by the city” (§96.010 Right-of-way Landscaping). Additionally, fences or plants three feet in height above the street grade cannot be planted within ten feet of the curb line to prevent vision obstruction (§160.158 Driveway Safety Zone).

Appendix B: Example Ordinances

Des Moines, IA
ARTICLE VII. - GARDENS AND PLANTS ON CITY-OWNED RIGHT-OF-WAY AND CITY PROPERTY
Sec. 74-201. - Garden leases.
(a) Persons or entities desiring to plant or place flowers, plants, or shrubs in a permanent structure on any city right-of-way or city real property shall execute a garden lease which identifies all areas of the proposed planting or placement, and shall abide by the terms of such lease, including insurance and indemnification responsibilities, if any, established by the city risk manager. Persons or entities executing a garden lease shall be exempt from the permit requirements of section 102-660 of this Code.
(b) The garden lease shall be denied if such plantings or placement is likely to create a public danger or nuisance or would be harmful to existing trees, shrubs, flowers, plants or facilities, as determined by the city engineer.
(c) For purposes of this article, city right-of-way means the surface and space above and below any public street, boulevard or sidewalk, but does not include the border area as defined in section 102-1 of this Code and governed by section 102-2 of this Code.
(d) Persons or entities desiring to maintain city property that abuts their property or is located on neighboring property shall execute a lease which shall set forth the duties associated with the use of the property.
(O.14,314, 14,366)
Sec. 74-202. - Administration.
The park and recreation director shall be responsible for the administration of the garden leases. The director of the park and recreation department, or his or her designee, is authorized to execute garden leases on city right-of-way and other city real property on behalf of the city and may delegate any or all of his or her duties under this article.

Toronto, Ontario, Canada (pop. 2.6 million)
Below is an excerpt to the City's front yard landscaping bylaw. Vegetables are included. They have also promoted growing food anywhere in the city except near a major arterial road. This has been done by creating a Guide for Soil Testing and several Guides to Growing and Selling Fruit and Vegetables.

Section 7 – R1 Residential Zone (R1) of Zoning By-law No. 1-83 of the former City of York, as amended, is further amended by adding the following new subsection to subsection (3):
"(q) Front Yard Landscaping and Front Yard Soft Landscaping The following front yard landscaping and front yard soft landscaping provisions shall apply to a detached dwelling house:

(i) For lots with a frontage less than 6 metres, the front yard not covered by a permitted driveway shall be maintained as landscaping.
(ii) For lots with a frontage of 6 metres to less than 15 metres, a minimum of 50% of the front yard shall be maintained as landscaping.
(iii) For lots with a frontage of 15 metres and greater, a minimum of 60% of the front yard shall be maintained as landscaping.
(iv) A minimum of 75% of the front yard not covered by a permitted driveway shall be maintained as soft landscaping.
(v) For the purpose of this subsection, landscaping means trees, shrubs, grass, flowers, vegetables, and other vegetation, decorative stonework, walkways, patios, screening, or other horticultural or landscape-architectural elements, or any combination of these. Landscaping does not include driveways or parking areas, and directly associated elements such as curbs or retaining walls.
(vi) For the purpose of this subsection, soft landscaping means trees, shrubs, grass, flowers, vegetables, and other vegetation, but does not include hard surfaced areas such as but not limited to driveways, parking areas, decorative stonework, walkways, patios, screening, or other landscape-architectural elements."

St. Paul, MN (pop. 294,873)
Chapter 105. - Care and Maintenance of Boulevards
Sec. 105.04. - Boulevard planting.[8]

Purpose.
It is the purpose and intent of the city to allow property owners to plant and maintain the boulevard areas adjoining their property in a manner which enhances and improves the aesthetic appearance of city streets, avenues and alleys.

Definitions.

