



CONDITIONALLY APPROVED

- BY THE PLANNING DEPARTMENT
- BY THE PLANNING DIRECTOR
- BY THE PLANNING COMMISSION
- BY THE CITY COUNCIL

FOR THE CITY OF WILDOMAR ON 06 / 08 / 2022

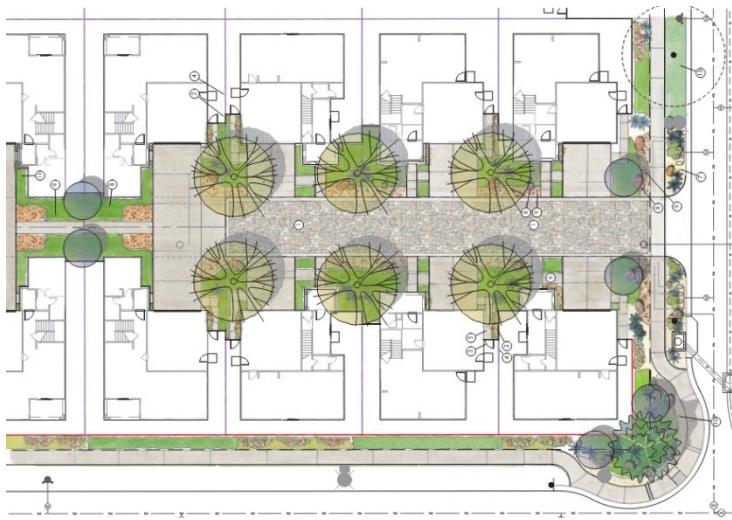
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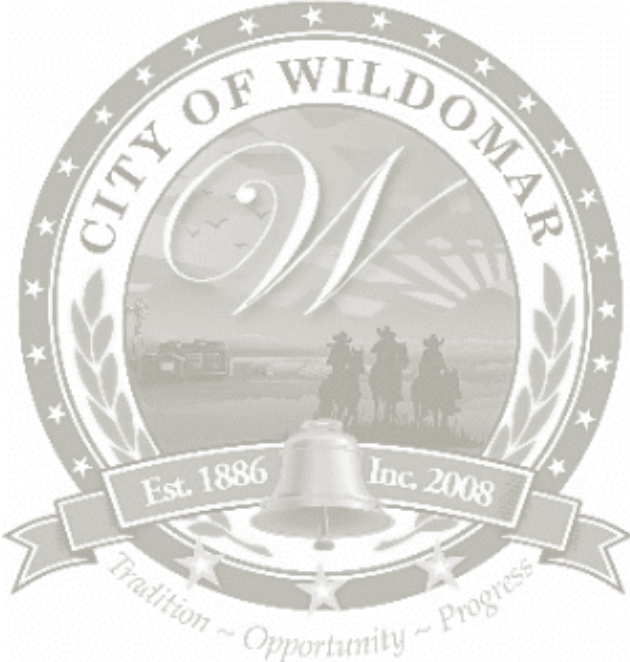
PLANNER MB

SIGNATURE Matthew Bassi

CITY OF WILDOMAR

LANDSCAPE DESIGN STANDARDS AND GUIDELINES





CITY OF WILDOMAR Landscape Design Standards and Guidelines

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CITY OF WILDOMAR Landscape Design Standards and Guidelines

1. PURPOSE

These guidelines are to provide standards for the design and installation of landscaping and irrigation systems for the various development projects in the City of Wildomar. The intent is to guide applicants, qualified landscape professionals, and residents in creating water efficient landscapes that visually enhance the City through quality design, installation, and maintenance.

They will also provide guidance in implementing the City's landscape related Municipal Code Chapters and the State's Model Water Efficient Landscape Ordinance (MWELO) which outlines the minimum requirements for landscape construction documentation packages and the maximum water allowance for residential and non-residential landscape projects. If any conflict arises between these guidelines and the most current mandates of the State's Model Water Efficient Landscape Ordinance, the stricter of the two shall apply.

The Landscape Design Standards and Guidelines shall supersede all requirements of Chapter 17.279 Water-Efficient Landscapes and City Of Wildomar Water Efficient / Conservation Landscape Standards Manual. In accordance with Ordinance No. 212, as applicable, all persons and/or entities subject to the State Model Water Efficient Landscape Ordinance (23 CCR, Division 2, Chapter 2.7) shall comply with Sections 492.6(a)(3)(B), (C), (D), and (G), of the State Model Water Efficient Landscape Ordinance, as amended September 15, 2015, as it may be amended in the future.

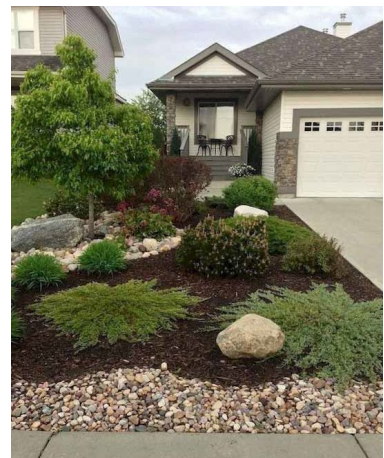
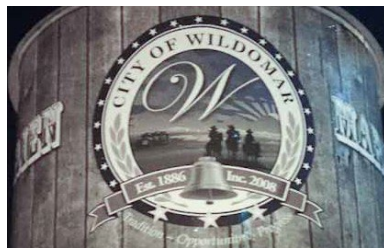
2. GOALS

- To promote environmental conservation, recognizing that beautiful and water efficient landscape designs are integral to the City's character and community's quality of life.
- To incorporate the main principles of water conservation in landscape design with the:
 - use of water conserving plants
 - reduction of turf area
 - grouping of plants according to watering needs
 - application of irrigation methods to meet plant needs
- To provide guidance and standards to create beneficial landscape designs, that can also be utilized as criteria to evaluate design proposals.
- To ensure well designed harmonious landscapes that strengthen and unify residential and commercial developments.



3. QUALITY LANDSCAPE DEVELOPMENT

Local arid conditions and unique characteristics of Wildomar create landscape design challenges and possibilities within our community. The City is located along Interstate 15 freeway in Riverside County and is nestled in a valley bordered by the Santa Rosa Plateau to the west and rolling hills to the east. Wildomar has a diverse mix of developments and land uses that blend the older rural design character with the newer more modern commercial and residential communities. This region requires carefully designed landscapes that are both water efficient and that respond to this blended environment to create connections, enhance function, beautify, and strengthen the City's strong sense of community.



4. APPLICABILITY

These landscape design standards and guidelines shall apply to the following:

- All new construction projects with an aggregate landscape area equal to or greater than 500 square feet requiring a building or landscape permit, plan check or design review.
- Rehabilitated landscapes projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review.
- Modification to existing structures and uses. Whenever an existing building is modified, or a use is expanded such that it creates an increase of more than 10% in the number of existing dwelling units for residential projects or more than 10% in the existing square footage of commercial or industrial projects, landscaping shall be provided as required under these standards and guidelines to the greatest extent feasible.
- For existing landscaping and irrigation, the requirements for removal and replacement of required landscaping and maintenance within these guidelines shall apply to all landscaping and irrigation within the City. When a homeowner replaces landscape and irrigation, these design standard and design guidelines are encouraged to be used but are not mandatory.
- In the event of a declared water shortage or mandatory water conservation measures imposed by the State of California or other government agency having such authority, a development project shall comply with all water allocations programs adopted by the state or agency.

5. PLAN SUBMITTAL AND APPROVAL PROCESS

This section is intended to outline the phases and general requirements from plan preparation to final landscape inspection.

- A licensed landscape architect shall prepare all landscape submittals in fulfillment of this document's requirements. The landscape architect must consult with City staff and the City's landscape architect at the earliest possible stage of site development for a coordinated and well prepared landscape plan submittal.
- For projects greater than one (1) acre in land area, a landscape architect with a current California license shall certify to the preparation of all landscape plans. A certified irrigation designer may prepare the irrigation plans.
- Most landscape design proposals will require two separate phases to complete the review process. The Planning Department will provide plan review or plan check fee information prior to the submittal of each phase in the process.
- Review comment checklists for the Preliminary Landscape Plan and Landscape Documentation Package are provided in Section 10. Appendix. The checklists do not contain all of the design standards outlined in these guidelines. The checklists will be used by the City to review landscape plans for fundamental compliance items. The designing landscape architect is strongly encouraged to use the checklists as a self-review tool when preparing landscape plans for city submittal.

5.1 Phase 1 - Discretionary Development

A Preliminary Landscape Plan is required as part of a development project application (i.e., Plot Plan, CUP, etc.) and with applications subject to design review or land use entitlement. The City will review the plan for compliance with these guidelines, landscape related ordinances, and with special landscape requirements of any applicable master plan, specific plan or overlay area.

The Preliminary Landscape Plan shall convey a fully developed landscape program. Irrigation plans are not required at this phase; however, a preliminary water budget calculation shall be included to show that the proposed landscape program is compliant.

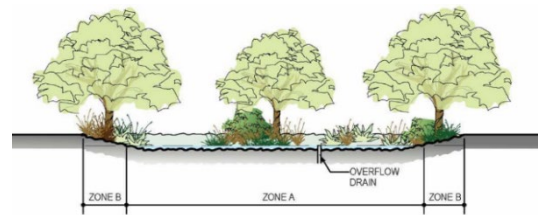
The City's design review process represents the basis for approval or denial of a landscape design proposal, and no grading, building, or use permit can be issued until a project has received approval from the required approval authority.

The Preliminary Landscape Plan shall be developed to construction drawing level and at a minimum, include the following items:

- Identify all landscape planting material, including trees, shrubs, groundcover, and turf. The proposed planting layout shall be clearly communicated with hatches or symbols. Proposed plant quantities and sizes to be noted by estimated number or percentages.
- List botanical name, common name, and water use classification (per current WUCOLS found at ucanr.edu/sites/WUCOLS/) for each plant.
- Identify any Special Landscape Areas (SLA) to be included in the Water Efficient Landscape Worksheet such as, reclaimed water use areas, edible landscape areas, or recreational turf fields.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

- Locate and identify all biofiltration or detention basin areas and provide a specialized plant palette for basin bottom (Zone A, periodic inundation) and slopes (Zone B, above inundation).
- Locate and identify all existing protected trees, noting biological name, common name, and trunk diameter. Note trees proposed to be removed, relocated on-site, or maintained in place. For additional information, refer to Section 7.1.4 Existing and Protected Trees.
- Illustrate sloped areas, include slope ratio, topographic lines, and elevations. Provide a specialized plant palette that demonstrates material suitable for slope stability.
- Provide a preliminary water efficient landscape worksheet that reflects the proposed landscape program (MAWA and estimated ETWU).
- For projects located within the Very High Fire Severity Zone, provide a Preliminary Fuel Modification Plan complete with zone delineation, description, and restrictions and limit plant palette to fire resistive material.
- Locate and identify all decorative paving and hardscape material. Note if any materials are permeable.
- Locate and identify all buildings and structures, including the height and material of all walls, fences, and gates.
- Locate and identify all utilities, light standards, vehicular charging stations, and signs.
- Locate and identify all outdoor amenity features, including, but not limited to pools, spas, various water features, trellises, gazebos, play equipment, bike racks, picnic tables and benches.
- Special design attributes may require elevations, detail drawings and/or the submittal of manufacturer's literature.
- Note required setback for landscaping. Minimum requirement by land use zones can be found in Title 17 (Zoning) of the Wildomar Municipal Code.
- Note the total square footage of the project, new landscape area, rehabilitated landscape area, turf area.
- Note the shade percentage required and provided for the parking space area.
- Note the proposed irrigation method for each hydrozone or plant type.



PLANT PALETTE AT WATER QUALITY BASIN

ZONE A PLANTING (AREA OF PERIODIC INUNDATION)

GRASSES AND PERENNIALS

- *Carex pansa*
- *Leymus condensatus* 'Canyon Prince'
- *Muhlenbergia dubia*
- California Meadow Sedge
- Canyon Prince Wild Rye
- Pine Muhly

ZONE B PLANTING (ABOVE AREA OF PERIODIC INUNDATION)

TREES

- *Cercis occidentalis*
- *Platanus racemosa*
- Western Redbud
- Western Sycamore

SHRUBS

- *Myrica californica*
- *Sambucus mexicana*
- Pacific Wax Myrtle
- Western Elderberry

GRASSES AND PERENNIALS

- *Carex pansa*
- *Leymus condensatus* 'Canyon Prince'
- *Muhlenbergia dubia*
- California Meadow Sedge
- Canyon Prince Wild Rye
- Pine Muhly

It is the responsibility of the designing landscape architect to be aware of and comply with the requirements and standards of these guidelines, all landscape related chapters of the Wildomar Municipal Code, the City's current policies, and current State of California water efficient landscape requirements.

Revisions to the Preliminary Landscape Plan may be necessary until it complies with city standards and project requirements. Once complete, an approval letter with conditions of approval will be prepared and provided to applicant and the project's design team as part of the discretionary review process for the project.

5.2 Phase 2 - Post Entitlement

A Landscape Documentation Package to be reviewed and approved during the grading and building plan check process.

Once a discretionary development project is approved by the Planning Commission or City Council, full landscape and irrigation construction drawings must be submitted to the Planning Department for plan check review. The Landscape Documentation Package shall be in substantial conformance with the approved Preliminary Landscape Plan, while incorporating the conditions of approval and any necessary revisions communicated at the conclusion of the discretionary design review phase. Clearly note if there are any changes or deviations from the approved Preliminary Landscape Plan.

The Landscape Documentation Package (required concurrently with submittal of the project grading plans shall include the following elements:

- Stamped Approved Preliminary Landscape Plan.
- Landscape Construction Design Plan.
- Planting Design Plan.
- Irrigation Design Plan.
- Water Efficient Landscape Worksheet.
- Soil Management Report.
- Grading Design Plan.
- Details and specifications to fully support all elements of the design plans.

The above items are further outlined in Section 6. Landscape Documentation Package Requirements and Section 7. Landscape Design Standards and Guidelines.

The elements of the Landscape Documentation Package listed above will be thoroughly reviewed by City Staff for compliance with the criteria contained in these guidelines and the project's conditions of approval. City Staff will provide detailed plan review comments after each review. Plans shall be revised and resubmitted along with correction response comments from the designing landscape architect during the 2nd plan check phase. City Staff will review the revised plans and responses and continue this process until the construction landscape plans are approved to the satisfaction of the Planning Department.

5.3 Phase 3 - Landscape Construction and Final Inspection

The designing landscape architect is required to monitor the installation of all irrigation and landscaping with site inspections after the completed review phases to ensure quality of work and adherence to the approved landscape documentation package.

All projects requiring approval of landscape plans must install and maintain the landscape in a manner which substantially conforms to the approved plans. Any changes to the approved landscape plans, prior to or during installation, must be approved by the City in advance. Any changes must be submitted to the Planning Department for review and must include a checklist detailing all changes.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Once the landscape installation is complete and the irrigation system is fully operational:

- Fully execute Parts 1-6 of the Certificate of Completion with all necessary plans, reports, and documentation to planning staff. Refer to Section 6. Landscape Documentation Package Requirements, as well as Appendix for certificate and outline of all required parts.
- Submit the Certificate of Completion to the assigned planner with request for a final landscape inspection. Assigned planner will facilitate an inspection appointment with the City's Landscape Consultant or Inspector.
- For the inspection appointment, the owner's representative, site superintendent, and landscape contractor shall be on site for questions and coordination.
- Prior to Planning Department sign-off of certificate of occupancy, all landscape requirements and conditions must be fulfilled and verified during the final inspection.

6. LANDSCAPE DOCUMENTATION PACKAGE REQUIREMENTS

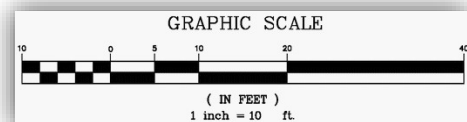
6.1 Title Sheet and General Design Plan

The following project information shall be provided on the title sheet of the Landscape Documentation Package:

- Date
- Project applicant name and contact information
- Project address (if available, parcel and/or lot number(s))
- Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed). Projects that include multiple maintenance entities (private homeowner, homeowner's association, municipality, etc.) are to be separated into different plan sets.
- Total project area, new landscape area, rehabilitated landscape area in square feet, as well as the area and percentage of turf area.
- Provided parking space shade area in square foot and percentage.
- Water supply type (e.g., potable, recycled, well) and identify the local water purveyor
- Project contacts to include information for the project applicant, property owner, landscape architect, architect, engineer, etc.
- Applicant signature and date with statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."

Each design plan sheet of the package shall provide the following information:

- North arrow
- Graphic scale, preferably an engineer's scale of 1"=10' or 1"=20', the same scale shall be used for all design plans
- Delineated property lines and easements, including utility easements
- Adjacent streets, including location, dimension, and centerline
- Existing and proposed public improvements, including right-of-way and street dedications
- All existing and planned buildings and structures on site with delineated architectural features such as, doors, windows, awnings, and attached trellis.
- The stamp and signature of a licensed landscape architect. The City may allow other licensed or certified landscape design professionals to prepare a landscape documentation package, but approval must be obtained prior to package submittal.



