



CHAIR, SHARON MANN; VICE-CHAIR, MIGUEL MAESTAS; COMMISSIONERS, MIKE HANSEN, LOUISE STRANDER, BROOKE ALFORD, NHAN NGUYEN AND DENNIS MARTINEZ

PLANNING COMMISSION PUBLIC HEARING AGENDA OCTOBER 27, 2016 - 6:30 PM TUKWILA CITY HALL COUNCIL CHAMBERS

- I. Call to order the public hearing
- II. Adopt the 7/28/16 Minutes
- III. Attendance

PLANNING COMMISSION PUBLIC HEARING

- IV. CASE NUMBER: L16-0050
APPLICANT: City of Tukwila, Department of Public Works
REQUEST: Adoption of Low Impact Development Regulations and amendments to TMC Title 18, Zoning, and Title 8.25, Vehicle Storage and Parking on Single Family Residential Property, in order to modify the existing standards for drainage review and design of development projects and institute best management practices for controlling pollution from potentially pollution-generating activities.
LOCATION: City-Wide
- V. DIRECTOR'S REPORT
- VI. ADJOURN

Sample motions on the back

Sample Motions for Action on a Land Use Permit

To act in agreement with the recommendations and conditions (if any) in the staff report:

I move to **approve (with conditions)/deny** project number LXX-XXX based on the findings and conclusions (and conditions) contained in the staff report dated Month, Day Year.

To act in agreement with the recommendations in the staff report but to add/modify/delete any condition or finding, first make a motion to address the specific issue (condition or finding), then deliberate and vote on the revised condition language (and findings if necessary):

I make a motion to **amend the findings** contained in the staff report page XX to (read as follows, add an additional sentence) _____ based on the testimony provided during the hearing and/or provide other reason for the proposed change.

I make a motion to **amend** condition X contained in the staff report page XX to read as follows _____ based on the testimony provided at the meeting and/or provide other reason for the proposed change.

I make a motion to **delete** condition X contained in the staff report page XX (based on the testimony provided during the hearing, or provide other reason for the proposed change such as it is not necessary to comply with the decision criteria, etc.).

I make a motion to **add** a new condition as follows _____ (based on the testimony provided during the hearing and/or state the reasons for the new condition and how it relates to the decision criteria).

Then the final motion at the end of deliberations and discussions should be:

I move to **approve** project number LXX-XXX based on the findings and conclusions contained in the staff report dated Month, Day Year **as amended** during the PC/BAR deliberations.

To act against the recommendations in the staff report:

I move to **remand the project** back to staff to prepare revised findings and conclusions for project number LXX-XXX based on the testimony provided and the findings of the PC/BAR and postpone the issue until (date certain).

Or:

I move to **approve (with conditions)/deny** project number LXX-XXX based on the testimony provided during the hearing and the findings of the PC/BAR.

Sample Motions for Action on a Legislative Item

To forward a policy document unchanged to the City Council:

I make a motion to **forward** Document XX dated Month, Day Year to the City Council.

To amend a policy document under review:

I make a motion to **amend** the (text, policy, recommendation) in Document XX page XX to (read as follows, add an additional sentence, etc.) _____.

To forward an amended policy document to the City Council:

I make a motion to **forward** Document XX dated Month, Day Year **as amended** by the PC to the City Council



BOARD OF ARCHITECTURAL REVIEW WORKSESSION MINUTES

Date: July 28, 2016
Time: 6:30 PM
Location: Tour of City Projects

Present: Chair, Sharon Mann; Vice Chair, Miguel Maestas; Commissioners Louise Strander and Dennis Martinez

Absent: Commissioners, Mike Hansen, Brooke Alford and Nhan Nguyen

Staff: Minnie Dhaliwal, Planning Supervisor and Wynetta Bivens, Planning Commission Secretary

There were no public hearing agenda items for July. Therefore, In lieu of the regularly scheduled meeting, staff provided the Board a tour of the projects listed below that they had previously approved.

- Interurban offices and warehouse - 14440 Interurban Ave S
- Boulevard Townhomes - 3726 Southcenter Blvd
- Osterly Townhomes - 3421-3429 S 144th St
- McMicken Court - 4220 S 164th St
- Tukwila Home2 Suites - 300 Upland Drive
- Buffalo Wild Wings - 225 Tukwila Parkway

Adjourned: 8:30 PM

Submitted by: Wynetta Bivens
Planning Commission Secretary



STAFF REPORT TO THE PLANNING COMMISSION

Prepared October 10, 2016

FILE NUMBERS: L16-0050 Low Impact Development Code Amendments
E16-0008 SEPA Checklist

REQUEST: Public Hearing regarding the proposed low impact development code changes to the Zoning and Vehicle Parking Storage regulations. Based on direction from the Planning Commission staff will revise the ordinances and then the Planning Commission’s recommendations will be forwarded to the City Council for review.

PUBLIC HEARING: October 27, 2016

LOCATION: City wide

STAFF: Moira Bradshaw, Senior Planner

ATTACHMENTS: Titles 8.25 and 18 Draft Ordinance
Bioretention Plant List

Introduction

The National Pollutant Discharge Elimination System (NPDES) permit program, created in 1972 by the Clean Water Act (CWA), helps address water pollution by regulating point sources that discharge pollutants to waters of the United States. Due to recent regulatory changes at the Federal and State levels Tukwila needs to modify its regulations to better control water pollution.

The City’s NPDES Phase II permit allows the City to drain the collected surface water from its system into the Green River. The permit is conditioned upon the City reviewing, revising, and making effective changes to the City’s development related codes, standards, and other enforceable documents. The stipulation is that the City incorporate into its development codes the low impact development (LID) principles and LID Best Management Practices no later than December 31, 2016.

LID is a stormwater and land use management strategy that strives to mimic pre-disturbance natural hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. It emphasizes conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

BACKGROUND

The Tukwila Planning Commission advises the Mayor and City Council on matters relating to land use, comprehensive planning and zoning (TMC2.36.030.) Additionally, all code cities are required to adopt development regulations that are consistent with and implement the City's Comprehensive Plan. (RCW 35A.63.105)

The Tukwila Comprehensive Plan has the following policies regarding surface water management and design. Any proposed regulation must implement and be consistent with these policies.

Natural Environment Element 4.1.5 *Develop and implement programs that encourage Tukwila residents and businesses to take active measures to protect and enhance Tukwila's natural environment. Such measure could include the use of Low Impact Development (LID) techniques, natural stream bank restoration, non-toxic lawn care, composting and recycling, among others.*

Natural Environment 4.8.1 *Demonstrate implementation of low impact development techniques through grant-funded public projects. Where feasible incorporate such techniques into City Capital facilities projects. Provide technical assistance to developers, and encourage the use of such techniques for storm water management.*

Natural Environment 4.8.2 *Require that all proposed development applications identify hydrologic features, both on and off-site, that could be impacted by the project. Evaluate and prevent project impacts on on-site and off-site watercourses, wetlands, drainage features and springs to avoid adverse impacts to existing sensitive area hydrology.*

Shoreline 5.10.1 *Design, locate and manage shoreline development including streets, flood control projects, surface water drainage and sewer systems, clearing and grading activities, and landscaping in a manner that minimizes opportunities for pollutants to enter the river, provides erosion control, and otherwise protects water quality.*

Utilities Element 12.1.26 *Apply an adopted surface water design manual as the minimum requirement for all development projects and other actions that could cause or worsen flooding, erosion, water quality and habitat problems, for both upstream and downstream development.*

Utilities 12.1.29 *Encourage the retention and planting of trees for their beneficial effects on surface water runoff, including flow attenuation, water quality enhancements and temperature reduction.*

DISCUSSION OF PROPOSED CHANGES

The draft ordinance (Attachment A) contains proposed changes to the City's Vehicle Parking and Storage Section of the Tukwila Municipal Code (TMC) as well as a variety of changes to the Zoning Code. Below is a summary of each section of the draft ordinance.

Section 1.

Vehicle Storage and Parking on Single-family Residential Property (TMC8.25) is being moved into the Zoning Code. Three chapters of the Zoning Code will be changed to include the items being moved - the Definitions, Low Density Residential – Basic Development Standards, and Off-street Parking Chapters. The existing standard is that no more than 10% of a lot's surface or 1,200 square feet, whichever is greater, be covered with a durable uniform surface (TMC 8.25.020(D).) That is proposed for replacement with the development coverage standard of 75% for single family homes. See the definition of "development area" below. See Sections 3, 7, and 14 below for how the other elements of existing TMC 8.25 are being carried over into the Zoning Code.

Section 2.

