





Town of Castle Rock | ColoradoScape Guidelines

June 17, 2022

NORRIS DESIGN









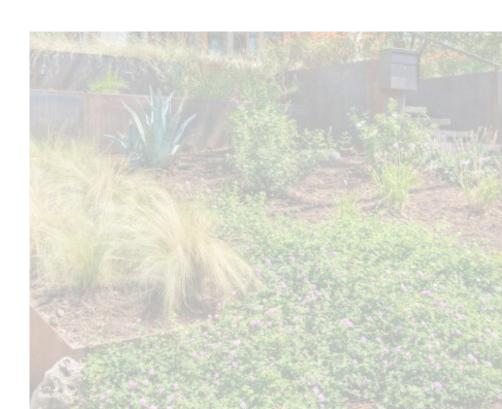


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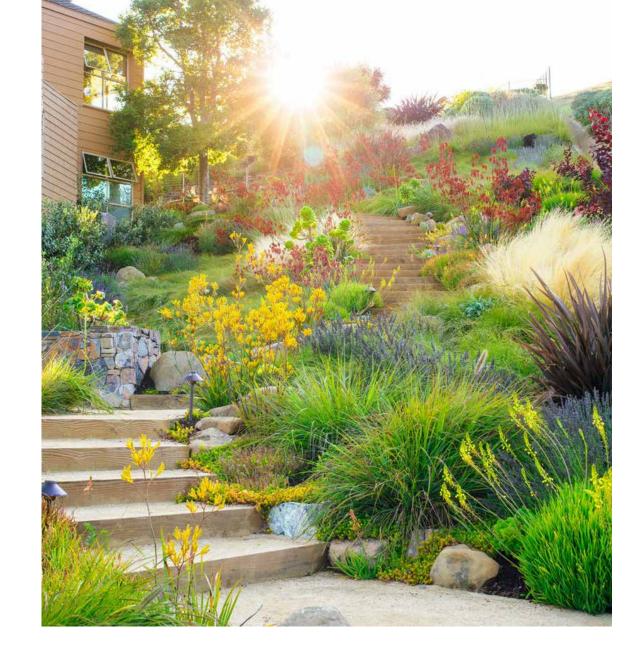
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01 Introduction

The Town of Castle Rock is striving to reduce irrigation demands for each homeowner. These designs propose solutions to help achieve that goal by reducing lawn areas.

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Water Conservation Vision

The Town of Castle Rock is proposing to transform the front and rear landscapes of homes to make significant strides in reducing water usage throughout the town. The transformation happens by removing sod from the front yards, and reducing or removing sod in the rear yards. The sod reduction will be implemented at the homebuilding stage as well as renovations to existing landscapes. This will reduce irrigation demands per homeowner, therefore reducing the Town's water demand.

The goal is to reduce daily water consumption while using plantings that will liven the streetscapes and create a unique character to each home. Currently, a majority of Castle Rock homes have sod as their primary front and rear landscaping, creating high water demands for each homeowner and the town.









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Design Review

Homes within a Home Owners Association (HOA), or a community with a Design Review Board (DRB), require owners to submit landscape and irrigation plans for approval through the appropriate party, prior to submitting plans to the Town of Castle Rock. Once approved by HOA or DRB, the homeowner shall proceed with the Town's approval process.

All planting and irrigation plans must be submitted through the Town of Castle Rock Water Department and be approved prior to installation. All necessary forms can be found on the Town of Castle Rock's Water Department website.

Planting and irrigation plans shall include the following:

- » Scale, 1'=10'0" recommended
- » Planting Plan Layout
- » List of all plant species and quantities
- » Irrigation methods and locations
- » Edging and mulch type









Typical lot designs have been created to demonstrate common lot layouts. These examples can be implemented for water-wise design solutions.

General Landscape Notes

Proposed landscaping is intended to be a waterwise solution while fostering visual interest and biodiversity within each neighborhood. Removing sod and replacing it with low to medium water use plants shall significantly reduce the irrigation demands of each lot.

By utilizing the typical lot designs with the planting layout, plant quantities, and plant palette provided in this document, homeowners and builders can implement cost effective and water-wise landscapes for front and rear landscapes. Lot sizes will vary, so designs may need to be adapted to fit each condition. These concepts can be implemented across existing or proposed lots.

General Irrigation Notes

Irrigated turf is among the largest water users of all plant species common to Front Range landscapes. During peak season, its demand is roughly 1.75" of water per week (1.10 gallons/sf/week) in this climate. Low and very low water use shrubs and perennials use less than half of this amount of water while artificial turf uses zero water. Artificial turf may require some water for cleaning and cooling.

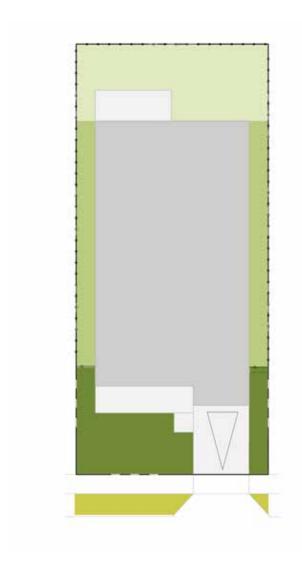
The water use portion of this study is intended to estimate the annual water use of current residential landscape scenarios and compare their water use to proposed lot typicals that utilize sustainable native plant species in lieu of turf.



Lot Definitions

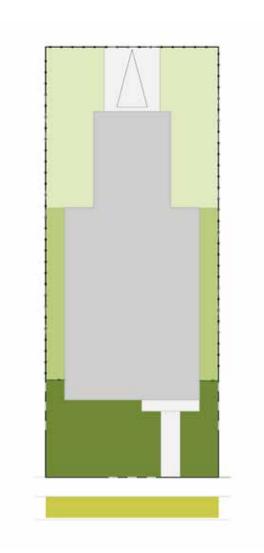
Lot 1

- Single-family
- Front-loaded garage



Lot 2

- Single-family or Townhome
- Alley-loaded garage

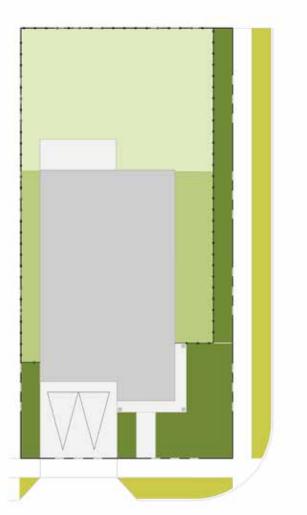


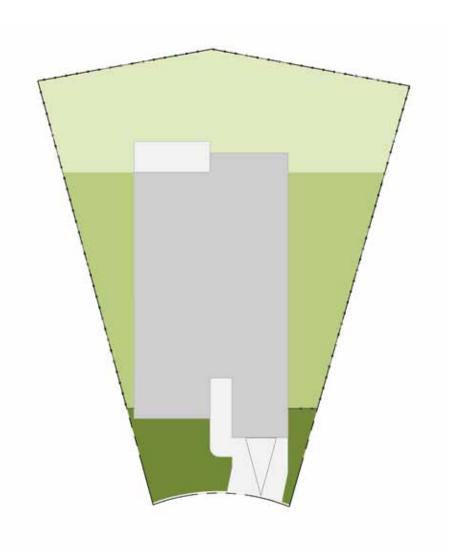
Lot 3

- Single-family
- Corner lot
- Front-loaded garage

Lot 4

- Cul-de-sac
- Front-loaded garage





Legend

Front Landscape

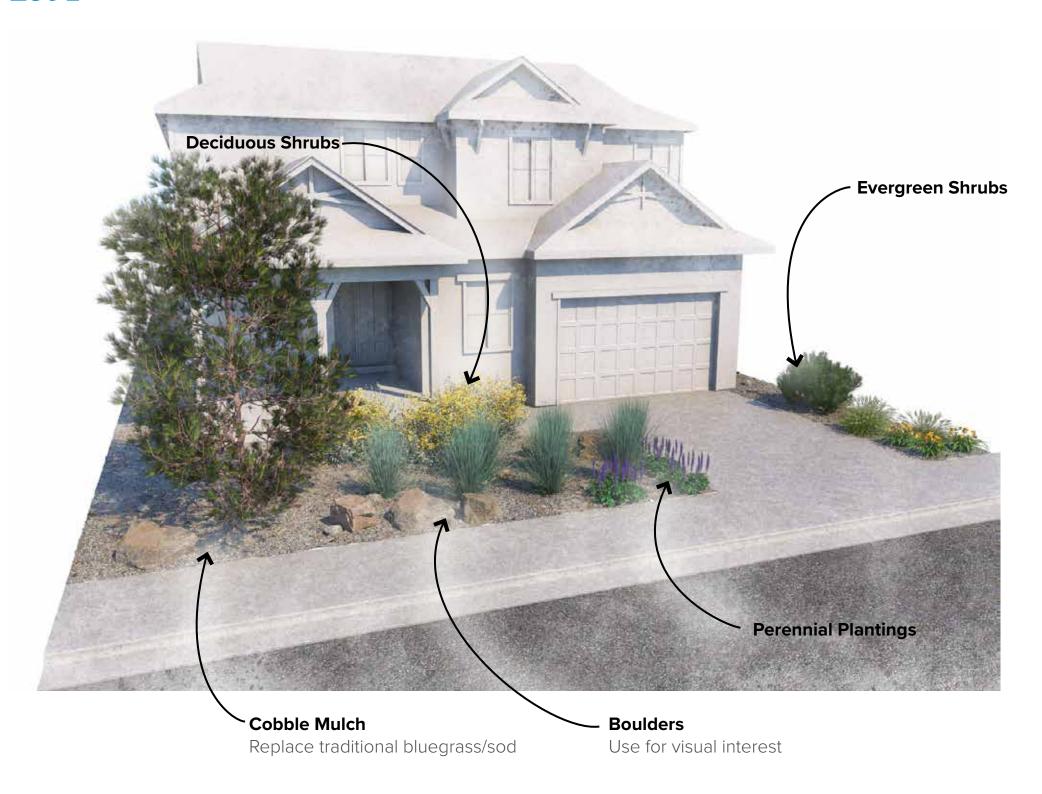
Side Landscape

Rear Landscape

Tree Lawn

Maintenance Note: Landscape areas are to be installed by homeowner or builder and maintained by the homeowner.