Construction level details and specifications shall be provided for all proposed construction, planting, irrigation, and grading elements.

Plan reference information is to be noted for elements that impact the landscape documentation package but are included under separate submittals.

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It is the responsibility of the designing landscape architect to be aware of and comply with the requirements and standards of these guidelines, as well as all landscape related chapters of the Wildomar Municipal Code, the City’s current policies, and current State of California water efficient landscape requirements.

6.2 Landscape Construction Design Plan

When a project has complex site improvements that cannot be clearly described on the planting plan, a landscape construction design plan is required.

The landscape construction design plan shall include, but not be limited to the following:

- General landscape construction notes and specifications.
- Construction legend or schedule including item description, material, model, finish, manufacturer, etc.
- Construction details for all landscape features, including enhanced hardscape elements, fences, walls, gates, walkways, trails, landscape lighting, arbors, trellises, signs, and water features.
- If any aspects of the landscape construction elements (including those items listed above) are to be constructed according to the architect’s or engineer’s plans, a general description of the element is to be included and a reference provided to other plans.
- If signage is proposed on the landscape plans, include a note that all project signs and/or monument signs require a separate permit.

6.3 Planting Design Plan

With the approval of the Preliminary Landscape Plan, the proposed planting design program has been reviewed and revised to the satisfaction of the City. However, the applicant’s landscape architect is responsible to incorporate any outstanding City comments or conditions of approval.

Further revisions may be necessary during the Landscape Documentation Package phase if plans are found to be noncompliant with any State or City ordinances, guidelines, policies, or if modifications have been made to site layout or planting design program.

The planting design plan, at a minimum, shall:

- Identify all landscape planting material, including trees, shrubs, groundcover, and turf. The proposed planting layout shall be clearly communicated with hatches or symbols.
- List botanical name, common name, container size, on center spacing, quantities and water use classification (per current Water Use Classification of Landscape Species (WUCOLS) found at ucanr.edu/sites/WUCOLS/) for each plant. The plant region for WUCOLS IV 2014 is Region 4 South Inland Valley.



- Limit palette to fire resistive plant material.
- Identify type of mulch, application depth, and supplier
- Identify soil amendments, type, and quantity as referenced from the soil report

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- Identify any Special Landscape Areas (SLA) to be included in Water Efficient Landscape Worksheet such as, reclaimed water use area, edible landscape areas, or recreational turf fields.
- Locate all existing protected trees, noting biological name, common name, and trunk diameter. Note trees proposed to be removed, relocated on-site, or maintained in place. Refer to Section 7.1.4 Existing and Protected Trees for additional information regarding protected trees.
- Locate and identify all paving and hardscape material. Note if any materials are permeable.
- Locate and identify all buildings and structures, including the height and material of all walls, fences, and gates.
- Locate and identify all utilities, light standards, vehicular charging stations, and signs.
- Locate and identify all outdoor amenity features, including, but not limited to pools, spas, various water features, trellises, gazebos, play equipment, bike racks, picnic tables and benches.
- Delineate and label each hydrozone by number, letter, or other method

- Identify each hydrozone as low, moderate, high water or mixed water use.
- Identify recreational areas
- Identify areas permanently and solely dedicated to edible plants
- Identify areas irrigated with recycled water
- Identify areas of temporary irrigation



*Edible plants can be used throughout the landscape.
Purple Basil, Raspberry, and Lemongrass*

- Identify type and surface area of water features
- Illustrate location, construction details, and cross-sections of any stormwater best management practices that facilitate on-site retention and infiltration of stormwater. Stormwater best management practices are encouraged, and examples include but are not limited to:
 - Biofiltration beds, swales and basins that allow water to collect and soak into the ground

Decorative rain barrel



components and area(s) of distribution

- Constructed wetlands and retention ponds that retain water, handle excess flow and filter pollutants
- Pervious or porous surfaces (e.g., permeable pavers or blocks, pervious or porous concrete, etc.) that minimize runoff
- Identify any applicable rain harvesting or catchment technologies
- Identify any applicable graywater discharge piping system

Refer to Section 7. Landscape Design Standards and Guidelines for a more detailed explanation of planting design principals, requirements, and restrictions.

6.4 Irrigation Design Plan

The irrigation design plan, at a minimum, shall contain the following:

- Point of connection to the public water supply, and location and size of separate water meters for landscape. Provide reference information when point of connection is to be installed or specified on a separate plan.
- A note to clearly identify the water source(s) as potable or recycled water.
- Location, type, size, and manufacturer of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain sensors, quick couplers, pressure regulators, backflow prevention devices, and emitter products.
- Static water pressure at the point of connection to the public water supply and maximum flow rate for the irrigation system.
- Flow rate (gallons per minute), application rate (inches per hour) and design operating pressure (pressure per square inch) for each station.
- Recycled water irrigation systems as specified in Section 7.2.3 Recycled Water below.
- The signature of a licensed landscape architect or certified irrigation designer.
- Refer to Section 7.2 Irrigation Standards for a detailed explanation of irrigation design principals, requirements, and restrictions.

6.4.1 Water Efficient Landscape Worksheet

A project applicant shall submit the Water Efficient Landscape Worksheet, see Appendix, which contains information on the plant factor, irrigation method, irrigation efficiency, and area associated with each hydrozone. Calculations are to show that the evapotranspiration adjustment factor (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for non-residential areas, exclusive of Special Landscape Areas. The Maximum Applied Water Allowance (MAWA) is calculated based on the maximum ETAF allowed and expressed as annual gallons required. The Estimated Total Water Use (ETWU) is calculated based on the plants used and irrigation method selected for the landscape design. The ETWU must be below the MAWA. In calculating the MAWA and ETWU, the ETo values from the CIMIS Reference Evapotranspiration Table, Department of Water Resources, 1999, City of Elsinore shall be used and is as follows:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
2.1	2.8	3.9	4.4	5.9	7.1	7.6	7.0	5.8	3.9	2.6	1.9	55.0

Water budget calculations shall adhere to the following requirements:

- The plant factor used shall be from the most current publication of the Water Use Classification of Landscape Species (WUCOLS). The plant factor ranges from 0 to 0.1 for low water use plants, from 0.4 to 0.6 for moderate water use plants and from 0.7 to 1.0 for high water use plants.
- All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.

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- All Special Landscape Areas shall be identified. The ET Adjustment Factor for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.
- For determining Estimated Total Water Use, the average irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices.

Refer to the Section 7.2.2 Hydrozone for additional information.

The above information is subject to change with the most current State's Model Water Efficient Landscape Ordinance or updated City's Water Efficient Landscape Worksheet.

6.5 Soil Management Report

To reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the project applicant, or his/her designee, as follows:



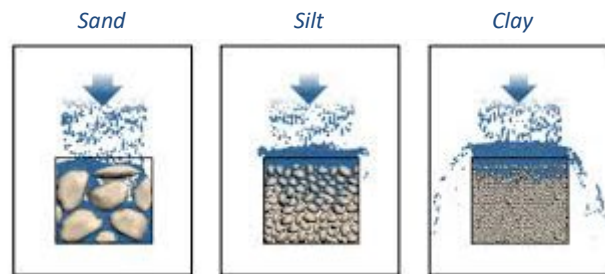
Submit soil samples to an accredited agronomic soil testing laboratory for analysis and recommendations.

Soil sampling shall be conducted in accordance with laboratory protocol, including procedures for adequate sampling depth for the intended plants.

Samples shall be taken from enough locations on the site to represent an adequate cross section of conditions. In projects with multiple landscape installations or a large landscape project of more than 10,000 square feet, a soil sampling rate of 1 in 7 lots or 15% shall serve as an adequate cross section.

The soil management report shall include, as applicable:

- Soil texture
- Infiltration rate determined by laboratory test or soil texture infiltration rate table
- pH
- Total soluble salts
- Sodium
- Percent organic matter
- Amendment recommendations
- Maintenance soil treatment and/or amendments



Water infiltration with varying soil textures

The project applicant, or his/her designee, shall comply with one of the following:

- If significant mass grading is not planned or is completed, the soil analysis report shall be included on the landscape plans as part of the Landscape Documentation Package.
- If significant mass grading is planned but not completed, the soil analysis report shall be submitted as part of the Certificate of Completion. All notes, details, and specifications on the landscape plans shall refer to the soil management report for amendments and irrigation scheduling.

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The soil management report shall be made available, in a timely manner, to the professionals preparing the landscape and irrigation design plans to make any necessary adjustments to the planting and irrigation design plans.

The project applicant, or his/her designee, shall submit documentation (photos, dated receipts, etc.) verifying implementation of soil analysis report recommendations with Certificate of Completion.

6.6 Grading Design Plan

For the efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff, and water waste. A grading plan, prepared by a licensed civil engineer, shall be provided as reference as part of the Landscape Documentation Package.

The project applicant shall include grading information on the landscape plan that indicates finished configurations and elevations of the landscape area including all the following:

- Height and ratio of graded slopes
- Flow lines and drainage patterns
- Pad and finish floor elevations for buildings
- Finish surface and finish grade elevations as necessary
- Stormwater retention improvements, if applicable

To prevent excessive erosion and runoff, the following are required:

- Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes.
- Avoid disruption of natural drainage patterns and undisturbed soil.
- Avoid soil compaction in landscape areas. Compacted soils should be ripped or scarified to a minimum depth of 12 inches.

6.7 Certificate of Completion

Prior to the issuance of a Certificate of Occupancy or at the request for final landscape inspection a Certificate of Completion (Parts 1-6) shall be submitted to the City, refer to Appendix.

The completed Certificate shall supply the following:

- Part 1 - Project information
- Part 2 - A statement that the landscaping and irrigation system have been installed in substantial compliance with the approved Landscape Documentation Package. It acknowledges the evaluation of the landscape and irrigation system by a California licensed landscape architect, landscape contractor or other individual deemed qualified by the Planning Director.
 - Record drawings or “as-builts” are required where there have been significant changes made to the approved plans or field modifications during construction
- Part 3 - Irrigation scheduling parameters used to set the controller. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes. See Section 6.7.1 Irrigation Scheduling below

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- Part 4 - Landscape and irrigation maintenance schedule. See Section 6.7.2 Landscape and Irrigation Maintenance Schedule below
- Part 5 - Irrigation audit report prepared by a certified irrigation auditor. See Section 6.7.3 Irrigation Audit Report below
- Part 6 - Soils analysis and amendment report and evidence of amendment implementation. See Section 6.5 Soil Management Report above.

The developer shall also submit approved copies of the Certificate of Completion to the local water purveyor and property owner or his or her designee.

6.7.1 Irrigation Scheduling

For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

Overhead irrigation shall be scheduled between the hours of 6:00 p.m. and 6:00 a.m. unless weather conditions prevent it. Verify watering window with Elsinore Valley Municipal Water District's most current guidelines or restrictions. Operation of the irrigation system outside the normal watering window is only allowed for auditing and system maintenance.

For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate and current reference evapotranspiration, so that applied water meets the Estimated Total Water Use. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance. Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

Irrigation scheduling parameters used to set the automatic controller shall be developed and submitted for each of the following:

- The plant establishment period
- The established landscape
- Temporarily irrigated areas.

A valve data table that provides the following for each station:

- Irrigation interval (days between irrigation)
- Soil infiltration rate as provided by the soil analysis report to restrict the following to avoid runoff
 - Irrigation run times (hours or minutes per irrigation event)
 - Number of cycle starts (daily irrigation run times divided into shorter cycles with rest periods in between to allow for infiltration)
- Amount of applied water scheduled to be applied monthly
- Application rate setting
- Root depth setting
- Plant type setting

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- Soil type
- Slope factor setting
- Shade factor setting
- Irrigation uniformity or efficiency setting

The valve data table shall be included on the irrigation plans as a reference to properly program the automatic irrigation controller.

6.7.2 Landscape and Irrigation Maintenance Schedule

Landscapes shall be maintained to ensure water use efficiency.

A regular maintenance schedule shall include, but not be limited to routine inspection, auditing, adjustment and repair of the irrigation system and its components, aerating and dethatching turf areas, topdressing with compost, replenishing mulch, fertilizing, pruning, weeding in all landscape areas, and removing obstructions to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.

A project applicant is encouraged to implement established landscape industry sustainable Best Practices for all landscape maintenance activities.

6.7.3 Irrigation Audit Report

All landscape irrigation audits shall be conducted by a third party certified landscape irrigation auditor. Irrigation audits shall not be conducted by the person who designed or installed the landscape or irrigation system. An irrigation audit report to include, but is not limited to inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow and preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure, and any other factors necessary for the accurate programming.



In large projects or projects with multiple landscape installations (e.g., residential developments, multi-tenant commercial complexes, mixed-use sites) a rate of one audit per landscape phase shall be required unless otherwise approved by the City.

The city may require an irrigation water use analysis, irrigation audits, or irrigation surveys to ensure ongoing compliance with the Maximum Applied Water Allowance.

Irrigation performance testing kit including pressure gauge, catchment cups, anemometer, and marking flags to be used by a certified landscape irrigation auditor.

7. DESIGN GUIDELINES AND STANDARDS

Together, the landscape and irrigation shall provide beautiful water efficient, low maintenance landscapes that utilize materials and equipment that are well suited for Wildomar's unique conditions, climate, and varied land uses.

In addition to these requirements, all right-of-way landscaping shall also conform to the current version of the City of Wildomar's Standard Plans and Specifications for Public Improvements (Road Standards) on file with the Public Works/Engineering Department. These Road Standards may include more stringent requirements than those found in this plan. Where there appears to be conflicting guidelines for right-of-way landscaping between this plan and the Road Standards, the apparent conflict shall be brought to the attention of the City for review and decision regarding which standard(s) shall govern.

7.1 Landscape Standards

The landscape shall be an integral part of any project. The character of the community, site architecture, as well as the intended function and aesthetic concerns of the project shall be carefully considered. A well designed and executed landscape design will improve the value, appearance, and function of the site.

Refer to Section 7.5 Residential Landscape Standards, 7.6 Non-Residential Landscape Standards, and 7.7 Street Tree and Right-of-Way Landscape Standards for additional project specific requirements such as minimum landscape areas and plant container sizes.

Refer to Section 8. Public Works Landscape Standards And Maintenance Requirements which outlines the guidelines for City maintained Community Facilities District (CFD) improvements, as well as the Engineering Department Capital Improvement Projects (CIP).

7.1.1 Planting Design Principals

Plant selection shall consider water conservation through the appropriate use and groupings of plants that are well adapted to the project's soil, have similar watering needs, and best suited for climatic, geological, and topographical conditions.

Select plants that are from local and regional landscape program plant lists, such as Riverside County Guide of California Friendly Landscaping, Elsinore Valley Municipal Water District's and Western Municipal Water District's Water-Wise Landscaping, as well as bewaterwise.com. Visit their websites for publications and resources.



bewaterwise.com[®]

Use the Sunset Western Climate Zone System which considers temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate. Wildomar is in Sunset Western Climate Zone 18 and USDA Plant Hardiness Zone 9b.

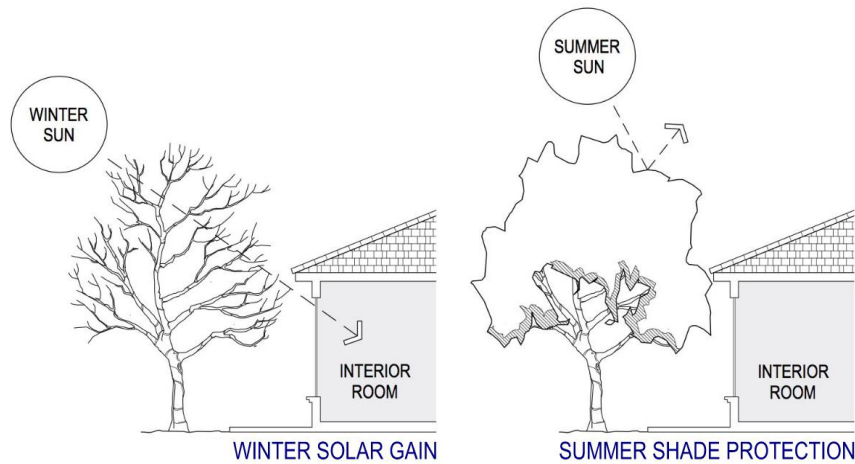
The use of the Water Use Classification of Landscape Species (WUCOLS) publication can also help identify plants that are regionally appropriate and low or very low water use. The plant region for WUCOLS IV 2014 is Region 4 South Inland Valley.

Recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize disruption to pathways, property, or infrastructure (e.g., buildings, hardscape, power lines).

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Each hydrozone shall have plant materials with similar water use, except for hydrozones with plants of mixed water use, as specified in Section 7.2.2 Hydrozone.