Lot coverage and development area are interchangeable terms and both are defined in the Zoning code. Development area is more prevalently used. "Lot coverage" is therefore being deleted and where it was used (See Section 15,) "development area" is substituted.

Section 3.

The definition of "Development area" is being modified to distinguish between pervious and impervious surfaces and provide an incentive to use pervious surfaces. The goal of low impact development is to preserve native soils and vegetation, hence the allowance for only 75% of new pervious surfaces/area. The exception for pedestrian and recreation space in MDR and HDR is being moved out of the Definition to the Supplemental Development Standards section (TMC 18.50.) See Section 10.

Section 4.

The definition for "native vegetation" is proposed for modification to allow a wider range of materials that may be used in planting plans.

Section 5.

The "durable uniform surface" definition is being moved from the Vehicle Parking and Storage Chapter (TMC8.25) to the Zoning Code and updated to reflect the goal of using pervious (or permeable) surfaces.

Section 6.

A "pervious surfaces" definition is being added in order to encompass low impact development materials. The Appendix shows images of pervious surfaces.

Section 7.

A “development area” standard is being proposed for single family development. Single family lots are divided into two categories: 75% on lots less than 13,000 square feet up to a maximum of 5,850 square feet and 45% for those equal to and larger than 13,000. A 50% standard currently exists for multi-family and 75% exists for townhomes.

Below is a table showing the development area coverage for single family homes permitted in 2015.

Permit #	Lot size	Structure coverage	amount of site impervious area - other than structures	amount of pervious improvements	total impervious area	Lot coverage
D15-0021	6,780	2276	710		2,986	0.44
D15-0157	98,446	1694	2345		4,039	0.04
D15-0161	9,459	1274	1308		2,582	0.27
D15-0163	9,400	2451	1279		3,730	0.40
D15-0285	15,387	3907	1455	2643	5,362	0.35
D15-0302	6,635	1870	1765		3,635	0.55
D13-179	4,218	1315	338	192	1653	0.39

Section 8.

In the chapter for Residential Commercial Center Zone (RCC,) the development standards table has a description of what may be included in landscape areas. Bioretention facilities are being proposed for addition as they are a low impact development technique for landscape areas. Bioretention is defined in the 2016 Surface Water Design Manual, which is being adopted by the City as part of its update to the Surface Water Management Section of the TMC. It means, “A stormwater best management practice consisting of a shallow landscaped depression designed to temporarily store and promote infiltration or stormwater runoff. Standards for bioretention design, including soil mix, plants, storage volume and feasibility criteria are specified in the Design manual.” Biorretention area use plants and soils to retain surface water and slowly absorb this water into the ground instead of into man-made pipes and area streams and the River. The proposed Biorretention Plant list is attached. Images of Biorretention facilities are contained in this Report’s Appendix.

Section 9.

The proposed amended language is to update the code with respect to structural soils and to ensure that the standards reflect the best available science with respect to landscape health.

Section 10

This section repeats the standards for development area that was noted in Section 7 above and includes the exception from the development area standard for pedestrian, landscape and recreation facilities in MDR and HDR. It also provides a reference to the Surface Water Design Manual for

evaluation of low impact development proposals. Minor changes in wording are incorporated to clarify standards without changing the substance for senior housing and townhouse developments.

Section 11 and 12.

Proposed language to allow Biorretention as a viable landscaping technique and references a City of Tukwila biorretention plant list. (See also Attachment B.)

Section 13.

Proposed language clarifies the off-street parking standards for low density residential development, references “pervious pavement” as the preferred surface for parking areas and adds a stipulation that any “additional” parking – that is any additional stalls greater than the minimum numbers - shall use pervious surfaces.

Section 14.

The Residential Parking Requirements section of the Zoning Code is being updated to:

- Delete the reference to the number of stalls required as that exists in Figure 7 – “Required Number of Parking Spaces for Automobiles and Bicycles.”
- Include the standards from “Vehicle Parking and Storage Chapter of TMC (8.25.) See Section 1 above.
- Eliminate a standard from TMC 8.25 that limits the amount of durable uniform surfaces to 10% of a lot’s area. The development area standard is being substituted for this requirement. See Section 7 above.
- Eliminates the reference to “Vehicle Parking and Storage Section of the Public Peace and Morals Chapter (TMC 8.25) because that has all been brought into the Zoning Chapter.

Section 15.

Substitutes the term “development area” for “lot coverage.”

Section 16.

Eliminates the largest size parking stall in order to minimize the amount of impervious surface that is allowed for automobile parking.

REQUESTED ACTION

Hold the public hearing on the proposed changes, deliberate and make a recommendation to the City Council.

Appendix

Bio-retention Images



Attachment A Staff Report L16-0050

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF TUKWILA, WASHINGTON, AMENDING VARIOUS ORDINANCES AS CODIFIED IN TUKWILA MUNICIPAL CODE (TMC) TITLE 18, "ZONING CODE," TO IMPLEMENT LOW IMPACT DEVELOPMENT REQUIREMENTS IN THE DESIGN AND REVIEW OF SURFACE WATER DRAINAGE ON DEVELOPMENT PROJECTS; REPEALING ORDINANCE NOS. 2495, 2371, 2251 §1 (PART) AND 2056 TO ELIMINATE TMC CHAPTER 8.25, "VEHICLE STORAGE AND PARKING ON SINGLE-FAMILY RESIDENTIAL PROPERTY"; REPEALING ORDINANCE NOS. 2075 §1 (PART) AND 1758 §1 (PART), TO ELIMINATE TMC SECTION 18.06.515, "LOT COVERAGE" (DEFINITION); PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, the Federal Clean Water Act requires protection of water quality through implementation of water quality protection measures; and

WHEREAS, the National Pollutant Discharge Elimination System (NPDES), administered by the Environmental Protection Agency (EPA), is one of the primary mechanisms for achieving the objectives of the Federal Clean Water Act; and

WHEREAS, the EPA has delegated responsibility to administer the NPDES permit program to the State of Washington pursuant to Chapter 90.48 RCW, which defines the Department of Ecology's authority and obligations in administering the program; and

WHEREAS, the City of Tukwila ("City") is regulated under the Washington State Department of Ecology's Western Washington Phase II Municipal Stormwater Permit (the "Permit"); and

WHEREAS, the Permit extends coverage of the NPDES permit program to certain "small" municipal separate stormwater sewer systems (MS4), some of which are located within the City of Tukwila; and

WHEREAS, Section S5.C.4 of the Permit requires the City to implement and enforce a program to reduce pollutants in stormwater runoff by regulating new development, redevelopment and construction sites; and

WHEREAS, a requirement of Section S5.C.4 of the Permit mandates the City reduce pollutants in stormwater by implementing Low Impact Development (LID) requirements through new and revised development codes by January 1, 2017; and

WHEREAS, the City Council deems it necessary to update the code provisions in Title 8, "Public Peace, Morals and Safety," and Title 18, "Zoning," to remain in compliance with the Permit; and

WHEREAS, on October 27, 2016, the Tukwila Planning Commission, following adequate public notice, held a public hearing to receive testimony concerning amending the Tukwila Municipal Code and at that meeting adopted a motion recommending the proposed changes; and

WHEREAS, on November 28, 2016, the Tukwila City Council, following adequate public notice, held a public hearing to receive testimony concerning the recommendations of the Planning Commission;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF TUKWILA, WASHINGTON, HEREBY ORDAINS AS FOLLOWS:

Section 1. Repealer. Ordinance Nos. 2495, 2371, 2251 §1 (part), and 2056, as codified at Tukwila Municipal Code (TMC) Chapter 8.25, are hereby repealed, thereby eliminating TMC Chapter 8.25, "Vehicle Storage and Parking on Single-Family Residential Property," in its entirety.