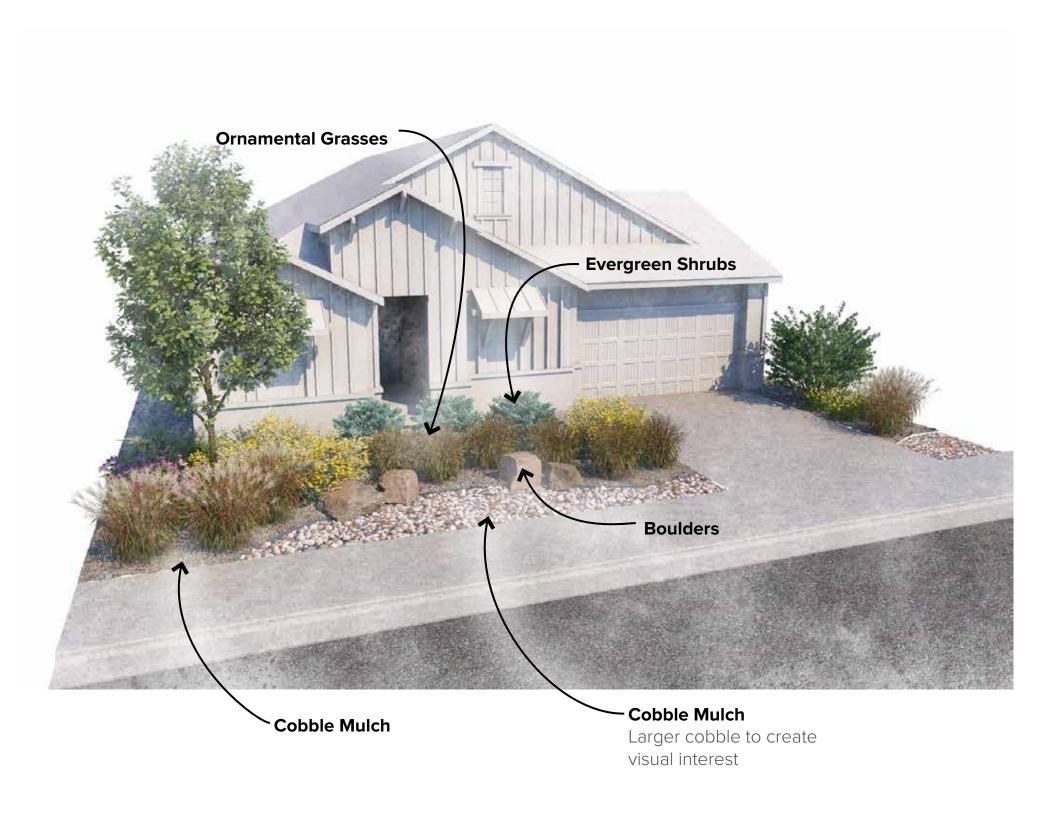
Lot 1





Item	Quantity
Deciduous Tree	0
Evergreen Tree	1
Evergreen Shrubs	1
Deciduous Shrubs	3
Ornamental Grasses	10
Perennials	6
Boulders	4

Lot 2





Item	Quantity
Deciduous Tree	1
Evergreen Tree	0
Evergreen Shrubs	4
Deciduous Shrubs	5
Ornamental Grasses	14
Perennials	6
Boulders	6

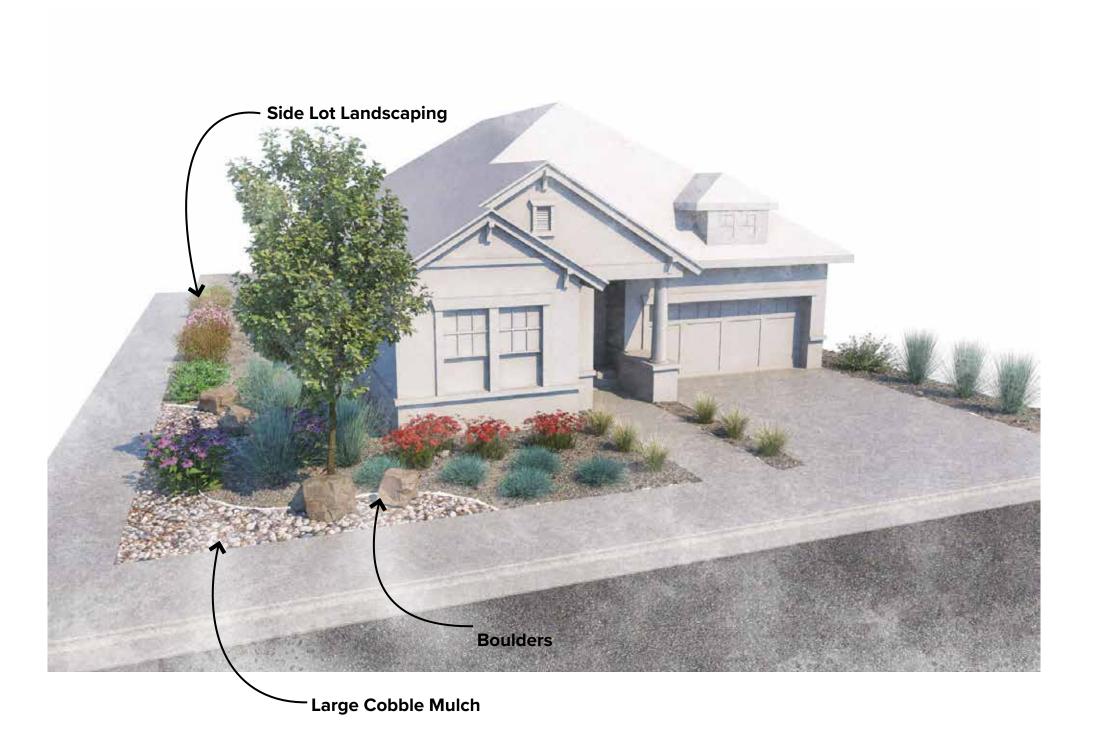
Lot 3





Item	Quantity
Deciduous Tree	1
Evergreen Tree	0
Evergreen Shrubs	0
Deciduous Shrubs	9
Ornamental Grasses	16
Perennials	8
Boulders	0

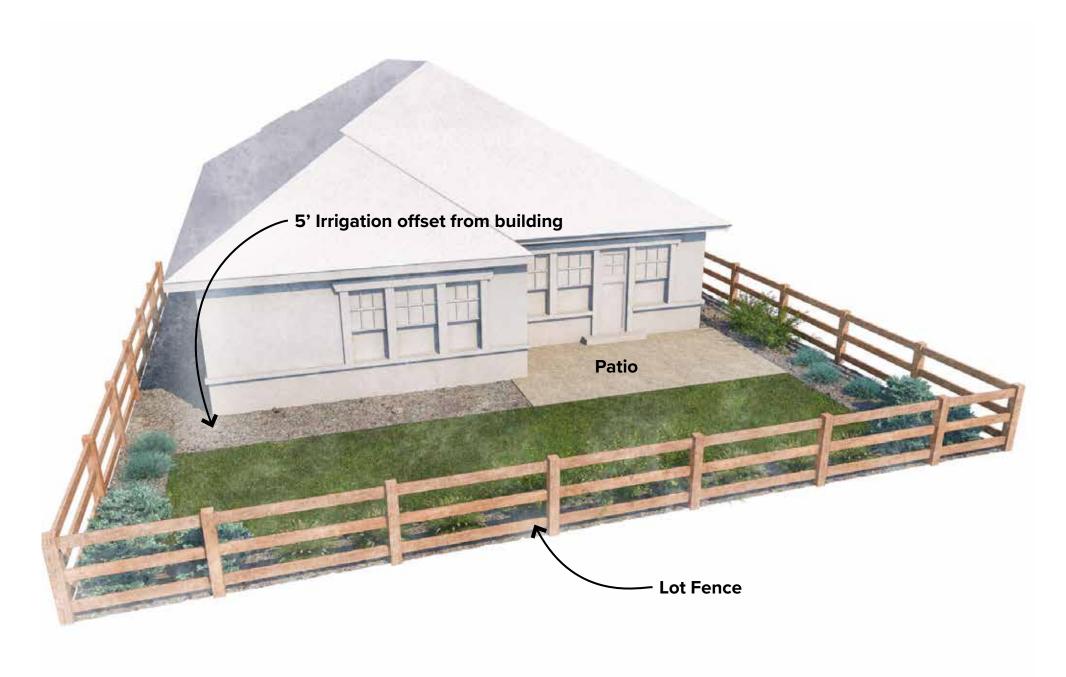
Lot 4 - Corner Lot





Item	Quantity
Deciduous Tree	1
Evergreen Tree	0
Evergreen Shrubs	6
Deciduous Shrubs	4
Ornamental Grasses	21
Perennials	9
Boulders	4

