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Forestry Advisory Board Agenda

2529 High Country Court - Conference Room

April 7, 2022

8:30 AM

Call to Order

Approval of Minutes

Approve minutes from March 3, 2022 meeting

Forestry Updates

Tree planting season is here

2022 nursery stock list

Looking for tree stewards

Arbor Day Plans

Tree seedling distribution

Online form to launch on Tuesday, April 12

Deliveries targeting Tuesday, April 19 - Thursday, April 21

Need Volunteers

Southwest Arbor Fest

Review agenda plans

Tanya Travis booth

Great Old Broads for Wilderness

If you have questions please contact Chair, Susan Carter at 244-1850 or Robert Davis, City Forester at 254-3825.

T4 Tree Service

T4 Tree Service

New Business

Development regulations update

Final comment opportunity

New insect Update by CSU

Public Comments

Adjournment

Next Meeting Date

Thursday, May 5, 2022 - 8:30 am



Grand Junction Forestry Advisory Board Minutes

March 3, 2022 - In Person and held digitally

Meeting called to Order by Kamie Long, at 8:35 AM.

Roll Call

Board Members Present: Bennett Boeschstein
Susan Carter
Bill Cooper
Mollie Higginbotham
Dan Komlo
Kamie Long
Chuck McDaniel, Mayor
Vince Urbina

Absent Board Members: N/A

Guests Present: Rich Edwards

Parks & Recreation Staff Present: Rob Davis, City Forester & Open Space Supervisor
Allison Little, Administrative Specialist

Approve Minutes

Kamie Long noted some small corrections, and the need to remove Susan Carter from the Absent Board member list. Kamie made a motion to approve the minutes of the February meeting as corrected. The motion was seconded by Vince Urbina and carried unanimously

Forestry Updates

2022 Private ash treatment and replacement program update

The bid for the private ash tree treatment program was accepted by City Council. T4 Tree Service will be the vendor administering treatment. The official launch of the program will be on Arbor Day and registrations into the program will be accepted on a first come first served basis. There will be an online registration document for folks to fill out and submit which places them on the list for evaluation.

As discussed, this program is a 50/50 cost share between citizen and City. There is a minimum treatment cost of \$225 (112.50 each) and a maximum cost share of \$500. HOAs are invited to participate in the program for trees in common areas, but the same maximum cost share applies to them as well. To be treated, trees must have no more than 30% canopy decline. Trees which are not able to be treated may qualify for the rebate portion of the program. The City will pay up to

\$300 per address for replacement trees. For both the treatment and rebate program, the landscape must show clear signs of stewardship.

Removal and Stump Grinding

Forestry crews are working through the removals. 1500 inches (about 85 trees) have been removed so far (which will take 750 2 inch caliper trees to replace). Requested removals have been completed save for a few trees which require traffic control or need a safety zone. There are 11 trees in Whitman and Emerson park which need removal. Additionally, there are 250 “black dot” trees identified for removal during the treatment of City-owned ash trees this summer which still need to be addressed as well. Trees are being posted prior to removal. Crews started working at South Avenue and are working north. They have worked up to Ouray Ave so far.

Seasonal and full time hiring

The seasonal pool was strong this year, though some candidates have dropped out based on the drug testing requirement.

There are full time positions open in Open Space and Plant Health and those recruitments are proceeding.

Tree planting season is coming

Rotary is targeting the first Saturday of May for their large planting. Board members wondered about the gaps in tree plantings on Riverside Parkway. Those trees were mostly removed due to insect damage.

Education and Marketing

Rob shared the new logo and mascot for the Root For Your Ash program. Ciara DePinto who has been instrumental in working with the graphic company to get this design accomplished has accepted a job working for the Town of Fruita. We’ll miss her!

New Business

Demo Day – CSU Extension

March 26 event with set up at 7:30am and the event from 9am – 1pm at the extension office. The Forestry Board has typically had a booth. It could be a great opportunity to promote Arbor Fest, the Ash program, watering of right or way trees and other important initiatives.

Siberian Elm

The state has placed the Siberian Elm on the noxious weed watch list. This can have implications where development codes are concerned. As the third most prevalent tree in the City inventory, were this classification formalized there could be significant impacts to the Grand Junction canopy.

Classes and Continuing Education

TRAQ - will be held the last week of September

Western Slope Emerging Pests – will be held March 30 at the CSU Extension office

Arbor Day 2022 Agenda

Gearing up for seedling delivery the week of Arbor Day. Having the Forestry Board members and Master Gardeners help with distribution was effective. Kody Gentry will be running the distribution this year. Having a route mapped was helpful and individually labeling seedlings this year will be helpful. Kamie took pictures of how to plant a seedling, which could be a great resource to direct people towards to give the seedlings a better chance of success.

For Arbor Day we'll be set up in the plaza area of the pool (on the same side of the loop road as the rest of the festival). The Master Gardeners will be there, we'll have a silent auction for urban wood and larger containerized trees, as well as a notable tree tour.

Development Regulations

Significant progress has been made on the updates to the Development regulations, especially around the area of significant tree protections and other positive changes to tree regulations. Rob still has some concern around the number of trees required in landscapes classified as "water wise" and "high desert."

Desire for new licensing categories

The CPW/SWIFT project has received approval to work inside City Limits removing tamarisk and Russian olive to make way for cottonwoods to grow. Further discussion on new licensing categories will be revisited at a future meeting.

Adjourn

The meeting adjourned by acclimation at 10:33 AM.

Next Forestry Advisory Board Meeting - Thursday, April 7, 2022 at 8:30 AM.

Respectfully Submitted,
Allison Little, Administrative Specialist

Tree Type

Arizona cypress 15
Boxelder 15
Boxelder 7
Catalpa 15
Catalpa 7
Catalpa B&B
Coffeetree 7
Coffeetree B&B
Cornel Cherry B&B small
Crabapple SS B&B
Desert Willow 15
Elm Accolade 15
Elm Allee 15
Goldenraintree B&B
Hackberry B&B
Hardy Rubber Tree B&B
Hawthorn B&B
Honeylocust 15
Honeylocust B&B
Kentucky coffeetree 15
Linden Silver Sterling B&B small
Magnolia 7
Maple hedge 15
Maple Korean B&B small
Oak Bur 15
Oak Bur 7
Oak Bur B&B
Oak Chinkapin B&B small
Oak Forest Green 15
Oak Gambel 7
Oak Gambel B&B
Oak Heritage 15
Oak Schuettei B&B
Oak Shumard 7
Osage Orange 7
Pear 15
Pear 7
Pear B&B
Pine Afghan 5
Pistache 15
Planetree 7
Redbud 7
Redbud B&B small
Severn Son Flower 7
Sweetgum 15
Tree lilac 15
Tree Lilac B&B
Zelcova 15