~~8.25.010 Definitions.~~

~~"Approved Durable Uniform Surface" is a durable uniform surface approved for the storage of vehicles by the City of Tukwila, and should consist of one of the following:~~

~~1. Two inches of 5/8 minus compacted rock, provided mud or other fine material do not work their way to the surface of the rock. Alternate sized minus compacted rock may be used upon approval by the City; or~~

~~2. Concrete (4" Portland cement concrete) over gravel section as described in Section 8.25.010; or~~

~~3. Blacktop (2" asphalt concrete pavement) over gravel section as described in Section 8.25.010; or~~

~~4. Any other configuration of materials, approved by the City that maintains a durable uniform surface.~~

8.25.020 ~~Parking Limitations.~~

~~A. The requirements of TMC Chapter 8.25 apply to the storage and parking of vehicles on properties devoted to single-family residential use.~~

~~B. Motor vehicles on property devoted to single-family residential use shall be parked on an approved durable uniform surface. Motor vehicles, other than those specified in TMC 8.25.020C, shall not be parked in setbacks except in front yard or side street setbacks when in a driveway that provides access to an approved parking location and is in conformance with TMC Title 18, as that title currently exists or as it may be subsequently amended. Parking in the rear setback of a single family home is permitted where the parking is connected to a rear alley.~~

~~C. Recreational vehicles, boats or trailers shall be parked, kept or stored on an approved durable uniform surface and shall not be parked, kept or stored in required front yard setbacks, except for a driveway. Recreational vehicle parking in the side or rear yard setbacks is allowed, provided no recreational vehicle is parked so as to prevent access by emergency responders to all sides of a structure.~~

~~D. Approved durable uniform surfaces outside of structures on-site may cover a maximum of 1,200 square feet or 10% of the lot surface, whichever is greater. The Director of Community Development may approve exceptions to this requirement for an access driveway, particularly on lots where there is a need for a long driveway.~~

~~E. No more than 50% of the front yard or 800 square feet, whichever is smaller, may be approved durable uniform surface. An approved durable uniform surface exceeding this requirement prior to August 25, 2004 may be maintained, but shall not be expanded. The Director of Community Development may approve exceptions to this requirement for an access driveway, particularly on pie-shaped or other odd shaped lots where it is infeasible to meet this requirement.~~

~~F. Single family properties on pre-existing, legal lots of record containing less than 6,500 square feet are exempt from the percentages noted in TMC Section 8.25.020, subparagraphs D and E.~~

~~G. No more than six motor vehicles shall be parked on a single-family residential property of 13,000 square feet or less outside of a carport or enclosed garage for a period of more than 48 hours. For purposes of this section, "single-family residential property" means any parcel containing a single-family residence or multiple parcels combined containing one single-family residence, typically identified by a single address located in the Low Density zone. The parking limitations in this subsection shall apply to all motor vehicles as defined by state law with the exception of motorcycles and mopeds.~~

Section 2. Repealer. Ordinance Nos. 2075 §1 (part) and 1758 §1 (part), as codified at TMC Section 18.06.515, "Lot Coverage" (definition), are hereby repealed, thereby eliminating TMC Section 18.06.515.

18.06.515 Lot Coverage

“Lot coverage” means the surface of the subject property covered with impervious surface, other than outdoor pools.

Section 3. TMC Chapter 18.06, “Definitions,” Amended. Ordinance Nos. 2075 §1 (part) and 1758 §1 (part), as codified at TMC Section 18.06.215, “Development Area,” are hereby amended to read as follows:

18.06.215 Development Area

“Development area” means the impervious surface area plus 75% of any area of pervious hard surface. ~~less the following surfaces: the footprint of an exclusive recreational facility; a proportion of a recreational facility footprint when contained within a general use building as follows: the portion of the footprint area occupied by a recreational facility divided by the number of floors in that portion of the building; vehicle circulation aisles between separate parking areas; sidewalks; paths; and other pedestrian/recreation facilities clearly designed to enhance the pedestrian environment.~~

Section 4. TMC Chapter 18.06, “Definitions,” Amended. Ordinance No. 2347 §21, as codified at TMC Section 18.06.586, “Native Vegetation,” is hereby amended to read as follows:

18.06.586 Native Vegetation

“Native vegetation” means plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and that reasonably could be expected to have occurred naturally on the site. ~~vegetation with a genetic origin of Western Washington, Northern Oregon and Southern British Columbia, not including cultivars.~~

Section 5. New Definition Adopted. A new section is hereby added to TMC Chapter 18.06, “Definitions,” to read as follows:

Durable Uniform Surface

“Durable uniform surface” means a durable uniform surface approved for the storage of vehicles by the City and consists of:

1. Permeable pavement, such as grasscrete, porous pavers, permeable asphalt; or

2. Three inches of 3/8” to 1-1/4” crushed porous aggregate consisting of open-graded top course, base course, or similar material with 35-40% porosity. Mud or other fine materials should be prevented from working their way to the surface by the installation of a geotextile fabric, quarry spalls, or other approved materials below the porous aggregate; or

3. Concrete (4” minimum Portland cement concrete) over gravel section as described above and sloped to drain to prevent drainage impacts; or

4. Blacktop (2" minimum asphalt concrete pavement) over gravel section as described above and sloped to drain to prevent drainage impacts; or

5. Any other configuration of materials approved by the City that maintains a durable uniform surface and prevents drainage impacts.

Section 6. New Definition Adopted. A new section is hereby added to TMC Chapter 18.06, "Definitions," to read as follows:

Pervious Hard Surface

"Pervious hard surface" means permeable pavement or a green roof.

Section 7. TMC Section 18.10.060 Amended. Ordinance Nos. 1971 §4 and 1758 §1 (part), as codified at TMC Section 18.10.060, "Basic Development Standards," are hereby amended to read as follows:

18.10.060 Basic Development Standards

Development within the Low-Density Residential District shall conform to the following listed and referenced standards:

LDR BASIC DEVELOPMENT STANDARDS

Lot area, minimum	6,500 sq. ft.
Average lot width (min. 20 ft. street frontage width), minimum	50 feet
<u>Development Area, maximum (only for single family development)</u>	<u>75% on lots less than 13,000 sq. ft. up to a maximum of 5,850 sq. ft.</u>
	<u>45% on lots greater than or equal to 13,000 sq. ft.</u>
Setbacks to yards (minimum):	
• <i>Front</i>	20 feet
• <i>Front, decks or porches</i>	15 feet
• <i>Second front</i>	10 feet
• <i>Sides</i>	5 feet
• <i>Rear</i>	10 feet
Height, maximum	30 feet
Off-street parking:	
• <i>Residential</i>	See TMC Chapter 18.56, Off-street Parking & Loading Regulations
• <i>Accessory dwelling unit</i>	See 18.10.030
• <i>Other uses</i>	See TMC Chapter 18.56, Off-street Parking & Loading Regulations

Section 8. TMC Section 18.20.080 Amended. Ordinance Nos. 1976 §39, 1872 §3, and 1758 §1 (part), as codified at TMC Section 18.20.080, “Basic Development Standards,” are hereby amended to read as follows:

18.20.080 Basic Development Standards

Development within the Residential Commercial Center District shall conform to the following listed and referenced standards:

RCC BASIC DEVELOPMENT STANDARDS

Lot area, minimum	5,000 sq. ft.
Lot area per unit (multi-family), minimum	3,000 sq. ft.
Setbacks to yards (min.):	
• <i>Front</i>	20 feet
• <i>Second front</i>	10 feet
• <i>Sides</i>	5 feet
• <i>Sides, if any portion of the yard is within 50 feet of LDR, MDR, HDR</i>	10 feet
• <i>Rear</i>	10 feet
Height, maximum	3 stories or 35 feet
Landscape requirements (minimum): <i>All setback areas shall be landscaped. Required landscaping may include a mix of plant materials, bioretention facilities, pedestrian amenities and features, outdoor cafe-type seating and similar features, subject to approval. See Landscape, Recreation, Recycling/Solid Waste Space chapter for further requirements</i>	
• <i>Front</i>	20 feet
• <i>Second front</i>	10 feet
• <i>Sides, if any portion of the yard is within 50 feet of LDR, MDR, HDR</i>	10 feet
• <i>Rear, if any portion of the yard is within 50 feet of LDR, MDR, HDR</i>	10 feet
Recreation space	200 sq. ft. per dwelling unit (1,000 sq. ft. min.)

Off-street parking:	
• <i>Residential</i>	See TMC Chapter 18.56, Off-street Parking & Loading Regulations
• <i>Accessory dwelling unit</i>	See Accessory Use section of this chapter
• <i>Office, minimum</i>	3 per 1,000 sq. ft. usable floor area
• <i>Retail, minimum</i>	2.5 per 1,000 sq. ft. usable floor area
• <i>Other uses</i>	See TMC Chapter 18.56, Off-street Parking & Loading Regulations
Performance Standards: Use, activity and operations within a structure or a site shall comply with (1) standards adopted by the Puget Sound Air Pollution Control Agency for odor, dust, smoke and other airborne pollutants, (2) TMC Chapter 8.22, "Noise", and (3) adopted State and Federal standards for water quality and hazardous materials. In addition, all development subject to the requirements of the State Environmental Policy Act, RCW 43.21C, shall be evaluated to determine whether adverse environmental impacts have been adequately mitigated.	