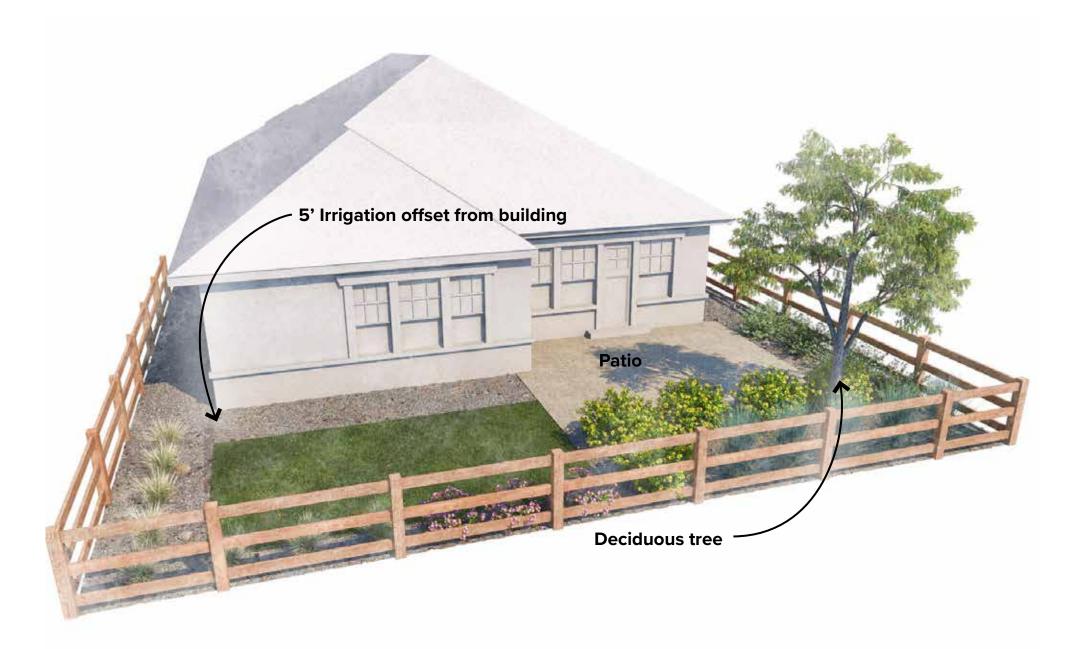
Rear Yards - 500 SF Lawn

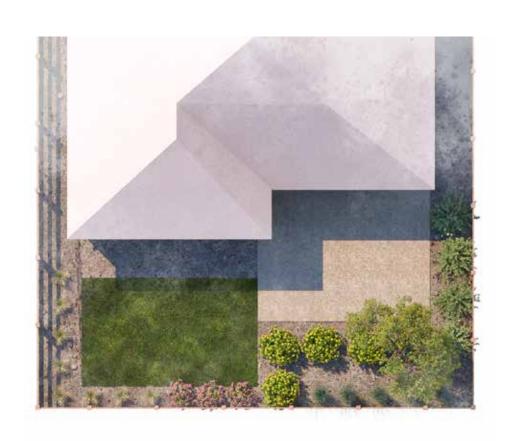




Item	Quantity
Deciduous Tree	0
Evergreen Tree	0
Evergreen Shrubs	6
Deciduous Shrubs	5
Ornamental Grasses	12
Perennials	0
Boulders	0

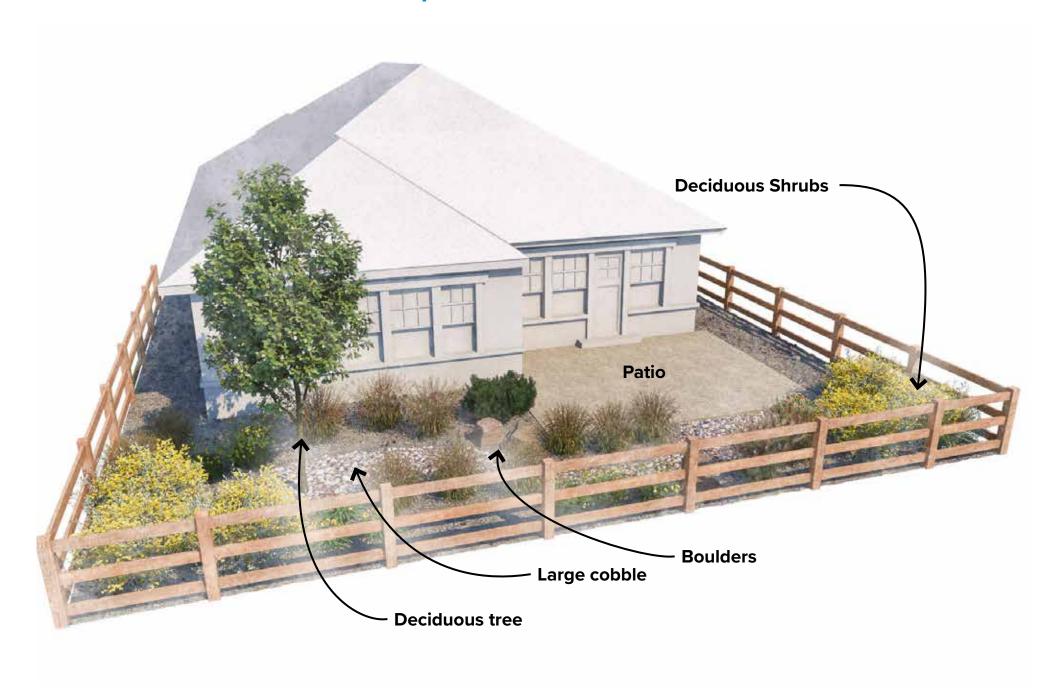
Rear Yards - 250 SF Lawn or 250 SF Artificial Turf

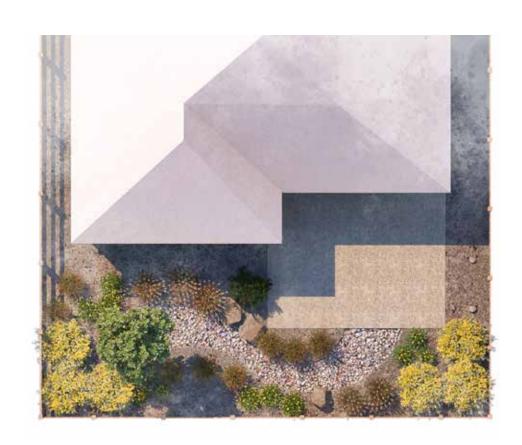




Item	Quantity
Deciduous Tree	1
Evergreen Tree	0
Evergreen Shrubs	4
Deciduous Shrubs	8
Ornamental Grasses	13
Perennials	0
Boulders	0

Rear Yards - ColoradoScape





Item	Quantity
Deciduous Tree	1
Evergreen Tree	0
Evergreen Shrubs	1
Deciduous Shrubs	6
Ornamental Grasses	13
Perennials	12
Boulders	0

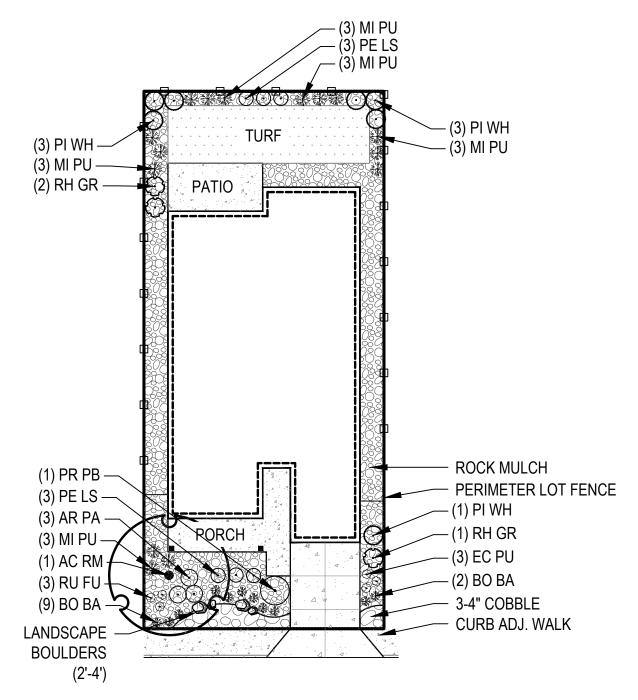
Landscape Plan Example

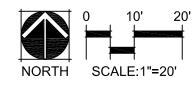
LANDSCAPE GENERAL NOTES

 MAINTAIN FIVE (5) FOOT NO IRRIGATION ZONE AROUND PRINCIPAL STRUCTURE PER GEOTECHNICAL RECOMMENDATIONS. WHERE FRONT AND SIDE YARD SLOPES ARE 12% OR GREATER, EVERGREEN PLANT MATERIAL WITH A MINIMUM HEIGHT OF THREE (3) FEET, IS ENCOURAGED AT THE EDGE OF THE FIVE (5) FOOT NO IRRIGATION SETBACK.

