



The City That Soars!

REQUEST FOR PLANNING COMMISSION ACTION

Meeting Date	June 26, 2012
Agenda Item	1
Title	Proposed ordinance to amend City Code regarding parking lot requirements
Submitted By	Deborah Jones, Staff Liaison

Description	An ordinance is proposed amending the Falcon Heights zoning code to update parking requirements to present-day best practices.
Background	<p>As part of the City's ongoing efforts to promote best practices in the reduction of storm water run-off and the improvement of water quality, staff recommends amending Sections 133-310, 113-314 and 113-315 of the City Code to reduce the amount of impervious surface required for parking and to allow alternative designs for parking lot margins. These measures are encouraged by the Metropolitan Council.</p> <p>The proposed changes are a reduction in parking space size from 9' x 20' to 9' x 18' and a reduction in minimum required width of parking lot aisles to 24 feet, dimensions in line with today's standards and the recommendations of the Metropolitan Council. The amendment would also allow alternate curbing and pavement edge designs to direct runoff water to filtration basins and rain gardens at the discretion of the zoning administrator and city engineer.</p>
Budget Impact	Unknown
Attachment(s)	<ul style="list-style-type: none"> • Draft ordinance amendment • Existing portions of City Code to be changed • Parking Lot Design BMP - Metropolitan Council • Notice of public hearing, published in the <i>Roseville Review</i> <p>Additional materials were provided in May's workshop packet, available on the www.falconheights.org.</p>
Action(s) Requested	<ul style="list-style-type: none"> • Hold a public hearing on the proposed ordinance • Make a recommendation to the City Council for adoption.

ORDINANCE NO. _____

**CITY OF FALCON HEIGHTS
RAMSEY COUNTY, MINNESOTA**

**AN ORDINANCE AMENDING CHAPTER 113, THE ZONING CHAPTER, OF
THE CITY CODE CONCERNING PARKING LOTS AND PARKING SPACES**

THE CITY COUNCIL OF FALCON HEIGHTS ORDAINS:

SECTION 1. Subsection 113-310 (2)(b) of the Falcon Heights City Code is deleted.

SECTION 2. Subsection 113-314 (c) of the Falcon Heights City Code is amended to provide as follows:

Parking Space: Required parking spaces shall be at least 9 feet wide and 18 feet long. Up to 50% of the required spaces may be designated compact spaces. Compact parking spaces shall be at least 8 feet wide and 16 feet long. Compact spaces shall be identified through appropriate signage. Unless alternative requirements are designated by the City Engineer, parking spaces shall be served by access drives with minimum dimensions provided as follows:

Stall Angle (degrees)	Curb Length (feet)	Vehicle Projection (feet)	Aisle (feet)	Traffic Flow
45	9	22	14	One way
60	9	21	16	One way
75	9	21	18	One way
90	9	18	24	Two way
90 compact	8	16	24	Two way
Parallel	23	8.5	22	

Handicapped Parking Spaces: Spaces for the handicapped shall be at least 12 feet wide and 18 feet in length. The size, number, and location of stalls reserved for handicapped parking shall be provided and identified as required by applicable regulations. These spaces are included in the computation for the minimum parking space requirement.

SECTION 3. Subsection 113-315 (f) of the Falcon Heights City Code is amended to provide as follows:

Curbs and Landscaping: A 6-inch-high, poured-in-place concrete curb shall be provided around the periphery of all parking lots and internal access roads, except where the City Engineer determines that a curb would impede the drainage plan. When the parking lot is for

six spaces or more, a curb or screening not over four feet in height shall be erected along the front yard setback line and grass or planting shall occupy the space between the sidewalk and curb or screening. Wheel guards as approved by the zoning administrator may be used.

SECTION 4. Effective Date. This ordinance shall take effect from and after its passage.

ADOPTED this _____ day of _____, 2012, by the City Council of Falcon Heights, Minnesota.