Zelcova B&B

Species	Size	Qty	Used
Cypress Cupressus arizonica 'Blue Ice' Blue Ice Arizona	#15	10	0
Acer negundo 'Sensation' (Sensation Boxelder)	#15	8	1
Acer negundo 'Sensation' (Sensation Boxelder)	#7	2	0
Catalpa speciosa (Northern Catalpa)	#15	3	0
Catalpa speciosa (Northern Catalpa)	#7	5	0
Catalpa speciosa Northern Catalpa	B&B	5	0
Gymnocladus dioica 'McKBranded' (Decaf® Kentucky Coffeetree)	#7	5	0
Gymnocladus dioicus Kentucky Coffeetree	B&B	15	0
Cornus mas (Cornelian Cherry Dogwood)	B&B small	3	0
Malus 'spring snow' Spring Snow Crabapple	B&B	5	0
Chilopsis linearis Desert Willow	#15	10	0
Ulmus jap. x wilsoniana 'Morton' (Accolade™ Elm)	#15	7	0
Ulmus parvifolia 'Emer II' (Allee® Elm)	#15	5	0
Koelreuteria paniculata Goldenraintree	B&B	5	0
Celtis occidentalis HACKBERRY	B&B	10	0
Eucommia ulmoides Hardy Rubber Tree	B&B	1	0
Crataegus ambigua Russian Hawthorn	B&B	5	0
Gleditsia t. var. i. 'Skyline' (Skyline® Honeylocust)	#15	5	0
Gleditsia 'skyline' Skyline Honeylocust	B&B	7	0
Gymnocladus dioicus 'Espresso-JFS' (Espresso™ Kentucky Coffeetree)	#15	7	0
Tilia tomentosa 'Sterling' (Sterling Silver Linden)	B&B small	3	0
Magnolia 'Galaxy' (Galaxy Magnolia)	#7	5	0
Acer campestre 'Evelyn' (Queen Elizabeth™ Hedge Maple)	#15	3	0
Acer pseudosieboldianum (Korean Maple)	B&B small	3	0
Quercus macrocarpa Bur Oak	#15	10	0
Quercus macrocarpa Bur Oak	#7	10	0
Quercus macrocarpa Bur Oak	B&B	5	0
Quercus muelenbergii (Chinkapin Oak)	B&B small	10	0
Quercus frainetto 'Schmidt' Forest Green Oak	#15	5	0
Quercus gambelii Gambel Oak	#7	2	0
Quercus gambelii Gambel Oak	B&B	5	0
Quercus x macdanielli 'Clemons' (Heritage® Oak)	#15	5	0
Quercus schuettei Schuette's Oak	B&B	7	0
Quercus schumardii Shumard Oak	#7	5	0
Maclura pomifera 'White Shield' (White Shield Osage Orange)	#7	3	0
Pyrus calleryana 'Cleveland Select' (Cleveland Select Flowering Pear)	#15	5	0
Pyrus calleryana 'Cleveland Select' 3 & Glen's Form 5	#7	8	0
Pyrus 'autumn blaze' Autumn Blaze Pear	B&B	5	1
Pinus eldarica Afghan Pine	#5	10	0
Pistacia chinensis (Chinese Pistache)	#15	10	0
Platanus acerfolia (London Planetree)	#7	5	0
Cercis canadensis (Eastern Redbud)	#7	4	0
Cercis canadensis (Eastern Redbud)	B&B small	5	0
Heptacodium miconioides (Seven-Son Flower)	#7	3	0
Liquidambar styraciflua 'Moraine' (Moraine Sweetgum)	#15	2	0
Syringa pekinensis 'Morton' China Snow 5 and Great Wall 5	#15	10	0
Syringa reticulata 'ivory silk' Ivory Silk Tree Lilac	B&B	5	0
Zelcova Green Village Zelcova	#15	5	1

Zelkova serrata 'green vase' Green Vase Zelcova	B&B	3	0
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Total Remaining

10
7
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3

BAREROOT AQUAPONIC TREES

Acer negundo, Sensation	BR	1"	10
Catalpa, Northern Undercut	BR	1"	5
Ginkgo, Presidential Gold® Graft	BR	1"	5
Gleditsia, Street Keeper®	BR	1"	5
Gymnocladus, Espresso™	BR	1"	5
Koelreuteria, Goldenrain Tree	BR	1"	10
Maackia, MaacNificent®	BR	1"	5
Malus, Spring Snow RightRoot®	BR	1"	10
Prunus, Canada Red Improved Undercut	BR	1"	5
Zelkova, Village Green™	BR	1"	5
Betula, Northern Tribute®	BR	1"	5
Ulmus, Greenstone® OR Undercut	BR	1"	10
Pyrus, Chastity® Bud Undercut	BR	1"	5
<i>Platanus x acerifolia</i> 'Bloodgood'	BR*	1" -1.50"	5

90

ARBOR DAY 2022 SEEDLING DISTRIBUTION PROGRAM

1045

FORT COLLINS WHOLESALE NURSERY

Acer saccharum (Boulder seed source)	Sugar Maple	50
Quercus gambelii 'Gila monster'	Gila Monster Gamble Oak	100
Acer grandidentatum 'Manzano' (New Mexico Range)	Manzano Maples	100
Quercus buckleyi	Texas Red Oak	50
Carya cordiformus (Northern IA seed source)	Bitternut Hickory	100
Carya ovata (Northern IA seed source)	Shagbark Hickory	20
Quercus macrocarpa	Bur Oak	100
		520

HERTIAGE SEEDLINGS AND LINERS NURSERY

Corylus colurna	Turkish filbert	100
Corylus fargesii	Farges filbert	25
Koelreuteria paniculata	Goldenraintree	
Magnolia x soulangeana	Saucer magnolia	100
Magnolia x sieboldii	Korean mountain magnolia	50
Pistacia chinensis	Chinese pistache	50
Quercus buckleyi	Texas red oak	100
Quercus phellos	Willow Oak	100
		525

Crimsonspire Oak	4x6 Pot	10
Hickcan	4x6 Pot	15
Shellbark Hickory	4x6 Pot	10

35

Arbor Day 2022

Southwest Arbor Fest

April 23rd from 9:00-2:00 at Lincoln Park

The City of Grand Junction has proclaimed Saturday April 23rd as the 2022 date to celebrate Arbor Day in our community and residents are invited out to Lincoln Park to help make their neighborhood a greener place to live.

Event will be located just outside the main entrance of the Lincoln Park pool.

Arbor Day 2022 (contact for the event: robd@gjcity.org)

GENERAL SETUP

7-9:00 am

- Forestry equipment and truck set up
- Tree delivery and set up
- Booth and table set up

ARBOR DAY EVENT TIME AND ALL DAY ACTIVITIES

9:00 am – 2:00 pm

- Tree care informational booths
- Free seedling give-a-ways (while supplies last)
- T4 Tree Service and Private Ash Treatment Program Launch
- Silent auction for larger containerized trees (7 to 10-foot-tall trees)
 - Silent tree auctions opening and closing on the hour
- Silent auction for reclaimed urban wood pieces
 - Closing at 1:30pm
- Urban forestry equipment Touch a Truck
- Arboretum fund raising booth

LINCOLN PARK NOTABLE TREE WALK WITH VINCE URBINA – 11:30 pm

At 11:30 Vince Urbina, retired Colorado State Forest Service Urban Forester, will lead a walking tour of the Lincoln Park arboretum answering questions and sharing his tree knowledge.

21.10.020 Terms defined.

Approved Street Trees for Grand Junction's Rights-of-Way means the list of trees and plantings in public rights-of-way maintained by the Forestry Board (see Section 8.32.020).

Buffer/Buffering means an object and/or area consisting of a wall, fence, and or landscape strip including trees and shrubs that serves as a visual and auditory screen between properties.

Colorado Nursery Act means C.R.S. Title 35 Article 26 and any amendments made thereto.

Caliper means the diameter of the tree trunk measured six inches above the ground for trees up to and including four-inch caliper size and 54 inches above the ground for larger trees (Diameter at Breast Height, or DBH).

Canopy drip line means the area directly located under the outer circumference of the tree branches from which water drips onto the ground.

Distinctive landscape treatments means landscape designs that combine public art, plantings, and site design elements that establish a unique sense of place or strong visual impression.

Graywater system means onsite systems designed for irrigation of planted landscapes using domestic wastewater that has not been substantially contaminated by toilet discharge, soap, or other chemicals and which can be beneficially used to supply or supplement other irrigation.

Lot coverage means that area of the lot or parcel which may be occupied by impervious surfaces.

Noxious or invasive species means non-native plants that have a recognized harmful impact on natural habitats and/or are likely to displace or out-compete native plant species for light, space, soil moisture and nutrients, including those noxious species identified under the Colorado Noxious Weed Act (C.R.S. Title 35 Article 5.5).

Suitable Plant List means a list of plant species and genera appropriate for planting on private property in conjunction with site development as maintained by the Community Development Director.

Root ball means the mass formed by the roots of a plant and the soil surrounding them at the time of planting.

Rootzone means the area of the ground around the base of the tree where rooting occurs, as measured from the trunk to a distance twice the radius of the canopy drip line.

Tree canopy coverage means the area of ground directly beneath the leaves and branches of trees.

Waterwise means landscape plantings that minimize water waste and improve maintenance outcomes by grouping plants based on similar watering requirements, selecting climate-appropriate plants, and designing irrigation for optimal efficiency.

Xeriscape or xeriscaping means landscape plantings that reduce the need for irrigation.

21.03.030 Measurements.

(e) Lot Coverage. Lot coverage is measured as the percentage of the total lot area covered by impervious surfaces buildings. It is calculated by dividing the square footage of impervious surface by the square footage of the lot.