High water use shrubs shall be restricted to accent areas of high aesthetic value and is conditional to a compliant Water Efficient Landscape Worksheet. Refer to Section 6. Landscape Documentation Package Requirements.



Consider the solar orientation for plant placement to maximize summer shade and winter solar gain.

Landscaping shall be designed toward a goal of providing a pleasing and safe vehicular and pedestrian experience.

Where proposed development adjoins existing landscapes, the new plant material and layout should coordinate or compliment adjacent projects.

Low impact development features are to be incorporated to support the stormwater design approach. Retention or biofiltration basins, vegetated swales, and pervious pavement that increase on-site water retention are to be shown and coordinated on the landscape plan. LID features are part of the Water Quality Management Plan and will be reviewed and approved by Public Works/Engineering.

Projects within fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required pursuant to Public Resources Code Section 4291(a) and (b). Avoid fire-prone plant materials (refer to Appendix for restricted plant list) and highly flammable mulches.

Where decorative water features such as pools, ponds or waterfalls are used in landscaped areas, such features shall incorporate the recycling of water and where available, use of reclaimed water. Decorative water features shall be designed to minimize water loss.

Landscape surrounding pool enclosures shall adhere to the restrictions outlined in the California Health and Safety Code, Article 2.5. The Swimming Pool Safety Act.

The architectural guidelines of a common interest development, which include community apartment projects, condominiums, planned developments and stock cooperatives, shall not prohibit, or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

The property owner shall be responsible for the maintenance of all landscaping, including parkways. The maintenance shall include, but is not limited to, watering, pruning, fertilizing, and replacing deteriorated plant materials.

If a portion of a project is to be developed in a future phase(s), these areas must be temporarily landscaped and irrigated. Specify drought-tolerant groundcovers and shrubs that complement the rest of the project's landscape.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

7.1.2 Planting Requirements and Restrictions

All new and rehabilitated landscape projects shall comply with the following landscape requirements.

Site areas not utilized for vehicular and pedestrian access, shall be landscaped with disease and pest resistant plant material that consists of trees, shrubs, and groundcover. Low water use plant material shall be used in at least 50 percent of the total planted area.

Invasive plant species are to be avoided, especially near parks, open space areas, greenbelts, and water bodies or water ways due to the potential to cause harm to environmentally sensitive areas. Visit cal-ipc.org for plants to avoid, as well their Don't Plant a Pest substitution list.



Trees and shrubs shall be planted in a manner that protects the basic rights of adjacent property owners.



Decorative landscape material, such as exposed mulch, rocks, or decomposed granite may be used but is to be an integral landscape design element and shall be limited to a maximum of 20 percent of the landscape area.

A minimum 3 inch layer of wood bark mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers or direct seeding applications where mulch is contraindicated. For low growing groundcovers, a 1 ½ inch layer shall be applied. The mulch shall not be treated with dyes or harmful preservatives.

To the greatest extent possible, planter areas are to be a minimum of 5 feet wide. Undersized planter widths will be considered for projects with site constraints but is subject to the approval of Planning Director.

Provide plant material with varying characteristics to avoid monocultural landscapes. Carefully select plants for their diverse use and benefits such as screening, background and accent planting, color, form, etc.

Screening plant material shall be used for utilities, fences, site walls, trash enclosures, and unadorned structure walls.

Trees and shrubs shall be planted so that at maturity they do not require trimming to keep growth to a restricted height or width. This particularly applies for traffic safety sight areas such as, street corners, project entries, drive aisles, and parking lot island planters where maximum plant height shall be limited to 30 inches.



Landscape screening that consists of a variety of plants that are allowed to grow to their natural form.

Project entries and corner landscaping (i.e., for residential communities, commercial centers, etc.) should include enhanced design elements that reflect the character of the proposed development. Design elements may include, but are not limited to, low decorative walls, signage, lighting, specimen trees (48" box container size and larger), upsized accent plants, or water features. Any built features shall be outside of the City's right-of-way and anything over 30 inches in height is to be outside of traffic safety sight areas.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

For projects that allow turf, the maximum area permitted shall be 30 percent of the total landscaped area of the site. Higher percentages may be permitted when turf is an essential part of the development such as playing fields for schools or parks. Turf usage shall only be permitted for functional use areas and shall utilize warm season varieties over cold season varieties.

Turf shall not be permitted in areas difficult to irrigate, areas adjacent to walls, narrow planters less than 10 feet wide, medians, parkways, or parking lot islands to avoid runoff or overspray.

Turf is not allowed on slopes steeper than 25 percent where the toe of the slope is adjacent to an impermeable hardscape. A 25 percent slope or 4:1 slope means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).

Any proposed hydroseeded applications are subject to the review and approval of the Planning Director and/or the City's Landscape Consultant during construction plan review. Hydroseed information shall include square footage, seed mix, rate, purity, germination, fertilization, binder, and mulch components.

Plant material for vegetated swales or bio-filtration basins shall be carefully selected for both dry and wet conditions and provide slope stabilization where necessary.

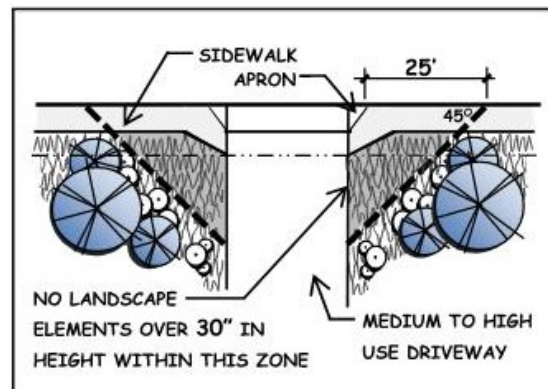


In general, corner and commercial driveway traffic safety sight areas are within a triangular zone drawn from two points that are measured 25 feet in both directions from the beginning of curve or driveway apron. Refer to Sight Distance Triangle illustrations at right. For private driveways, the two points are measured 15'.

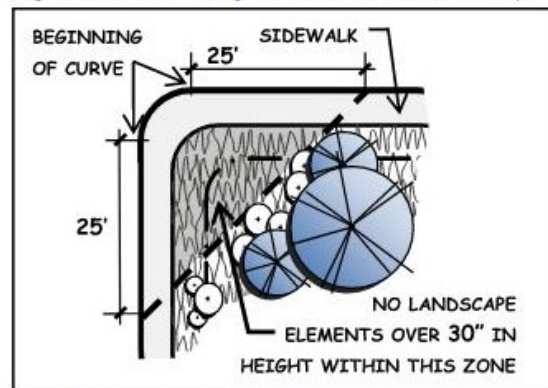
The following minimum distances are required from the center of trees:

- 10 feet from light standards and power poles
- 5 feet from property lines, fire hydrants, water or sewer lines, water meters, backflow prevention systems, and sewer cleanouts

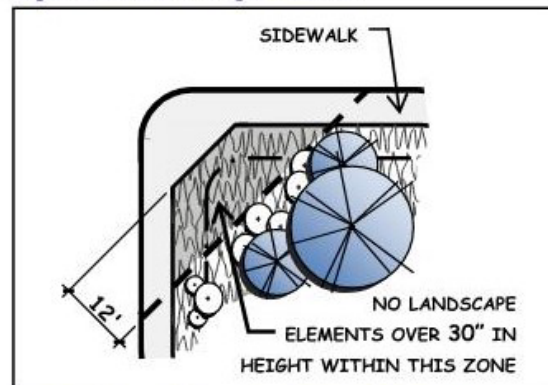
Fire apparatus access roads shall be shown on planting plan. Trees are to be located so that mature canopies do not encroach into access road clear zone.



Sight Distance Triangle - Commercial Driveways



Sight Distance Triangle - Corner



Sight Distance Triangle - Corner Alternate

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Trees planted within 6 feet of hardscape improvements, including but not limited to streets, public sidewalks, or trails (regardless of surface material), shall be separated from those surfaces by a linear root barrier to promote deep rooting and prevent physical disruption or damage.



Costly and injurious damage to both hardscape and tree may occur without the proper installation of tree root barriers.

Root barriers shall be installed adjacent and parallel to hardscape elements, not encircling root balls. Root barriers are to be 24 inches deep and a minimum of 16 feet long centered on tree trunk, with increased length depending on tree species.



Tree root barrier at parking lot planter

Trees that impact the City's right-of-way shall also conform to the current version of the City of Wildomar's Standard Plans and Specifications for Public Improvements (Road Standards) on file with the Public Works/Engineering Department.

For all 3:1 slopes or steeper that are 3' or more in vertical height, low growing and low water use groundcovers are to be selected that provide a protective soil covering and stabilizing root system. The groundcover container size and on center spacing shall allow a solid cover within 2 years of installation.

For slopes 8' or more in vertical height, shrubs and trees shall be added at the following minimum rates:

- One shrub per 100 square feet, that consists of 60% 1-gallon and 40% 5-gallon
- One 15 gallon tree per 700 square feet
- Only the slope area over 8' in height is to be used with the above rates to calculate the tree and shrub quantities.
 - For example, if the slope area over 8' in height is 3,500 s.f., this would result in a minimum of (21) 1 gallon shrubs, (14) 5 gallon shrubs and (5) 15 gallon trees.
- Distribute required trees, shrubs, and groundcover over the entire slope area.



CITY OF WILDOMAR Landscape Design Standards and Guidelines

7.1.3 Parking Lot Landscape

Parking lot design and minimum landscaping requirements shall be in accordance with Wildomar Municipal Code Chapter 17.188 Off-Street Parking. Only general guidance is listed below, refer the code chapter for more comprehensive requirements.



- All landscaping shall be separated from parking areas by means of a raised six inch concrete curb. Curb cuts that allow site drainage to enter landscape areas and other low impact development features are encouraged. Refer to Section 7.1.8 Stormwater Management and Rainwater Retention for additional information.



Retention for additional

- A landscape planter with a minimum width of 5 feet shall be provided between any parking area and abutting street right-of-way to screen vehicles with a combination of evergreen plants, berms, raised planters, or solid walls. All screening elements to be between 36 and 48 inches tall.
- Where parking spaces are adjacent to planter areas, provide concrete step-out strips or widened curbs to allow drivers and passengers to safely exit parked vehicles.
- Landscape fingers are required at the ends of parking rows, as well as within the rows to limit to approximately 10 to 12 consecutive parking spaces.
- A percentage of the total parking space area shall be shaded by broad canopy trees to promote energy conservation and reduce heat island effect, refer to Chapter 17.188.070, E. Shading Plan Requirements. This requirement is to be illustrated on the planting plan with tree diameters drawn at 15 year growth.
- Broad canopy shade trees shall be provided for every three parking spaces. The use of square tree planters at double-loaded rows and diamond tree planters where sidewalks are directly adjacent to head of parking rows are to be used to provide shade throughout the parking area. Triangular 'bump-out' shall be used for unavoidably narrow planters.
 - Planting area for trees to be a minimum of 25 square feet.
 - Trees shall be a minimum of 15 gallon containers, although it is preferred to have parking lot trees installed from 24" boxes.



7.1.4 Existing and Protected Trees

The design of each project shall recognize the desirability of preserving existing and protected trees to the greatest extent feasible.

The following criteria is to be used to determine if an existing tree is a protected tree:

The Diameter at Standard Height (DSH) is to be used to include or exclude a protected tree from evaluation. DSH means the diameter of the main trunk measured at 4.5 feet above natural grade: diameter = trunk circumference divided by 3.14

Mature native oak tree with a DSH of 4.0 inches or more, including, but not limited to, California or Coast

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Live Oak (*Quercus agrifolia*), Coastal Sage Scrub Oak (*Quercus dumosa*), Engelmann Oak (*Quercus engelmannii*), Scrub Oak (*Quercus berberidfolia*), and the Valley Oak (*Quercus lobata*).

Mature native tree with a DSH of 4.0 inches or more, including but not limited to, the California Sycamore (*Platanus racemosa*), Western Cottonwood (*Populus fremontii*), California Bay Laurel (*Umbellularia California*), and California Black Walnut (*Juglans California*).

Mature tree, other than native oak or native tree, with a DSH of 9.5 inches or more.

Historically significant tree as designated by resolution of the City council.

Any tree required to be planted or preserved as environmental mitigation or condition of approval.

A protected tree shall not be cut down, removed, relocated, or otherwise destroyed without first obtaining the approval of the Planning Director. The director may require a tree report prepared by an arborist, horticulturist, or registered landscape architect.

A tree report shall identify and locate each protected tree by a unique number and list common name, botanical name, DSH, tree canopy diameter, and rating for health and aesthetic quality. The report will also note those trees to be preserved in place and those proposed for removal listing supporting evidence.

If a protected tree is approved for removal, the tree(s) shall be replaced at a 1:1 ratio with a container size to the satisfaction of the director.

Replacements for native oak trees or native trees shall be of the same species as those removed or a species acceptable to the director. Mature tree replacements shall be limited to drought tolerate, fire-resistive tree species.

Detailed tree protection specifications shall be included on the landscape plan. The engineering plans shall note protected tree locations and reference the protection specifications on the landscape plans.

7.1.5 Artificial Turf

The use of artificial turf is discouraged. Its use and location is subject to the review and approval of the Planning Director and/or Landscape Consultant. It is not to be used in areas highly visible from public streets, such as front yards, commercial developments, or as part of the project's perimeter landscape.

If artificial turf is found to be an appropriate substitute for living groundcover or turf, the combined square footage of artificial and living turf shall not exceed 30% of the required minimum landscape.

Artificial turf shall not be included as part of the landscape area when calculating the MAWA.

The quantity and quality of artificial turf will be evaluated on a case by case basis, and shall at a minimum:

- Consist of life-like individual blades of grass with varying lengths and color that emulate real grass.
- Have a proper drainage system installed underneath the area to prevent excess runoff or pooling of water.
- Be installed and maintained, per manufacturer's recommendations, to effectively simulate the appearance of a well-maintained lawn.
- Not be indoor or outdoor plastic or nylon carpeting
- Be installed in combination with natural plant materials (i.e., trees, shrubs, and groundcover) to soften or mask its use.



CITY OF WILDOMAR Landscape Design Standards and Guidelines

7.1.6 Water Features



Decorative water features such as pools, spas, ponds, waterfalls, or fountains shall be designed to minimize water loss and to use recirculating water systems.

Where available, recycled water shall be used as a source for decorative water features.

Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.

7.1.7 Mulch and Amendments

A minimum 3 inch layer of wood bark mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers or direct seeding applications where mulch is contraindicated. For low growing groundcovers, a 1 ½ inch layer shall be applied.

Stabilizing mulching products shall be used on slopes. Fire resistive mulching products shall be used in fire-prone areas.

The mulching portion of the seed/mulch slurry in hydro-seeded applications shall meet the mulching requirement.

Soil amendments shall be incorporated according to recommendations of the soil management report and appropriately applied for each type of plant in the landscape.

Compacted soil should be ripped or scarified to a minimum depth of 12 inches.

All planted landscape areas are required to have friable soil to maximize water retention and infiltration.

7.1.8 Stormwater Management and Rainwater Retention

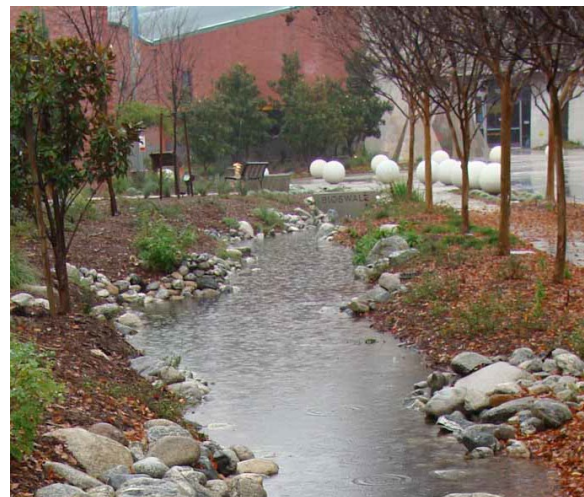
Stormwater management practices minimize runoff and increase infiltration which recharges groundwater and improves water quality.

Stormwater best management practices are to be implemented into the landscape and grading design plans to minimize runoff and to increase on-site rainwater retention and infiltration.

Plant material for vegetated swales or bio-filtration basins shall be carefully selected for both dry and wet conditions and provide slope stabilization where necessary.

Stormwater best management elements are to be part of the Water Quality Management Plan and will be reviewed and approved by Public Works/Engineering.

Project applicants shall refer to the Regional Water Quality Control Board for information on any applicable stormwater technical requirements.



Bioretention features minimize onsite runoff while adding to the interest and beauty of the landscape

7.2 Irrigation Standards

This section applies to all landscaped areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period. For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations. Also refer to Elsinore Valley Municipal Water District's website for additional irrigation guidelines, resources, and valuable incentive programs.

The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance.