CITY OF FALCON HEIGHTS

BY: _____
Peter Lindstrom, Mayor

ATTEST:

Bart Fischer, City Administrator/Clerk

Falcon Heights City Code: Portions to be amended by proposed ordinance

Chapter 113 Zoning

Article VI. Supplemental District Regulations

Division 2. Off-Street Parking and Loading

Subdivision II. Off-Street Parking

Section 113-310. Residential Districts

- (2) The following provisions apply to the R-3 and R-4 districts:

...

b. Each parking space shall not be less than nine feet wide and 20 feet in length exclusive of an adequately designed system of access drives. Parking lots that separate vehicles based on size may be designed with parking spaces less than or greater than nine feet wide and 20 feet in length depending upon the size of the vehicle as long as adequate space is provided for easy and safe ingress and egress for the vehicle. Proposed reductions in or additions to the parking space size must be submitted in a dimensioned site plan with size of vehicle to use parking spaces indicated to the zoning administrator for review and approval. Signs specifying the vehicle size to use for the parking space may be required by the zoning administrator. Parking spaces for the handicapped shall not be less than 12 feet wide and 20 feet in length.

Section 113-314. Miscellaneous Provisions

..

- (c) *Parking spaces.*

(1) Each parking space shall not be less than nine feet wide and 20 feet in length exclusive of an adequately designed system of access drives. Smaller spaces for parking to be used only by compact cars may be permitted if approved by the city council.

(2) Parking lots that separate vehicles based on size may be designed with parking spaces less than or greater than nine feet wide and 20 feet in length depending upon the size of the vehicle as long as adequate space is provided for easy and safe ingress and egress for the vehicle.

(3) Proposed reductions in or additions to the parking space size must be submitted in a dimensioned site plan with the sizes of the vehicles to use parking spaces indicated to the zoning administrator for review and approval.

(4) Signs specifying the vehicle size to use the parking space may be required by the zoning administrator.

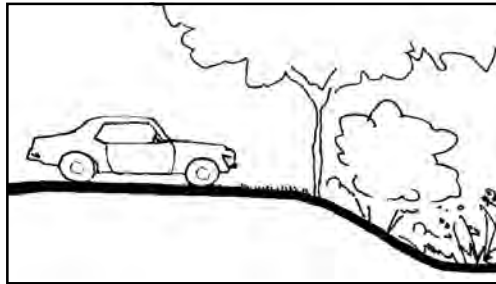
(5) Parking spaces for the handicapped shall not be less than 12 feet wide and 20 feet in length.

Section 113-315. Design and maintenance of off-street parking areas

...

(f) *Curbing and landscaping.* All open off-street parking area designed to have head-in parking along the property line shall provide a bumper curb not less than five feet from the side property line or a guard of normal bumper height no less than three feet from the side property line. When said area is for six spaces or more, a curb or screening not over four feet in height shall be erected along the front yard setback line and grass or planting shall occupy the space between the sidewalk and curb or screening. Wheel guards as approved by the zoning administrator may be utilized.

Impervious Surface Reduction Parking Lot Design



Description

Two main strategies can help reduce runoff volume or provide water quality benefits in parking lots: reducing paved surface area and incorporating plants and infiltration swales into designs.

Reduced Paved Surface

Pavement reduction can be accomplished in three main ways:

- *Changing municipal codes to reduce parking requirements.* To avoid excessive paving, codes should set a minimum *and* maximum number of spaces a development can provide. Parking demand ratios should be based on site-specific parking generation studies.
- *Reducing stall dimensions.* This can be accomplished by creating dedicated compact car spaces and then offering spillover parking areas with pervious surfaces. Determine the most space-efficient design for the site, which may be angle parking (to reduce driving lane width) or conventional stalls.
- *Promoting shared parking lots.* Allow shared lots between businesses with peak parking demand at different times of the day or week. For example, a restaurant that requires parking primarily evenings and weekends could share parking with an office building with weekday parking needs.