21.03.090 Mixed Use and Industrial Bulk Standards Summary Table

	R-O	B-1	B-2	C-1	C-2	CSR	M-U	BP	I-O	I-1	I-2
Lot											
Area (min. ft. unless otherwise specified)	5,000	10,000	None	20,000	20,000	1 ac	1 ac	1 ac	1 ac	1 ac	1 ac
Width	50	50	None	50	50	100	100	100	100	100	100
Frontage	None	None	None	None	None	None	None	None	None	None	None
Setback											
Principal structure											
Front (min. ft.)	20	20	0	15	15	15	15	15	15	15	15
Side (min. ft.)	5	0	0	0	0	0	0	0	0	0	0
Side – abutting residential (min. ft.)	0	10	0	10	10	10	10	10	10	10	10
Rear (min. ft.)	10	15	0	10	10	10	10	10	10	10	10
Accessory structure											

Front (min. ft.)	25	25	25	25	25	25	25	25	25	25	25
Side (min. ft.)	3	0	0	0	0	0	0	0	0	0	0
Side – abutting residential (min. ft.)	0	5	0	5	5	5	5	5	5	5	0
Rear (min. ft.)	5	15	0	10	10	10	10	10	10	10	10
Other Dimensional Requirements											
Lot coverage (max.)	<u>70%</u>	100% <u>80%</u>	<u>100%</u>	100% <u>80%</u>	100% <u>80%</u>	100% <u>75%</u>	100% <u>80%</u>	100% <u>80%</u>	100% <u>80%</u>	100% <u>90%</u>	100% <u>90%</u>
Height (max. ft.)	40	40	80	65	65	65	65	65	65	50	50
Density (min. units per acre)	4	8	8	12	n/a	n/a	8	8	n/a	n/a	n/a
Density (max. units per acre)	None	16	None	24	None	None	24	24	None	None	None
** Gross floor area	10,000	15,000	None	None	None	None	None	None	None	None	None
Notes											
B-1: Max. gross floor area varies by use; retail – 15,000 sf (unless a CUP is approved), office 30,000											
B-2: Parking front setback for parking as a principal use – 30 ft., as an accessory use – 6 ft.											
C-1: Min. rear setback – 0 if an alley is present											
CSR: Maximum building height abutting residential – 40 ft.											
** Gross floor area calculated for maximum size may exclude eaves, covered or uncovered porches, upper story decks and balconies, breezeways, exterior covered stairwells and attached decorative walls which are less than or equal to three feet in height.											

21.06.040 Landscape, buffering and screening standards.

(a) Purpose and Goals. The purpose of this section is to enhance the aesthetic appeal and sensitivity to context of new development, achieve efficient use of water resources, expand urban tree canopy, and contribute to a livable urban environment. Landscaping reduces heat and glare, ~~facilitates movement of traffic within parking areas,~~ shades cars

and parking surfaces, reducing local and ambient temperatures, buffers and screens cars from adjacent properties, promotes natural percolation of surface waters, improves air quality, ~~buffers and screens potentially incompatible uses from one another,~~ and conserves and enhances the value of property and neighborhoods within the City.

(b) General Landscape Standards.

(1) Authority.

(i) The Director shall decide all questions of soils, plant selection and care, irrigation installation and other vegetation and landscaping questions, except for plantings in the right-of-way. The City Forester shall decide all questions of plantings in the right-of-way.

(ii) The Director may approve an applicant's request to vary from the required number and types of plants or landscaped area if:

(A) The number of trees proposed exceeds the minimum required number of trees by 25 percent; and/or

(B) Additional berming or other attractive buffering, community garden boxes or plots in residential developments, public art, pergolas or similar gathering places, decorative boulders, or enhanced paving treatments for public plazas (brick or concrete pavers, tinted and stamped concrete, etc.) is provided. The Director may grant up to a 20 percent reduction of the square footage of improved area used to calculate the landscape requirement where these types of enhancements are included in a development.

(C) If the total amount of required landscape plantings are provided, the Director may allow the owner to place the landscaping in appropriate areas of the property other than those identified herein.

(iii) The width of a landscape strip can be modified by the Director, provided the intent of this section is met.

(iv) The Director or assignee shall determine the suitability of hand watering as an alternative to irrigation for the establishment of waterwise or xeric landscape designs. Hand watering is not permitted without prior approval by the Director.

(v) Variances to this section and appeals of administrative decisions (where this code gives the Director discretionary authority) shall be referred to the Planning Commission.

(12) All landscaping required by this code shall comply with the standards and requirements of this section. ~~The landscaping requirements of this code shall not apply to a lot zoned for one or two dwellings.~~ Landscaping for new developments shall occur in buffer areas, all interior parking areas, along the perimeter of the property, around new and existing structures, and along street frontages and within any right-of-way not used ~~nor planned to be used~~ for infrastructure.

(23) Plant Quantities. The amount of landscaping is based on gross ~~area~~ acreage of proposed development.

(34) Landscaping Standards. All new development must install, ~~and~~ maintain, and protect landscaping as required by this code. (See subsection ~~(b)(4k)~~ of this section for an example of the landscaping requirements of this section.)

(i) On-site frontage landscaping may not apply in the B-2 zone downtown commercial. (See zone district standards.)

(ii) Landscaping in the abutting right-of-way is required in addition to overall site landscaping requirements and must be installed and maintained as required by section 21.06.040(b)(16) of this Code.

(iii) The landscaping requirements of this code shall not apply to a lot zoned for one or two dwellings.

(iiiv) Buffer landscaping is required in addition to overall site landscaping requirements.

(45) Acceptable Plant Material. ~~Vegetation must be suitable for Grand Junction's climate and soils. The Director may allow the use of any plant if sufficient information is provided to show suitability including salt tolerance, sun and shade requirements based on planting locations, growth habit, etc. Noxious weeds are not allowed. (The Director will keep a list of suitable plants.)~~

(i) Vegetation must be suitable for Grand Junction's climate and soils and shall be selected from the City of Grand Junction Suitable Plant List, to be maintained by the Director. Applicants may petition the inclusion of plants not found on the Suitable Plant List and shall provide sufficient information about the proposed species to facilitate review. The Suitable Plan List identifies the anticipated water needs of each plant species. The Director may allow the use of any plant if sufficient information is provided to show suitability including salt tolerance, sun and shade requirements based on planting locations, growth habit, etc. Noxious weeds or invasive species are

not allowed to be planted in development but may be preserved in development.

(A) The Director maintains the right not to approve a plant species that appears on the Suitable Plant List if the Director deems it inappropriate under the planting conditions proposed in a development.

(iii) Plant materials shall meet or exceed the plant quality and species standards of the current American Standard for Nursery Stock and be consistent with the Colorado Nursery Act.

(iv) All plants proposed for installation shall be selected, spaced, and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.

(56) Minimum plant sizes are:

- (i) Shade tree, two-inch caliper (measured six inches above root ball) at time of planting. At maturity, a shade tree has a height and/or spread of 30 feet or greater. If two-inch caliper trees are not available due to documented seasonal shortages or shortages in desired varieties, the Director may approve the installation of smaller trees, provided the proportional difference in caliper inches is compensated for by installing additional trees. ~~For example, the installation of six one and one-half inch caliper shade trees would result in a shortfall of three caliper inches, which could be compensated for with two additional one and one-half inch trees.~~ However, a minimum caliper of one and one-half inches shall be required.
- (ii) Ornamental tree, one-and-one-half-inch caliper (measured six inches above root ball) at time of planting. At maturity, an ornamental tree has a spread and height between 15 feet and 30 feet.
- (iii) Evergreen tree, six feet tall at time of planting.
- (iv) Deciduous shrub, five-gallon container.
- (v) Evergreen shrub, five-gallon container.
- (vi) Perennials and ground covers, one-gallon container.
- (vii) Turf mix, native grasses and wild-flower mix are the only vegetation that may be planted as seed or by plugs.

(67) Irrigation. All vegetation and landscaped areas must be provided with a permanent irrigation system or approved graywater system.

(i) Non-potable irrigation water shall be used if it is available to the proposed development area unless the Director allows the use of potable water.

(ii) An underground pressurized irrigation system and/or drip system is required for all landscape areas on the property and in any undeveloped right-of-way.

(iii) If connected to a ~~drinking~~ potable water system, all irrigation systems require State-approved backflow prevention devices.

(iv) All irrigation for non-potable irrigation water systems must have adequate filters easily accessible above ground or within an appropriately sized valve box.

(v) Native grasses must have a permanent irrigation source that is zoned separately from higher water demand landscapes. Once the grasses are established, irrigation to native grass areas can be reduced to a level that maintains coverage typical of the grass mix and to suppress weed growth.

(vi) Efficient use of natural precipitation is encouraged to be achieved through alignment of landscaping plans with grading plans to expose planting areas to appropriate amounts of natural water flow.

(78) Landscape Plans and Equivalent Plantings.