- 2. ALL IRRIGATED AREAS ARE TO BE MIN. 18" FROM ALL HOUSE FLATWORK AND FOUNDATION COMPONENTS.
- 3. ALL BEDS TO BE MULCHED WITH MIN 4" OF COBBLE OR SHREDDED WOOD MULCH.
- 4. ALL LANDSCAPE AREAS TO BE TILLED TO A MIN DEPTH OF 6" AND AMENDED WITH ORGANIC MATTER WITH A MIN OF 4 CUBIC YARDS PER 1000 SF. ORGANIC MATTER TO BE COMPRISED OF PLANT MATERIAL ONLY AND CANNOT CONTAIN ANY ANIMAL OR HUMAN WASTE.
- . ALL LAWN AND BED AREAS TO BE SEPARATED WITH 4" ROLLED TOP STEEL EDGER.
- 6. LANDSCAPE INSPECTION IS REQUIRED AND THE GRADE WILL BE WITHIN +/- 1/10TH OF ONE INCH FINISHED GRADE AND FREE OF ROCKS AND DEBRIS LARGER
 THAN 3/4 OF AN INCH
- 7. TEXAS HYBRID BLUEGRASS OR OTHER APPROVED LOW WATER TURF ARE ALLOWED. NO BLUEGRASS TURF ALLOWED.
- 8. A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE PROFESSIONAL SHALL ACCOMPLISH INSTALLATION.
- 9. ALL INSTALLED PLANT MATERIAL SHALL BE APPROVED BY THE TOWN OF CASTLE ROCK, HYDROZONE 1 AND 2 ONLY.
- 10. MAX ALLOWED IRRIGATED TURF SHALL NOT EXCEED: 500 SF

PLANT SCHEDULE	TYPICA	L LANDSCAPE PLAN				
DECIDUOUS TREES	CODE	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	QTY
	AC RM	ACER GRANDIDENTATUM ROCKY MOUNTAIN GLOW	ROCKY MOUNTAIN GLOW MAPLE	B & B	2"CAL	1
DECIDUOUS SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	QTY
\odot	PE LS	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE' TM	LITTLE SPIRE RUSSIAN SAGE	CONT	5 GAL	6
\odot	PR PB	PRUNUS BESSEYI PAWNEE BUTTES	CREEPING WESTERN SAND CHERRY	CONT	5 GAL	1
\bigcirc	RH GR	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	CONT.	5 GAL.	3
EVERGREEN SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	QTY
\odot	AR PA	ARCTOSTAPHYLOS X COLORADOENSIS 'PANCHITO'	PANCHITO MANZANITA	CONT	5 GAL	3
\odot	PI WH	PINUS MUGO 'WHITE BUD'	WHITE BUD MUGO PINE	CONT.	5 GAL.	7
ORNAMENTAL GRASSES	CODE	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	QTY
	во ва	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLOND AMBITION BLUE GRAMA GRASS	CONT	1 GAL	11
	MI PU	MISCANTHUS SINENSIS 'PURPURASCENS'	FLAME GRASS	CONT	1 GAL	15
PERENNIALS	CODE	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	QTY
$\langle \cdot \rangle$	EC PU	ECHINACEA PURPUREA	PURPLE CONEFLOWER	CONT	1 GAL	3
$\langle \cdot \rangle$	RU FU	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACK-EYED SUSAN	CONT	1 GAL	3







Irrigation Plan Example

IRRIGATION GENERAL NOTES

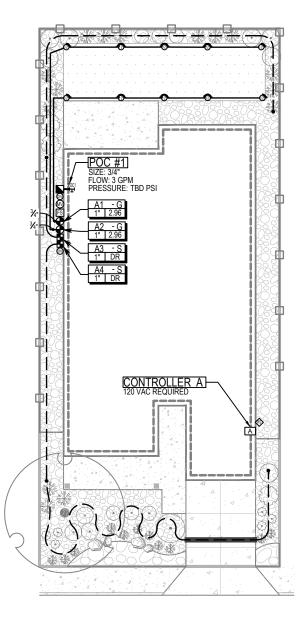
- THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE IMPROVEMENTS SHOWN ON
- THE CONTRACTOR SHALL COORDINATE AS NECESSARY WITH THE GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE FOR SUCCESSFUL COMPLETION OF THIS WORK.
- ALL IRRIGATION EQUIPMENT IS TO BE AS SPECIFIED OR APPROVED EQUAL PER THE DISCRETION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR ASSUMES ALL LIABILITY ASSOCIATED WITH THE MODIFICATION OF THE IRRIGATION SYSTEM DESIGN WITHOUT
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT A THOROUGH SITE INSPECTION AND REVIEW OF THE PROJECT CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: LANDSCAPE PLAN, UTILITY PLAN, CIVIL UTILITY PLAN, ARCHITECTURE PLAN, GRADING AND DRAINAGE PLAN AND ALL OTHER ASSOCIATED PLANS AND SPECIFICATIONS THAT AFFECT THIS WORK PRIOR TO START OF WORK, IF THE AND CONTRACTOR OBSERVES ANY DISCREPANCIES AMONG THE CONSTRUCTION DOCUMENTS AND THE EXISTING CONDITIONS ON SITE, IT IS THEIR RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE
- THE CONTRACTOR MUST VERIFY THE LOCATION OF ALL PUBLIC AND PRIVATE UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR FAILS TO DO SO AND DAMAGES ANY UNDERGROUND UTILITIES. THE CONTRACTOR SHALL PAY FOR ANY REPAIR
- THE CONTRACTOR SHALL CONFORM TO ALL LOCAL AND STATE REGULATIONS AND INSTALL THE IRRIGATION SYSTEM AND ITS COMPONENTS PER MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS REQUIRED BY ANY LOCAL AND STATE AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION OVER THIS SITE
- THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PAYING FOR CERTIFICATION OF THE BACKFLOW PREVENTER BY A STATE CERTIFIED INSPECTOR. THE CONTRACTOR SHALL PROVIDE CERTIFICATES TO OWNER'S REPRESENTATIVE PRIOR TO PROJECT
- IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN LANDSCAPE AREAS AND WITHIN THE PROJECT LIMITS. EQUIPMENT SHOWN OUTSIDE OF THESE LIMITS IS SHOWN FOR GRAPHIC CLARITY ONLY. IF THERE IS A QUESTION REGARDING THE LOCATION OF ANY COMPONENT OF THE IRRIGATION SYSTEM, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE. IF THE CONTRACTOR NEGLECTS TO NOTIFY THE NECESSARY PARTIES, THE CONTRACTOR SHALL PAY FOR ANY REPLACEMENT OR MODIFICATION TO ENSURE PROPER LOCATION AND OPERATION OF THE IRRIGATION SYSTEM AND ITS COMPONENTS.
- ALL IRRIGATION DISTRIBUTION LINES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO, MAINLINE, LATERALS, SPRAY HEADS, DRIP EMITTERS SHALL BE KEPT A MINIMUM DISTANCE OF 6' AWAY FROM ALL BUILDING AND WALL FOUNDATIONS, OR AS STIPULATED IN THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER. EQUIPMENT MAY BE SHOWN IN THIS AREA FOR GRAPHIC CLARITY. COORDINATE ALL REQUIRED SETBACKS WITH OWNER'S REPRESENTATIVE PRIOR TO START OF WORK.
- 10. PLANT MATERIAL LOCATIONS TAKE PRECEDENCE OVER ROUTING OF IRRIGATION PIPING. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
- 11. CONTRACTOR SHALL FINE TUNE AND ADJUST NOZZLE DIRECTION AND RADIUS TO REDUCE OVERSPRAY ONTO PAVING OR HARD
- 12. THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE DURING A THREE (3) NIGHT PER WEEK, EIGHT (8) HOUR PER NIGHT WATERING WINDOW. DRIP IRRIGATION ZONES MAY BE ALLOWED TO RUN ON A SÉPARATE SCHEDULE FROM THIS WATER WINDOW DEPENDING JURISDICTION. LANDSCAPE ESTABLISHMENT WILL REQUIRE INCREASED IRRIGATION WATER FOR DURATION OF THE ESTABLISHMENT PERIOD AND MAY REQUIRE TWICE THE AMOUNT OF WATER AS ESTABLISHED PLANT MATERIAL. THE CONTRACTOR SHALL COORDINATE WATERING SCHEDULES AND APPLICATION RATES WITH THE OWNER'S REPRESENTATIVE PRIOR TO FINAL
- 13. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED PEAK SEASON WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND VARIABLE WEATHER CONDITIONS.
 - FESCUE/BLUEGRASS BLEND TURF 1.75" PER WEEK PEAK SEASON
 - TREE, SHRUB, AND PERENNIAL PLANT MATERIAL 1.00" PER WEEK PEAK SEASON
 - NATIVE DROUGHT TOLERANT SEED MIX 0.75" PER WEEK PEAK SEASON
- 21. THE CONTRACTOR SHALL PROVIDE A SEASONAL MAINTENANCE SCHEDULE WHICH SHALL BEGIN ON APRIL 15TH AND END ON OCTOBER 15TH TO ENSURE THE EFFICIENCY AND LONGEVITY OF THE IRRIGATION SYSTEM. THE MAINTENANCE SCHEDULE SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING LIST OF BEST MANAGEMENT PRACTICES:
 - CHECK HEADS FOR COVERAGE AND LEAKAGE.
 - CHECK CONTROLLER PROGRAMMING AND ADJUST FOR SEASONAL CHANGES AS NECESSARY.
 - VERIFY THAT THE WATER SUPPLY AND PRESSURE ARE AS STATED IN THE DESIGN.
 - CERTIFY THE BACKFLOW PREVENTION DEVICE AND SUBMIT TEST RESULTS TO THE PROPERTY MANAGER. PERIODICALLY VERIFY THE THE SENSORS IN THE IRRIGATION SYSTEM ARE OPERATING CORRECTLY.
- WINTERIZATION AND SPRING START UP PROCEDURES.