Planting Strategies.

Vegetation is an effective and attractive way to reduce runoff, and smaller parking lots free up more space for landscaping.

Leaves, stems and branches intercept rainwater, which then evaporates. A significant amount of stormwater can evaporate from beds of tall grasses, wildflowers, shrubs, and trees. Furthermore, deep-rooted prairie plants create channels that help encourage infiltration (see Figure 1). They also hold up to a half-inch of stormwater on their leaves and in the thatch they create.

Purpose

	Water Quantity
Flow attenuation	<input type="checkbox"/>
Runoff volume reduction	<input checked="" type="checkbox"/>

	Water Quality
Pollution prevention	
Soil erosion	<input type="checkbox"/>
Sediment control	<input checked="" type="checkbox"/>
Nutrient loading	<input checked="" type="checkbox"/>

Pollutant removal (*only if runoff is directed into planted swales*)

Total suspended sediment (TSS)	<input checked="" type="checkbox"/>
Total phosphorus (P)	<input checked="" type="checkbox"/>
Nitrogen (N)	<input checked="" type="checkbox"/>
Heavy metals	<input checked="" type="checkbox"/>
Floatables	<input checked="" type="checkbox"/>
Oil and grease	<input checked="" type="checkbox"/>
Other	
Fecal coliform	<input type="checkbox"/>
Biochemical oxygen demand (BOD)	<input type="checkbox"/>

<input checked="" type="checkbox"/>	Primary design benefit
<input checked="" type="checkbox"/>	Secondary design benefit
<input type="checkbox"/>	Little or no design benefit

Impervious Surface Reduction Parking Lot Design

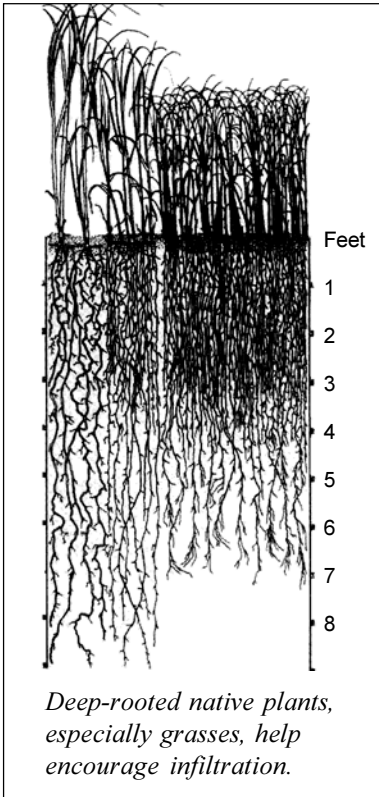


Figure 1

Shallow-rooted turf grass is not nearly so effective; substitute deep-rooted perennial plantings for sod wherever possible.

Even if extensive perennial planting is not possible, include trees to canopy paved areas. In addition to intercepting rainwater, the summer shade they provide helps to reduce the urban heat island effect and make parking lots more pleasant places to be.

Infiltration

Planted areas can also be designed specifically to accept runoff of parking areas (as shown in Figures 2, 3 and 4), providing temporary storage and on-site infiltration. See Rain Garden information in On-Lot Infiltration BMP.

Advantages

- Reducing parking surface reduces the need for stormwater runoff management.
- Less paving means lower development and maintenance costs.
- Grasses, wildflowers, shrubs and trees hold water that is then evaporated, reducing runoff.
- Channels created by deep roots encourage infiltration.
- Shade from trees helps reduce the urban heat island effect and make the area more comfortable for people.

- Planting native vegetation creates wildlife habitat.
- A variety of vegetation creates a more interesting and aesthetically pleasing environment.
- Trees shade impermeable surfaces, keeping stormwater cool and reducing urban heat island effect.