(i) Landscape plans must identify the species and sizes of vegetation (~~SSID manual~~).

(ii) All landscaping shall be installed, maintained, and protected as shown on the approved plan.

(iii) An equivalent species may be substituted in the field without prior approval of the Director, provided that a written record of substitutions ~~revised drawing~~ is submitted to the Department. Plants are "equivalent" if they have the same growth habit and rate, same cover, leafing, shade characteristics and function, have similar water requirements as identified by the City of Grand Junction Suitable Plant List, and thrive in the same microclimate, soils and water conditions. Changes impacting trees in the right-of-way shall require approval of the City Forester prior to substitution in the field.

(iv) All other changes to the landscape plan require prior approval ~~from the Director.~~

(v) All development plans shall designate required landscaping areas.
~~Subdivision plats shall designate required landscaping areas.~~

~~(vi) The owner shall keep each fire hydrant unobscured by plant material.~~

(vi) All landscape plans shall include an irrigation plan. The irrigation plan shall comply with the standards in the SSID manual. See GJMC 21.06.010(c).

(vii) Plant materials shall be spaced appropriately to allow adequate room for rootzone and vegetation at maturity.

(viii) Landscape plans shall be stamped by a ~~licensed~~ landscape architect licensed in the State of Colorado. Inspection and compliance with approved landscape plan must be certified by a licensed landscape architect prior to issuance of a certificate of occupancy.

(A) A licensed landscape architect is not required to produce landscape plans if the plans are submitted for a Minor Site Plan review unless required by State statute. All other requirements continue to apply to landscaping for Minor Site Plans.

(ix) Expansion of a developed site as defined in GJMC 21.02.100(f) that requires a Site Plan Review shall require a landscaping plan and correction of nonconforming landscaping as provided in GJMC 21.08.040.

(x) Maintenance requirements shall be noted on landscaping plans, including plans for expansion of irrigation and removal of dead plant material.

(xi) Tree protection measures shall be clearly identified on the construction and landscape plans.

(xii) Wall and fence elevations and typical cross sections must be submitted with the landscape plan at a minimum scale of one-half inch equals one foot.

(xiii) Distinctive landscape treatments are recommended for site and neighborhood entrances where a proposed development is accessed from a collector or arterial road.

(89) Preservation of Significant Landscape Features and Significant Trees

(i) Existing landscape features such as escarpments, large or mature old trees or stands, heavy vegetative cover, ponds and bluffs shall be identified by the Director the applicant as part of the development review process. This identification shall include a written inventory of significant features to be produced with a landscaping plan. Any significant tree as defined in subsection (c) below shall be identified on the proposed landscaping plan. ~~To the extent the Director deems practicable, such features shall be preserved by the final plans and to such extent, count toward landscape and open space area requirements. Features to be preserved shall be protected throughout site development. If a significant live feature which was to be preserved dies or is substantially damaged, the developer shall replace it with an equivalent feature as determined by the Director. No person shall kill or damage a landscape feature required to be preserved by this section. The developer shall protect trees from compaction under the canopy drip line of the tree unless the City Forester says otherwise.~~

(ii) ~~To the extent the Director deems practicable, such Significant landscape features including significant trees shall be preserved unless deemed unreasonable or impractical by the Director by the final plans and to such extent, count toward landscape and open space area requirements.~~

(iii) All trees not identified as noxious or invasive species that have a diameter exceeding 15 caliper inches shall be considered significant trees and are required to be preserved in development or shall be replaced at a rate of one newly planted tree per 2 caliper inches of the significant tree to be removed, in addition to new tree plantings otherwise required by this Code. See GJMC 21.06.040(h)(6) for credit applied to preserved trees.

(iv) Where significant trees exist on a property, no fewer than 30 percent of significant trees shall be preserved during development.

(v) Significant trees to be preserved shall be healthy and free from serious disease or parasite infection.

(vi) Features to be preserved shall be protected throughout site development. ~~If a significant live feature which was to be preserved dies or is substantially damaged, the developer shall replace it with an equivalent feature as determined by the Director. No person shall kill or damage a landscape feature required to be preserved by this section. The developer shall protect trees from compaction under the canopy drip line of the tree unless determined impractical by the City Forester says otherwise.~~

~~(iA) During construction, fencing or similar barriers shall isolate and protect the landscape features to be preserved.~~ existing plant material to be preserved shall be enclosed by a temporary fence at least five (5) feet outside the canopy dripline. In no case shall vehicles be parked or materials or equipment be stored or stockpiled within the enclosed area.

~~(ii) All protection measures shall be clearly identified on the construction and landscape plans.~~

~~(iiiB) No vehicles or equipment shall be driven or parked nor shall any materials be piled within the canopy drip line of any tree to be preserved.~~

(C) Adequate irrigation shall be provided to trees preserved during construction.

(D) If a significant live feature which was to be preserved dies or is substantially damaged, the developer shall replace it with an equivalent feature as determined by the Director. Where the damaged feature is a significant tree, additional trees shall be planted on the site at the rate of one newly planted tree per 2 caliper inches of damaged or destroyed tree.

(910) Protection of Landscape Areas. All landscape areas (except in the right-of-way where a street side curb does not exist) shall be protected from vehicles through the use of concrete curbing, large rocks, or other similar materials ~~obstructions~~.

(101) Utility Lines. If the location of utilities conflicts with the landscaping provisions, the Director may approve an equivalent alternative.

(i) Utility composite plans must be submitted with landscape plans.

~~(ii) Trees which will grow to a height of greater than 15 feet at maturity shall not be planted under electrical lines.~~

~~(iii) Ornamental and evergreen trees planted under an electrical line may count towards the total tree requirement.~~

(124) Sight Distance. The owner shall maintain all vegetation, fences, walls and berms so that there is no site distance hazard nor road or pedestrian hazard (see TEDS).

(132) Soil. Soil in landscape areas must be amended and all vegetation planted in accordance with best horticultural practices.

(i) Details for the planting of trees, shrubs and other vegetation must be shown on the landscaping plans.

(ii) Shrub beds adjacent to turf or native grass areas are to be edged with concrete, metal, brick or substantial wood material. Plastic and other light duty edgings are not allowed.

(iii) Organic mulch to a minimum depth of 3 inches and weed fabric are is required for all shrub beds.

(iv) The minimum square footage of planting area for a five-gallon evergreen or deciduous shrub is 16 square feet. ~~These minimum square footages may be varied by a qualified professional.~~ Prior to planting, compacted soils shall be transformed to a friable condition.

(v) Compost, soil amendments, or retained topsoil shall be incorporated into the soil to a minimum depth of 6 inches for tree and shrub plantings.

(143) Trees.

(i) Trees should not be planted near a light pole if eclipsing of light will occur at maturity. Placing light poles in the parking lot, away from landscape areas and between parking bays, helps eliminate this conflict and should be considered.

(ii) Tree canopies may overlap by up to ~~20~~ 30 percent of the diameter of the tree canopy drip line at maturity. Tree clustering may be allowed with some species so long as clustering does not adversely affect the mature canopy.

(iii) Trees which will grow to a height of greater than 25 feet at maturity shall not be planted under overhead electrical lines.

(iv) Weed fabric shall not be used within 8 feet of the base of a tree.

(v) At planting, trees shall be healthy and free of disease. Tree trunks must be reasonably straight with minimal doglegs. Roots shall be checked prior to planting and corrected for optimal growth patterns.

(vi) Wire baskets, burlap wrappings, rope, twine or any similar shipping materials shall be removed before planting.

(vii) Tree planting holes shall be of sufficient depth so that the flare of the tree above the root ball is no higher than 1 inch above grade.

(viii) Tree planting holes shall be of a diameter no less than three times the diameter of the tree's root ball at time of planting.

(ix) The minimum square footage of planting area for a shade tree is 140 square feet. This minimum square footage may be varied if deemed unreasonable or impractical by the Director. The Director may vary the minimum square footage.

(x) Ornamental trees shall be planted in a landscape strip that is no less than six feet in width (not including curb and gutter). Shade trees shall be planted in a landscape strip that is no less than eight feet in width (not including curb and gutter).

(vxi) Species Tree Diversity. The percent of any one type genus of tree that can be planted in a development shall be as follows:

- (A) Zero through five trees: No limitation.
- (B) Six to 10 trees: No more than 50 percent of one species genus.
- (C) Eleven to 20 trees: No more than 33 percent of one genus.
- (D) 24 Twenty-one or more trees: No more than 20 percent of one species genus.