Section 9. TMC Section 18.28.240 Amended. Ordinance No. 2443 §25, as codified at TMC Section 18.28.240, "General Landscaping," subparagraph B.3., "Soil Preparation and Planting," is hereby amended to read as follows:

18.28.240 General Landscaping

3. Soil Preparation and Planting.

a. For trees and plants planted in sidewalks and parking lots, or in limited areas of soil volume, Cornell University CU-structural soils (Cornell University "CU" product or similar) must be used to a preferred depth of 36 inches, to promote tree-root growth and provide structural support to the paved area. Minimum soil volumes for tree roots shall be 750 square feet per tree (see specifications and sample plans for CU-Structural Soils). Trees and other landscape materials shall be directly planted per specifications in "CU Structural Soils – A Comprehensive Guide" or using current BMPs subject to administrative review and approval of the technical information report (TIR.) Suspended pavement systems (Silva Cells or similar) may also be used if approved. into a planting mix, approved by the Director, that is installed on top of the structural soils.

b. For soil preparation in bioretention areas, existing soils must be protected from compaction. Bioretention soil media must be prepared in accordance with standard specifications of the Surface Water Design Manual, adopted in accordance with TMC Chapter 14.30, to promote a proper functioning bioretention system. These

specifications shall be adhered to regardless of whether a stormwater permit is required from the City.

bc. For all other plantings, soils must be prepared for planting in accordance with specifications to restore soil moisture holding capacity in accordance with TMC Chapter 16.54, Grading, BMP T5.13, "Post Construction Soil Quality and Depth," from the Washington Department of Ecology Stormwater Management Manual for Western Washington (or as amended) regardless of whether a stormwater permit is required by the City.

ed. The applicant will be required to schedule an inspection by the City of the planting areas prior to planting to ensure soils are properly prepared.

de. Installation of landscape plants must comply with best management practices including:

(1) Planting holes that are the same depth as the size of the root ball and 2 times wider than the size of the root ball.

(2) Root balls of potted and balled and burlapped (B&B) plants must be loosened and pruned as necessary to ensure there are no encircling roots prior to planting. At least the top 2/3 of burlap and all straps or wire baskets are to be removed from B&B plants prior to planting.

(3) The top of the root flare, where the roots and the trunk begin, should be about one inch from the surrounding soil. The root ball shall not extend above the soil surface.

(4) If using mulch around trees and shrubs, maintain at least a 3-inch mulch-free ring around the base of the plant trunks and woody stems of shrubs. If using mulch around groundcovers until they become established, mulch shall not be placed over the crowns of perennial plants.

Section 10. TMC Section 18.50.085 Amended. Ordinance Nos. 2199 §17, 1830 §28, and 1758 §1 (part), as codified at TMC Section 18.50.085, "Maximum Percent Development Area Coverage," are hereby amended to read as follows:

18.50.085 Maximum Percent Development Area Coverage

A. In the LDR zones the maximum percent development area coverage for a single-family development shall be as follows:

1. 75% on lots less than 13,000 square feet up to a maximum of 5,850 sq. ft.; and
2. 45% on lots greater than or equal to 13,000 square feet.

B. In the MDR and HDR zones the maximum percent development area coverage shall be 50%, less the following surfaces:

1. the footprint of an exclusive recreational facility;

2. a proportion of a recreational facility footprint when contained within a general use building as follows: the portion of the footprint area occupied by a recreational facility divided by the number of floors in that portion of the building;

3. vehicle circulation aisles between separate parking areas;

4. sidewalks;

5. paths; and

6. other pedestrian/recreation facilities clearly designed to enhance the pedestrian environment.

C. except for Senior citizen housing developments in HDR is exempt from development area coverage maximum; however, if the senior citizen housing is converted to regular apartments, the 50% limit must be met.

D. The 50% maximum development area coverage for Townhouse development may be allowed increased up to a maximum of 75% development area coverage. The Director shall allow this increase from 50% to 75% if the applicant uses low-impact development techniques, that are technically feasible and in accordance with the Surface Water Design Manual (TMC Chapter 14.30) provided the site allows for such measures and the drainage design meets all adopted codes.

Section 11. TMC Section 18.52.030 Amended. Ordinance Nos. 2251 §62 and 1872 §14 (part), as codified at TMC Section 18.52.030, "Perimeter Landscape Types," are hereby amended to read as follows:

18.52.030 Perimeter Landscape Types

A. *Type I landscape perimeter.*

1. Purpose is to enhance Tukwila's streetscapes, provide a light visual separation between uses and zoning districts, screen parking areas, and allow views to building entryways and signage.

2. Plant materials shall consist of the following:

a. One tree for each 30 lineal feet of required perimeter excluding curb cuts;
and

b. One shrub for each 7 lineal feet of required perimeter excluding curb cuts or a planted berm at least 24 inches high; and

c. Living groundcover to cover 90% of the landscape area within three years.

3. Bioretention may be used as a Type I landscape perimeter, provided the intent of the screen is achieved. To support bioretention facility function and plant survival, flexibility in plant materials and placement shall be allowed, provided public safety is not compromised.

B. *Type II landscape perimeter.*

1. Purpose is to enhance Tukwila's streetscapes, provide a moderate visual separation between uses and zoning districts, screen blank building walls and parking areas, and allow views to building entryways and signage.

2. Plant materials shall consist of the following:

a. One tree for each 20 lineal feet of required perimeter excluding curb cuts;
and

b. One shrub for each 5 lineal feet of required perimeter excluding curb cuts;
and

c. Living groundcover to cover 90% of the landscape area within three years.

3. Bioretention may be used as a Type II landscape perimeter, provided the intent of the screen is achieved. To support bioretention facility function and plant survival, flexibility in plant materials and placement shall be allowed, provided public safety is not compromised.

C. *Type III landscape perimeter.*

1. Purpose is to provide extensive visual separation between industrial areas and nearby residential areas.

2. Plant materials shall consist of the following:

a. One tree per 20 lineal feet of required perimeter excluding curb cuts; and
b. Shrubs to provide a solid planting screen with a height of five to eight feet or a solid wooden fence or masonry wall to be approved by the Community Development Director; and

c. Living groundcover to cover 90% of the landscape area within three years.

D. *Plant material requirements.*

1. Plants shall meet the current American Standard for Nursery Stock (American Nursery and Landscape Association – ANLA), and shall be healthy, vigorous and well-formed, with well-developed, fibrous root systems, free from dead branches or roots. Plants shall be free from damage caused by temperature extremes, lack of or excess moisture, insects, disease, and mechanical injury. Plants in leaf shall be well foliated and of good color. Plants shall be habituated to outdoor environmental conditions (hardened-off).

2. A mix of evergreen trees and evergreen shrubs shall be used to screen blank walls.

3. Deciduous trees shall be used to allow visual access to entryways, signage and pedestrian use areas.

4. Evergreen shrubs shall be used to screen parking lots along street frontages.

5. In perimeters located adjacent to residential zones 75% of trees and shrubs shall be evergreen.

6. Evergreen trees shall be a minimum of 6 feet in height at time of planting.
7. Deciduous trees shall have at least a 2 inch caliper at time of planting, determined according to the American Standard for Nursery Stock.
8. Shrubs shall be at least 18 inches in height at time of planting.
9. No plants listed on the current King County Noxious Weed list may be used.
10. Existing vegetation may be used to meet the requirements of this chapter. All significant trees located within any required perimeter landscaping area which are not dead, dying, or diseased and which do not pose a safety hazard as determined by the Community Development Director shall be retained.
11. The classification of plant material as trees, shrubs and evergreens shall be as listed in the Hortus Third, A Concise Dictionary of Plants Cultivated in the U.S. and Canada.
12. Plant material requirements for bioretention facilities shall be in accordance with the City's bioretention plant list.

Section 12. TMC Section 18.52.035 Amended. Ordinance Nos. 2442 §2, 2251 §63, 2235 §14 and 1872 §14 (part), as codified at TMC Section 18.52.035, "Interior Parking Lot Landscaping Requirements," are hereby amended to read as follows:

18.52.035 Interior Parking Lot Landscaping Requirements

Landscaping within parking areas shall be provided as shown below.

1. Requirements for each distinctly separate parking area within the LDR zone for uses other than dwelling units, and in the MDR and HDR zones:
 - a. For areas with up to 20 parking stalls per parking area, no interior landscaping is required.
 - b. For areas with 21 - 40 parking stalls per parking area, 7 square feet of interior landscape area is required for each parking stall.
 - c. For areas with more than 40 parking stalls per parking area, 12 square feet of interior landscape area is required for each parking stall (see Multi-Family Design Guidelines, Site Planning Section, No. 31, for the normal 15 square feet to be provided).
 - d. All parking areas shall have a perimeter landscape strip a minimum of 2 feet wide with an average width of 5 feet.
2. Requirements for parking lots within the O, MUO, RCC, and NCC zones:
 - a. For lots with up to 20 parking stalls, no interior landscaping is required.
 - b. For lots with 21 - 40 parking stalls, a minimum of 10 square feet of interior landscape area is required for each parking stall over 20.

c. For lots with more than 40 parking stalls, a minimum of 200 square feet of interior landscape area plus 15 square feet for each parking stall over 40 is required. For areas placed behind buildings or otherwise screened from streets, parks and City trails the interior landscape requirement is reduced to a minimum of 200 square feet plus 10 square feet for each parking stall over 40.