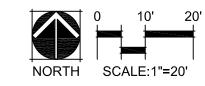
	SCHEDULE	MODEL NO												
SYMBOL	DESCRIPTION	MODEL NO. DESCRIPTION												
POC1	POINT OF	3/4" IRRIGATION STUB-OUT	3/4" IRRIGATION STUB-OUT											
	CONNECTION													
C	IRRIGATION	RAIN BIRD ESP-ME3 W/ LNKWIFI MODULE												
	CONTROLLER	120VAC POWER REQUIRED - SEE PLANS FOR LOCATION(S)												
�	RAIN SENSOR	RAIN BIRD WR2-48 REFER TO CONTROLLER NOTES												
	BACKFLOW	FEBCO 3/4" 765 OR 825YA (FLOW ASSY FLE	(MOITAV									
	PREVENTER	SEE ENCLOSURE SPECIFIC		I LOW AGOT. LLL	· v A I I O I I)									
0	MANUAL DRAIN VALVE	MATCO-NORCA 1/2" 201X INSTALLED IN AEP 910L-1G2												
(0)	MASTER VALVE	HUNTER ICV-101-G INSTALLED IN AEP 1015-1G2												
FS	FLOW SENSOR	FLOMEC QS100 INSTALLED IN AEP 1015-1G												
	TURF VALVE	RAIN BIRD 100-DV												
•	ASSEMBLY	INSTALLED IN AEP 1015-1G2	G VALVE BOX, SIZED	PER PLAN										
Φ	DRIP VALVE	RAIN BIRD XCZ-100-FLOW												
	ASSEMBLY	INSTALLED IN AEP 1015-1G2	G VALVE BOX, SIZED	PER PLAN										
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TURF SPRAY (FIXED)	HUNTER PROS-06-PRS30-CV WITH TORO PRECISION NOZZLE NOZZLE PER PLAN												
	SLEEVING	CLASS 200 PVC REFER TO SLEEVING NOTE	S											
	SERVICE	TYPE K COPPER												
	LINE	SIZE: MATCH POC UNLESS OTHERWISE NOTED												
	PVC	CLASS 200 PVC BE												
	MAINLINE TURF	SIZE: 1" UNLESS OTHERWISE NOTED												
	LATERAL	80# NSF POLYETHYLENE												
	DRIP	SIZE: 3/4" MINIMUM UNLESS OTHERWISE NOTED UV RESISTANT POLYETHYLENE												
	LATERAL	SIZE: 3/4" MINIMUM UNLESS OTHERWISE NOTED												
	FLUSH													
•	VALVE/OPERATIONAL INDICATOR	INSTALLED IN AEP 910L-1G2												
VA	LVE CALLOUT		EMITTER SCHEDU	LE										
	VALVE/STATION NUMBER	PLANT TYPE	EMITTER	QTY.	TOTAL GF									
/	ZONE DESIGNATION:	PERENNIAL / GRASSES	0.5 GPH	TWO EACH	1.0 GPH									
	S (SHRUBS), G (TURF)	DECIDUOUS SHRUBS	1.0 GPH	TWO EACH	2.0 GPH									
X - X X" XX		EVERGREEN SHRUBS	1.0 GPH	TWO EACH	2.0 GPH									
A AA														
	VALVE FLOW: (GPM)	DECIDUOUS TREE	1.0 GPH	EIGHT EACH	8.0 GPH									

1. ALL PLANT MATERIAL SHALL BE IRRIGATED WITH RAIN BIRD XB SERIES PRESSURE COMPENSATING EMITTERS. 2. EMITTER SCHEDULE IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL ADJUST EMITTER AND NUMBER OF MITTERS BASED ON THE NEEDS OF INDIVIDUAL PLANTS OR PLANT HYDROZONES

. 1/4" DISTRIBUTION TUBING NOT TO EXCEED 8' IN LENGTH.

RAIN BIRD DBC-025 DIFFUSER BUG CAP AND TS-025 STAKE ON ALL 1/4" DISTRIBUTION TUBING EMISSION POINTS









Plant species, mulch types, and irrigation methods have been selected to decrease water usage within landscapes. These selections will increase the efficiency of each landscape and bring the Town closer to their water saving goals.

Irrigation

All residential landscapes within the Town of Castle Rock shall be irrigated with an automatic underground irrigation system providing full coverage to all plant material. All irrigation systems shall be connected to a Wi-Fi enabled smart controller with a non-volatile memory and rain sensor. Flow sensors and master valves are recommended to be installed on the irrigation mainline piping. Plants shall be zoned (grouped) in areas with similar water requirements and aspects. Turf areas shall be irrigated separately from all plants. Turf areas can be irrigated via overhead spray with a 6" minimum height pop-up. Subsurface in-line drip irrigation shall be utilized in turf areas below ten (10) feet in width. All trees, shrubs and perennials shall utilize point source drip or in-line drip irrigation. It is recommended that trees be zoned separately from shrubs and perennials to ensure long term viability of larger plant types. No irrigation will be permitted in areas smaller than four (4) feet in width. Contractors and property owners shall comply with the Town of Castle Rock Landscape and Irrigation Criteria Manual.

Planting Beds and Mulches

Planting beds are essential to good design and shall be densely and purposefully planted. Use plants to create visual depth, interest and to screen foundations and outside utilities. All planting is recommended to be set back at minimum five (5) feet from the building foundation. Piping downspouts by extending them underground to designated drainage areas in the yard is recommended. Mulching planting beds is necessary in Colorado to conserve moisture and to discourage weeds.

All planting areas should have a minimum of four (4) inches of rock mulch or shredded cedar mulch meeting the following standards:

- » Shredded, fibrous material capable of "knitting" together to form a mat that is wind and erosion resistant. Generally the shredded mulch or peelings are three (3) inches in length on average. Bark and wood chip mulches are not allowed.
- » With the exception of drainage areas, only ¾" river rock or crusher fines mulch will be acceptable. Mulches with artificial coloring will not be allowed.
- » Weed barrier is not required. If used, plastic weed barrier is not permitted.
- » Turf is limited to 500 SF maximum in the rear yards. High water use turf and Kentuckey Bluegrass is not allowed.

Soil Preparation

For proper plant growth, Colorado soils shall be amended with organic material. A minimum of four cubic yards of organic material shall be added to topsoil per 1000 square feet of planting area. Organic material shall be aged compost; wood humus from soft, non-toxic trees. Proper amendments as specified will improve drainage and, as a result, conserve water. Plants will flourish and live longer, healthier lives. A soil analysis should be performed prior to planting for proper micro-nutrient recommendations.







Plant Palette



Common Hackberry Celtis occidentalis



Japanese Pagoda Tree Styphnolobium japonicum



Sunburst Honeylocust *Gleditsia t.i. 'Sunburst'*



Chinkapin Oak Quercus muehlenbergii



Northern Red Oak Quercus rubra

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Fall	Late Fall	Early Winter	Mid Winter	Late Winter	Winter Interest
Deciduous Canopy Trees																					
Catalpa speciosa	Catalpa	40-60'	30-50'	Low	X			White			Χ	X									
Celtis occidentalis	Common Hackberry	50-60'	40-50'	Low	X																
Gleditsia t.i. 'Imperial'	Imperial Honeylocust	30-40'	30-40'	Low	X																
Gleditsia t.i. 'Shademaster'	Shademaster Honeylocust	40-50'	30-40'	Low	X																
Gleditsia t.i. 'Skyline'	Skyline Honeylocust	40-50'	30-40'	Low	X																
Gleditsia t.i. 'Sunburst' *	Sunburst Honeylocust *	30-35'	30-35'	Low	×			Bright yel- low-green leaves													
Gymnocladus dioica 'Espresso'	Espresso Kentucky Coffeetree	50-60'	40-50'	Low	X																
Quercus bicolor	Swamp White Oak	40-60'	40-60'	Low	X	Х															
Quercus 'Crimson Spire' *	Crimson Spire Oak *	40-60'	15-20'	Med	X																
Quercus macrocarpa	Bur Oak	50-80'	50-80'	Med	Х																
Quercus muehlenbergii *	Chinkapin Oak *	35-50'	35-50'	Low	X																
Quercus rubra	Northern red oak	40-60'	40-60'	Med	X																
Quercus 'Streetspire' *	Streetspire Oak *	35-45'	12-14'	Med	Х																
Styphnolobium japonicum	Japanese Pagoda Tree	35-50'	35-50'	Med	X	X		Creamy white					X	X							



Bakeri Spruce Picea pungens 'Bakeri'



Bristlecone Pine *Pinus aristata*



Pinyon Pine Pinus edulis



Ponderosa Pine Pinus ponderosa



Vanderwolf's Pyramid Pine
Pinus flexilis 'Vanderwolf's Pyramid'