(xii) Drip irrigation applied to trees shall be expanded or supplemented as appropriate to rootzone expansion over the life of the tree.

(xiii) A minimum of 50% of proposed tree plantings shall be identified as of preferred trees by the Suitable Plant List.

(154) Shrubs.

~~(i) Twenty-five percent of the required shrubs may be converted to turf based on one five-gallon shrub per 50 square feet of turf.~~

~~(ii) Ten percent of the required shrubs may be converted to perennials and/or ground covers at a ratio of three one-gallon perennials and/or ground covers for one five-gallon shrub.~~

(ii) Species Shrub Diversity. The percent of any one type genus of shrub that can be planted in a development shall be as follows:

- (A) Ten through 19 shrubs: 50 percent per genus.
- (B) Twenty through 39 shrubs: 33 percent per genus.
- (C) Forty or more ~~through 59~~ shrubs: 25 percent per genus.

~~(D) 60 or more shrubs: 15 percent.~~

(iiiiv) When calculating tree and shrub quantities, any fraction of a shrub or tree or other requirement is rounded up to the next whole number.

~~(iii) With the approval of the Director, the number of shrubs may be reduced in exchange for additional trees or tree size at a rate of three shrubs per caliper inch.~~

(165) Maintenance. The owners, tenants and occupants, including homeowners' associations, for all new and existing uses in the City must:

(i) Maintain landscaping in a healthy, growing, neat and well-maintained condition.

(ii) Maintenance includes watering, weeding, pruning, fertilization, pest control, trash and litter removal, replacement of dead or diseased plant material, reseeding and other reasonable efforts.

(iii) Any plant that dies must be replaced with an equivalent live plant within 90 days of notification or, if during the winter, by the next April 1st.

(iv) Hay mulch used during the preparation or establishment of landscaping must be certified weed-free by the Colorado Department of Agriculture.

~~(v) On his own or based on a citizen complaint,~~ (v) The Director or designee may, without notice and without a warrant, walk on the landscaped portion of the property from time to time to inspect the condition of landscaping.

(vi) Between one and two years after installation of required landscaping, Code Enforcement shall conduct a site inspection to verify that all required landscaping has been maintained in a healthy, growing, neat and well-maintained condition. Property owners shall be notified of necessary corrective action for failure to comply with the maintenance provisions of this section.

(vii) Maintenance of landscaping in unimproved rights-of-way shall be the responsibilities of owners, occupants and tenants.

(viii) The owner shall keep each fire hydrant unobscured by plant material so that it is visible from the center of the right-of-way at an angle of 45 degrees.

(ix) These requirements shall be specified in the articles of incorporation or bylaws for a homeowners' association whenever the homeowners' association is assigned the responsibility of maintaining landscape areas.

(176) Public Right-of-Way. ~~Except where a detached sidewalk exists or is proposed and approved (see subsection (b)(16)(iv) of this section), landscaping on public right-of-way shall not be counted toward any landscape or open space requirements of this code, unless specifically provided otherwise in this Code.~~

(i) All unimproved right-of-way adjacent on the side abutting a development which is not in the City's ~~one~~ten-year capital plan to be improved must be landscaped. All right-of-way landscaping shall be irrigated and maintained by the adjoining private property owner, unless the City agrees to accept it for maintenance. If it is to be maintained by the City, a separate irrigation system shall be provided.

(ii) At least 75 percent of the unpaved adjacent right-of-way shall be landscaped with turf, trees canopy coverage, low shrubs or ground-cover. No more than 50 percent of the right-of-way shall be landscaped with turf. The Director may vary the required landscaping to obtain a consistent appearance in the area or with existing or planned right-of-way landscaping.

(iii) Except where a detached sidewalk exists or is proposed and approved, landscaping on public right-of-way shall not be counted toward any landscape or open space requirements of this code, unless specifically provided otherwise in this Code.

(~~iii~~iv) The owner of the nearest property shall keep all rights-of-way, which are not hard surfaced, free of weeds, litter, junk, rubbish and obstructions. To prevent weed growth, erosion and blowing dust, right-of-way areas not covered by vegetation or paving shall be covered with organic mulch, wood chips, ~~bark chips, decorative rocks or cobble~~ or similar natural materials, ~~to be underlain by weed fabric or other barrier.~~

(iv) Where detached sidewalks exist, or are proposed, a maximum of 50 percent of the public right-of-way landscaping may be counted toward the total required landscaping. The right-of-way landscaping between the curb and sidewalk shall contain street trees spaced every 40 feet. Right-of-way landscaping shall be a minimum of eight feet wide in any direction unless deemed unreasonable or impractical by the City Forester.

(vi) No tree shall be removed from the public right-of-way without the approval of the City Forester. Trees removed from the right-of-way shall be replaced subject to GJMC 8.32.050.

(vii) Trees planted in the public right-of-way shall be of species identified on the list of Approved Street Trees for Grand Junction's Rights-of-Way.

(187) Pervious Coverage. Landscaped and buffer areas shall ~~count toward the pervious area requirement.~~ contribute to the area of pervious surfaces used to calculate lot coverage.

~~(18) Authority.~~

~~(i) The Director shall decide all questions of soils, plant selection and care, irrigation installation and other vegetation and landscaping questions, except for plantings in the right of way.~~

~~(ii) The Director may approve an applicant's request to vary from the required number and types of plants or landscaped area if:~~

~~(A) The number of trees exceeds 25 percent of the minimum number of trees; and/or~~

~~(B) Trees exceed the minimum caliper requirement by one inch or more; and/or~~

~~(C) Additional berming or other attractive buffering, public art, enhanced paving treatments for public plazas (brick or concrete pavers, tinted and stamped concrete, etc.) is provided. The Director may grant up to a 10 percent reduction of the square footage of improved area used to calculate the landscape requirement where these types of enhancements are included in a development.~~

~~(D) Additional trees or larger trees can be exchanged on a per-caliper-inch basis with three shrubs equaling one caliper inch. Credit for using larger trees would be based on a direct exchange of caliper inches. For example: 10 three-inch caliper trees equaling 30 caliper inches is the same as 15 two-inch caliper trees equaling 30 caliper inches; one two-inch caliper tree equals six shrubs. Trees may be substituted for shrubs, but shrubs may not be substituted for trees.~~

~~(ED) If the total amount of required landscaping is provided, the Director may allow the owner to place the landscaping on another appropriate part of the lot.~~

~~(19) Water Wise.~~

~~Because of Grand Junction's desert environment, water wise design and the use of xeric soil. Water wise designs shall employ the seven basic principles of xeric design which include "comprehensive planning and design for low water use, creating practical turf areas, selecting low water use plants and organizing plants~~

by water usage, using adequate soil prep, using water conserving mulches, irrigating efficiently and maintaining the landscape appropriately” (source: Denver Water Board).

~~(i) Low water use plants are encouraged for use in the “typical” urbanized landscape, especially where the plants can be irrigated (zoned) separately from higher water use plant material. This way of using xeric plants is compatible with any of the requirements of this code.~~

~~(ii) Landscaping designs that mimic the “desert” character of Grand Junction’s setting are also encouraged, but must be carefully designed so that the basic requirements for shade, screening and buffering are met. Because of this, the Director must approve “desert” or xeric landscape plans as well as variances from the required plant coverage ratios. To further encourage xeriscaping, one-gallon xeric plants shall be equivalent to five-gallon traditional plants. Trees shall be installed in accordance with subsection (b) of this section.~~

(19) Alternative Landscaping Plans. Two alternative standards for landscape plans may be applied at the time of a development proposal. The applicant may request that landscape plans be reviewed under the standards for Waterwise Landscape Plan or High Desert Landscape Plan if the landscape plan meets the specified criteria for the alternative standard.

(i) Waterwise Landscape Plans. To address long-term constraints on water supply in Grand Junction, landscape designs that maximize the efficiency of water use are strongly encouraged. A Waterwise Landscaping Plan shall be subject to all requirements of this Code except where this subsection provides for an alternative standard, in which case this subsection will control.

(A) Criteria. A Waterwise Landscape Plan shall be a landscape plan where:

(1) At least 50 percent of trees, shrubs, and groundcover are xeric or low water use as identified in the City of Grand Junction Suitable Plant List; and

(2) No more than 25 percent of the landscaped area is planted with turf.

(B) Waterwise Landscape Plans shall employ the seven basic principles of xeric design. These principles are:

(1) Appropriate planning and design.

(2) Limiting turf areas to locations where it provides functional benefits.

(3) Efficient irrigation systems.