7.2.1 Irrigation Principals and Requirements

An irrigation design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

Landscape water meters, defined as either a dedicated water service meter or private submeter, shall be installed for all non-residential irrigated landscapes of 1,000 sq. ft. and residential irrigated landscaped of 5,000 sq. ft. or greater. A landscape water meter may be either:

- a customer service meter dedicated to landscape use provided by the local water purveyor; or
- a privately owned meter or submeter.

Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data and equipped with a non-volatile memory shall be required for irrigation scheduling in all irrigation systems.



Include all support equipment that qualifies the irrigation controller as "smart"

If the water pressure exceeds the recommended pressure of the specified irrigation devices, the installation of a pressure regulating device is required to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.

If the static pressure is below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps or other devices shall be installed to meet the required dynamic pressure of the irrigation system.

Static water pressure, dynamic or operating pressure and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted during installation.



Sensor automatically adjusts controller daily run times based on local climate conditions to reduce water usage

Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.

Manual shut-off valves (such as a gate valve, ball valve or butterfly valve) shall be required, as close as possible to the point of connection of the water supply, at street crossings, and at branching mainline segments to minimize water loss in case of an emergency (such as a main line break) or routine repair.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system.

Flow sensors that detect high flow conditions created by system damage or malfunction are required for all non-residential landscapes and residential landscapes of 5,000 sq. ft. or larger.

Master shut-off valves are required on all projects. The master valve shall be installed at the main water supply for the irrigation system and be connected to the automatic controller. A master valve is not required when the irrigation equipment makes use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.

The irrigation system shall be designed and maintained to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.



Wasteful overspray due to poor irrigation design and maintenance

Soil type and infiltration rate from the soil analysis and recommendations report shall be considered in designing the irrigation systems and clearly noted on the irrigation plan near valve programming data table or controller chart.

The design of the irrigation system shall conform to the hydrozones of the planting design plan.

The irrigation system must be designed and installed to meet, at a minimum, the calculated Maximum Applied Water Allowance. It is strongly encouraged that the irrigation system is designed to be far less than the calculated maximum allowance.

All irrigation emission devices must meet the requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard", All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

It is highly recommended that the project applicant obtains peak water operating demands (on the water supply system) or any water restrictions from the local water purveyor that may impact the effectiveness of the irrigation system.

In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone. Subsurface dripline is preferred for all applications but is required where the planter is near pedestrian traffic. Subsurface irrigation shall also be used in planter areas that are less than ten (10) feet in width to not have runoff or overspray.

Irrigation heads and other emission devices operating from the same control valve shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.



Runoff and soil erosion caused by broken irrigation equipment



On-surface dripline installed in typical grid layout provides low volume irrigation to plants without overspray

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Irrigation devices shall provide head to head coverage. To achieve the required coverage, triangular spacing of irrigation devices is recommended. However, irrigation device spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of turf grass.

Check valves or anti-drain valves are required on irrigation devices where low point drainage could occur.

Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:



- The landscape area is adjacent to permeable surfacing and no runoff occurs.
- The adjacent non-permeable surfaces are designed and constructed to drain entirely to an adjacent landscape area.
- The irrigation designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates strict adherence to irrigation system design criteria as outlined in these guidelines. Prevention of overspray and runoff must be confirmed during the irrigation audit.

Slopes steeper than 25 percent shall not be irrigated with an irrigation system with an application rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the irrigation audit.

All landscaped areas shall be provided with an automatic irrigation system, unless the Planning Director finds that such an irrigation system, due to the size, location, or configuration of the landscaped area, cannot be reasonably installed and maintained.

7.2.2 Hydrozone

Each control valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions and plant materials with similar water use.

Irrigation heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.

Where feasible, trees shall be irrigated from control valves separate from shrubs, groundcovers, and turf to apply the required amount of water to tree hydrozones. The mature size and extent of the root zone shall be considered when designing irrigation for trees.

Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use may be allowed. The plant factor of the higher water using plant shall be used for calculations.

Individual hydrozones that mix high and low water use plants shall not be permitted.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Special Landscape Areas (SLA) consist of landscape areas irrigated by reclaimed water, edible landscape areas, or recreational turf fields.

Temporarily irrigated areas shall be included in the low water use hydrozone. Temporarily irrigated as used in these guidelines means the period of time when plantings only receive water until they become established.

On the planting design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the hydrozone information table which is required in the Water Efficient Landscape Worksheet. This table can also assist with the irrigation audit and programming the controller.

- Irrigation systems shall be designed to provide the optimum amount of water to the landscape for plant growth without causing soil erosion and runoff.
- Irrigation plans shall promote the industry standard for public safety in all aspects of the irrigation system.
- Stormwater best management practices, such as infiltration areas and rain harvesting technologies are encouraged for on-site retention and infiltration of storm water.

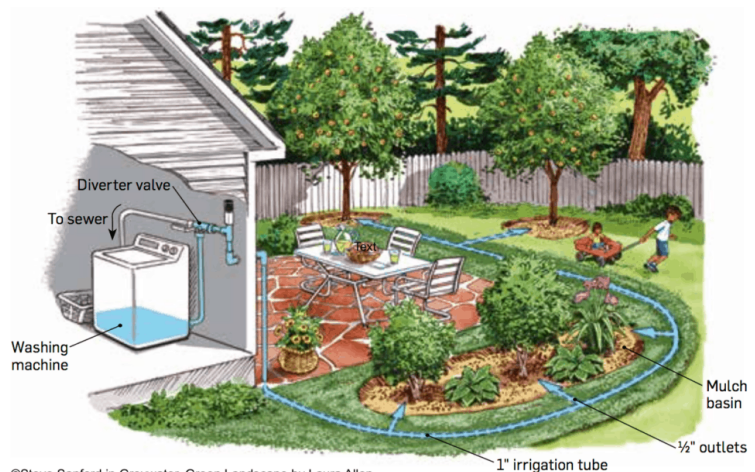
7.2.3 Recycled Water



- The design and installation of recycled water irrigation systems shall allow for the current and future use of recycled water.
- Landscapes using recycled water shall have purple signs identifying and promoting recycled water usage.
- All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and State laws. Refer to Elsinore Valley Municipal Water District website for design and installation standards and requirements.
- Landscapes using recycled water are considered Special Landscape Areas. The ET Adjustment Factor for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.

7.2.4 Graywater Systems

- Greywater reuse offers substantial water savings and is a consistent source of water for dry areas.
- Any proposed graywater systems shall conform to the current California Plumbing Code and any applicable City standards.



©Steve Sanford in Greywater, Green Landscape by Laura Allen

Example of a common greywater system that can be easily installed during home construction or after by professional contractor or homeowner.

7.3 Landscape Maintenance

Landscaping and a permanent irrigation system shall be maintained in all areas visible to the public as follows:

- All landscaped areas shall be kept and maintained in a manner that does not detract from the appearance of the immediate neighborhood, and that protects the health, safety and welfare of the user, occupants, and the public.
- All landscaped areas shall be kept and maintained in a neat and clean condition, free of weeds, debris, litter, dead, diseased, or dying vegetation and broken or defective decorative elements.
- Vegetation in landscaped areas shall be mowed, groomed, trimmed, pruned, and watered to maintain a healthy, growing condition.
- Vegetative overgrowth shall not be permitted in a manner that is likely to harbor rodents, vermin, insects, or other nuisances; or impedes, obstructs, or denies pedestrian or other lawful travel on sidewalks, walkways, or other public rights-of-way.
- Irrigation systems shall be kept in good working condition and repair to prevent leaks or public health hazards.



Good example of maintaining landscape growth off of pedestrian pathways. However, it is also a good example of why it is important to choose plants with a suitable mature growth to avoid the need for maintenance.



Irrigation monitoring and repair from meter through to drip emitter is vital to maintaining water conservation and plant health.

- All property owners shall water, prune, weed and otherwise maintain landscaping in the parkway portions of adjoining streets, including street trees.
- Parkway landscaping shall be maintained by the abutting property owner unless otherwise designated by the City.

7.4 Landscape Standards by Land Use

Refer to Wildomar Municipal Code Title 17 (Zoning) for additional regulations, setback requirements, development standards, and design guidelines for specific land use zones.

7.5 Residential Landscape Standards

In addition to the City's Single Family Residential Design Standards and Guidelines, City's Multi-Family Residential Objective Design Standards, and Section 7.1 Landscape Standards provided above, the following standards shall apply to residential projects:

7.5.1 Single Family Residential

Plant selection, container size and spacing shall be specified to achieve a filled in landscape within 2 years of installation and to allow sustained growth of planting materials.

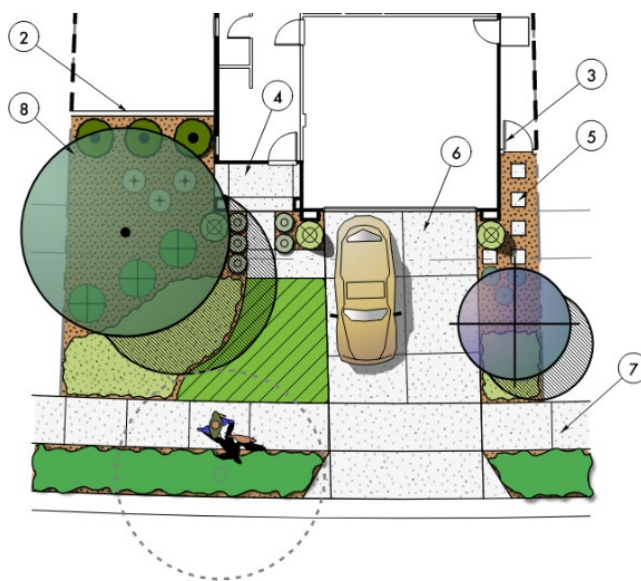
Total turf area is dependent on gaining a compliant water efficient landscape worksheet but shall be restricted to a maximum of 30% warm season turf varieties. No-mow turf alternative grasses that use less water are encouraged and can be installed from sod, plugs or containers depending on availability and industry recommendations.



Turf alternatives, at left *Bouteloua gracilis* (mowed) and above *Carex praegracilis*

Groundcovers are to be installed from a minimum of 1 gallon containers. Flatted groundcover material will be considered for approval with a maximum on-center spacing of 12 to 24 inches (depending on mature width and growth rate).

In general, shrubs shall be installed from a minimum of 5 gallon containers. For screening or a more immediate filled in appearance, 15 gallon shrubs are recommended and may be required.



Each standard width lot to have a minimum of three front yard streets. One of the three trees is to be a 15 gallon minimum street tree. The two remaining trees to be placed within the front yard area and shall consist of (1) 15 gallon tree and (1) 24 inch box tree. Corner lots shall have 15 gallon trees installed, on average, every 30 feet. Exact spacing dependent on tree variety and canopy width. Larger container sizes and/or additional trees may be required, or fewer trees may be allowed dependent on the lot width. Refer to Section 7.7 Street Tree and Right-of-Way Landscape Standards for additional requirements.

Decorative landscape material, such as exposed mulch, rocks, or decomposed granite may be used but is to be an integral landscape design element and shall be limited to a maximum of 20 percent of the landscape area. Loose rocks or boulders shall not be used within the public right-of-way unless grouted in place.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

In addition to the single family residential landscape standards, model home complex landscaping shall mainly consist of low water use shrubs and limit moderate water use plant materials or turf to 25% of the total lot area. Displayed information at the sales office and signs placed at each lot shall identify the water conserving aspects of the landscape design (low water use or native plant material, efficient irrigation methods, hydrozoning, rainwater retention systems, graywater systems, etc.). Signs shall be easily viewed from the roadway and main walkway into the model.

7.5.2 Multi-Family Residential

Minimum Required Outdoor Recreational-Leisure Areas (RLA)

For additional information and context refer to City's Multi-Family Residential Objective Design Standards.

Outdoor Recreational-Leisure Areas may consist of private areas, common areas, or a combination of both and shall be provided at a rate of 400 square feet per dwelling unit.

Minimum Dimensions (in either direction)

- Private areas - 7 feet
- Common areas - 20 feet
- Pedestrian walkway width - 6 feet
- Courtyard internal to a project, or enclosed on at least three sides - 40 feet

Depending on the number of dwelling units, common outdoor recreational-leisure areas shall be provided to meet the following criteria per dwelling unit:

- 10 to 50 dwelling units - minimum of 1 space at least 400 square feet total
- 51 to 100 dwelling units - minimum of 1 space at least 900 square feet total
- Over 100 dwelling units - minimum of 2 spaces of approximately of the same size, totaling 3,200 square feet

All common recreational-leisure areas shall be improved as either active (child play areas, pools, recreation facilities, etc.) or passive facilities (gardens, barbeque facilities, seating areas, etc.) with landscaping or hardscape elements designed to serve the residents.

All common open spaces shall interface directly with adjacent buildings through doors, windows, and entryways. Visual and physical connections are to be provided through enriched decorative pavements and signage.

Site elements such as benches, pots, waste receptacles, drinking fountains, site lighting, and water features are to be selected to complement the architectural theme.

No more than 25 percent of common recreational-leisure area can be hardscape.



CITY OF WILDOMAR Landscape Design Standards and Guidelines

Plant Material and Installation Standards

Plant selection, container size and spacing shall be specified to achieve a filled in landscape within 2 years of installation and to allow sustained growth of planting materials.

Turf shall be installed from sod. Lawn alternative grasses (mowed or no-mow) that use less water are encouraged and can be installed from sod, plugs or containers depending on availability and industry recommendations. Hydroseed applications may be considered but are subject to the review and approval of the Planning Director.

Groundcovers are to be installed from a minimum of 1 gallon containers. Flatted groundcover material shall be considered for approval with a maximum on-center spacing of 12 to 24 inches (depending on mature width and growth rate).

In general, shrubs shall be installed from a minimum of 5 gallon containers. For screening or a more immediate filled in appearance, 15 gallon shrubs are recommended and may be required.

Trees to be installed at a rate of one every 30 feet of building frontage with 15 gallon trees, minimum. Exact tree spacing dependent on tree variety, canopy width, and utilities. Larger container sizes and/or additional trees may be required. Refer to Section 7.7 Street Tree and Right-of-Way Landscape Standards for additional requirements.

The minimum container size for interior lot trees shall be 15 gallon. Tree sizes are to meet the following percentages, 24 inch box (or larger) at a minimum of 35% and 15 gallon at a maximum of 65% of the total trees.

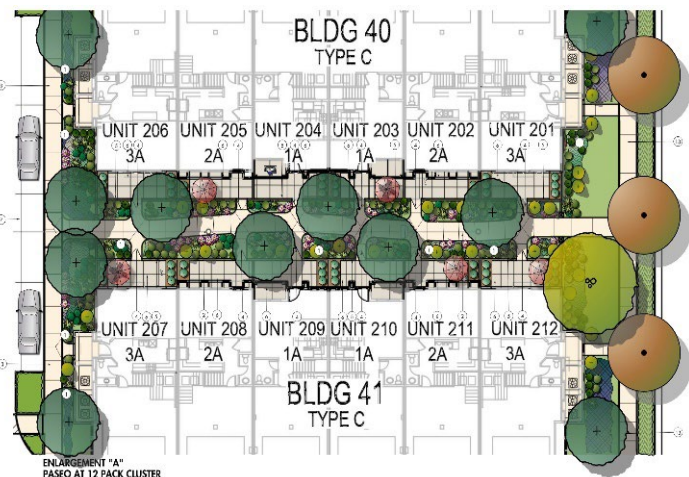


Illustration showing larger specimen tree at focal point, with maximized exterior, interior, and street tree quantities.



Example of planting for a narrow space that provides interest through variety.

Mature specimen trees in 36 and 48 inch boxes shall be provided for larger or prominent projects in sufficient quantity, subject to the approval of the director, to provide variety and emphasis at entries and main focal areas.

Tall narrow trees or small patio trees (both with restricted mature width) shall be used where larger canopy trees would interfere with buildings, signage, lighting, or fire equipment access.

Small scale landscaping at sidewalk edges is to be provided to allow unobstructed pedestrian traffic and to minimize plant maintenance and waste.

Background screening shrubs are to be provided at building foundations to soften the appearance of tall unadorned walls.

Parking lot landscaping shall be pursuant to Chapter 17.188 Off-Street Parking and Section 7.1.3 Parking Lot Landscape above.

7.6 Non-Residential Landscape Standards

In addition to Section 7.1 Landscape Standards provided above, the following non-residential standards shall apply to all new and rehabilitated landscaping plans undertaken in conjunction with any private development project on commercial, industrial, mixed-use, and other nonresidential properties, or those projects requiring a grading, building, use permit, or design review.

Plant Material and Installation Standards

Plant selection, container size and spacing shall be specified to achieve an immediate effect of a filled in landscape and to allow sustained growth of planting materials.

Groundcovers are to be installed from a minimum of 1 gallon containers. Flatted groundcover material shall be considered for approval with a maximum on-center spacing of 12 to 24 inches (depending on mature width and growth rate). Turf is not allowed for non-residential projects unless it provides a functional purpose vital to the project.