Limitations

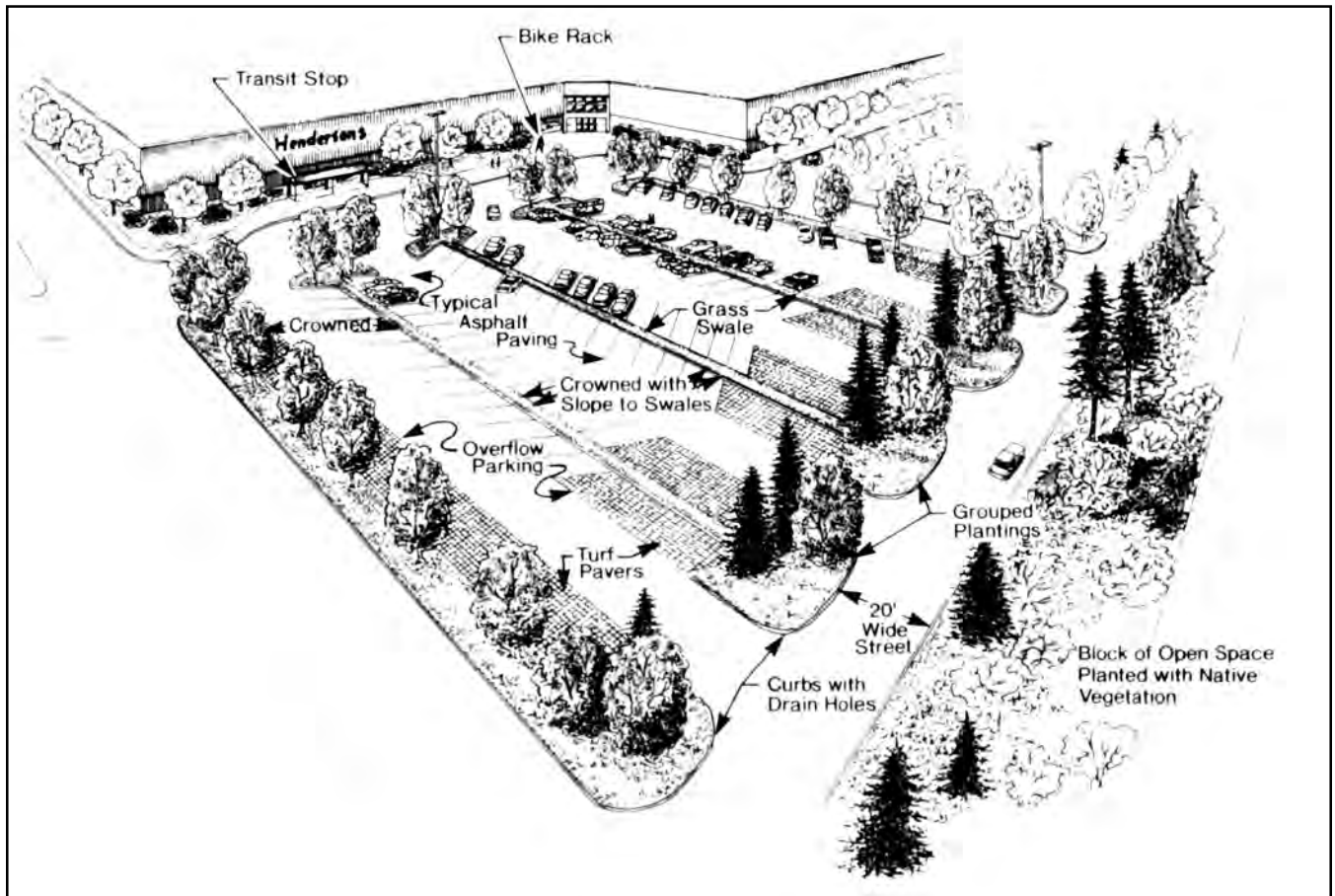
- Municipalities may have firm parking requirement that do not encourage innovation.
- Space allocated for parking lot in a given development may not be sufficient to include significant planted areas.
- Soil type may limit infiltration and/or planting success.