(4) The use of soil amendments to improve water holding capacity of the soil.

(5) The use of mulches, where appropriate.

(6) The use of drought-tolerant plants.

(7) Appropriate and timely maintenance.

(D) Waterwise Landscape Plans shall identify irrigation zones (“hydrozones”) and shall separate xeric and low water use plantings from medium and high water use plantings.

(E) Waterwise Landscape Plans shall include a method of irrigation for establishment of all plant materials.

(F) One-gallon low water use or xeric groundcover and perennial plants may be substituted for five-gallon traditional groundcover and perennial plants when the landscape plan meets the definition of a Waterwise Landscape Plan.

(G) A 20 percent reduction in total required tree plantings is permitted when the landscape plan meets the definition of a Waterwise Landscape Plan.

(H) A minimum of 30 percent of identified significant trees in the development area shall be preserved in a Waterwise Landscape Plan.

(ii) High Desert Landscape Plans. Where geotechnical constraints, limited access to irrigation water, or a high desert ecological context affect a development area, a High Desert Landscape Plan may be proposed. A High Desert Landscaping Plan shall be subject to all requirements of this Code except where this subsection provides for an alternative standard, in which case this subsection will control.

(A) Criteria. A High Desert Landscape Plan shall be a landscape plan where:

(1) At least 50 percent of trees, shrubs, and groundcover are native species as identified in the City of Grand Junction Suitable Plant List;

(2) At least 90 percent of shrubs and groundcover are xeric or low water use as identified in the City of Grand Junction Suitable Plant List; and

(3) Less than 15 percent of the landscaped area is planted with turf.

(B) High Desert Landscape Plans shall employ the seven basic principles of xeric design as identified in GJMC 21.06.040(b)(19)(i)(B).

(C) A 50 percent reduction in required tree plantings is permitted when the landscape plan meets the definition of a High Desert Landscape Plan. High Desert Landscape Plans shall be exempt from the street frontage and buffer tree spacing requirements of GJMC 21.06.040(d)(4), (b)(17)(v), (g)(5)(1), and (e)(ii).

(D) A minimum of 60 percent of identified significant trees in the development area shall be preserved in a High Desert Landscape Plan.

(v) All Alternative Landscaping Plans must be carefully designed so that the basic requirements for shade, screening and buffering are met. Low water use landscaping includes xeriscaping. The term "xeri" shall not be interpreted to mean "zero".

(c) Parking Lots.

(1) Interior Landscaping Requirement.

Landscaping is required in the interior of parking lots to direct traffic, to shade cars and structures, to reduce heat and glare and to screen cars from adjacent properties. The interior of all parking lots shall be landscaped as follows:

(i) One landscaped island, parallel to parking spaces, is required for each 20 parking spaces. ~~In lieu of the standard landscape island, one "orchard style" landscape island may be used for every six parking spaces. The orchard style landscape islands shall be evenly spaced between end landscape islands. (See subsection (j) of this section.)~~

(ii) Landscape islands must be at least 140 square feet. The narrowest/smallest dimension of a parking lot island shall be eight feet, measured from back of curb to back of curb.

(iii) One landscaped divider island, parallel to the parking lot drive aisles, designed to prevent diagonal movement across the parking lot, shall be located for every three parking lot drive aisles.

(iv) A landscape island is required at the end of every row of parking spaces, regardless of length or number of spaces.

~~(v) Wheel stop barriers on all sides adjacent to the parking lot surface are required to protect landscape islands from vehicles.~~

(vi) A corner area (where it is not feasible to park a vehicle) may be considered an end island for the rows on the perimeter of the parking lot.

(vii) Landscaping of the interior of a parking lot shall include trees and shrubs.

(viii) To improve the management of stormwater runoff, structurally-sound permeable pavers may be used in parking areas, subject to the approval of the Director. Use of permeable pavers for ten parking stalls shall result in a reduction of one required parking stall per the required parking ratios in GJMC 21.06.050.

(ix) Trees planted in parking lot islands shall be selected from those identified as Parking Lot Island Trees on the Suitable Plant List.

(x) The use of bioswales in parking lot designs is encouraged to facilitate stormwater management.

(2) Parking Lot Perimeter.

Landscaping is required around the entire perimeter of a parking lot ~~to assist in the shading of cars, to assist in the abatement of heat, and to reduce the amount of glare from glass and metal, and to assist in the screening of cars from adjacent properties and rights-of-way.~~ The perimeter of a parking lot is defined as the curb line defining the outer boundaries of the parking lot, including dumpster enclosures, bike racks, or other support facilities that are adjacent to the outer curb. Entry drives between a parking lot and the street, drives connecting two internal parking lots or building entry plazas are not included in the perimeter area. The requirements of this subsection are applicable to all public and private parking areas but not to automobile display areas for automobile dealerships (General Retail Sales, Outdoor Operations, Display or Storage) and self-service storage as defined in GJMC 21.04.

(i) Screening shall occur between a street and a parking lot. ~~and~~ When screening is required, street frontage landscape standards shall apply. (See subsections (c)(3) and ~~(k)~~ of this section.)

(ii) The minimum dimension allowed for the parking lot perimeter landscape strip is ~~six~~ eight feet. The width of a landscape strip can be modified by the Director, provided the intent of this section is met.

(iii) Landscaping along the perimeter of parking lots shall include trees and shrubs.

(iv) Parking lots shared by more than one owner shall be landscaped around the perimeter of the combined lots.

(3) Screening.

All parking lots abutting rights-of-way, entry drives, and adjacent properties must be screened. For this subsection, a “screen” means a turf or groundcover berm and/or shrubs.

(i) A 30-inch-high screen is required along 70 percent of parking lots abutting rights-of-way, entry drives, and adjacent properties, excluding curb cuts. The 30-inch screen shall be placed so as to maximize screening of the cars in the parking lot, when viewed from the right-of-way and shall be measured from the ground surface, or the elevation of the roadway if the adjacent road is higher than the property.

(ii) Screening shall not be required between parking lots on adjoining lots where the two lots are designed to function as one.

(iii) If a landscape area is 30 feet wide or greater between a parking lot and a right-of-way, the 30-inch-high screen is not required. This 30-foot-wide or greater area must be at least 75 ~~400~~ percent covered in plant material including tree canopy coverage, shrubs, turf, and groundcover at maturity ~~within three years. Turf is allowed.~~

(iv) The Director may approve a screen wall between a parking lot and a right-of-way if the lot or parcel is unusually small.

(v) A screen wall must not be taller than 30 inches, unless the adjacent roadway is higher than the property, in which case the screen wall shall be 30 inches higher than the adjacent roadway.

~~(vi) Two five-gallon shrubs may be substituted for four linear feet of wall; shrubs must reach a height of at least 30 inches at maturity.~~

~~(vii) A column or jog or equivalent architectural feature is required for every 25 linear feet of wall.~~

(viii) The back of the wall must be at least 30 inches from the face of curb for bumper overhang.

(ixviii) Shrubs must be planted on the street side of the wall.

(ix) There must be at least five feet between the right-of-way and the paved part of a parking lot to use a wall as a screen.

~~(x) Wall elevations and typical cross sections must be submitted with the landscape plan at a minimum scale of one-half inch equals one foot.~~

(xi) Walls shall be solid masonry with finish on both sides. The finish may consist of stucco, brick, stone or similar material. Unfinished or merely painted concrete block is not permitted.

(xii) Shrub plantings in front of a wall are not required in the B-2 downtown district.

(d) Street Frontage Landscape.

(1) Within all zones (except single-family uses in single-family, B-2 and form based zone districts), the owner shall provide and maintain an average 14-foot-wide street frontage landscape adjacent to the public right-of-way.

(2) A minimum of 75 percent of the street frontage landscape shall be covered by plant material including tree canopy coverage, shrubs, turf, and groundcover at maturity.

~~(3) The Director may allow for up to 50 percent of the 14-foot wide street frontage to be turf, or up to 100 percent turf coverage may be allowed if the parking lot setback from the right-of-way exceeds 30 feet. Low water usage turf is encouraged.~~

~~(4) All unimproved right-of-way adjacent to new development projects shall be landscaped and irrigated by the owner and/or homeowners' association as per subsection (b)(16) of this section.~~

~~(5) Landscaping within the street frontage shall include trees and shrubs. If detached walks are not provided with street trees, street trees shall be provided in the street frontage landscape, including one tree for every 40 feet of street frontage.~~

(e) Buffers.

(1) Buffers shall be provided between different zoning districts as indicated in subsection (k) of this section.