In general, shrubs shall be installed from a minimum of 5 gallon containers. For screening or a more immediate filled in appearance, 15 gallon shrubs are recommended and may be required.

Street trees to be installed at a rate of one every 30 feet of building frontage with 15 gallon trees, minimum. Exact tree spacing dependent on tree variety and canopy width. Larger container sizes and/or additional trees may be required. Refer to Section 7.7 Street Tree and Right-of-Way Landscape Standards for additional requirements.



The minimum container size for interior lot trees shall be 15 gallon. Tree sizes are to meet the following percentages, 24 inch box (or larger) at a minimum of 35% and 15 gallon at a maximum of 65% of the total trees.

Mature specimen trees in 36 and 48 inch boxes shall be provided for larger or prominent projects in sufficient quantity, subject to the approval of the director, to provide variety and emphasis at entries main focal areas.

Tall narrow trees or small patio trees (both with restricted mature width) shall be used where larger canopy trees would interfere with buildings, signage, lighting, or fire equipment access.



Small scale landscaping at sidewalk edges is to be provided to allow unobstructed pedestrian traffic and to minimize plant maintenance and waste.

Background screening shrubs are to be provided at building foundations to soften the appearance of tall unadorned walls.

Parking lot landscaping shall be pursuant to Chapter 17.188 Off-Street Parking and Section 7.1.3 Parking Lot Landscape above.

7.7 Street Tree and Right-of-Way Landscape Standards

Street trees and Right-of-Way landscape integrate new development into existing neighborhoods, visually buffer busy streets and enhance the visual qualities and experience of streetscapes. It is the intent of the City of Wildomar to promote the planting and long-term maintenance of street trees.

General Requirements

All right-of-way landscaping shall conform to the current version of the City of Wildomar's Standard Plans and Specifications for Public Improvements (Road Standards) on file with the Public Works/Engineering Department. These Road Standards may include more stringent or updated requirements. Where there appears to be conflicting guidelines for right-of-way landscaping between this plan and the Road Standards, the apparent conflict shall be brought to the attention of the City for review and decision regarding which standard(s) shall govern.

Planting of street and parkway trees shall be in accordance with these guidelines, all appropriate City ordinances, and standard Conditions of Approval.

New street tree planting in older and developed areas of the City shall be compatible with plantings that currently exist. New street trees shall match with tree planting in adjacent existing residential and commercial developments. If it is not possible to match due to site constraints, a coordinating tree variety is to be selected.

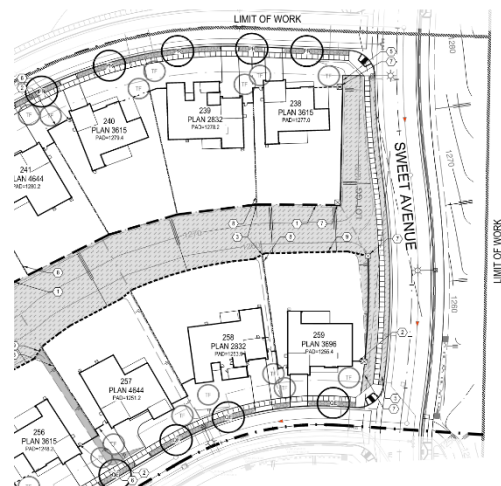
Street tree planting in new developments shall generally require a theme tree for each street. There should be a variety of tree types in neighborhoods to reduce potential for disease and pest problems.

Minimum acceptable size of street and parkway trees shall be 15 gallon container size, unless larger tree container sizes are required by Conditions of Approval or as determined by the City during the landscape plan review process. A variety of container sizes are appropriate for larger parkways and projects.

Spacing of street trees shall be 30 feet on center (average), and as appropriate to selected species. Exceptions to the requirement shall be determined by the City of Wildomar Public Works/Engineering Department.

Street trees shall be planted in City-held or utility easements, only on approval by the Public Works/Engineering Department, and appropriate utility companies.

- Street trees are required by the City as a condition of approval for development. Property owners/developers may be required to obtain from the City a Right-of-Way Permit or Encroachment Maintenance and Removal Agreement as determined by the Public Works/Engineering Department prior to the construction of any private improvements, including installation of required street trees, in the public rights-of-way and City-held easements.



For residential developments, an overall street tree plan will identify the tree species for each street, as well as the placement of front yard trees for each lot.

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Street trees in residential tracts shall be planted prior to issuance of occupancy permits.

- Front yards: Street trees in front yards shall be planted at the rate of three (3) trees minimum per residential lot. Two trees shall be planted on property, and one tree planted in the right-of-way (three trees are to be planted on property if there is insufficient space in the right-of-way).
- Required front yards trees, whether planted on property or in the right-of-way, shall be maintained by the individual property owner or Homeowner's Association.

Tree wells shall have an interior planting area of 25 square feet, minimum. ADA approved tree grates are to be used when well area is within pedestrian path of travel or at the City's direction.

Plant Placement and Location

Plant materials (natural mature height) and landscape improvements (boulders, fencing, walls, etc.) over 30 inches in height at street corners, in public rights-of-way, and CFD areas shall not be placed within landscape restricted zones per Sight Distance Triangle statement and illustration in Section 7.1.2.

Turf grasses (lawn) shall not be planted in right-of-way.

Trees shall be located and maintained to preserve clearance zones of at least ten feet from streetlights, fire hydrants, utility poles/meters and cable TV boxes, and backs of street and directional signs to tree trunks.

- Trees shall be planted a minimum of five feet horizontally from trunk to edge of underground utilities (verify clearances with utility companies).
- Tree placement shall be carefully determined to avoid limiting visibility of traffic control signals and signs.
- Comply with local utility companies' requirements for vegetative management and clearances in utility easements and adjacent to utility structures/facilities. The more restrictive requirements (City or utility) shall apply.

The following minimum clearances shall be observed when planting:

- Trees: 30 inches from back-of-curb and edge of sidewalk to trunk.
- Shrubs: three inches from back-of-curb and edge of sidewalk to outer spread of mature growth.

Trees planted within 6 feet of hardscape improvements, including but not limited to streets, public sidewalks, or trails (regardless of surface material), shall be separated from those surfaces by a linear root barrier to promote deep rooting and prevent physical disruption or damage. Root barriers shall be installed adjacent and parallel to hardscape elements, not encircling root balls. Root barriers are to be 24 inches deep and a minimum of 16 feet long centered on tree trunk, with increased length depending on tree species.

Plant Material Selection

Street and parkway tree species shall be approved by Public Works/Engineering Department.

Parkway widths and distance from hardscape elements shall be evaluated when selecting tree species. The related mature growth of roots, trunk, and canopy shall be appropriate for these restricted situations.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Plant material selected for installation in rights-of-way and CFD-maintained areas shall have the following characteristics:

- trees shall be deep-rooting (no major surface roots)
- require minimal maintenance
- relatively free of diseases and pests
- low to moderate water requirements

Trees beneath overhead utility lines to have mature canopies less than height of wires and shall be approved by the utility companies prior to planting. Generally, restrict height to twenty feet maximum.



Plant Material Installation

Trees and other plant material shall be installed in accordance with Section 8.4 Landscape Maintenance.



Required front and street side yard setbacks along streets and major roads (excluding sidewalks and driveway) shall be landscaped.

Areas not planted with groundcover or paved shall be covered with mulch at 3-inch depth minimum.

Trees planted in paved areas shall have adequate space for root growth through maturity. Planting area of 25 square feet minimum shall be provided for each tree.

Tree grates and trunk guards shall be utilized in paved areas with pedestrian traffic.

Plant Material Maintenance

Trees and shrubs shall be pruned to avoid blocking walks, building entries, windows, etc.

Mature trees shall be maintained to create the following minimum vertical clearances between sidewalks and streets, and lowest lateral branches.

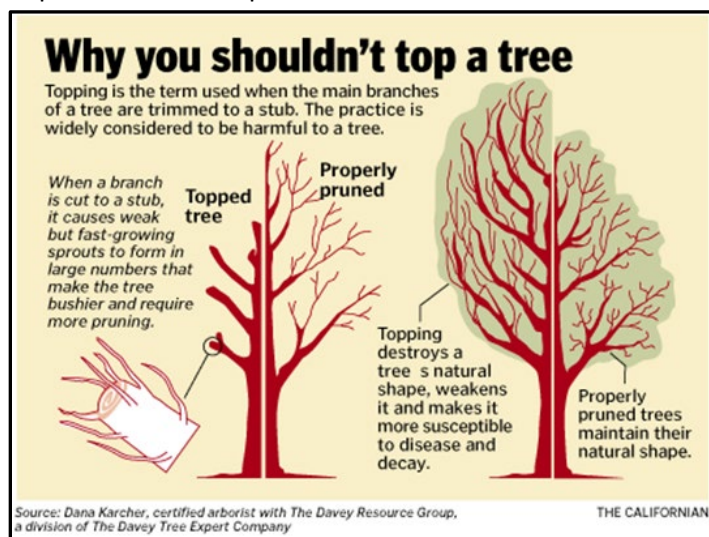
- eight (8) feet above sidewalks
- thirteen feet, six inches (13'-6") above streets

Trees shall not be topped. Tree pruning shall be in accordance with ANSI A300, and other currently adopted, arboricultural industry standards.

Shrubs to be maintained three inches from edge of sidewalks and back of curbs.

Planting areas shall be kept free of weeds and litter.

Property owners/HOA and developers shall permanently and fully maintain landscaped areas within adjacent public rights-of-way, which are not maintained by the City-wide CFD or L&LMD.



CITY OF WILDOMAR Landscape Design Standards and Guidelines

Irrigation Requirements

Street trees shall be irrigated with fully automatic systems utilizing low volume, low flow irrigation techniques and equipment such as bubblers, drip emitters, and drip tubing.

Drip or bubbler irrigation systems shall be installed in parkways.

Irrigation shall be scheduled and maintained to eliminate runoff onto sidewalks and pavement.

Additional irrigation requirements are outlined in Section 7 Landscape Design Standards and Guidelines and Section 8 Public Works Landscape Standards and Maintenance Requirements.

7.8 Public Projects

Projects that are maintain by the City's Community Facilities District (CFD) include, but are not limited to, parks, open spaces, medians, and selected rights of way.

Any project that includes landscape areas under the jurisdiction of any other public agency such as California Department of Transportation (Caltrans) or California



Department of Fish and Wildlife (CDFW), shall

coordinate submittal, permit, and requirement expectations with those public agencies, as well as the City.

Site and landscape design for all public projects shall be fully coordinated and reviewed in the very early stages of planning. Delays in early coordination is likely to have a negative impact on the applicant's time and financial resources.



Section 7. Landscape Design Standards and Guidelines and Section 8. Public Works Landscape Standards and Maintenance Requirements shall be applied to CFD projects. In the case of conflicts between the sections, the City shall determine which is to take precedence.

Automatic irrigation controllers shall be as manufactured by Calsense, unless otherwise approved by the City. Consultants shall provide a Calsense Design Memo from the manufacturer's representative prior to irrigation plan approval to verify that the controller assembly includes proper specifications to integrate into the City's central irrigation control system.

All CFD maintained areas shall have separate water and electrical meters and services unless otherwise approved by the City.

PVC sleeves are required for irrigation pipes and control wires when crossing public streets.

The County of Riverside's landscape standard details (landscape construction details) shall be utilized. Additional design standards, requirements, or restrictions may be implemented at City's direction.

Public projects shall be prepared on separate landscape plans with City's engineering title block.

Medians

Drip or bubbler irrigation (low volume) shall be utilized.

Planting areas shall be within 100 feet of quick coupling valves.

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Tree wells shall have an interior planting area of 25 square feet, minimum. ADA approved tree grates are to be used when well area is within pedestrian path of travel or at the City's direction.

Turf grasses (lawn) shall not be planted in medians.

Medians shall have 18-inch wide (minimum) maintenance walks adjacent to six-inch wide curbs around planting areas. Paving material shall be approved by the Engineering Department.



Medians that are five feet in width and less, shall receive enhanced paving only (no planting). Enhanced paving shall be concrete paving with special finish treatment, such as color, pattern, texture, or a combination thereof, to enhance appearance of paved areas.

Plant material in medians adjacent to turning lanes and left turn pockets, and other areas where sight distance is critical, shall be 24 inches and less in height (or enhanced paving as approved by the City).

8. PUBLIC WORKS LANDSCAPE STANDARDS AND MAINTENANCE REQUIREMENTS

This section outlines the requirements of the City of Wildomar for design and maintenance of landscapes created by new developments, the maintenance of which is financed through developer fees and assessments levied annually on property owners for Community Facilities District (CFD) improvements. These standards shall also apply to Engineering Department Capital Improvement Projects (CIP).

Comprehensive landscape plans for CFD areas shall be reviewed by the City and shall conform to requirements in this section related to workmanship, materials, and equipment in public rights-of-way and other City-dedicated areas of public works landscape improvement projects.

Plans shall be prepared in conjunction with final approved Grading Plans and Conditions of Approval. CFD plans shall be completed and approved prior to issuance of building permits.

The City may authorize extensions of time schedules relating to Preliminary CFD plans, comprehensive landscape plans, and completion of landscape improvements due to extenuating circumstances.

CFD/Public Works landscape maintenance requirements can be found in Section 8.4 Landscape Maintenance below.

- The required landscape maintenance and plant establishment period for CFD areas (excluding parks and capital improvement projects) shall be one year, unless noted otherwise. The warranty period for all CFD and public projects shall be one year from date of City acceptance.
- The Contractor shall continuously maintain landscaped areas within public rights-of-way and CFD areas during the progress of work and establishment period until final acceptance of work by the City.
- The City reserves the right to assume maintenance of projects at the Developers' or Contractors' expense during the establishment period. Developers and Contractors may also request, at their expense, that the City assume maintenance responsibilities of the project.

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Bonding for CFD Improvements

- Bonds are required by the City of Wildomar in accordance with the approved bonding estimate submitted with the landscape plans. CFDs include recreational trails, parks, landscaped rights-of-way, landscaped easements, median as well as water quality BMPs and open space areas that are considered public improvements. Cash deposits and certificates of credit may also be used to bond projects. Bonds shall be posted with the Engineering/Public Works Department. If the City Engineer determines that maintenance work is not being performed to standards established within this manual, then the maintenance period shall be extended. Bonds held against projects shall not be released until CFD areas are satisfactorily maintained in accordance with these requirements, and City Council acceptance of all landscape improvements.

8.1 Preliminary Landscape Plans

Preliminary plans for each new CFD project require the review and approval by the City. Refer to Section 5. Plan Submittal and Approval Process, Section 6. Landscape Documentation Package Requirements, Section 7. Landscape Design Standards and Guidelines, and Section 8. Public Works Landscape Standards and Maintenance Requirements for guidance on plan preparation and design considerations.

Preliminary landscape plans shall identify CFD project boundaries including CFD, utility and City held easements, street medians, City dedicated open space and rights of way, creeks, parks, and recreational trails.

Preliminary landscape plans shall identify areas to be landscaped and display the landscape treatment of the development or project.

Preliminary landscape plans shall be approved as a condition of tentative tract maps, conditional use permits, and other discretionary actions.

Preliminary landscape plans shall be approved as a condition of tentative tract maps, conditional use permits, and other discretionary actions.

8.2 Construction Landscape Plans

Construction landscape plans for each new CFD project require the review and approval by the City. Refer to Section 5. Plan Submittal and Approval Process, Section 6. Landscape Documentation Package Requirements, Section 7. Landscape Design Standards and Guidelines, and Section 8. Public Works Landscape Standards and Maintenance Requirements for guidance on plan preparation and design considerations.

Construction landscape plan shall be in substantial conformance with approved preliminary landscape plans.

CFD and CIP projects shall be prepared under a separate landscape package with City's title block. The County of Riverside's landscape details shall be applied and included on plans, unless otherwise directed by the City.

The Title Sheet shall note the square footage of the combined CFD area and shall also list the CFD areas by street or subsection.

8.3 Systems and Materials Requirements

All landscape construction materials and methods for public works/CFD projects in the City of Wildomar shall conform to the Standard Specifications for Public Works Construction (Greenbook), latest adopted edition including modifications and supplements.

8.4 Landscape Maintenance

Requirements for acceptance of CFD/public works landscape improvements are outlined in Section 8.5 Inspection and Acceptance of Improvements.

8.4.1 Objectives

The objectives of this section are general results to be specified by designers and achieved by Contractors in their methods of performing work. The purpose of these objectives is to allow Contractors to assist in interpreting requirements for long-term appearance of landscaped areas, and to ensure that design criteria and objectives established by the City are met. If specified methods are not adequate to meet general appearance requirements, or if additional work and special maintenance programs are required, Contractors shall adjust maintenance schedules accordingly, with approval of the City.

City of Wildomar has established the goal of CFD landscapes to visually unify various land uses, maintain high standards of quality for community appearance, lower urban temperatures, and reduce water used for landscape irrigation.