- *Boulevard* shall mean the public right-of-way lying between the property line and sidewalk, and between the sidewalk and the roadway, or where no sidewalk exists, between the property line and the roadway.
- *Boulevard plantings* shall mean plantings that do not meet the definition of boulevard rain garden.
- *Boulevard rain garden* shall mean a landscaped depressed area that can hold stormwater runoff from impervious surfaces while it infiltrates into the soil below.
- *Drip line* shall mean an imaginary vertical line that extends from the outermost branches of a tree's canopy to the ground.
- *Noxious weeds* shall mean the annual, biennial and perennial plants which are deemed by the commissioner of agriculture to be injurious to public health, environment, public roads, crops, livestock and other property, as set forth in Minn. Rules *1505.0730,* including but not limited to: Convolvulus arvensis (field bindweed), Cannabis sativa (hemp), Rhus radicans (poison ivy), Euphorbia esula (leafy spurge), Sonchus arvensis (perennial sow thistle), Cirsium vulgare (bull thistle), Cirsium arvense (Canada thistle), Carduus nutans (musk thistle) and Carduus acanthoides (plumeless thistle).

Plantings permitted.
A property owner in the city shall be permitted to plant, care for and maintain gardens on the boulevards adjacent to their property, subject to the restrictions set forth below.

(1) Boulevard rain gardens shall be registered as described in chapter 116 and authorized by the department of public works prior to construction, except for those authorized as part of a city street reconstruction project. Rain gardens that impact existing boulevard trees or the area within the drip line shall be reviewed and approved by the department of parks and recreation-forestry.
(2) Boulevard rain garden slopes shall not exceed twenty-five (25) percent, the bottom depth shall not exceed six (6) inches below the elevation of adjacent hard surface, and there must be a two-foot wide level grass strip between the adjacent hard surface and top of slope. Excavations shall not occur within the drip line of boulevard trees.
(3) Plantings may not exceed thirty-six (36) inches in height. Plantings within thirty (30) feet of any intersection as measured from the property line; or within five (5) feet of any alley, or driveway approached as measured from the end of the radius or within five (5) feet of a public utility fixture may not exceed eighteen (18) inches in height. Plantings shall be limited to eighteen (18) inches in height within ten (10) feet of the curb on street sections that do not have parking lanes, or on street sections or portions of street sections where "rush hour or 24-hour no parking" restrictions apply.
(4) Plantings must be maintained in such a way that there is no overhang or encroachment onto the sidewalk, curb or street area.
(5) Plantings may include flowers, vegetables and other plants, but in no event shall any noxious weed be planted or maintained.
(6) No herbicides, pesticides and/or fertilizers may be used in the maintenance of gardens under this section without written approval of the city forester, which approval shall contain the type and amount of said herbicide, pesticide and/or fertilizer which is permitted.

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[8] St. Paul, Minnesota code of ordinances. *Chapter 105. - care and maintenance of boulevards section 4*. [accessed 28 November 2016].
https://www.municode.com/library/mn/st._paul/codes/code_of_ordinances?nodeId=PTIILECO_TITXIISTSIBROTPUWA_CH105CAMABO_S105.04BOPL

(7) No garden shall be planted on the boulevard without written documentation that the property owner has contacted "Gopher State One Call" for utility locations forty-eight (48) hours before digging, and has planned plantings which will not interfere with said utilities.

Appendix C: Plant Examples for Boulevard Gardening[9]

Common Name	Height	Uses
Daffodil	6-24”	Perennial for front yard or boulevard
Daylily	1-3’	Beneficial for butterflies, boulevards
Blazing Star	2-5’	Drought tolerant, beneficial for pollinators, boulevards
Common Yarrow	12-30”	Good for boulevards as alternative to grass border
Pussy Toes	6”	Good for boulevards as alternative to grass border
Sedum	2-3”, spreading	Good for boulevards as alternative to grass border
Thyme	2-5”	Good for boulevards as alternative to grass border
Dianthus	10-20”	High salt tolerance
Hosta	11-18”	Moderate salt tolerance
Bee Balm	<10” for dwarf varieties	Beneficial for pollinators and in rainwater gardens

[9] The Best Plants for 30 Tough Sites. University of Minnesota Extension. 2007. URL: http://www.extension.umn.edu/garden/yard-garden/landscaping/best-plants-for-tough-sites/docs/08464-complete.pdf