3. Requirements for parking lots within the RC, RCM, C/LI, TSO and TVS zones:

a. For areas adjacent to public or private streets, a minimum of 15 square feet of landscaping is required for each parking stall.

b. For areas placed behind buildings or otherwise screened from streets, parks and City trails a minimum of 10 square feet of interior landscape area is required for each parking stall.

4. Planting Standards:

a. Interior landscape islands shall be distributed to break up expanses of paving. Landscaped areas shall be placed at the ends of each interior row in the parking area, with no stall more than 10 stalls or 100 feet from a landscape area. Landscaped areas and planting islands may contain bioretention systems.

b. The minimum size for interior parking lot planting islands is 100 square feet.

c. Planting islands shall be a minimum of 6 feet in any direction and generally the length of the adjacent parking space.

d. Raised curbs or curb stops shall be used around the landscape islands to prevent plant material from being struck by automobiles. Where bioretention is used, curb cuts shall be placed to allow stormwater runoff from adjacent pavements to enter the bioretention system.

e. A minimum of 1 evergreen or deciduous tree is required per landscape island, with the remaining area to contain a combination of shrubs, living groundcover and mulch.

Section 13. TMC Section 18.56.040 Amended. Ordinance Nos. 2500 §24, 2368 §54, 2251 §66, 1795 §3 (part), and 1758 §1 (part), as codified at TMC Section 18.56.040, "General Requirements," are hereby amended to read as follows:

18.56.040 General Requirements

Any required off-street parking and loading facilities shall be developed in accordance with the following standards:

1. *LOCATION.* Any on-premises parking area that contains parking stalls located more than 1,000 feet from the principal use shall require Hearing Examiner approval for the entire parking lot.

2. ~~MINIMUM PARKING DIMENSIONS~~. Minimum parking area dimensions for surface and structured parking facilities shall be as provided in Figure 18-6. Standard and compact parking stalls shall be allowed a two-foot landscaping overhang to count towards the stall length.

3. ~~TANDEM PARKING SPACES~~. In the MDR and HDR zones, tandem spaces (where one car is parked directly behind another) will be allowed for each three bedroom and 1/3 of all two bedroom units. No more than 1/3 of all project parking spaces may be tandem and all tandem parking spaces will be designed for full size rather than compact size vehicles based on the dimensions in Figure 18-6.

4. ~~PARKING AREA AND PARKING AREA ENTRANCE AND EXIT SLOPES~~. The slope of off-street parking spaces shall not exceed 5%. The slope of entrance and exit driveways providing access for off-street parking areas and internal driveway aisles without parking stalls shall not exceed 15%.

5. ~~DRIVEWAYS AND MANEUVERABILITY~~.

a. Adequate ingress to and egress from each parking space shall be provided without moving another vehicle and without backing more than 50 feet.

b. Turning and maneuvering space shall be located entirely on private property unless specifically approved by the Public Works Director.

c. All parking spaces shall be internally accessible to one another without reentering adjoining public streets. This standard does not apply to single family, duplex, triplex, fourplex or townhouse uses.

d. When off-street parking is provided in the rear of a building and a driveway or lane alongside the building provides access to rear parking area, such driveway shall require a minimum width of twelve feet and a sidewalk of at least a three-foot section, adjoining the building, curbed or raised six inches above the driveway surface. This standard does not apply to single family, duplex, triplex, fourplex or townhouse uses.

e. Ingress and egress to any off-street parking lot shall not be located closer than 20 feet from point of tangent to an intersection.

f. The Public Works Director or the Community Development Director may require ingress separate from an egress for smoother and safer flow of traffic.

6. The Director may require areas not designed or approved for parking to be appropriately marked and/or signed to prevent parking.

7. ~~SURFACE~~.

a. The surface of any required off-street parking or loading facility shall be paved with permeable pavement, which is the preferred material, or asphalt, concrete or other similar approved material(s) that maintains a durable uniform surface and shall be graded and drained as to dispose of all surface water, but not across sidewalks.

b. Any parking stalls provided in excess of the required minimum shall use permeable pavement where technically feasible in accordance with the Surface Water Design Manual, adopted in accordance with TMC Chapter 14.30.

bc. All traffic-control devices, such as parking stripes designating car stalls, directional arrows or signs, bull rails, curbs and other developments shall be installed and completed as shown on the approved plans.

ed. Paved parking areas shall use paint or similar devices to delineate car stalls and direction of traffic.

de. Where pedestrian walks are used in parking lots for the use of foot traffic only, they shall be curbed or raised six inches above the lot surface.

ef. Wheel stops shall be required on the periphery of parking lots so cars will not protrude into the public right-of-way, walkways, off the parking lot or strike buildings. Wheel stops shall be two feet from the end of the stall of head-in parking.

8. *PARALLEL PARKING STALLS.* Parallel parking stalls shall be designed so that doors of vehicles do not open onto the public right-of-way.

9. *OBSTRUCTIONS.* No obstruction that would restrict car door opening shall be permitted within five feet of the centerline of a parking space.

10. *LIGHTING.* Any lighting on a parking lot shall illuminate only the parking lot, designed to avoid undue glare or reflection on adjoining premises.

11. *CURB-CUTS.* All parking areas shall have specific entrance and/or exit areas to the street. The width of access roads and curb-cuts shall be determined by the Public Works Director. The edge of the curb-cut or access road shall be as required by the Public Works Director for safe movement of vehicles or pedestrians. Curb-cuts in single-family districts shall be limited to a maximum of 20 feet in width and the location shall be approved by the Public Works Director.

12. *PARKING STALL.* Parking stalls shall not be used for permanent or semi-permanent parking or storage of trucks or materials.

Section 14. TMC Section 18.56.065 Amended. Ordinance Nos. 2368 §57, 2199 §19, and 1976 §62, as codified at TMC Section 18.56.065, "Residential Parking Requirements," are hereby amended to read as follows:

18.56.065 Residential Parking and Storage Requirements

~~A. Two off-street parking spaces shall be provided for each dwelling unit which contains up to three bedrooms. One additional off-street parking space shall be required for every two bedrooms in excess of three bedrooms in a dwelling unit (i.e., four- and five-bedroom dwelling units shall have three off-street parking spaces, six- and seven-bedroom homes shall have four spaces, and so on).~~

A. Parking and vehicle storage limitations on properties devoted to single-family residential use shall be as follows:

1. Motor vehicles on property devoted to single-family residential use shall be parked on an approved durable uniform surface that is designed to retain surface water on-site and without causing impacts. If necessary, surface water may drain to street if no other design is feasible. Motor vehicles, other than those specified in TMC Section 18.56.065.A.2, shall not be parked in setbacks except in front or secondary front-yard

setbacks from streets, when in a driveway that provides access to an approved parking location, and is in conformance with TMC Title 18, as that title currently exists or as it may be subsequently amended. –Parking in the rear setback for a single-family home is permitted where the parking is connected to a rear alley.

2. Recreational vehicles, boats or trailers shall be parked, kept or stored on an approved durable uniform surface and shall not be parked, kept or stored in required front yard setbacks, except for a driveway. Recreational vehicle parking in the side or rear yard setbacks is allowed, provided no recreational vehicle is parked so as to prevent access by emergency responders to all sides of a structure.

3. No more than 50% of the front yard or 800 square feet, whichever is smaller, may be approved durable uniform surface. An approved durable uniform surface exceeding this requirement prior to August 25, 2004 may be maintained, but shall not be expanded. The Director of Community Development may approve exceptions to this requirement for an access driveway, particularly on pie-shaped or other odd shaped lots where it is infeasible to meet this requirement.

4. Single-family properties on pre-existing, legal lots of record containing less than 6,500 square feet are exempt from the percentages noted in TMC Section 18.56.065.A.3.

5. No more than six motor vehicles shall be parked on a single-family residential property of 13,000 square feet or less outside of a carport or enclosed garage for a period of more than 48 hours. For purposes of this section, “single-family residential property” means any parcel containing a single-family residence or multiple parcels combined containing one single-family residence, typically identified by a single address located in the LDR zone. The parking limitations in this subsection shall apply to all motor vehicles as defined by state law with the exception of motorcycles and mopeds.