- The objective of these landscape plantings is to establish an informal, natural appearance. Pruning activities that create formal hedge and topiary effects shall be avoided. Lawns should be minimized and well groomed, and ground covers should be maintained to have sharply defined edges adjacent to hardscape improvements.
- Landscaped areas such as street median islands, and parkways and slopes adjacent to streets, trails, and sidewalks, shall have a well-maintained appearance. Trash, as well as dead branches, leaves and flowers, should be removed from plants and landscaped areas on a continuous and regular basis, with extra attention to the appearance of highly visible areas.
- Plant masses (except groundcovers) shall be allowed to develop informal edges adjacent to structures, masonry, and other landscape elements.
- In general, plant material in CFD landscaped areas shall be selected for low water use characteristics, with a gradual transition made from normal water use during the plant establishment period, to a reduced water use situation once established. This transition shall take place over a three-to-four-month period. Irrigate only as required to allow water penetration through soil to maximum rooting depth, avoiding any run-off. After plant material is established, water only to maintain healthy plant growth.

8.4.2 Scope of Work—CFD Maintenance

Contractor shall furnish labor, equipment, materials, tools, services, and special skills to perform complete landscape maintenance of CFD areas. Scope of work shall include, but not be limited to irrigation, pruning, shaping, trimming, and training of trees, shrubs and ground cover plants; tree surgery; fertilization; cultivation; weed control; control of plant diseases and pests; mowing, thatching, and aeration of lawns; sweeping; maintenance and repairs of trails, pathways, irrigation, and drainage systems, including natural

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drainage features; litter removal; removal of illegal dumping; plant replacement and other work required to maintain CFD and public landscaped areas in a safe, attractive, and usable condition. Plant material shall be maintained in healthy condition with horticulturally acceptable growth and color.

Maintenance standards in this manual shall apply to work of Developers and Contractors during the required maintenance period for CFD contract maintenance areas, City parks, and Capital Improvement Projects.

Contractor shall submit Maintenance Schedule Charts approved by the City. Schedule of maintenance operations shall include, but not be limited to, tree pruning; weed control; insecticide and herbicide application; fertilizer types and frequency of application; growth inhibitor application; thatching, mowing, and aeration of lawns. Contractor shall provide irrigation controller schedules with controller identification numbers (keyed to as-built irrigation plans), station numbers, cycles per day, total time per station per week, and comments to City for approval prior to start of the plant establishment period.

All work performed within the public right-of-way is required to provide traffic control approved by the Public Works/Engineering Department.

8.4.3 Irrigation System Maintenance

Irrigation systems shall be operated efficiently to conserve water and maintain healthy plant growth. Application of water should consider soil types, topography, weather conditions, and be tailored to distinct planting areas (hydrozones). Refer to EVMWD's guidelines for current irrigation schedule and other restrictions.

Slope irrigation shall be monitored and maintained to prevent soil saturation and run off. Contractor is responsible for replacing plant materials that die because of poor irrigation scheduling.

Contractor shall observe irrigation systems while functioning at least once every week to ensure proper and efficient operation.

Contractor shall maintain irrigation equipment to provide proper coverage and operating capability. Adjust irrigation systems to prevent excessive run-off and overspray into streets, sidewalks, rights-of-way, and other areas not intended to be irrigated. Sprinkler heads shall be maintained and adjusted, clean, and free from plant growth that may obstruct normal operation. Valves and heads shall be adjusted to keep systems operating at design pressures. Pressure-regulating valves and pressure-compensating screens shall be employed to prevent heads from fogging.

Contractor shall check weather and rain sensors monthly throughout the year to verify that sensors function properly. Normal controller schedules shall be bypassed if rainfall is sufficient to meet landscape water requirements.

Areas where irrigation system is temporarily inoperable shall be hand watered by Contractor to ensure healthy and thriving plant material. Contractor shall be responsible for providing equipment, nozzles, hoses, and couplers to accomplish the task.

Contractor shall replace plants lost due to irrigation system malfunctions, except malfunctions caused by natural disasters. Contractor is responsible for, and shall prevent to the greatest extent practicable, irrigation water run-off and overspray that impacts surrounding properties and creates traffic hazards.

Remote control valves shall not be operated manually unless electrical power is unavailable or temporarily interrupted, except for testing and periodic valve maintenance.

Moisture sensors and weather stations/sensors shall be monitored and adjusted monthly (or as required)

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by the Contractor to assure proper performance.

Repairs to irrigation systems shall be made in accordance with original contract documents. Contractor shall make required repairs and operate systems as originally intended.

Contractor shall submit copies of irrigation schedules for automatic controllers to City for approval.

Irrigation system repairs caused by conditions over which Contractor has no control shall be performed by others or paid for by the City. Repairs under this category shall be extra work and are noted below:

- Loss due to theft
- Storm damage and other natural occurrences
- Damage by vandalism, and accidents caused by other than Contractor and his/her employees.

Contractor shall adjust heights of sprinkler risers to compensate for growth of plant materials.

Strainers at backflow preventers shall be flushed out semi-annually as a preventative maintenance measure.

Drip and bubbler irrigation (low volume) systems

- Strainers and filters shall be cleaned monthly, or as required, to maintain efficient operation.
- Manual flush valves shall be flushed monthly, or as required, to eliminate accumulated debris in irrigation lines.
- Plant growth and vigor shall be monitored closely for signs of stress due to lack of water, which may indicate clogged emitters and other system malfunctions.
- System pressure shall be monitored periodically to ensure proper emitter operation.

8.4.4 Planting Maintenance

Trees

Trees are a vital element of community character and provide important environmental benefits. The City's goal is to maintain trees in CFD areas, parks, and other public area facilities in a healthy, vigorous, and growing condition for current and future residents. The objective of the following guidelines requirements is to promote proper tree maintenance.

Pruning

Trees shall be pruned for safety and appearance, and to encourage sound structure, healthy growth, and good form. Pruning shall be supervised and performed by certified consulting arborists and qualified tree care personnel utilizing proper arboricultural practices.

Contractor shall provide pruning and tree care in accordance with professional tree care industry standards, including Western Chapter of the International Society of Arboriculture and National Arborist Association standards.

Evergreen trees shall be thinned out and shaped when necessary to prevent wind and storm damage. Major pruning of deciduous trees shall be performed during the dormant season. Damaged trees, and those that constitute health and safety hazards, shall be pruned when necessary to improve poor appearance and structure, as directed by the City's representative.

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Pruning cuts shall be made just above lateral branches and buds, or just outside branch bark collars, utilizing natural target pruning practices. Stub cuts and topping shall not be permitted.

Tree pruning shall be performed in accordance with ANSI Safety and Tree Care Standards, latest published editions. Contractor shall observe adequate safety precautions for protection of tree workers and the public.

No more than 25 percent of a tree's foliage shall be removed during pruning operations unless authorized by the City representative.

Trees shall be pruned periodically (through maturity) to achieve adequate vertical clearances for vehicles, overhead utilities, and pedestrians.

Lower branches of young trees shall not be removed except for safety purposes. Lower branches may only be tipped back to encourage caliper growth large enough to support trees without stakes and guys.

Surface tree roots that present maintenance and/or safety problems may be removed or pruned upon approval by the City, especially those adjacent to paved areas. Surface roots shall be properly pruned, treated, and covered without delay.

If necessary, trees shall be trimmed during the dormant season only (November 15th to February 15th) to reduce pruning shock, allow sufficient recovery time for maximum summer shade, and lessen possibility of insect infestation.

Watering and Mulching

Watering basins shall be maintained around tree root balls during plant establishment periods. Irrigate as needed to establish adequate moisture throughout plant root zones.

Deep-rooting of trees is desirable and can be encouraged with appropriate irrigation scheduling and frequency of irrigation cycles.

Mulches shall be maintained at least three (3) inches deep to reduce evaporation and weed growth. Do not apply mulch in contact with tree trunks (maintain 6 inches clearance minimum).

Soil moisture checks shall be made periodically at locations representing various climatic exposures and plant material types. Soil moisture probes shall be used to check moisture in root balls and surrounding soil. Moisture requirements of plants shall determine watering frequency and timing by automatic irrigation systems.

Fertilizer Application and Pest Control

Fertilizers shall be City-approved, balanced commercial types determined by soils testing. Fertilizers should be applied to entire root zones of trees. Gently cultivate and thoroughly water fertilized areas to prevent burning tree roots. Apply fertilizers at minimum rates required to keep trees healthy and vigorous.

Unhealthy and/or stunted trees that fail to meet horticulturally acceptable standards for growth and vigor shall receive appropriate supplements to correct nutrient deficiencies.

Plant pests and diseases, and weeds, shall be controlled with proper application of insecticides, fungicides, and herbicides. Tree wells shall be weeded monthly.

Pesticides and herbicides shall be applied by licensed and certified pest control applicators.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Staking and Guying

Tree stakes, ties, and guys shall be checked monthly and adjusted if necessary. Ties shall be adjusted to prevent girdling of tree trunks. Broken stakes and guy wires shall be replaced. Stakes, ties, and guys shall be removed as directed by the City Representative.

Re-stake trees as deemed necessary by the City with two-inch diameter by ten-foot long treated lodge pole stakes. Tree ties shall be flexible vinyl straps. Nail straps to sides of stakes with one-inch roofing nails.

Stakes on fast-growing tree species, such as Eucalyptus species, shall be removed one year after planting, or at the start of the next growing season, whichever comes first.

For trees other than fast-growing species, existing stakes and guys shall be removed after two years, or after trees attain a trunk caliper of four inches. If trees are unable to support themselves, removal of stakes shall be determined by the City.

In CFD areas, 15-gallon size trees shall be double-staked, 24- and 36-inch box size trees shall be double-staked or guyed, and trees larger than 36-inch box size shall be guyed, unless directed otherwise by City representative.

Shrubs

Shrubs shall be maintained to promote vigorous and healthy growth in accordance with standard horticultural practices. Utilize proper pruning techniques, fertilizer applications, and pest control procedures.

Pruning

Prune shrubs as required to maintain public safety, as well as general health and appearance of plants.

Shrubs shall not be clipped into topiary forms. Natural characteristics and branching structure of plants shall be retained.

Pruning cuts shall be made just above lateral branches and buds, and just outside branch bark collars. Stubbing shall not be permitted.

Pruning shall be accomplished by removing woody stems from inside of shrubs at least twice yearly. Heading back of shrubs shall be performed only after completion of interior selective branch pruning. Shrubs shall not be sheared and hedged unless directed by the City.

Dead flower stalks and spent blossoms shall be removed regularly for a tidy, well-groomed appearance.

Fertilizer Application and Pest Control

City-approved balanced commercial fertilizers shall be applied to promote optimum growth and vigor. Fertilizers shall be watered in after application to prevent burning of plant tissues.

Insecticides, fungicides, and herbicides shall be applied as necessary by licensed pest control applicators only.

Mulches shall be maintained uniformly at least three (3) inches deep to reduce evaporation and weed growth. Do not apply mulch in contact with shrub stems.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Vines

Vines shall be maintained to promote vigorous and healthy growth in accordance with best horticultural standards. Utilize proper watering, tying, fertilizing, and pest control procedures to promote optimum growth.

Deep water vines in planting pockets to assure optimum growth and root depth.

Prune and maintain espaliered vines properly. Nails shall not be used in masonry walls. Secure vines with epoxy vine ties to promote directional growth.

City-approved, balanced commercial fertilizers shall be applied to promote optimum growth and vigor. Vines shall be watered after fertilizer application to prevent burning of roots.

Insecticides, fungicides, and herbicides shall be applied as necessary by licensed pest control applicators only.

Groundcover

Ground cover shall be maintained to promote vigorous and healthy growth according to best horticultural standards. Utilize proper trimming, fertilizing, pest control, and renovation procedures.

Trimming

Groundcover shall be maintained within intended planting areas. Maintain edges of planting so that groundcover does not encroach into lawns, shrub beds, sidewalks, and adjacent areas.

Groundcover shall be trimmed away from controller enclosures, valve boxes, quick couplers, other plants, structures and walls, and walks. Maintain well-edged beds adjacent to walks for best appearance and safety.

Fertilizer

Apply City-approved, balanced commercial fertilizers at minimum rates required to promote healthy and vigorous growth. One application should be in early spring after new growth begins.

Pest Control

Groundcover areas shall be cultivated regularly and kept free of litter.

Control weeds, insects, diseases, gophers and snails.

Chemical pest controls shall be applied only if necessary by licensed pest control applicators.

Renovation and Replacements

Groundcover shall be renovated by cutting and mowing to promote new vigorous growth. Apply City-approved, balanced commercial fertilizer after renovation of groundcover areas.

If replanting is required to replace dead groundcover areas, then replacements shall be determined by City, using cuttings from adjacent groundcover areas, or other approved sources.

Lawns

Lawns shall be maintained to promote vigorous and healthy growth in accordance with best horticultural standards. Utilize proper watering, mowing, renovation, fertilizing, and pest control procedures.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Watering

Lawns shall be irrigated to maintain healthy seasonal growth and to encourage deep rooting. Avoid daily irrigation in favor of every other day, or twice weekly. Additional irrigations may be scheduled if unusually hot and dry weather conditions prevail for extended periods of time. Lawn areas shall not be in soggy, saturated condition, especially before mowing and aeration operations.

Mowing and Edging

Lawns shall be mowed to an optimum height on a weekly basis during growing seasons. Frequency of mowing should decrease during cooler months. Rotary and reel (for Bermuda grass) mowers with sharp blades shall be used. Avoid removing more than one-third of grass blade length at one mowing.

Damage to trees, obstacles, and lawns caused by wheel ruts shall be repaired by Contractor. Grass clippings shall be mulched in place with mulching mowers.

Trimming and edging shall be performed weekly. Frequency of trimming and edging may need to be adjusted during cooler months.

Renovation

Lawn areas shall be renovated yearly when the least amount of stress to lawns is likely, usually in winter. Scheduling shall be recorded on Maintenance Schedule Charts approved by the City.

Lawns shall be mechanically aerated with plug aerators (one-half inch tines minimum) at least yearly to reduce compaction and improve water penetration to roots. Hybrid Bermuda grass shall be verticut as required to remove thatch.

Shaded and well-worn areas of lawn shall be re-seeded with approved seed species.

Fertilizing

City-approved, balanced commercial fertilizers should be applied to keep lawns green and healthy. Fertilizer types will vary seasonally in accordance with good turf management practices.

Pest Control

Lawn areas shall be inspected regularly for signs of diseases and pests. Contractor shall have licensed pest control applicators apply appropriate controls at recommended rates.

Contractor shall maintain weed-free lawns by approved means. Contractor shall exercise caution if applying chemicals to control weeds to avoid damage to lawns and adjacent areas. Before herbicide applications are made, lawns should be well-established and in vigorous condition.

Hydroseeded Planting

Hydroseeded areas shall be maintained in the same manner as ground cover areas.

Pest Control

Contractor shall provide complete and continuous control and eradication of plant pests and diseases, including weeds. Comply with City, County, State, and Federal regulations and laws regarding chemical controls.

Contractor shall assume liability and responsibility for use of chemical controls.

Procedures for chemical use shall follow those outlined by State of California Department of Food and Agriculture, and County of Riverside for safe handling of pesticides, fungicides, and herbicides.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Contractor shall obtain all necessary licenses for application of pesticides.

Weed Control

All planting areas, including basins, shall be free of weeds.

Open space areas adjacent to homes shall be kept free of weeds.

Weeds shall be removed in street median islands, including those growing in paved and unpaved areas.

Trees in lawn areas shall have 36-inch diameter mulched circle maintained around bases of trunks. Avoid damage to tree trunks and roots by machinery and excess water. Properly applied growth regulators may be used to control vegetation in open areas around trees. Use mulches to help prevent weed seed germination. Weeds that have germinated shall be eradicated (do not use string trimmers near tree trunks) within three weeks of germination, or before setting seed.

Weeds shall be completely removed from lawn and shrub areas, groundcover beds, and planters.

Remove weeds weekly from cracks in paved areas: sidewalks, curbs, asphalt, hardscape, and areas covered with ornamental rocks. For the purpose of these requirements, weeds will be considered as any undesirable or troublesome plants. Weeds shall be controlled by hand, mechanical, or chemical methods. The City may restrict use of chemical weed control in certain areas.

Groundcover and hydroseeded plants that occur within four feet of improved surfaces (sidewalks, service roads, and pathways) should be continuously trimmed so that height does not exceed 12 inches.

Invasive plants are unacceptable in CFD-maintained areas and shall be promptly removed.

Annual plants over six inches in height shall be mechanically controlled upon completion of growth cycle in areas deemed necessary by the City.

Fertilizer Application

Contractor shall inform City at least 48 hours before beginning fertilizer application. Contractor shall have previously submitted schedules showing sites, dates, approximate times of fertilizer application, type of fertilizer and quantity of fertilizer to be applied.