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer			Mid Fall		Early Winter	Mid Winter		Winter Interest
Evergreen Trees		rieigitt	Widti	Osage		Snaac	Snaac	reatare	Spring	Spring	Spring	Summer	Sammer	Summer	T GII	T dii	T GII	VVIIIC	VVIIICEI	VVIIICEI	microst
Picea pungens	Colorado Spruce	40-60'	20-30'	Med	×	Х		Green to silvery blue													
Picea pungens 'Bakeri' *	Bakeri Spruce *	35-40'	15-20'	Med	Х	Х		Silvery blue													
Picea pungens 'Fastigiata' *	Fastigiate Spruce *	25-40'	10-15'	Med	X	X		Steel blue													
Pinus aristata	Bristlecone Pine	20-40'	10-20'	Low	Х			Deep green													
Pinus edulis	Pinyon Pine	20-30'	10-20'	Very low	X	X		Deep green													
Pinus flexilis 'Vanderwolf's Pyramid'	Vanderwolf's Pyramid' Limber Pine	30-50'	15-30'	Low	×	X		Bluish-green													
Pinus nigra	Austrian Pine	40-60'	30-40'	Low	X			Dark green													
Pinus ponderosa	Ponderosa Pine	60-80'	30-40'	Low	Х			Light green													
Pinus strobiformis	Southwestern White Pine	40-50'	20-30'	Low	X			Bluish-green													



Ginnala Maple Acer ginnala 'Flame'



Rocky Mountain Glow Maple Acer grand. 'Rocky Mtn. Glow'



Russian Hawthorn Crataegus ambigua



Gambel Oak Quercus gambelii



Japanese Tree Lilac Syringa reticulata 'Ivory Silk'

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Fall	Late Fall	Early Winter	Mid Winter	Late Winter	Winter Interest
Ornamental Trees																					
Acer ginnala 'Flame'	Ginnala Maple	15-20'	15-20'	Low	X			Greenish-yel- low		Х											
Acer grand. 'Rocky Mtn. Glow'	Bigtooth Maple	20-30'	20-30'	Low	X			Greenish-yel- low	X	X	Х										
Amelanchier laevis 'Autumn Brilliance'	Autumn Brilliance Service- berry	15-25'	15-20'	Low	X			White	X	X	X										
Crataegus ambigua	Russian Hawthorn	15-25'	15-20'	Low	X	Х		White	X	X	X										
Crataegus crus-galli inermis	Thornless Cockspur Haw- thorn	15-25'	15-20'	Low	X			White	X	X	Х										
Crataegus phaenopyrum	Washington Hawthorn	20-25'	15-25'	Low	Х	Х		White	X	X	X										
Koelreuteria paniculata	Goldenrain Tree	20-30'	20-30'	Low	X			Yellow				Х	Х	Χ							
Malus	Crabapple	varies	varies	Med	X			Pink, white, deep pink, deep red	X	X	X										
Prunus Sucker Punch	Sucker Punch Canada Red Chokecherry	20-30'	15-25'	Low	X			White	X	X	Х										
Prunus virginiana 'Shubert'	Shubert Chokecherry	20-30'	15-25'	Low	Х			White	Х	X	X										
Pyrus calleryana 'Chanticleer'	Chanticleer Pear	20-30'	15-20'	Med	X			White	X	X	X										
Quercus gambelii	Gambel Oak	8-20'	6-12'	Low	X	Х															
Syringa reticulata 'Ivory Silk'	Japanese Tree Lilac	15-25'	15-20'	Low	Х	X		White			Х										



Nanking Cherry

Prunus tomentosa



Pawnee Butees Sand Cherry Prunus b. 'Pawnee Buttes'



Staghorn Sumac Rhus typhina



Green Mound Currant
Ribes alpinum 'Green Mound'



Woods Rose Rosa woodsii

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Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Fall	Late Fall	Early Winter	Mid Winter	Late Winter	Winter Interest
Deciduous Shrubs																					
Amelanchier alnifolia	Saskatoon Serviceberry	6-20'	6-8'	Low	Х	Х		White		X											
Amelanchier alnifolia 'Regent'	Regent Serviceberry	6-8'	6-8'	Low	X			White	X	X	X										
Amorpha canescens	Leadplant	2-4'	2-4'	Very Low	×			Violet-purple					X	X							
Amorpha fruticosa	False Indigo	6-15'	5-15'	Low	Х			Purple				X	X	X							
Aronia melanocarpa 'Iroquois Beauty'	Iroquois Beauty Dwarf Black Chokeberry	4-5'	2-3'	Low	X	X	X	White			Х										
Artemisia tridentata *	Big Sagebrush *	3-12'	3-6'	Very low	Х			Dull yellow					X	Χ							
Atriplex canescens	Fourwing Saltbush	3-6'	2-4'	Very low	Х			Light yellow						Х							X
Berberis thunbergii (various)	Japanese Barberry	Varies	Varies	Low	Х	Х															
Caragana arborescens	Siberian Peashrub	10-15'	8-12'	Low	Х			Yellow			X										
Caryopteris x clandonensis (varies)	Blue Mist Spirea	2-4'	18-36"	Low	×			Blue					X	X							
Cercocarpus intricatus *	Littleleaf Mountain Mahogany *	3-6'	3-5'	Very low	X	X		Yellow- ish-white		X											
Cercocarpus montanus	Common Mountain Ma- hogany	6-8'	4-6'	Very low	×			Creamy white		Х											

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Late Fall Fall	Early Winter	Mid Winter	Late Winter	Winter Interes
Deciduous Shrubs Cont.																				
Chaenomeles speciosa 'Cameo' *	Cameo Quince *	3-4'	4-6'	Low	Х	X		Apricot	X	Х	X									
Chamaebatiaria millefolium	Fernbush	3-5'	3-6'	Very low	Χ			White		X	Χ									
Cotoneaster lucidus	Peking Cotoneaster	6-12'	6-10'	Low	Χ	Х		Pinkish-white	X	X	Χ									
Ericameria nauseosa ssp. nauseosa v. speciosa	Tall Blue or Green Rabbit- brush	2-6'	2-6'	Very low	×			Golden yellow					X	X						
Ericameria nauseosus ssp. Nauseosa v. nauseuosus	Baby Blue Rabbitbrush	1-4'	1-4'	Very low	×			Golden yellow					X	X						
Forestiera pubescens (neo- mexicana)	New Mexico Privet	8-12'	6-8'	Low	×	X		Yellow	×	X	X									
Frangula alnus 'Columnaris' *	Tall Hedge Buckthorn *	8-15'	3-4'	Low	×			Green- ish-white			X									
Hypericum f. 'Sunburst'	Sunburst St. John's Wort	3-4'	3-4'	Med	Χ	Х		Yellow			Χ	Х								
Kolkwitzia amabilis 'Pink Cloud'	Pink Cloud Beauty Bush	6-10'	6-10'	Low	×	X		Pink	×	X	X									
Ligustrum vulgare 'Chey- enne'	Cheyenne Privet	6-8'	4-6'	Low	×	X		White				X								×
Lonicera tatarica 'Arnold's Red'	Arnold's Red Honeysuckle	6-12'	6-12'	Low	×	X		Reddish-pink			X									
Lonicera xylosteum 'Emerald Mound'	Emerald Mound Honey- suckle	2-3'	3-4'	Low	×	X		Yellow- ish-white			X									
Philadelphus lewisii	Lewis Mockorange	6-8'	6-8'	Low	Х			White				Х	Х	Х						
Physocarpus (varies)	Ninebark	Varies	Varies	Low	X			White, Pink- ish-white	×	X	X									
Prunus b. 'Pawnee Buttes'	Pawnee Buttes Sandcherry	15-30"	4-6'	Low	Х			White	X	X	Χ									
Prunus pumila besseyi	Western Sand Cherry	4-7'	4-6'	Low	Χ			White			Χ									
Prunus x cistena	Purple Leaf Sand Cherry	6-8'	4-6'	Med	Χ			Pale pink		X										
Prunus tenella	Dwarf Russian Almond	2-5'	2-4'	Low	Χ			Pink	X	X										
Prunus tomentosa	Nanking Cherry	6-10'	6-12'	Low	Х			White	X	Χ										
Rhus aromatica 'Gro-low'	Gro-low Fragrant Sumac	2-3'	6-8'	Low	Х			Yellow	X											
Rhus glabra	Smooth Sumac	8-15'	8-10'	Low	×			Greenish-yel- low				×								
Rhus glabra cicmontana	Rocky Mountain Sumac	2-3'	2-3'	Low	X	Х		Creamy yel- low				X								
Rhus trilobata	Three-leaf Sumac	3-8'	3-6'	Very low	X			Yellow	X											

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Fall	Early Winter	Mid Winter	Late Winter	Winter Interest
Deciduous Shrubs Cont.																				
Rhus trilobata 'Autumn Amber'	Autumn Amber Sumac	12-18"	6-10'	Very low	X			Yellow	X											
Rhus typhina	Staghorn Sumac	10-25'	10-15'	Low	×			Greenish-yel- low				X								
Ribes alpinum 'Green Mound'	Green Mound Currant	3-4'	2-3'	Low	Х	Х		Yellow		Х										
Ribes aureum	Golden Currant	4-6'	4-6'	Low	Х	X		Yellow			Χ									
Ribes cereum	Wax Currant	2-4'	2-4'	Low	X			Green- ish-white			Х									
Ribes uva-crispa 'Pixwell'	Pixwell Gooseberry	3-4'	3-4'	Low	Х	X		Pale green		X										
Rosa Knock Out 'Radrazz' *	Knock Out Rose *	2-3'	2-3'	Med	Х			Cherry red				Х	X	X						
Rosa woodsii	Woods Rose	3-6'	3-6'	Low	Х			Pink				X								
Rubus deliciosus	Boulder Raspberry	3-6'	3-6'	Low	Χ	Х	Х	White			Χ									
Sheperdia argentia	Silver Buffaloberry	8-15'	6-12'	Very low	×			Yellow- ish-white			X									
Symphoricarpos albus	Common Snowberry	3-5'	3-5'	Low - Med	×	X		Whitish-pink				X								×
Symphoricarpos x chenaultii 'Hancock'	Hancock Snowberry	2-3'	3-6'	Low	X	X		Pinkish-white				X								
Syringa m. 'Palibin'	Dwarf Korean Lilac	4-6'	4-6'	Low	Х	X		Lavender-pink			Χ									
Syringa p. 'Miss Kim' *	Miss Kim Dwarf Lilac *	3-5'	3-5'	Low	Х	X		Pale lavender			Χ									
Syringa vulgaris	Common Purple Lilac	10-15'	8-12'	Low	Х	X		Purple		Х										
Syringa v. 'Alba'	Common White Lilac	10-20'	8-12'	Low	Х	X		White		X										
Syringa v. 'Charles Joly'	Double Red French Lilac	8-12'	6-8'	Low	Х	X		Purplish-red		X	Χ									
Syringa v. 'Sensation' *	Sensation French Lilac *	8-10'	8-12'	Low	×	X		Purple w/ white margins			X									
Quercus gambelii	Gambel Oak	8-20'	6-12'	Very low	Х	X														
Viburnum lantana 'Mohican'	Mohican Viburnum	6-8'	6-8'	Low	Χ	X		White			Χ									