Land Use	“Better Site Design” Parking Ratio
Single family home	2 spaces or less per dwelling unit (driveway spaces count)
Professional offices	3.0 spaces or less per 1,000 ft. ² gross floor area
Retail	4.0 - 4.5 spaces or less per 1,000 ft. ² gross floor area

Table 1

Source: Adapted from CWP, 2000.

Impervious Surface Reduction Parking Lot Design



Source: Robert W. Droll, ASLA, in Wells 1994.

Requirements Design

- Revise outdated, overly generous parking ratio requirements. (See Table 1.)
- Use minimum stall dimensions.
- Use the most space-efficient stall configuration for the site (See Turf Pavers BMP).
- In larger commercial parking lots, design 30 percent of the spaces for compact cars only.
- Use pervious surfacing in summer spillover parking areas.
- If soils are suitable, drain parking lot runoff into infiltration islands using curb cuts or flat curbs.
- If soils are unsuitable, excavate to a depth of 3 feet and fill with a planting soil mix.
- Plant native or vigorous nonnative perennials rather than turfgrass over as much of non-paved surfaces as possible. See Plant List on following page.

Impervious Surface Reduction Parking Lot Design

- Aim to have canopy trees at maturity cover at least 50 percent of paved surfaces. Since tree height and spread will generally be smaller than normal in parking lot growing conditions, compensate by planting more trees closer together.
- Irrigation systems are usually necessary for parking lot island plantings, unless sufficient runoff is directed into them..

Requirements Construction

- To avoid compaction, do not drive on planting areas during construction.
- After construction, loosen soils in planting areas to a depth of 24 inches, to a maximum compaction of 85 percent standard proctor density. Till the upper 10 inches of soil.

Maintenance

- Planted areas must be weeded monthly during the first two to three years. After that, weeding once or twice a growing season may suffice.
- Regular watering will be necessary during dry spells. Limit irrigation to a maximum of two inches per week.
- During winter plowing, push street snow away from swales whenever possible in order to avoid accumulation of road sand.