Fertilizers shall be delivered in original unopened containers bearing manufacturers' guaranteed analysis. Damaged packages will not be acceptable to the City. Contractor shall furnish the City with duplicate signed legible copies of certificates and invoices for fertilizer. Invoices shall state grade and quantity of fertilizer delivered to site. Copies retained by the City and Contractor shall be signed by the City's Representative before materials may be used. Contractor shall not begin fertilizer application until requirements noted above have been met.

Fertilizers shall have City-approved guaranteed analysis. Contractor shall follow the amendment recommendations of the soils report for type and application rate.

Fertilizers shall be applied to lawns at times noted below.

- Nitrogen: as needed to maintain health and appearance
- Complete: October 1-15, March 1-15

Fertilizers shall be applied to shrubs, groundcover, and small trees (three-inch caliper and smaller) at times noted below.

- Complete: March 1-15, July 1-15, October 1-15

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Adequate irrigation shall precede and immediately follow applications to carry fertilizers into soil. After fertilizer applications, adjust irrigation schedules to eliminate runoff and leaching of fertilizers.

Weather conditions may require adjustments to fertilizer application schedules. If possible, avoid application of fertilizers prior to forecast of windy weather and heavy rains.

Precautions shall be taken during broadcast application of fertilizers with cyclone spreaders to avoid overthrow onto paved areas. Use of gravity flow spreaders is encouraged to keep fertilizers contained in planting areas, eliminating, or reducing sidewalk stains.

Fertilizer tablets shall be applied to new replacement trees and shrubs at manufacturer's recommended rate of application. Tablets (21-gram) shall also be applied to trees and shrubs that require supplemental fertilization. Annual fall fertilization of trees and shrubs shall be at the rate of one 21-gram tablet for each one-half inch of trunk caliper. Place tablets six to eight inches into root zones with soil probes and water in thoroughly.

Replacement of Plant Material

To ensure vigorous, healthy growth and pleasant appearance of plantings in CFD areas, it may be desirable to replace plants periodically. Plant replacement shall be determined by the City. Plants may be provided and installed by City forces at no expense to Contractor (if plants are not under Developer's or Contractor's guarantee/warranty) or may be replaced by Contractor with cost negotiated prior to planting.

Contractor shall notify City representative within two days of plant material losses due to any cause. Dead plants that are not replaced within one week after notification will be replaced by the City at Contractor's expense.

Contractor shall supply labor and materials to replace plants that are damaged or die resulting from Contractor's faulty maintenance or negligence. Container sizes and species of replacement plant materials shall be determined by the City Representative.

Plants damaged due to storm events or other natural causes, vehicular damage, theft, or events not resulting from negligence or inadequate performance of work by Contractor shall be replaced-in-kind with sizes as approved by the City. At City's request, Contractor may supply and install replacement plants selected by City's Representative and shall bill total replacement costs separately from normal maintenance billing.

Replacement planting shall conform to the requirements herein.

8.4.5 Maintenance of Open Space Areas

Open space areas designated by easement or dedication are necessary to protect resources, relieve density of community development, and provide greenbelt buffers between built-up neighborhoods.

- The City's goal is to establish healthy native plant communities in designated open space areas, and to maintain these areas as close as possible to natural conditions prevailing in the region.
- The City Engineer and/or Public Works Maintenance Operations Manager shall determine maintenance activities and practices in open space areas that best meet public works requirements for safety and appearance.
- Litter and trash removal shall be scheduled monthly, or more often as required.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

8.4.6 Clean-Up

Contractor shall promptly remove landscape debris generated by pruning, trimming, weeding, edging, and other work required in CFD–maintained areas. Areas near public streets, walks, driveways, and paved areas shall be cleaned immediately with suitable equipment. Debris and green waste shall be removed and disposed of off–site in a legal manner. No debris will be allowed to remain in CFD public areas at end of workdays.

Contractor shall remove litter from CFD areas immediately. Litter shall include, but is not limited to, bottles, animal droppings, cans, paper, cardboard, metallic items and other debris, and illegally dumped materials.

Shrub areas not planted with ground cover shall be raked, weeded, and cultivated at least twice monthly.

Walks shall be kept clean and free of soil, debris, and hazards to foot traffic at all times during maintenance operations.

8.5 Inspection and Acceptance of Improvements

The purpose of inspections on landscape projects is to determine substantial conformance to approved landscape plans, and to verify project Conditions of Approval are met prior to acceptance of the project by the City.

Inspections by the City’s Representative are required during installation of landscape improvements on all projects. Inspections shall be made, and work accepted by the City’s Representative before projects can receive final acceptance from the City. Contractor shall request inspections by notifying the City at least 48 hours (two working days) in advance of scheduled inspection times. Notification should be made by Owner’s or Developer’s representative, and only when Contractor agrees that work is completed and ready for inspection. If scheduled inspection visits cannot be performed due to incomplete work or Contractor’s absence, then Owner/Developer will be charged for additional time for rescheduled inspections.

Changes

Revisions to approved landscape plans shall be reviewed and accepted by the City before work is performed, to verify that the revisions are consistent with original construction documents. Submit two sets of revised plans to the City for review. Refer to Submittal Requirements for additional information.

Changes in the field to approved landscape construction documents (materials and installation) shall be prohibited unless written approval of changes are provided by the City’s Representative. Approved field changes shall be reflected on record drawings submitted to City at project closeout.

8.5.1 Inspection Requirements

Work items listed below are subject to inspection by the City’s Representative. Inspection requirements are variable from project to project and shall be determined during the plan review and approval process. However, additional inspections other than the following may be required during the course of work as determined by the City’s representative.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Required inspections

Some may be combined into one site visit, if possible

Pre–construction meeting prior to start of work

Grading and Construction

- Finish grading.
- Staking of flatwork.
- Concrete formwork and reinforcement.
- Trail improvements.
- Boulder placement.

Irrigation

- Trenching for irrigation main lines and lateral pipe.
- Installation and pressure testing of main lines and lateral lines prior to backfilling trenches.
- Installation and testing of backflow prevention devices, remote control valves, control wires, and automatic controllers.
- Operation and coverage tests (prior to planting) after irrigation system completion.

Planting

- Soil preparation and application of amendments (supply delivery slips and invoices).
- Completion of finish grading prior to planting.
- Approval of plant materials upon delivery to site.
- Tree and shrub locations, before excavation of planting pits.
- Installation of plant material.

Completion and Maintenance

- Approval/acceptance of completed landscape installation, start of maintenance period.
- Final site inspection at completion of maintenance period.
- Additional inspections may be required as determined by the City's Representative.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

CFD Inspections

Initial inspections of completed CFD area landscape improvements shall be performed prior to start of the maintenance and plant establishment period. Work shall be complete and in accordance with City requirements as determined by the City representative.

- Upon completion of irrigation installation, the entire Calsense controller assembly(s) shall be inspected and tested for proper connections, and complete and full operation by the Calsense field service representative, including full and proper operation and interface with flow sensor, sensor data interface, master control valve, and other sensor components as installed. Written certification of installation and operation in accordance with manufacturer's specifications shall be provided to the City's representative.

Projects in CFD areas that have not been maintained to City standards during maintenance period shall be held without acceptance until requirements and conditions of the project and City have been met.

Final inspections of CFD improvements shall be performed at the end of the maintenance period. City representative will determine whether or not maintenance requirements have been met by Contractor prior final acceptance/notice of completion. Refer to Section 8.5.2 Acceptance of Improvements, Subsection CFD Public Works Acceptance Procedures below.

8.5.2 Acceptance of Improvements

Acceptance of CFD and public works landscape improvements by the City will be made after work is substantially complete in accordance with approved construction documents and City of Wildomar landscape standards.

Maintenance/plant establishment and warranty periods shall be for the following time periods unless otherwise approved by the City:

- Parks: Owner or agent in control of properties shall maintain planting and irrigation systems for ninety (90) calendar days. Warranty period shall be for one (1) calendar year.
- CFD areas, except parks: Owner or agent in control of properties shall maintain planting and irrigation systems for one (1) calendar year. Warranty period shall be for one (1) calendar year.
- All other public works projects: As specified in the approved construction documents

After final inspection of improvements by City's Representative at the satisfactory conclusion of maintenance and the plant establishment period, and City acceptance of improvements, the Community Facilities District will be available to service the area for continuing maintenance, formally relieving Contractor of maintenance responsibilities.

CFD Public Works Acceptance Standards

Landscape improvements, walls, walkways, curbs, utilities, trails, benches, public improvements, and special conditions required within Community Facilities District and public works project boundaries shall be provided in accordance with approved construction documents prior to initial inspection and City acceptance of improvements.

Standards outlined below shall be met prior to final inspection by the City's Representative.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Lawn

Lawn areas shall be completely filled in with grass. Turf shall be green and healthy with no discolored and dead patches, weeds, and insect pests. Turf shall be mowed weekly for at least two consecutive weeks, and at correct mowing heights.

Hydroseeded areas (non-turf)

Plant material shall be at least three inches in height, with 90 percent coverage of hydroseeded areas. If hydroseed has not germinated within 30 days after application, then bare areas shall be re-seeded. At that time, all hydroseeded areas shall be free of weeds and litter.

Hand-planted groundcover

Planted areas shall be healthy, vigorous, and free of weeds and litter.

Shrubs, Vines, and Trees

Plant material shall be healthy, showing no signs of discoloration, injury, fungus, and insect infestation. Plants shall be pruned, trimmed, and neat in appearance. Trees shall be staked as required with approved tree ties. Nursery tape shall be removed.

Irrigation

Irrigation systems shall be fully functional and operating in accordance with project construction documents and City landscape standards.

CFD Public Works Acceptance Procedures

The City's Representative will recommend acceptance of improvements in CFD—maintained areas after initial inspections are performed. Work shall be substantially complete as determined by the City's Representative.

After initial inspection and approval of installation work by the City's representative, and provided that project Conditions of Approval have been met, the Contractor shall begin the maintenance/plant establishment period.

After initial acceptance, bonds, cash deposits, and secured letters of credit held against Developer or Contractor may be reduced.

At end of the maintenance and plant establishment period, the project shall undergo final inspection by City's representative for turnover to the CFD. Final release of bonds, cash deposits, and secured letters of credit will take place after satisfactory completion of maintenance/plant establishment period and upon approval by the City Engineer.

Acceptance of other public landscape improvements after construction and maintenance period are completed shall be based on condition of the project at final inspection. City's Representative shall determine whether requirements have been met, procedures followed, and equipment installed satisfactorily before recommending acceptance of the project.

9. GLOSSARY

For purposes only of these guidelines, the terms used have the following meaning:

Applied Water. The portion of water supplied by the irrigation system to the landscape.

Artificial Turf. A product manufactured from synthetic materials that simulate the appearance of natural turf, grass, sod, or lawn. Indoor or outdoor plastic or nylon carpet is not considered artificial turf.

Automatic Irrigation Controller. A timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

Backflow Prevention Device. A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

Certificate of Completion. The document required prior to the issuance of a Certificate of Occupancy or at the request for final landscape inspection, refer to Appendix.

Certified Irrigation Designer. A person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program or the Irrigation Association's Certified Irrigation Designer program Certified Landscape Irrigation Auditor. A person certified to perform landscape irrigation by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program or the Irrigation Association's Certified Landscape Irrigation Auditor program.

Check Valve or Anti-Drain Valve. A valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.

Compost. The safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

Conversion Factor (0.62). The number that converts acre-inches per acre per year to gallons per square foot per year.

Distribution Uniformity. The measure of the uniformity of irrigation water over a defined area.

Drip Irrigation. Any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

Established Landscape. The point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

ET Adjustment Factor or ETAF. A factor of .55 for residential areas and .45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

Evapotranspiration. The process by which a quantity of water evaporates from adjacent soil and other surfaces and is transpired by plants during a specified time. Reference evapotranspiration for Wildomar is 55.0.

CITY OF WILDOMAR Landscape Design Standards and Guidelines

Flow Sensor. An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic combination flow sensor/controller may also function as a landscape water meter or submeter.

Hardscapes. Any durable material (pervious and non-pervious). Concrete, asphalt, cobble, gravel, and decomposed granite are considered hardscape materials and therefore not included in the water budget calculation.

Hydrozone. A portion of the landscaped area having plants with similar water needs and rooting depth that are served by one irrigation valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated.

Invasive Species. Non-indigenous species (e.g., plants or animals) that adversely affect the habitats they invade economically, environmentally, or ecologically and includes those species listed within the Western Riverside County Multi-Species Habitat Conservation Plan as such plan may be amended from time to time and any invasive species identified as such by the city. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

Irrigation Audit. An in-depth evaluation of the performance of an irrigation system conducted by a certified landscape irrigation auditor. An irrigation audit includes, but is not limited to inspection, system tune-up, system test with distribution uniformity or emission uniformity reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S Environmental Protection Agency Watersense labeled auditing program.

Landscape Area or LA. All the planting areas, turf areas, and water features in a landscape design plan subject to the maximum applied water allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation). Landscape Area includes Special Landscape Areas as defined below.

Licensed Landscape Architect. A person who holds a license to practice landscape architecture in the State of California pursuant to the California Business and Professions Code section 5615.

Licensed Landscape Contractor. A person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

Local Water Purveyor. Any entity, including a public agency, city, county, or private water company that provides retail water service.

Low Volume Irrigation. The application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

Maximum Applied Water Allowance or MAWA. The upper limit of annual applied water for the established landscaped area.

Mulch. Any material placed on the soil to conserve soil moisture, moderate soil temperature, prevent soil erosion and/or prevent weed growth, including such materials as bark, wood chips, rock, gravel, decomposed granite, or other suitable material.

Non-Residential Landscape. Landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas

CITY OF WILDOMAR Landscape Design Standards and Guidelines

of common interest development with designated recreational areas.

Overspray. The irrigation water which is delivered beyond the target area.

Pervious. Any surface or material that allows the passage of water through the material and into the underlying soil.

Plant Factor. A value that, when multiplied by ETO, estimates the amount of water needed by plants. For purposes of these guidelines, the plant factor range for very low water use plants is 0 to 0.1, the plant factor range for low water use plants is 0.1 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors used shall be derived from the current publication of the Water Use Classification of Landscape Species (WULCOLS). Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

Recreational Area. Areas, excluding private single family residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf courses, tees, fairways, roughs, surrounds and greens.

Recycled Water. Any kind of treated, reclaimed, or recycled wastewater of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

Reference Evapotranspiration or ETo. A standard measurement of environmental parameters which affect the water use of plants and is 55.0 inches per year for purposes of these guidelines.

Rehabilitated Landscape. Any re-landscaping project that requires a permit, plan check, or design review, meets the applicability requirements of Section 16.28.020 and the modified landscape area is equal to or greater than two thousand five hundred (2,500) square feet.

Residential Landscapes. Landscaping surrounding single or multi-family homes.

Runoff. Water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

Special landscape Area or SLA. An area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

Water Feature. A design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscape area. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

WUCOLS. The Water Use Classification of Landscape Species published by the University of California Cooperative Extension, and the Department of Water Resources. The plant region for WUCOLS IV 2014 is Region 4 South Inland Valley. The most current publication, region, and plant classification shall be used.

APPENDIX 10.1 CITY OF WILDOMAR

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo) **55.0**

Hydrozone # /Planting Description ^a	Plant Factor (PF)	Irrigation Method ^b	Irrigation Efficiency (IE) ^c	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU) ^d
Regular Landscape Areas <small>All irrigated areas of the landscape, water surface area of water features Do not include hardscape material areas such as cobble or decomposed granite</small>							
See below for:							
Description	PF		IE				
				Totals	(A)	(B)	
Special Landscape Areas <small>Sports Fields, Edible Landscape Areas, Landscape Areas Irrigated with Recycled Water, and Temporary Landscape areas (under 1 year) Water features are not SLAs, include in the RLA section</small>							
				1			
				1			
				1			
				Totals	(C)	(D)	
							ETWU Total
Maximum Allowed Water Allowance (MAWA)^e							

- ^aHydrozone #/Description ^bPF Range ^cIrrigation Method ^dIrrigation Efficiency (IE)
- 1 cool season turf 0.7 - 0.8 overhead spray 0.75
- 2 warm season turf 0.7 - 0.6 drip 0.81
- 3 low water use shrubs 0.1 - 0.3 bubbler 0.81
- 4 moderate water use trees 0.4 - 0.6

^eMAWA (Annual Gallons Allowed) = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]
 where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total special landscape area in square feet, and ETAF is .55 for residential areas and 0.45 for non-residential areas.

^dETWU (Annual Gallons Required) = Eto x 0.62 x ETAF x Area
 where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	(B)
Total Area	(A)
Average ETAF	B ÷ A

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas

Total ETAF x Area	(B+D)
Total Area	(A+C)
Sitewide ETAF	(B+D) ÷ (A+C)

APPENDIX 10.2 CITY OF WILDOMAR

PRELIMINARY LANDSCAPE REVIEW COMMENTS

Case No.:	Project Type/Location:		
Review Date:	1:	2:	3:
Review By:	Firm:	City Representative:	
Recommended for Approval?			