B. Each unit in a townhouse development shall have an attached garage with parking for at least one vehicle or a parking space in an underground garage.

C. **Waiver from the requirement for number of required stalls.** The Director shall have the discretion to waive the requirement to construct a portion of the off-street parking requirement if, based on a parking demand study, the property owner establishes that the dwelling will be used primarily to house residents who do not and will not drive due to a factor other than age. Such a study shall ensure that ample parking is provided for residents who can drive, guests, caregivers and other persons who work at the residence. If such a waiver is granted, the property owner shall provide a site plan, which demonstrates that in the event of a change of use, which eliminates the reason for the waiver, there is ample room on the site to provide the number of off-street parking spaces required by this Code. In the event that a change of use or type of occupant is proposed that would alter the potential number of drivers living or working at the dwelling, the application for change of use shall be conditioned on construction of any additional off-street parking spaces required to meet the standards of this Code.

~~D. Parking in a Low Density Residential (LDR) zone is subject to vehicle storage and parking regulations listed under TMC Chapter 8.25.~~

Section 15. TMC Section 18.70.050 Amended. Ordinance Nos. 2175 §1, 2077 §1, and 1819 §1 (part), as codified at TMC Section 18.70.050, “Nonconforming Structures,” are hereby amended to read as follows:

18.70.050 Nonconforming Structures

Where a lawful structure exists at the effective date of adoption of this title that could not be built under the terms of this title by reason of restrictions on area, ~~lot coverage, development area~~, height, yards or other characteristics of the structure, it may be continued so long as the structure remains otherwise lawful subject to the following provisions:

1. No such structure may be enlarged or altered in such a way that increases its degree of nonconformity. Ordinary maintenance of a nonconforming structure is permitted, pursuant to TMC Section 18.70.060, including but not limited to painting, roof repair and replacement, plumbing, wiring, mechanical equipment repair/replacement and weatherization. These and other alterations, additions or enlargements may be allowed as long as the work done does not extend further into any required yard or violate any other portion of this title. Complete plans shall be required of all work contemplated under this section.

2. Should such structure be destroyed by any means to an extent of more than 50% of its replacement cost at time of destruction, in the judgment of the City’s Building Official, it shall not be reconstructed except in conformity with provisions of this title, except that in the LDR zone, structures that are nonconforming in regard to yard setbacks or sensitive area buffers, but were in conformance at the time of construction may be reconstructed to their original dimensions and location on the lot.

3. Should such structure be moved for any reason or any distance whatsoever, it shall thereafter conform to the regulations for the zone in which it is located after it is moved.

4. When a nonconforming structure, or structure and premises in combination, is vacated or abandoned for 24 consecutive months, the structure, or structure and premises in combination, shall thereafter be required to be in conformance with the regulations of the zone in which it is located. Upon request of the owner, the City Council may grant an extension of time beyond the 24 consecutive months.

5. Residential structures and uses located in any single-family or multiple-family residential zoning district and in existence at the time of adoption of this title shall not be deemed nonconforming in terms of bulk, use, or density provisions of this title. Such buildings may be rebuilt after a fire or other natural disaster to their original dimensions and bulk, but may not be changed except as provided in the non-conforming uses section of this chapter.

6. Single-family structures in single- or multiple-family residential zone districts that have legally nonconforming building setbacks, shall be allowed to expand the ground floor only along the existing building line(s), so long as the existing distance from the nearest point of the structure to the property line is not reduced, and the square footage of new intrusion into the setback does not exceed 50% of the square footage of the current intrusion.

7. In wetlands, watercourses and their buffers, existing structures that do not meet the requirements of the Sensitive Areas Overlay District chapter of this title may be remodeled, reconstructed or replaced, provided that:

a. The new construction does not further intrude into or adversely impact an undeveloped sensitive area or the required buffer;

b. The new construction does not threaten the public health, safety or welfare; and

c. The structure otherwise meets the requirements of this chapter.

8. In areas of potential geologic instability, coal mine hazard areas, and buffers, as defined in the Sensitive Areas Overlay District chapter of this title, existing structures may be remodeled, reconstructed or replaced, provided that:

a. The new construction is subject to the geotechnical report requirements and standards of TMC Sections 18.45.120B and 18.45.120C;

b. The new construction does not threaten the public health, safety or welfare;

c. The new construction does not increase the potential for soil erosion or result in unacceptable risk or damage to existing or potential development or to neighboring properties; and

d. The structure otherwise meets the requirements of this chapter.

9. A nonconforming use, within a nonconforming structure, shall not be allowed to expand into any other portion of the nonconforming structure.

Section 16. TMC Figure 18-6, “Off-Street Parking Area Dimensions,” Amended. Ordinance No. 1758 §1 (part), codified as Figure 18-6 in Title 18, is hereby amended to be shown as follows:

Off-Street Parking Area Dimensions
TMC 18.56.040

A Parking Angle	B Stall Width	C Stall Depth	D Aisle Width		E Curb Length	F Unit Width	
			1-way traffic	2-way traffic		1-way traffic	2-way traffic
0°	8*	8*	12	20	20*	28*	36*
	8.5	8.5	12	20	23	29	37
30°	8*	15*	11	20	16*	41*	54*
	8.5	17	11	20	17	45	54
	9	17.5	11	20	18	46	55
	9.5	18	11	20	19	47	56
45°	8*	17*	12.5	20	11.5*	46.5*	54*
	8.5	19.5	12.5	20	12	51.5	59
	9	20	12	20	12.7	52	60
	9.5	20	12	20	13.4	52	60
60°	8*	18*	17.5*	20	9.2*	53.5	56*
	8.5	21	17.5	20	9.8	59.5	62
	9	21	17	20	10.4	59	62
	9.5	21	16.5	20	11	58.5	62
90°	8*	16*	24	25	8*	56*	57*
	8.5	19	24	25	8.5	62	63
	9	19	23	24	9	61	62
	9.5	19	22	24	9.5	60	62

*These figures are for use with compact cars only. Any bays that contain combined compact and normal spaces shall be designed for normal spaces.

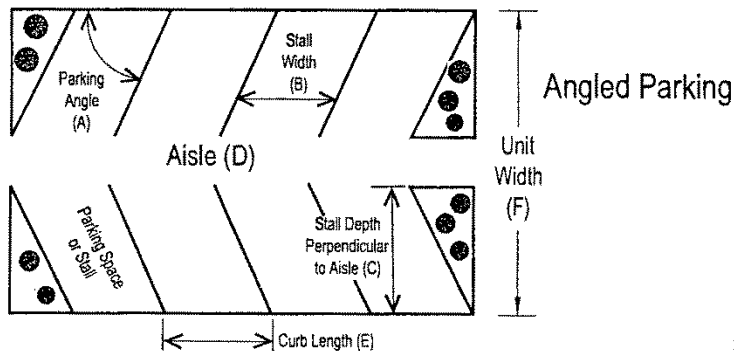
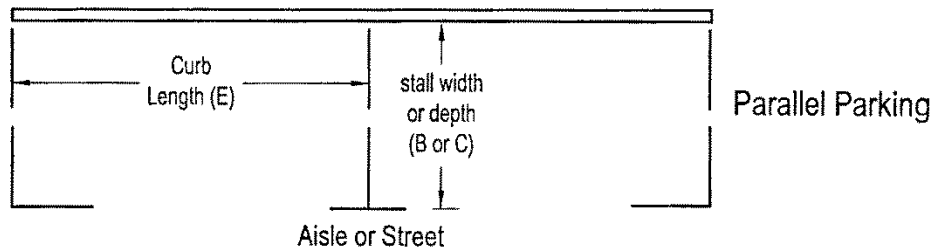


Figure 18-6
Off-Street Parking
Area Dimensions

Section 17. Corrections by City Clerk or Code Reviser. Upon approval of the City Attorney, the City Clerk and the code reviser are authorized to make necessary corrections to this ordinance, including the correction of clerical errors; references to other local, state or federal laws, codes, rules, or regulations; or ordinance numbering and section/subsection numbering.

Section 18. Severability. If any section, subsection, paragraph, sentence, clause or phrase of this ordinance or its application to any person or situation should be held to be invalid or unconstitutional for any reason by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of the remaining portions of this ordinance or its application to any other person or situation.

Section 19. Effective Date. This ordinance or a summary thereof shall be published in the official newspaper of the City, and shall take effect and be in full force on December 31, 2016 after passage and publication as provided by law.

PASSED BY THE CITY COUNCIL OF THE CITY OF TUKWILA, WASHINGTON, at a Regular Meeting thereof this _____ day of _____, 2016.