- (i) Seventy-five percent of each buffer area shall be landscaped with turf, low shrubs or ground-cover.
- (ii) One ~~medium-sized~~ tree is required per every 40 linear feet of boundary between different zones.

(2) Exceptions.

- (i) Where residential or collector streets or alleys separate zoning districts, the Director can require more landscaping instead of a wall or fence.
- (ii) Where walkways, paths, or a body of water separates zoning districts, the Director may waive a fence or wall requirement provided the buffering objectives are met by private yards.
- (iii) Where a railroad or other right-of-way separates zoning districts, the Director may waive the buffer strip if the buffering objectives are met without them.

(f) Fences, Walls and Berms.

(1) Fences and Walls. When a higher density or intensity zoning district abuts a lower density or intensity zone district, it is the responsibility of the higher density or intensity property to buffer the abutting zone district according to subsection (k) of this section. When an existing fence or wall substantially meets the requirements of this section, and subsection (k) of this section requires the same form of buffering, an additional fence on the adjacent developing property shall not be required. However, if the new development requires the placement of a wall, and a fence exists on the adjacent property, the wall shall be required. If a wall is required and a fence is in place, the wall must be placed adjacent to the fence. (Subsection (k) of this section should be referenced to determine when a wall or a fence is required. The more stringent standard shall apply; i.e., if a wall is required and a fence is in place, the wall must be placed adjacent to the fence.) Fences must comply with GJMC 21.04.040(i), any design guidelines and other conditions of approval. Fences and walls required by this section must meet the following:

- (i) Maximum height: six feet (outside of front setback, 30-inch solid height or four feet height if two-thirds open within the front setback and must meet all sight distance requirements).
- (ii) Fence type: solid wood or material with a similar appearance, finished on both sides.

(iii) Wall type: solid masonry finished on both sides. Finish may consist of stucco, brick, stone or similar material but unfinished or merely painted concrete block is not permitted.

(iv) Location: within three feet of the property line unless the space is needed to meet landscaping requirements.

(v) A wall must have a column, jog, or other significant architectural feature every 25 ~~30~~ feet of length.

(vi) Any fence or wall over six feet in height requires a building permit.

(vii) No person shall construct or maintain a fence or a wall without first getting a fence/wall permit from the Director.

(2) Berms. Minimum requirements for berms are as follows:

(i) Maximum slope of 4:1 for ~~turf areas~~ groundcover berms and 3:1 for shrub beds; and

(ii) To control erosion and dust, berm slopes must be stabilized with vegetation or by other means consistent with the requirements for the particular landscape area.

(g) Residential Subdivision Perimeter Enclosures.

(1) Intent. The ~~decision-maker~~ Director may require ~~(where deemed necessary)~~ perimeter enclosures (fences and/or walls) around all or part of the perimeter of a residential development. Perimeter enclosures shall be designed to meet the following objectives of protecting public health, safety and welfare: screen negative impacts of adjoining land uses, including streets; protect privacy; maintain a consistent or complementary appearance with enclosures in the vicinity; maintain consistent appearance of the subdivision; and comply with corridor overlay requirements.

(2) Applicability. When required by the Director, the standards of this subsection shall apply to all residential subdivisions as well as to all mixed-use subdivisions where the square footage of proposed residential uses exceeds the square footage of proposed non-residential uses.

(32) Specifications. Unless specified otherwise at the time of final approval:

(i) A perimeter enclosure includes fences, walls or berms, and combinations thereof, located within five feet of the exterior boundary of a development.

(ii) The maximum height is six feet, including within front setbacks; however, an enclosure constructed on a berm shall not extend more than eight feet above the adjoining sidewalk or crown of road, whichever is lower.

(iii) New enclosures shall be compatible with existing enclosures in the vicinity, if such enclosures meet the requirements of this code.

(iv) A perimeter enclosure in excess of six feet is a structure and requires a building permit.

(v) A perimeter wall must have a column or other significant architectural feature every ~~30~~ 25 feet.

~~(34) Required Perimeter Enclosures. The decision-maker~~ Director may require a perimeter enclosure ~~as a condition of the final approval~~ if the following conditions are met. The Director will notify applicants of the need for a perimeter enclosure, if required.

(i) Use or enjoyment of property within the development or in the vicinity of the development might be impaired without a perimeter enclosure.

(ii) A perimeter enclosure is necessary to maintain a consistent and complementary appearance with existing or proposed perimeter enclosures in the vicinity.

(iii) A perimeter enclosure is necessary to control ingress and egress for the development.

(iv) A perimeter enclosure is necessary to promote the safety of the public or residents in the vicinity.

(v) A perimeter enclosure is needed to comply with the purpose, objectives or regulations of the subdivision requirements.

(vi) A perimeter enclosure is needed to comply with a corridor overlay district.

~~(vii) The Director will notify applicants of the need for a perimeter enclosure, if required.~~

~~(4) Design of Perimeter Enclosures. A complete landscape plan for the required landscape buffer and a detail drawing of the perimeter enclosure must be submitted at the time of final approval: perimeter enclosure detail at a scale of one-half inch equals one foot.~~

(5) Residential Subdivision Landscape Buffer. On the outside of a perimeter enclosure adjacent to a right-of-way, an average 14-foot-wide landscape buffer shall be provided between the perimeter enclosure and the right-of-way for major and minor arterial streets and major or minor collectors. A five-foot-wide landscape buffer for side and rear yard perimeters shall be provided on all other streets between the perimeter enclosure and the right-of-way.

~~(i) Vegetation in the sight triangle (see TEDS, GJMC Title 29) shall not exceed 30 inches in height at maturity;~~

(ii) In the landscape buffer, one tree per 40 linear feet of perimeter must be provided;

(iii) All perimeter enclosures and landscape buffers must be within a tract dedicated to and maintained by the homeowners' association. The perimeter enclosure and landscaping must be installed by the developer and made a part of the development improvements agreement;

~~(iiiv)~~ A minimum of 75 percent of the landscape buffer area shall be covered by plant material including tree canopy coverage, shrubs, and groundcover at maturity. Turf may be allowed for up to 50 percent of the 14-foot-wide landscape strip, at the Director's discretion. Low water usage turf is encouraged;

(iv) Where detached walks are provided, a minimum buffer of eight feet shall be provided. In which case, the right-of-way parkway strip (area between the sidewalk and curb) will also be planted as a landscape buffer and maintained by the homeowners' association.

(6) Construction of Perimeter Enclosures. The perimeter enclosure and required landscape buffer shall be installed by the developer and included in the development improvements agreement.

(7) Ownership and Maintenance. The developer shall refer to the perimeter enclosure in the covenants and restrictions and so that perpetual maintenance is provided for either that the perimeter enclosure be owned and maintained by the owners' association or by individual owners. ~~The perimeter enclosure shall be identified on the plat.~~

(8) Alternative Construction and Ownership. If the Director ~~decision-maker~~ finds that a lot-by-lot construction, ownership and/or maintenance of a perimeter enclosure landscape strip would meet all applicable objectives of this section and the design standards of GJMC 21.06.060, ~~the final approval~~ approved plans shall

specify note specifications including the type and size of materials, placement of fence posts, and length of sections, ~~and the like.~~

(9) Overlay District Conflicts. Where in conflict, the perimeter enclosure requirements or guidelines of approved overlay districts shall supersede the requirements of this section.

~~(10) Variances. Variances to this section and appeals of administrative decisions (where this code gives the Director discretionary authority) shall be referred to the Planning Commission.~~

(h) Substitutions. The requirements outlined in GJMC 21.06.040(i) above may be varied based at the following rates of substitution.

(1) Required shrubs may be substituted for shrubs and required shrubs may be substituted for trees at a rate of three shrubs equaling one caliper inch of tree. For example: 3 two-inch caliper trees equaling 6 caliper inches may be exchanged for 12 shrubs, or vice versa.

(A) No more than 75 percent of the number of trees required by GJMC 21.06.040(j) may be substituted for shrubs.

(2) Two five-gallon shrubs may be substituted for four linear feet of wall when walls are required per GJMC 21.06.040(c)(3). Shrubs substituted for walls must reach a height of at least 30 inches at maturity.

(3) Ten percent of the required shrubs may be converted to perennials and/or ground covers at a ratio of three one-gallon perennials and/or ground covers for one five-gallon shrub.

(4) The number of shrubs may be reduced in exchange for additional trees or tree size at a rate of three shrubs per caliper inch.