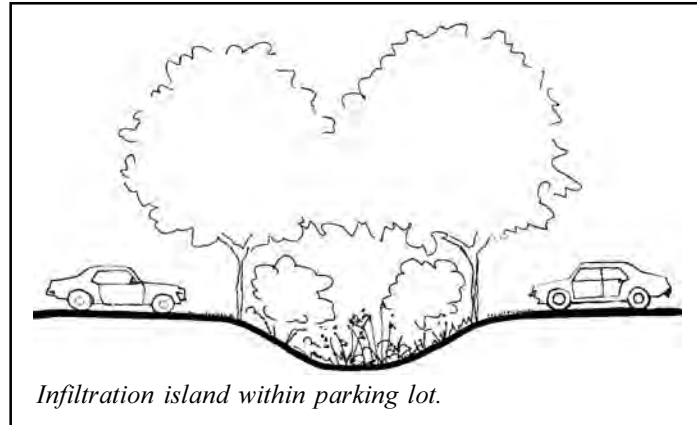


Figure 3

Source: VBWD, 2000

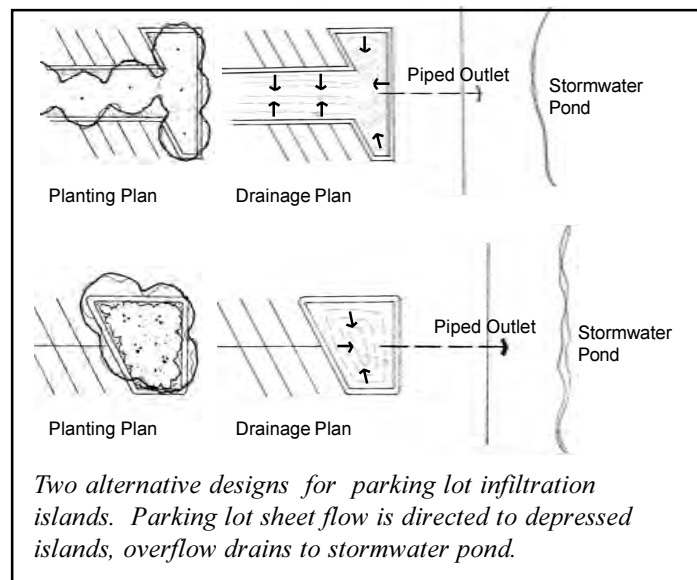


Figure 4

Source: VBWD, 2000

Impervious Surface Reduction Parking Lot Design

Rainwater Gardens Plant List

Source: Fred Rozumalski, Barr Engineering

Mesic-Dry Soils (Sunny)

Native

Butterfly Flower	<i>Asclepias tuberosa</i>
Purple Prairie Clover	<i>Dalea purpureum</i>
Purple Coneflower	<i>Echinacea purpurea</i>
Bee balm	<i>Monarda fistulosa</i>
Little Bluestem	<i>Schizachyrium scoparium</i>
Spiderwort	<i>Tradescantia bracteata</i>

Non-Native

Yarrow 'Coronation Gold'	<i>Achillea 'Coronation Gold'</i>
Feather Reed Grass 'Karl Foerster'	<i>Calamagrostis 'Karl Foerster'</i>
Daylily	<i>Hemerocallis spp.</i>
Blazingstar 'Kobold'	<i>Liatris 'Kobold'</i>
Silverfeather Grass	<i>Miscanthus sinensis</i>
Garden Phlox	<i>Phlox paniculata</i>
Black-Eyed Susan 'Goldsturm'	<i>Rudbeckia fulgida 'Goldsturm'</i>

Mesic-Dry Soils (Shady)

Native

Wild Columbine	<i>Aquilegia canadensis</i>
Wild Geranium	<i>Geranium maculatum</i>
Obedient Plant	<i>Physostegia virginiana</i>
Jacob's Ladder	<i>Polemonium reptans</i>
Solomon's Seal	<i>Polygonatum biflorum</i>
Zig Zag Goldenrod	<i>Solidago flexicaulis</i>
Canada Violet	<i>Viola canadensis</i>
Culver's Root	<i>Veronicastrum virginium</i>

Non-Native

White Comfrey	<i>Symphytum grandiflorum</i>
Tufted Hair Grass	<i>Deschamsia caespitosa</i>
Bigroot Geranium	<i>Geranium macrorrhizum</i>
Daylily	<i>Hemerocalis spp.</i>
Hosta 'Royal Standard'	<i>Hosta 'Royal Standard'</i>
Tigerlily	<i>Lilium tigrinum</i>

Wet Soil (Sunny)

Native

Giant Hyssop	<i>Agastache foeniculum</i>
Canada Anemone	<i>Anemone canadensis</i>
Marsh Milkweed	<i>Asclepias incarnata</i>
New England Aster	<i>Aster novae-angliae</i>
Turtlehead	<i>Chelone glabra</i>
Joe-Pye Weed	<i>Eupatorium maculatum</i>
Obedient Plant	<i>Physostesia virginianum</i>
Boneset	<i>Eupatorium perfoliatum</i>
Queen of the Prairie	<i>Filpendula rubra</i>
Blueflag Iris	<i>Iris versicolor</i>
Great Blue Lobelia	<i>Lobelia siphilitica</i>
Switchgrass	<i>Panicum virgatum</i>
Mountain Mint	<i>Pycnanthemum virginianum</i>
Tall Meadow Rue	<i>Thalictrum dasycarpum</i>
Culvers Root	<i>Veronicastrum virginicum</i>
Golden Alexander	<i>Zizia aurea</i>