Moonglow Juniper *Juniperus s. 'Moonglow'*



Panchito Manzanita *Arctostaphylos panchito*



Creeping Oregon Grape Holly *Mahonia repens*



Slowmound Juniper *Pinus m. 'Slowmound'*



Bright Edge Yucca Yucca f. 'Bright Edge'

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Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Late Fall	Mid Winter	Late Winter	Winter Interest
Large Evergreen Shrubs (up to 20' height)																			
Juniperus c. 'Spartan'	Spartan Juniper	15-20'	4-6'	Low	X			Rich green											
Juniperus s. 'Medora' *	Medora Juniper *	15-18'	3-5'	Very Low	X			Blue-green											
Juniperus s. 'Moonglow'	Moonglow Juniper	12-15'	6-8'	Very Low	X			Silvery blue											
Juniperus s. 'Skyrocket'	Skyrocket Juniper	15-20'	2-4'	Low	X			Silvery blue- green											
Juniperus s. 'Wichita Blue'	Wichita Blue' Juniper	15-20'	4-6'	Very Low	X			Silvery blue											
Picea glauca 'Conica'	Dwarf Alberta Spruce *	10-14'	4-5'	Med	X	X		Muted green											
Picea p. 'Iseli Fastigiate'	Fastigiate Blue Spruce *	12-15'	5-6'	Med	X			Steel blue											
Picea p. 'Montgomery'	Montgomery Blue Spruce *	8-12'	8-12'	Med	Х			Silvery-blue											
Evergreen Shrubs																			
Arctostaphylos c. 'Panchito'	Panchito Manzanita	15-24"	3-5'	Low	X	X		Evergreen	X									X	
Juniperus h. Blue Chip	Blue Chip Juniper	8-12"	6-8'	Low	X	Х		Slate blue											
Juniperus horizontalis 'Hughes'	Hughes Juniper	1-2'	5-8'	Low	X			Silvery-blue											

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Fall	Late Fall	Early Winter	Mid Winter	Late Winter	Winter Interest
Evergreen Shrubs Cont.																					
Juniperus horizontalis 'Wil- tonii'	Wilton Carpet Juniper	4-6"	6-8'	Low	X			Silvery-blue													
Juniperus sabina 'Buffalo'	Buffalo Juniper	12-18"	6-8'	Low	×	X		Bright, ol- ive-green													
Juniperus squamata 'Blue Star'	Blue Star Juniper	15-18"	2-3'	Low	×	X		Blue													
Juniperus v. 'Grey Owl'	Grey Owl Juniper	2-3'	4-6'	Low	X			Silvery-grey													
Mahonia aquifolium 'Compacta'	Compact Oregon Grape Holly	2-3'	2-3'	Low	×	X		Yellow		×											
Mahonia repens	Creeping Oregon Grape Holly	12-18"	12-18"	Low	×	X	X	Yellow		×											
Picea abies 'Little Gem'	Little Gem Norway Spruce	18-24"	2-3'	Med	Х																
Pinus m. 'Mops'	Mops Mugo Pine	2-3'	2-3'	Low	X	X		Dark green													
Pinus m. 'Slowmound'	Slowmound' mugo pine	3-5'	5-7'	Low	Х	X		Dark green													
Pinus m. 'Whitebud'	Whitebud Mugo Pine	2-3'	3-4'	Low	×			Dark green with white tips													
Yucca baccata	Banana Yucca	3-4'	3-5'	Very low	Х			Creamy white					X	Х							
Yucca filamentosa	Adam's Needle Yucca	3-4'	3-5'	Low	X			White				X	X	X							
Yucca f. 'Bright Edge' *	Bright Edge Yucca *	2-3'	2-4'	Low	X	X		White				X	X	X							
Yucca f. 'Color Guard' *	Color Guard Yucca *	2-3'	2-4'	Low	X	X		White					X								
Yucca flaccida 'Golden Sword' *	Golden Sword Yucca *	2-3'	2-4'	Low	X			White	×	X	X										
Yucca flaccida 'Ivory Tower' *	Ivory Tower Yucca *	3-6'	3-4'	Low	Х			White				Х	Х	Χ							
Yucca glauca	Soapweed	2-4'	2-4'	Very low	Х			White					X	X							



Big Bluestem

Andropogon gerardii



Little Bluestem
Schizachyrium scoparium



Indiangrass
Sorghastrum nutans



Prairie Dropseed Sporobolus heterolepis



Blonde Ambition Blue Grama Grass Bouteloua g. 'Blonde Ambition'

Anaropogon geraran	Ochhzac	ilyllalli.	scopanie	1111		Sorgira	Strain	riataris		_	poros.	oras rict	croicpis			20	acció	aa g. L	nonac	7 (11101)	1011
Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer		Mid Fall			Mid Winter	Late Winter	Winter Interest
Ornamental Grass																					
Andropogon gerardii	Big Bluestem	4-6'	2-3'	Low	X			Purple				X	X	X							X
Bouteloua curtipendula	Sideoats Grama	8-24"	8-12"	Low	X									X							X
Bouteloua gracilis	Blue Grama Grass	1-2'	1-2'	Very Low	X							X	X	X	X	X	X				×
Bouteloua g. 'Blonde Ambition'	Blonge Ambition Grama Grass	2-3'	1-2'	Very Low	X			Light tan				×	×	×	X	X	X				×
Chasmanthium latifolium *	Northern Sea Oats *	2-3'	18-24"	Med	X	Χ	X	Green-tan					X								X
Miscanthus sinensis purpurascens	Purple Flame Grass	3-4'	2-3'	Med	X	×		Bronze-silvery white					×	×							×
Miscanthus sinensis zebrinus	Zebra Grass	6-8'	4-6'	Med	X	Χ		Silvery-white					X	X							X
Schizachyrium scoparium	Little Bluestem	varies	varies	Low	X			varies						X	X	X	Χ				X
Sorghastrum nutans	Indiangrass	3-5'	3-4'	Sun	X			Tan						X	X	X	Χ				X
Sorghastrum nutans 'Indian Steel'	Indian Steel Indiangrass	5-7'	2-3'	Low	X			Tan				X	X	X							X
Sorghastrum nutans 'Thin Man'	Thin Man Indiangrass	5-7'	2-3'	Low	X			Yellow				X	X	X							
Sporobolus heterolepis	Prairie Dropseed	24-30"	18-24"	Low	Х			Gray-green				X	X	X	Х	Х	Χ				X
Sporobolus wrightii *	Giant Sacaton *	3-6'	2-3'	Low	X			Tan				X	X	×							X











Yarrow Achillea

Hyssop *Agastache*

Blue Harebells

Campanula rotundifolia

Gazania 'Colorado Gold' Gazania I. 'Colorado Gold'

Sedum Voodoo Sedum

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Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall		Late Fall	Early Winter	Mid Winter	Winter Interest
Perennials																				
Achillea	Yarrow	18-30"	18-36"	Low	×			Yellow, white, pastel, brick red, peach				×	×	×						
Agastache	Hyssop	varies	varies	Low	X	×		Orange, yellow, rose pink, violet blue, blue, rich pink, pink, red					×	×	×	X	×			
Alyssum saxatilis 'Goldkugel'	Basket of Gold	6-12"	12-18"	Low	X			Mustard yel- low		X										
Antennaria dioica	Pussytoes	1-4"	8-12"	Low	X			Pink				X								
Aquilegia chrysantha	Yellow Columbine	23'	18-24'	Low	×	X		Yellow, white, pastel, brick red, peach			X	X								
Aquilegia coerulea	Rocky Mountain Columbine	18-24"	12-18"	Med		X	X	Blue with white			X	X								
Armeria maritima 'Splendens'	Sea Thrift	6-12"	6-12"	Med	X			Deep pink			X	X								
Armeria 'Vicor Reiter'	Victor Reiter Sea Thrift	2-4"	4-6"	Med	Х			Soft pink				X								
Artemisia 'Powis Castle'	Powis Castle Artemisia	2-3'	2-3'	Low	X			Silvery foliage												
Asclepias tuberosa	Milkweed	18-36"	18-24"	Low	X			Orange, yel- low					X	X						