ATTEST/AUTHENTICATED:


Christy O'Flaherty, MMC, City Clerk

Allan Ekberg, Mayor

APPROVED AS TO FORM BY:

Rachel B. Turpin, City Attorney

Filed with the City Clerk: _____
Passed by the City Council: _____
Published: _____
Effective Date: _____
Ordinance Number: _____



CITY OF TUKWILA PREFERRED BIOPRESENTATION PLANTS

DRAFT - SEPTEMBER 15, 2016

Attachment B
Staff Report L16-0050

PLANTING ZONES for BIORETENTION CELLS

Plants in Zone 1 can tolerate moist soils and standing water. Zone 1 is the bottom of the bioretention cell.



Plants in Zone 2 can tolerate moist soils and occasional standing water. Zone 2 is typically side-slopes and banks.



Plants in Zone 3 can prefer drier planting conditions. Zone 3 is the highest point of the bioretention cell.























Note about Plant Spacing:
The Bioretention Plant List gives an approximate spacing guide for plants based on type of plant and mature, but it is always best to follow plant specific recommendations when spacing. Depending on the soil mix, plantings in bioretention cells typically reach mature size more quickly than when planted in other locations.








































BIORETENTION CELL DIAGRAM



BIORETENTION CELL SECTION










Scientific Name Common Name	Zone			Native	Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3		Sun	Partial	Shade	Height	Spread				
SEDGES AND RUSHES													
 Carex obnupta Slough sedge	1	2					12"-36"	up to 48"	36"		Late Spring	Spreads quickly; excellent soil binder	
 Carex oshimensis 'Evergold' Variegated Japanese Sedge	2	3					12"-24"	24"-36"	28"		Late Spring - Early Summer	Variegated leaves with white band; great for planting along sidewalk edges	
 Carex stipata Sawbeak Sedge	1						24"-36"	24"-36"	28"		Spring	Spreads quickly; long, tapered foliage	
 Juncus acuminatus Taper-tipped Rush	1						6" - 18"	12"-24"	18"		Spring - Summer	Red-brown flowers; delicate	
 Juncus ensifolius Dagger-lead Rush	1						6" - 15"	6" - 9"	6"		Summer	Pom-pom like flowers; adds interest to landscape	
 Juncus tenuis Slender Rush	1	2					6" - 20"	6" - 30"	22"		Late Spring to Late Summer	Bright green foliage	
 Scirpus acutus Hardstem Bulrush	1						10'	6'	4'		Summer	Gray-green to dark green foliage; dense	
 Scirpus microcarpus Small-fruited Bulrush	1						24"-36"	12"-24"	18"		Summer	Spreads quickly; excellent soil binder	






























Scientific Name Common Name	Zone			Native	Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3		Sun	Partial	Shade	Height	Spread				
ORNAMENTAL PLANTS													
 Aster chilensis California Aster	2	3	3					24"-36"	18"-36"	18"-28"		Late Summer 	Low-growing plant; shear when blooming ceases in the autumn, returns in the spring
 Aquilegia formosa Western Columbine	2	3	3					12"-36"	12"-36"	18"-28"		Spring 	Excellent in woodland areas; attracts pollinators; tolerant of shallow flooding
 Arctostaphylos uva-ursi Kinnikinnick or Bearberry	2	3	3					6" - 12"	24"-36"	18"-28"		Spring - Summer 	Glossy, leathery leaves; low-growing ground cover; easy-care once established; bell-shaped flowers; red berries
 Asarum caudatum Wild ginger	2	3	3					4"-6"	36"	18"-28"		Late Spring 	Glossy leaves that exude the fragrance of ginger when crushed
 Athyrium filix-femina Lady fern	1	2	3					36"-60"	24"	12"-18"			Fast-growing; tolerant of shallow flooding
 Blechnum spicant Deer fern	1	2	3					12"-36"	24"	12"-18"		Late Spring 	Dark, glossy leaves with a crinkled texture; tolerant of shallow flooding
 Camassia leichtlinii Leichtlin's camass	2	3	3					36"-48"	12"-24"	12"-18"		Late Spring 	Linear foliage; flowers range in color from white, cream, blue or purple; excellent fresh-cut flower
 Camassia quamash Common camass	2	3	3					18"	12"	6"-9"		Late Spring 	Distinct clusters of flowers make this plant attractive in mass plantings; best when planted in the autumn after weather cools





































Scientific Name Common Name	Zone			Native	Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3		Sun	Partial	Shade	Height	Spread				
ORNAMENTAL PLANTS													
 Cornus canadensis Bunchberry	2	3	3					6"-9"	6"-9"	4.5"-7"		Late Spring 	Performs best in full shade; excellent complement to rhododendrons or ferns
 Dicentra formosa Pacific Bleeding Heart	2	3	3					12"	24"	12"-18"		Spring 	Delicate foliage; distinct spring-time flowers
 Deschampsia cespitosa Tufted hair grass	2	3	3					6" - 12"	24"	12"-18"		Spring 	Stunning grassy foliage with creamy white variegation that turns pink in winter; spring-time inflorescence can make plant 4'-tall
 Fragaria chiloensis Beach Strawberry	2	3	3					10"	36"	18"-28"		Summer 	Forms a lush, compact groundcover; cut back in the early spring to prompt new growth and prevent stem build-up; ornamental berries
 Fragaria vesca Alpine Strawberry	2	3	3					10"	36"	18"-28"			Bears tiny, fragrant (and edible) berries in the summer months; attracts butterflies; likes some afternoon shade
 Festuca idahoensis Idaho Fescue			3					24"	24"	12"-18"		Summer 	Dense plant; gray-green foliage; excellent when planted alongside sidewalks or used as a ground-cover
 Hemerocallis Daylily	2	2	2					24"-48"	24"	12"-18"		Spring-Summer 	Attracts pollinators; flower color dependent on cultivar (pink, red, orange, purple, yellow)
 Heuchera varieties Alumroot	2	3	3					24"-36"	18"	9"-14"		Spring-Summer 	Many cultivars available; distinct foliage and flower colors of chartreuse, white, and scarlet































Scientific Name Common Name	Zone			Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics	
	1	2	3	Sun	Partial	Shade	Height	Spread					
				Native			50% - 75% of Mature Spread						
<i>Iris douglasiana</i> Douglas Iris	1	2	3				24"	24"	12"-18"		Early Spring 	Clumping foliage; beautiful purple flowers are nice color addition to planting scheme	
<i>Iris tenax</i> Oregon Iris	1	2	3				18"	12"	6"-9"		Late Spring 	Beautiful blue and purple flowers; nice color addition to any planting scheme	
<i>Lillium columbianum</i> Tiger Lily	2	3	3				5'-6'	36"	18"-28"		Mid-Summer 	Produces one to six unscented blooms per stem; attracts butterflies	
<i>Lupinus varieties</i> Lupine			3				18"-48"	24"-30"	15"-22"		Summer 	Attracts butterflies and caterpillars; many cultivars available	
<i>Nothochelone nemorosa</i> Turtlehead			3				up to 40"	up to 40"	20"-30"		Summer 	Flowers continuously throughout the summer	
<i>Ophiopogon planiscarpus</i> Black Mondo grass			3				12"	12"	6"-9"		Spring/Summer 	Black foliage makes this an excellent accent when used with brightly flowering plants; maintains color	
<i>Penstemon varieties</i> Penstemon			3				4"-24" (varies)	12"-24" (varies)	12"-18" (Varies)		Summer (varies) 	Beautiful blue and purple flowers, depending on variant; nice color addition to planting scheme; attracts hummingbirds	
<i>Polystichum munitum</i> Western Sword Fern		2	3				36"-48"	36"-60"	30"-45"				Beautiful foliage and size allows this plant to stand out in planting schemes







