Non-Native

Joe-Pye 'Gateway'	<i>Eupatorium purpurescens 'Gateway'</i>
Daylily	<i>Hemerocalis spp.</i>
Siberian Iris	<i>Iris sibirica</i>
Tigerlily	<i>Lilium tigrinum</i>
Switchgrass 'Heavy Metal'	<i>Panicum virgatum 'Heavy Metal'</i>

-list continued on next page-

Impervious Surface Reduction Parking Lot Design

Plant List (continued)

Wet Soils (Shady)

Native

Cardinal Flower	<i>Lobelia cardinalis</i>
Ostrich Fern	<i>Matteuccia struthiopteris</i>
Virginia Bluebells	<i>Mertensia virginica</i>
Sensitive Fern	<i>Onoclea sensibilis</i>

Non-Native

Pink Turtlehead	<i>Chelone layonii</i>
Daylily	<i>Hemerocalis spp.</i>
Obedient Plant	<i>Physostegia virginiana</i>

Shrubs (Sunny)

Black Chokeberry	<i>Aronia melanocarpa</i>
Red-Osier Dogwood	<i>Cornus sericia</i>
Low Bush Honeysuckle	<i>Diervilla Ionicera</i>
Annabelle Hydrangea	<i>Hydrangea arborescens</i> 'Annabelle'
Pussy Willow	<i>Salix discolor</i>
High Bush Cranberry	<i>Viburnum trilobum</i>

Shrubs (Shady)

Black Chokeberry	<i>Aronia melanocarpa</i> 'alata'
Red-Osier Dogwood	<i>Cornus sericia</i>
Low Bush Honeysuckle	<i>Diervilla Ionicera</i>
Annabelle Hydrangea	<i>Hydrangea arborescens</i> 'Annabelle'

Trees (consider soils when making selections)

Autumn Blaze Maple	<i>Acer x freemanii</i> 'Jeffersred'
Black Ash	<i>Fraxinus nigra</i> 'Fallgold'
Seedless Green Ash	<i>Fraxinus pennsylvanica</i> 'Marshall's Seedless'
Swamp White Oak	<i>Quercus bicolor</i>
Kentucky Coffeetree	<i>Gymnocladus dioica</i>

Sources

1. Center for Watershed Protection. 2000. "An Introduction to Better Site Design" in *Watershed Protection Techniques*. Vol. 3, No. 2. Ellicott City, MD.
2. Center for Watershed Protection. 1998. *Better Site Design: A Handbook for Changing Development Rules in Your Community*. Ellicott City, MD.
3. Schueler, Tom. 1995. *Site Planning for Urban Stream Protection*. Center for Watershed Protection, Silver Spring, MD.
4. Valley Branch Watershed District. 2000. *Alternative Stormwater Best Management Practices Guidebook*. Lake Elmo, MN.
5. Well, Cedar. 1994. "Skinny Streets and One-Sided Sidewalks: A Strategy for Not Paving Paradise" in *Watershed Protection Techniques*, Vol 1. No 3. Center for Watershed Protection. Ellicott City, MD.

CITY OF FALCON HEIGHTS, MINNESOTA

PUBLIC HEARING NOTICE

NOTICE IS HEREBY GIVEN, that the Falcon Heights Planning Commission will meet on June 26, 2012, at approximately 7:00 p.m. at the Falcon Heights City Hall Council Chambers, 2077 Larpenteur Avenue West, Falcon Heights, Minnesota 55113, to consider amendments to Chapter 113 of the City Code, the Zoning Chapter, concerning parking lots and parking spaces. All persons who desire to speak on these issues are encouraged to attend and will be given an opportunity to be heard at this meeting. Additional information and copies of the proposed ordinance amendments can be obtained by contacting the City of Falcon Heights at (651) 792-7600.

This matter will be scheduled for the next appropriate City Council meeting following the Planning Commission meeting.

Dated: June 7, 2012



Bart Fischer, City Administrator/Clerk
City of Falcon Heights, Minnesota