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Fall	Late Fall	Early Winter	Mid Winter	Late Winter	Winter Interest
Perennials Cont.																					
Aster	Aster	12-24"	12-24"	Med	×	X		Purple, light blue, red, pink, white						×	×	X	X				
Aster alpinus 'Goliath'	Alpine Aster	6-12"	15-18"	Low	X	Х		Lavender			Χ	Х									
Baptisia australis	Blue False Indigo	3-4'	2-3'	Low	X	Х		Indigo				X									
Berlandiera lyrata	Chocolate Flower	1-2'	12-18"	Low	X			Yellow				X	X	X	Χ	Х	Χ				
Calamintha nepeta ssp. Nepeta	Lesser Calaminth	12-18"	12-18"	Low	X			White				X	X	X	X	Х	X				
Callirhoe involucrata	Prairie Wine Cups	6-12"	2-3'	Low	X			Magenta				X	X	X	Χ	X	Χ				
Campanula rotundifolia	Blue Native Harebell	6-18"	12-18"	Low	X	X	X	Light blue	X	X	Χ	X	X	X							
Centranthus ruber	Red Valerian	2-3'	18-24"	Low	X			Reddish-pink				X	X	Χ							
Cerastium tomentosum	Snow-in-Summer	6-12"	12-18"	Low	X			White			Χ	X									
Ceratostigma plumbaginoides	Plumbago	8-12"	18-24"	Low	X	×	X	Blue					X	X							
Coreopsis	Tickseed	6-24"	12-24"	Low	X			Yellow, gold, red,			X	X	X	X	X	Х	X				
Delosperma	Hardy Ice Plant	1-4"	10-18"	Low	×			Rose, white, lavender, pink, yellow, red, purple				X	X	X							
Echinacea	Coneflower	varies	varies	Low	X			Varies				X	X	X							
Epilobium garrettii 'Orange Carpet'	Orange Carpet Humming- bird Trumpet	4-6"	15-20"	Low	X			Orange						X	X	Х	Х				
Erigeron speciosus *	Showy Daisy *	18-24"	18-24"	Low	X			Lavender				X	X	Х							
Gaillardia aristata	Native Blanketflower	18-24"	18-24"	Low	X			Yellow w/ red center					X								
Gallium odoratum	Sweet Woodruff	6-8"	8-12"	Med		Х	X	White			X										
Gazania I. 'Colorado Gold'	Colorado Gold Gazania	2-4"	8-10"	Low	X	X		Yellowish-or- ange				X	X	X	×	Х	X				
Geranium	Cranesbill	12-18"	1-2'	Med	X	X	Х	Violet-blue			Χ	X	X								
Geum trifolium	Prairie Smoke	6-12"	6-12"	Low	Х	Х		Creamy white			Χ										
Hemerocallis	Daylily	varies	varies	Low	Х	Х		Varies			Χ	Х	Х	Х							
Knautia macedonia	Knautia	18-24"	18-24"	Low	Х			Burgundy				X	Х	Х							
Kniphofia uvaria	Torch Lily	varies	varies	Low	X			Yellow, red, orange					×	×							

Botanic Name	Common Name	Mature Height	Mature Width	Water Usage	Sun	Filtered Shade	Full Shade	Flower Color/ Feature	Early Spring	Mid Spring	Late Spring	Early Summer	Mid Summer	Late Summer	Early Fall	Mid Fall	Late Fall	Early Winter	Mid Winter	Late Winter	Winter Interest
Perennials Cont.																					
Lavandula angustifolia	English Lavender	12-20"	15-20"	Low	Χ			Lavender		X	Χ	Χ	X	Χ							
Liatris	Gayfeather	varies	varies	Low	Х			Purple, white					Х	Х							
Marrubium rotundifolium	Silvery Horehound	6-8"	12-18"	Very low	Х																
Mirabilis multifora	Desert Four O'Clock	15-18"	2-4'	Very low	Х			Purplish-red					Х	Х							
Monarda fistulosa menthifolia	Wild Bergamot	2-3'	18-24"	Low	Х			Lavender					X								
Nepeta	Catmint	varies	varies	Low	Х			Lavender-blue			X	Х	Х	Х							
Oenothera berlandieri	Mexican Evening Primrose	12"	18-24"	Low	X			Pale pink				X	X	Х							
Penstemon	Penstemon	varies	varies	Low	Χ			Varies		X	Χ	Х	X	Х							
Perovskia a. 'Little Spire'	Little Spire Russian Sage	2-3'	2-3'	Low	Χ			Blue					X	X							
Phlox subulata	Creeping Phlox	3-6"	12-24"	Low	Χ	Χ		Varies	X	X											
Potentilla neumanniana	Apline Cinquefoil	2-4"	12-18"	Low	Χ			Yellow			Χ	Х									
Ratibida columnifera	Prairie Coneflower	18-24"	18-24"	Very low	Χ			Yellow, red				X	X	Х							
Rudbeckia	Black-eyed Susan	varies	varies	Low	X			Golden yellow					X								
Salvia May Night	May Night' Sage	18-24"	12-18"	Low	Χ			Purple-blue				X	X	Х							
Sedum 'Autumn Joy'	Autumn Joy Stonecrop	18-24"	12-18"	Low	X			Dusty pink						X	Х	Х	Χ				X
Sedum (groundcover)	Stonecrop	4-6"	12-18"	Low	Χ			Varies				X	X	Х	Χ	Х	Χ				X
Solidago 'Goldenkind'	Golden Baby Goldenrod	1-3'	18-24"	Low	X	X		Golden yellow				X	X	X							
Tanacetum densum amani	Partridge Feather	6-8"	8-12"	Very low	Χ			Yellow				Х									
Tancetum niveum	Silver Tansy	18-24"	18-24"	Low	X			White				X	X	X							
Veronica pectinata	Woolly Speedwell	1-2"	12-18"	Low	Х			Blue			ĺ	Х									X

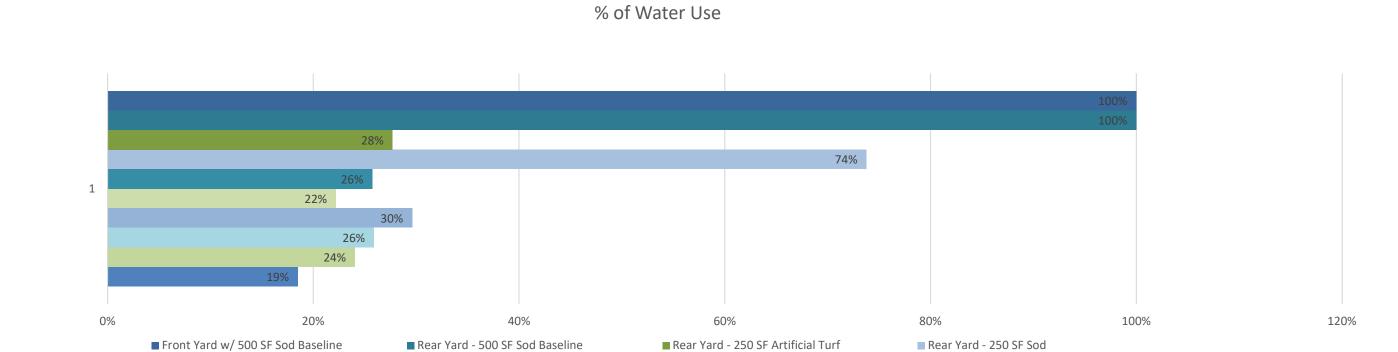
Estimated Water Use Calculations

■ Rear Yard - Coloradoscape

■ Front Yard - Type 2 - Coloradoscape

Project Name - #: Town of Castle Rock Lot Typicals Landscape and Irrigation Study	
Project Location: Castle Rock, CO	
Client Name: Town of Castle Rock	Nonnic Dreichi
Date Updated: 5/17/2022	NORRIS DESIGN
	Planning Landscape Architecture Branding

Area Name	Spray Manicured Turf	Drip / Low Flow Trees & Shrubs	Rotor / Rotary Native Seed	Spray Hybrid Turf	Drip / Low Flow Annuals / Color	Estimated Annual Water Use	% of Water Use of Bold
	(SF)	(SF)	(SF)	(SF)	(SF)	- (Gal)	Baseline
Front Yard - Type 1 - Coloradoscape	0.00	435.60	0.00	0.00	0.00	2,484	19%
Front Yard - Type 2 - Coloradoscape	0.00	566.28	0.00	0.00	0.00	3,229	24%
Front Yard - Type 3 - Coloradoscape	0.00	609.84	0.00	0.00	0.00	3,477	26%
Front Yard - Type 4 Side Yard - Coloradoscape	0.00	696.96	0.00	0.00	0.00	3,974	30%
Front Yard - Cul-de-sac - Coloradoscape	0.00	522.72	0.00	0.00	0.00	2,981	22%
Rear Yard - Coloradoscape	0.00	566.28	0.00	0.00	0.00	3,229	26%
Rear Yard - 250 SF Sod	0.00	609.84	0.00	250.00	0.00	9,256	74%
Rear Yard - 250 SF Artificial Turf	0.00	609.84	0.00	0.00	0.00	3,477	28%
Rear Yard - 500 SF Sod Baseline	0.00	174.24	0.00	500.00	0.00	12,550	100%
Front Yard w/ 500 SF Sod Baseline	0.00	206.00	0.00	530.00	0.00	13,425	100%



■ Front Yard - Type 4 Side Yard - Coloradoscape ■ Front Yard - Type 3 - Coloradoscape

■ Front Yard - Cul-de-sac - Coloradoscape

■ Front Yard - Type 1 - Coloradoscape