ORNAMENTAL PLANTS
































Scientific Name Common Name	Zone			Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics	
	1	2	3	Native	Sun	Partial	Shade	Height					Spread
	50% - 75% of Mature Spread												
	 Sedum varieties Sedum		3					4"-6" (varies)	8"-12" (varies)	6"-9" (varies)	Spring-Summer 	Spoon-shaped blue-green foliage, depending on variant; trailing stems; excellent as a groundcover	
	 Sidalcea varieties Checker mallows, Cherckerblossoms	1						36"-48" (varies)	24"-36" (varies)	18"-28" (varies)	Summer 	Fast-growing; many cultivars are appropriate for bioretention cells, including <i>S. hendersonii</i>	
	 Smilacina racemosa Solomon's Plume		2	3				12"-36"	12"-36"	18"-28"	Spring 	Creamy spring-time blossoms are followed by yellow-green berries that turn to red; attracts birds; fragrant flowers	
	 Solidago canadensis Goldenrod		2	3				36"	24"	12"-18"	Late Summer 	Small bright-yellow flowers make a lively addition to any planting scheme; narrow lance-shaped leaves	
	 Tellima grandiflora Fringecup		2	3				12"	12"	6"-9"	Spring 	Foliage maintains appearance throughout the winter	
	 Tiarella trifoliata Western Foamflower		2	3				12"	12"	6"-9"	Summer 	Dense; foliage maintains appearance throughout the winter	
	 Trillium ovatum Western Trillium		2	3				18"	12"	6"-9"	Spring 	Unique flower to add to any planting scheme	
	 Vancouveria hexandra Duck's Foot		2	3				12"	12"-36"	18"-28"	Spring 	Foliage maintains appearance throughout the winter	

Scientific Name Common Name	Zone			Native	Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3		Sun	Partial	Shade	Height	Spread				
SMALL-TO-MEDIUM SHRUBS													
 Cistus salvifolius 'Prostratus' Sageleaf Rockrose		3						2'	6'	3'-4.5'		Spring-Summer 	Evergreen; excellent for erosion control on banks; light gray-green leaves
		3						6'	6'	3'-4.5'		Summer 	Stunning red stems in the winter months; beautiful addition to bioretention cell for winter interest
 Cornus sanguinea Bloodtwig Dogwood		2	3					3'-8'	3'-5'	2.5'-4'		Summer 	Many cultivars available, including 'Flavimera' and 'Kelsey'; stunning colored stems in the winter months
		2	3					5'	5'	2.5'-4'		Spring 	Fast-growing when planted in shaded areas, otherwise difficult to establish
 Holodiscus discolor Cream Bush		3						8'	15'	7.5'-12'		Summer 	Attracts pollinators; excellent soil binder
		2	3					6'-10'	5'	2.5'-4'		Spring 	Attracts pollinators; blue and black berries
 Osmanthus burkwoodii Hybrid Sweet Olive		2	3					6'-10'	8'-12'	6'-9'		Spring 	Leathery, glossy dark-green foliage; excellent when used as a hedge; tolerant of many soils
	 Osmanthus delavayi Sweet Olive		3					5'-20'	7'-20'	10'-15'		Spring 	Evergreen; dark green leaves with tubular flowers; year-round interest

Scientific Name Common Name	Zone			Native	Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3		Sun	Partial	Shade	Height	Spread				
SMALL-TO-MEDIUM SHRUBS													
 Philadelphus lewisii Mock-Orange	2	3	3					5'-10'	5'-10'	5'-7.5'		Summer 	Fountain-shaped plant; aromatic flowers
 Physocarpus capitatus Pacific Ninebark	1	2	3					5'-10'	5'-10'	5'-7.5'		Late Spring 	Dense clusters of flowers; plants resemble spirea; rejuvenate old plantings by cutting to ground
 Physocarpus opulifolius Common Ninebark	2	3	3					5'-10'	3'-6'	3'-4.5'		Late Spring 	Dense clusters of flowers; plants resemble spirea; rejuvenate old plantings by cutting to ground
 Pinus mugo-mugo Dwarf Mugo Pine			3					4'	5'	2.5'-4'		Late Spring	Low-growing; performs well, but variable in growing habit; great as an anchor plant
 Rhododendron varieties Rhododendron	2	3	3					10' (varies)	10' (varies)	5'-7.5' (varies)		Spring-Summer (varies)	Many cultivars that vary in bloomtime, size, and color; leathery leafed with stunning flowers
 Ribes sanguineum Red-Flowering Currant	2	3	3					5'-12'	10'	5'-7.5'		Spring 	Produces drooping clusters of flowers
 Rosa gymnocarpa Baldhip Rose	2	3	3					5'	1'-2'	1'-1.5'		Spring-Summer 	Fast-growing to 3'; slender; small rose with delicate stems and flowers; stems are bristled
 Rosa pisocarpa Swamp Rose	1	2	3					10'	3'-6'	3'-4.5'		Spring - Fall 	Unique among roses given its preference for wet, almost swampy conditions; stems have thorns

Scientific Name Common Name	Zone			Native	Sun Exposure			Mature Size		On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3		Sun	Partial	Shade	Height	Spread				
SMALL-TO-MEDIUM SHRUBS													
 <i>Rosa nutkana</i> Nootka Rose	2	3	3				6'	4'	2'-3'		Spring 	Arching stems with gray-green leaves	
 <i>Rubus spectabilis</i> Salmonberry	1	2	3				10'	10'	5'-7.5'		Winter-Spring 	Fast-growing; excellent soil binder	
 <i>Salix purpurea</i> Purple Osier	1	2	3				15'	15'	7.5'-12'			Dark green leaves with blue underside; striking purple branches; cut to ground if overgrown	
 <i>Sambucus nigra</i> Elderberry	1	2	3				8'	8'	4'-6'		Late Spring 	Dramatic accent plant; fragrant white flowers	
 <i>Symphoricarpos albus</i> Snowberry	2	3	3				6'	6'	3'-4.5'		Spring 	Pink spring-time flowers are followed by white berries that last through the winter; great for erosion control	
 <i>Thuja plicata</i> 'Whipcord' Dwarf Red Cedar	2	3	3				4'	4'	2'-3'			Unusual and unique planting; cascading branches form a nice mound; bronze winter color	
 <i>Vaccinium parvifolium</i> Red Huckleberry	2	3	3				4'-12'	6'	3'-4.5'		Spring 	Thin branches with cascading habit create a beautiful silhouette	

Scientific Name Common Name	Zone			Native	Sun Exposure			Mature Size		Plant Strip Width	On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3		Sun	Partial	Shade	Height	Spread					
	50% of Mature Spread													
LARGE SHRUBS AND TREES														
 Acer circinatum Vine Maple	2	3	3					30'	30'	5'	15'		Spring 	Small, nearly symmetrical tree; multiple trunks
 Alnus rubra Red Alder	1	2	3					45'-50'	20'-30'	6'	15'			Attractive light gray bark; dark green leaves with rust-colored underside; most common alder of the Pacific Northwest
 Betula papyfera Paper Birch	2	3	3					50'-60'	25'	6'	12.5'			Attractive, creamy-white bark
 Cornus varieties Cherry Tree			3					20' (varies)	20' (varies)	5'	10' (varies)		Spring 	Highly adaptable to environment; many appropriate cultivars available
 Corylus cornuta Beaked Hazelnut	2	3	3					20'	10'	5'	5'			Vase-like shape; needs adequate space to grow; catkins add winter interest
 Crataegus x lavalii Lavalle Hawthorne			3					25'	20'	5'	10'		Spring 	Dark green leathery leaves; clusters of red fruits add winter color
 Fraxinus latifolia Oregon Ash	1	2						60'	35'	6'	18'			Tolerant of wet conditions
 Lonicera involucrata Black Twinberry	1	2						9'	10'		5'		Summer 	Attractive to hummingbirds

Scientific Name Common Name	Zone			Native			Sun Exposure			Mature Size		Plant Strip Width	On Center Spacing	Fall Color	Bloom Time & Color	Characteristics
	1	2	3	Sun	Partial	Shade	Height	Spread								
LARGE SHRUBS AND TREES																
 Malus fusca Pacific Crabapple	1	2					10'-30'	10'-30'			15'			Spring 	Requires adequate room to grow; fragrant apple blossoms of white or pink; bears fruit	
 Myrica californica Pacific Wax Myrtle	1	2					15'	15'			5'			Spring	Many upright trunks; branches are densely covered in foliage; purple nutlets attract birds; useful in screening	
 Parrotia persica Persian Parrotia	2	3					15'-30'	20'			5'			Early Spring 	Smooth gray bark with white patches; colorful tree year-round	
 Rhamnus purshiana Cascaira	2	3					20'-40'	10'-30'			5'				Smooth gray bark; picturesque branches; dark green leaves	
 Salix lucida Pacific Willow	2						15'-45'	30'						Spring	Useful as a screening plant or windbreaker; aggressive roots are excellent for stabilizing banks	
 Salix sitchensis Sitka Willow	1	2					25'	15'						Spring	Multi-stemmed; gray-brown bark; useful in screening	
 Sambucus caerulea Blue Elderberry	2	3					10'-30'	8'-20'						Spring 	Clusters of summertime blue or black berries follow spring-time flowers	
 Thuja plicata Western Red Cedar	2	3					50'-100'	25'-60'			12'				Many cultivars; slender, drooping branches with dark green leaves; requires adequate space to grow	