(5) Substitutions for waterwise landscape plantings are described in GJMC 21.06.040(b)(20). To use substitute using the requirements of this section, the landscape plan must qualify as a Low Water Landscape Plan or High Desert Landscape Plan per the requirements of GJMC 21.06.040(b)(19)(i) and (ii).

(6) Preservation of existing trees may be included in the total planting count at a ratio of two caliper inches of preserved tree to one caliper inch of required tree plantings.

	<u>Tree</u>	<u>Shrub</u>	<u>Groundcover/Perennials</u>	<u>Wall</u>
<u>Tree</u>	<u>Two caliper inches preserved tree to one caliper inch</u>	<u>3 shrubs for 1 caliper inch of tree</u>	<u>n/a</u>	<u>n/a</u>

	<u>required</u>			
<u>Shrub</u>	<u>3 shrubs for 1 caliper inch of tree</u>	<u>n/a</u>	<u>three one-gallon perennials and/or ground cover for one five-gallon shrub</u>	<u>2 five-gallon shrubs (minimum 30 inches in height) for four linear feet of wall</u>
<u>Groundcover/Perennials</u>	<u>n/a</u>	<u>three one-gallon perennials and/or ground cover for one five-gallon shrub</u>	<u>n/a</u>	<u>n/a</u>
<u>Wall</u>	<u>n/a</u>	<u>2 five-gallon shrubs (minimum 30 inches in height) for four linear feet of wall</u>	<u>n/a</u>	<u>n/a</u>

(hi) I-1 and I-2 Zone Landscape.

(1) Parking Lot Perimeter Landscape. Landscaping for the parking lot perimeter shall be per subsection (c)(2) of this section with the following addition:

~~(i) Turf may be allowed for up to 50 percent of the parking lot perimeter, at the Director's discretion. Low water usage turf is encouraged.~~

(ii) A minimum of 75 percent of the parking lot perimeter landscape shall be covered by plant material including trees, shrubs, turf, and groundcover at maturity.

(2) Street Frontage Landscape. Landscaping for the street frontage shall be per subsection (d) of this section with the following additions:

~~(i) Vegetation in the sight triangle in the street frontage must not exceed 30 inches in height at maturity.~~

(ii) One tree for every 40 linear feet of street frontage (excluding curb cuts) must be provided, 70 percent of which must be shade trees.

(3) Public Right-of-Way Landscape. Landscaping for the public right-of-way shall be per subsection (b)(16~~7~~) of this section.

(4) Maintenance. Each owner or the owners' association shall maintain all landscaping.

(5) Other Applicable Sections. The requirements of subsections ~~(i)~~, (j), and (k) and ~~(l)~~ of this section shall also apply.

(ij) Landscaping Requirements.

Zoning of Proposed Development	Landscape Requirement	Location of Landscaping on Site
Single-family residential (R zones)	As required for uses other than single-family residential; and as required in subsections (b)(16) and (g) of this section	As required for uses other than single-family residential; and landscape buffer and public right-of-way
R-5, R-8, R-12, R-16, R-24, R-0, B-1, C-1, C-2, I-O, CSR, MU	One tree <u>Two caliper inches of tree plantings per 3,000 2,500</u> square feet of improved area, with no more than 20 percent of the total being ornamental trees or evergreens. One five-gallon shrub per 300 square feet of improved area	Buffer, parking lot, street frontage perimeter, foundation plantings and public right-of-way
B-2	One tree <u>Two caliper inches of tree plantings per 3,000 2,500</u> square feet of improved area, with no more than 20 percent of the total being ornamental trees or evergreens. One five-gallon shrub per 300 square feet of improved area	Parking lot, park strip (in right-of-way)
I-1, I-2	As required in subsection (h) of this section and in other subsections of this section where applicable	Street frontage, parking lots, buffers and public right-of-

Zoning of Proposed Development	Landscape Requirement	Location of Landscaping on Site
		way
MXR, MXG, MXS, MXOC	One tree <u>Two caliper inches of tree plantings</u> per <u>3,000</u> 2,500 square feet of improved area, with no more than 20 percent of the total being ornamental trees or evergreens. One five-gallon shrub per 300 square feet of improved area. Plantings must be evenly distributed throughout the development	Buffer, parking lot, street frontage perimeter, foundation plantings and public right-of-way
Facilities: mining, dairy, vineyard, sand or gravel operations, confined animal feeding operation, feedlot, forestry commercial, aviation or surface passenger terminal, pasture	One tree <u>Two caliper inches of tree plantings</u> per 5,000 square feet of improved area. One five-gallon shrub per 600 square feet of improved area	Perimeter, buffer and public right-of-way

(j) ~~Example Tree Landscape Plan.~~

DIAGRAM REMOVED: EXAMPLE TREE LANDSCAPE PLAN

DIAGRAM REMOVED: ORCHARD-STYLE LANDSCAPE ISLAND

(k) Buffering Between Zoning Districts.

Zoning of Proposed Development	Zoning of Adjacent Property																	
	SF	R-5	R-8	R-11	R-12	R-14	R-O & MXOC	B-1	B-2	C-1	C-2	I-1	I-2	M-U	CSR	B-P	MXR	MXG

Zoning of Proposed Development	Zoning of Adjacent Property																	
	SF	R-5	R-8	R-11-16	R-24	R-O & MXOC	B-1	B-2	C-1	C-2 I-O	I-1	I-2	M-U	CSR	B-P	MXR	MXG	MXS
SF (Subdivisions)	-	-	-	-	-	-	F	-	F	W	W	W	F	-	F	-	-	-
R-5	-	-	-	-	-	-	F	-	F	W	W	W	-	-	F	-	-	-
R-8	-	-	-	-	-	F	F	-	F	W	W	W	F	-	F	A	-	-
R-12 & R-16	-	-	-	-	-	-	F	-	W	W	W	W	F	-	F	A	-	-
R-24	-	-	-	-	-	-	F	-	W	W	W	W	F	-	F	A	-	-
RO & MXOC	A	A	A	A	A	-	A or F	-	A or F	W	W	W	A or F	-	A or F	A	-	-
B-1	F	F	F	A or F	A or F	A or F	A or F	-	A or F	A or F	A or F	A or F	A or F	-	A or F	A	-	-
B-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1	A&W	W	W	W	W	W	W	-	-	-	-	-	-	-	-	-	-	-
C-2 & I-O	W	W	W	W	W	W	W	F	-	-	-	-	A or F	A or F	A or F	A&W	-	-
I-1	W	W	W	W	W	W	W	F	-	-	-	-	A or F	B&W	A or F	B&W	A or F	A or F
I-2	B&W	W	W	W	W	W	W	F	-	-	-	-	A or F	B&W	A or F	B&W	A or F	A or F

Zoning of Proposed Development	Zoning of Adjacent Property																	
	SF	R-5	R-8	R-11	R-24	R-O & MXO C	B-1	B-2	C-1	C-2	I-1	I-2	M-U	CSR	BP	MXR-	MXG-	MXS-
M-U	A or F	A or F	A or F	A or F	A or F	A or F	A or F	-	A or F	A or F	A or F	A or F	-	-	-	-	-	-
CSR¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BP	A or F	A or F	A or F	A or F	A or F	A or F	A or F	-	-	-	-	-	-	-	-	A or F	A or F	A or F
MXR-	-	-	-	-	-	-	F	-	-	W	W	W	F	-	F	-	-	-
MXG-	-	-	-	-	-	-	F	-	-	W	W	W	F	-	F	-	-	-
MXS-	-	-	-	-	-	-	F	-	-	W	W	W	F	-	F	-	-	-

Notes

- A berm with landscaping is an alternative for a required fence or wall if the total height is a minimum of six feet.
 - Where alleys or streets separate different zone districts, the Director may approve increased landscaping rather than requiring a wall or fence.
 - The Director may modify this table based on the uses proposed in any zone district.
- ¹ Gravel operations subject to buffering adjacent to residential.

(4m) Buffer Requirements.

Buffer Types	Landscaping Requirements	Location of Buffers on Site
Type A	Eight-foot-wide landscape strip with trees and shrubs	Between different uses
Type B	15-foot-wide landscape strip with trees and shrubs	Between different uses
Type F, W	Six-foot fence and wall (see subsection (f) of this section)	Between different uses

Note: Fences and walls are required for most buffers.

DIAGRAM REMOVED: TYPE A AND TYPE B EXAMPLES

(Ord. 4646, 11-19-14; amended during 2010 codification; Ord. 4419, 4-5-10)