Checklist Key:	
<input type="checkbox"/>	Provided or Not Applicable
<input checked="" type="checkbox"/>	Needed

Received Date: _____
 Due Date: _____
 Returned Date: _____

It is the responsibility of the applicant and landscape architect to be aware of and comply with the Landscape Design Standards and Guidelines, as well as the current policies of the City and State of California. Refer to the Guidelines document on the City's website under Planning Department Documents for additional requirements and clarification of checklist items and on-plan redlines comments.

General

- 1 Plan is clear and legible, plan and fonts are of adequate size
- 2 Plan scale and north arrow is noted
- 3 Number individual sheets and provide sheet index
- 4 Project type: single family, multi-family, mixed use, commercial, new and/or rehabilitated
- 5 Project identification: tract no., phase, address
- 6 Vicinity map with street and freeway configurations
- 7 Firm name, address and phone number of applicant, project consultants and landscape architect, lead contact's name and email address
- 8 Landscape architect's stamp with current renewal date on each sheet
- 9 Label adjacent properties and street names
- 10 Show and label structures, walls, fences, gates, curbs, headers, paving, walkways, trails
- 11 Show and label utilities, light standards, fire hydrants, storm drains, water meters, transformers, etc.
- 12 Project limits of work, easements, property lines, right-of-way, etc.
- 13 Matchlines and sheet references are provided, sheet key map when multiple sheets are utilized
- 14 Quantities section, indicate by street or sub-section if fragmented:
 - a square footage of project
 - b square footage of new landscape area
 - c square footage of rehabilitated landscape area
 - d percentage of turf area
 - e list number of uncovered parking spaces, related % shade requirement and demonstrate compliance with 15 year tree canopy required: 30% for 0-24 spaces, 40% for 25-49 spaces, or 50% for 50+ spaces
- 15 Maintenance responsibility noted:
 - a all improvements are to be maintained by the developer until maintenance responsibility is turned over to the individual homeowner
 - b all improvements are to be maintained by the property owner
 - c all improvements are to be maintained by the city
 - d all improvements are to be maintained by the association

Preliminary Landscape Plan

- 1 Plan to convey a complete planting program though specific plant palettes and identifying plant symbols or hatches
- 2 Plant material appropriate for sun / shade / parking lot or corner sight restrictions / bioretention areas / fire restrictions / regional conditions: revise:
 - 3 Trees:
 - a placement considering views and solar effect
 - b placement of trees to be outside of utility setbacks or easements
 - 1) 5' from property line, fire hydrant, water or sewer line, water meter, backflow, sewer clean out
 - 2) 10' from street light or power pole
 - 3) mature height no taller than 20' if planted under utility wires
 - c symbol diameter represented at 15 year growth
 - d root barriers within 6' of hardscape (24" deep, 16' in length), include manufacturer, model number and detail with length and burial depth
 - e staking and bracing
 - f tree guards or mulch rings for trees in turf
 - g existing trees shown on plans, note to remove or to remain, indicate if protected tree and demonstrate/note replacement compliance
 - 4 Street trees:
 - a minimum 15 gallon
 - b species and spacing conform to adjacent tracts
 - 5 Shrubs:
 - a minimum 5 gallon
 - b shrubs planted in drifts spaced to appear as masses, not spotty placement of singular shrubs
 - c avoid plants that require trimming to be kept at controlled height or width
 - d avoid monocultural plantings, provide additional plant material with varying characteristics

APPENDIX 10.2 CITY OF WILDOMAR

PRELIMINARY LANDSCAPE REVIEW COMMENTS

- 6 Ground cover:
 - a minimum 1 gallon
 - b if from flats, 12" on center spacing maximum
 - c 3" minimum depth of shredded bark mulch in all planter areas, excluding turf and hydroseeded areas
 - d avoid wide spreading groundcovers in narrow or restricted areas / note setback distance from hardscape to be least 1/2 of mature growth
- 7 Turf:
 - a warm season variety
 - b not to exceed 30% of total landscape area, actual % must provide compliant water budget calculations
 - c not permitted in planters under 10' wide or adjacent to walls
 - d restrict to 4:1 slopes or less
- 8 Slopes 3:1 or greater:
 - a plant material and mulch suitable for slope use and prevention of surface erosion
 - b 3' or more vertical height - permanent ground covers, size and spacing to achieve solid cover within 2 years
 - c 8' or more vertical height, in addition to groundcovers:
 - 1) one shrub per 100 s.f., 60% 1 gallon and 40% 5 gallon
 - 2) one 15 gallon tree per 500 s.f.
- 9 Hydroseed mix specified, botanical and common names, purity and germination, use of hydroseed is subject to review and approval
- 10 Legend:
 - a symbol
 - b botanical and common names
 - c quantities / square footage for hatches
 - d container size
 - e spacing
 - f water use classification
 - g notations
- 11 Hydrozones:
 - a plant material grouped into compatible hydrozones
 - b identify special landscape areas such as: recreation, recycled water, edible plants, etc.
- 12 Water features:
 - a identify as recirculating
 - b surface area included in preliminary water budget calculations, high water use in Regular Landscape Area (not SLA)
- 13 Fire:
 - a fuel modification plan or zones clearly illustrated on plan with detailed zone description
 - b fire resistive plant material
 - c fire lane shown and identified, tree canopy outside of access road clear zone
 - d combustible mulch material not within 5' of structure, replace with non-combustible mulch material
- 14 Sight distance triangles: for commercial driveways and corners use 25' / 25' / 45° and for residential driveways use 15' / 15' / 45°, all plant material within line of sight impact area to be naturally 30" or under. Do not rely on trimming to control shrub or groundcover height.
- 15 Add note: Preliminary agronomic soil analysis and recommendations report to be obtained early in the design phase and shall be included on construction plans. All related notes, details and specifications shall be reviewed and revised to refer to soil recommendations report.
- 16 Provide preliminary details and/or sections for:
- 17 Concrete step-out stripes where parking spaces are adjacent to landscape areas, 18" wide from face of curb
- 18 Concrete headers to separate turf and planter areas, or private and public maintained areas, min. 6" wide
- 19 Statement of intended irrigation type and water efficient landscape ordinance compliance
- 20 Preliminary water efficient landscape worksheet, to include hydrozone information that coordinates with preliminary planting legend and layout. Worksheet to illustrate WELO compliance through calculated MAWA and ETWU.
- 21 Note that all equipment and plans shall conform to recycled water use requirements and considerations

Storm Water Management

- 1 On-site water retention basins:
 - a contours and elevations indicated
 - b inlet and outlets shown
 - c bottom and slope of basin appropriately planted
- 2 Bioswale or vegetated swales:
 - a drainage flow direction shown
 - b natural, informal configuration or planting layout
 - c appropriately planted with species tolerant of both wet and dry conditions

Reference Documents

- 1 Provide all necessary reference plans, such as grading, architecture, etc.

Additional Information Required:

Refer to redlined landscape plans for additional correction comments.

RETURN ALL FORMS AND PLAN CHECK SETS WITH RESPONSE COMMENTS WRITTEN

APPENDIX 10.3 CITY OF WILDOMAR

LANDSCAPE PLAN CHECK REVIEW COMMENTS

Case No.:	Project Type/Location:		
Plan Check Date:	1:	2:	3:
Plan Check By:	Firm:	City Representative:	
Recommended for Approval?			

Checklist Key:	
<input type="checkbox"/>	Provided or Not Applicable
<input checked="" type="checkbox"/>	Needed

Received Date: _____
 Due Date: _____
 Returned Date: _____

It is the responsibility of the applicant and landscape architect to be aware of and comply with the Landscape Design Standards and Guidelines, as well as the current policies of the City and State of California. Refer to the Guidelines document on the City's website under Planning Department Documents for additional requirements and clarification of checklist items and on-plan redlines comments.

General

- 1 Plan size minimum 22" x 36", maximum 30" x 42"
- 2 Plans are clear and legible, with fonts 1/8" minimum
- 3 Plan scale minimum 1"=20', maximum 1/8"=1'
- 4 North arrow on each plan sheet
- 5 Dig alert on title and each plan sheet
- 6 Number individual sheets
- 7 Project type in title block: single family, multi-family, mixed use, commercial, new and/or rehabilitated
- 8 Project identification in title block: tract no., phase, address
- 9 Name, address and phone number of landscape architectural firm in title block
- 10 Landscape architect's stamp with current renewal date on each sheet
- 11 Revision block, delta notations only to record revisions to city approved plans
- 12 Label street names
- 13 Show and label structures, walls, fences, gates, curbs, headers, paving, walkways, trails
- 14 Show and label utilities, light standards, fire hydrants, storm drains, water meters, transformers, etc
- 15 Project limits of work, easements, property lines, right-of-way, etc.
- 16 Matchlines and sheet references
- 17 Sheet key map when multiple sheets are utilized

Title Sheet

- 1 Project type: single family, multi-family, mixed use, commercial, new and/or rehabilitated
- 2 Project identification: tract no., phase, address
- 3 Vicinity map with street and freeway configurations
- 4 Reduced site plan with project boundaries, note adjacent property uses (existing and future)
- 5 Firm name, address and phone number of applicant, project consultants and landscape architect, lead contact's name and email address
- 6 Sheet index
- 7 Quantities section, indicate by street or sub-section if fragmented:
 - a square footage of project
 - b square footage of new landscape area
 - c square footage of rehabilitated landscape area
 - d percentage of turf area
 - e list number of uncovered parking spaces, related % shade requirement and demonstrate compliance with 15 year tree canopy required: 30% for 0-24 spaces, 40% for 25-49 spaces, or 50% for 50+ spaces
- 8 Maintenance responsibility noted:
 - a all improvements are to be maintained by the developer until maintenance responsibility is turned over to the individual homeowner
 - b all improvements are to be maintained by the property owner
 - c all improvements are to be maintained by the city
 - d all improvements are to be maintained by the association

Construction

- 1 Indicate construction of:
- 2 Provide layout information for:
- 3 Provide details for:
- 4 Concrete step-out stripes where parking spaces are adjacent to landscape areas, 18" wide from face of curb
- 5 Concrete headers to separate turf and planter areas, or private and public maintained areas, min. 6" wide

APPENDIX 10.3 CITY OF WILDOMAR LANDSCAPE PLAN CHECK REVIEW COMMENTS

Irrigation

- 1 Water supply type: potable, recycled, or well
- 2 Backflow device:
 - a minimum 12" above finish grade
 - b enclosure
 - c lead free
- 3 Wye strainer
- 4 Water meter information:
 - a location
 - b size
 - c point of connection for water and electrical
 - d separate water meter required for publicly maintained irrigation system
- 5 Irrigation control valves:
 - a brass, if public
 - b valves to be located outside of turf play areas
 - c separate valves with respect to irrigation type and/or slope location
 - d valve callouts or data table containing controller station, valve size, gpm flow, hydrozone and square footage
 - e detailed pressure calculations for worst case at each point of connection: static and residual pressure, p.o.c. and highest elevation
- 6 Check valve in irrigation device
- 7 Valves:
 - a gate or ball valves prior to street crossing and at points of connection
 - b pressure reducing valve with pressure setting indicated
 - c master valve required on all projects, flow sensor required for non-residential and residential over 5,000 s.f.
- 8 Irrigation legend:
 - a manufacturer
 - b model
 - c pressure in square inches (psi)
 - d gallons per minute (gpm)
 - e precipitation rate (in/hr)
 - f radius
 - g pattern
 - h description
- 9 Irrigation devices:
 - a pop-up bodies
 - 1) 6" for turf areas and bubblers
 - 2) 12" for shrub areas
 - 3) swing joints when adjacent to hardscape or high traffic areas
 - b fixed above grade heads to be avoided, acceptable on slopes
 - c spray heads not to exceed nozzle radius (head to head coverage)
 - d dripline / emitter spacing appropriate for plant o.c. spacing or species
 - e subsurface dripline or low volume irrigation for mulched planting areas and all areas less than 10' wide
 - f no overhead irrigation allowed within 24" of non-permeable surface that does not drain entirely to landscape area
- 10 Quick-coupling valves:
 - a brass / locking cover / purple cover
 - b maximum spacing of 100', if public 200'
 - c installed 12" into paved medians
- 11 Booster pump:
 - a grade at installation
 - b electrical connection
 - c switch panel
 - d control switches
- 12 Controller:
 - a smart automatic irrigation controller based on evapotranspiration information
 - b evapotranspiration component
 - c enclosure / grounding rod
- 13 Automatic rain shut off
- 14 Additional weather or soil moisture sensors:
- 15 Piping and sleeving:
 - a mainline 1 1/2" or less, schedule 40 PVC buried 18" deep
 - b mainline 2" or more, class 315 PVC buried 24" deep
 - c laterals, schedule 40 PVC buried 12" deep, laterals class 200 PVC acceptable for single family residential
 - d ultraviolet resistant PVC for on-grade installations
 - e PVC sleeving below grade, sized 2x inserted pipe diameter
 - f galvanized pipe sleeving across terrace drains, add detail
- 16 Irrigation stations conform to the landscape hydrozones, zone labeling consistent on all plans
- 17 Water efficient landscape worksheet, include hydrozone information that matches plan callouts, Maximum Allowed Water Usage (MAWA), and Estimated Total Water Use (ETWU) - do not include non-irrigated areas in water budget calculations

APPENDIX 10.3 CITY OF WILDOMAR

LANDSCAPE PLAN CHECK REVIEW COMMENTS

- 18 Relevant agronomic soils report information (soil type, infiltration rate, etc), if deferral is allowed add note regarding soil information coordination
- 19 Automatic controller programming parameters listed for plant establishment, established landscape and temporary irrigated areas
- 20 Recycled water:
 - a all equipment shall be designated for recycled water
 - b plans contain recycled water use notes
 - c plans conform to recycled water use requirements
- 21 Details for all major irrigation equipment, add:
- 22 Specifications: Testing: 150 pounds per square inch for 3' hour min and All improvements shall comply with Standard Uniform Building Code

Planting

- 1 Plant material appropriate for sun / shade / parking lot or corner sight restrictions / bioretention areas / fire restrictions / regional conditions: revise:
- 2 Trees:
 - a placement considering views and solar effect
 - b placement of trees to be outside of utility setbacks or easements
 - 1) 5' from property line, fire hydrant, water or sewer line, water meter, backflow, sewer clean out
 - 2) 10' from street light or power pole
 - 3) mature height no taller than 20' if planted under utility wires
 - c symbol diameter represented at 15 year growth
 - d root barriers within 6' of hardscape (24" deep, 16' in length), include manufacturer, model number and detail with length and burial depth
 - e staking and bracing
 - f tree guards or mulch rings for trees in turf
 - g existing trees shown on plans, note to remove or to remain, indicate if protected tree and demonstrate/note replacement compliance
- 3 Street trees:
 - a minimum 15 gallon
 - b species and spacing conform to adjacent tracts
- 4 Shrubs:
 - a minimum 5 gallon
 - b shrubs planted in drifts spaced to appear as masses, not spotty placement of singular shrubs
 - c avoid plants that require trimming to be kept at controlled height or width
 - d avoid monocultural plantings, provide additional plant material with varying characteristics
- 5 Ground cover:
 - a minimum 1 gallon
 - b if from flats, 12" on center spacing maximum
 - c 3" minimum depth of shredded bark mulch in all planter areas, excluding turf and hydroseeded areas
 - d avoid wide spreading groundcovers in narrow or restricted areas / note setback distance from hardscape to be least 1/2 of mature growth
- 6 Turf:
 - a warm season variety
 - b not to exceed 30% of total landscape area, actual % must provide compliant water budget calculations
 - c not permitted in planters under 10' wide or adjacent to walls
 - d restrict to 4:1 slopes or less
- 7 Slopes 3:1 or greater:
 - a plant material and mulch suitable for slope use and prevention of surface erosion
 - b 3' or more vertical height - permanent ground covers, size and spacing to achieve solid cover within 2 years
 - c 8' or more vertical height, in addition to groundcovers:
 - 1) one shrub per 100 s.f., 60% 1 gallon and 40% 5 gallon
 - 2) one 15 gallon tree per 500 s.f.
- 8 Hydroseed, subject to review and approval:
 - a seed mix type, botanical and common names, purity and germination
 - b quantities in pounds per 1,000 sf or acre
 - c slurry components, including mulch, stabilizer and fertilizer
- 9 Legend:
 - a symbol
 - b botanical and common names
 - c quantities / square footage for hatches
 - d container size
 - e spacing
 - f water use classification
 - g notations
- 10 Hydrozones:
 - a plant material grouped into compatible hydrozones
 - b plant water use classifications are consistent with irrigation hydrozones
 - c identify special landscape areas such as: recreation, recycled water, edible plants, etc.
- 11 Water features:
 - a identify as recirculating
 - b recycled water
 - c pool and spa cover specified
 - d surface area included in water budget calculations, high water use in Regular Landscape Area (not SLA)

APPENDIX 10.3 CITY OF WILDOMAR LANDSCAPE PLAN CHECK REVIEW COMMENTS

- 12 Fire:
 - a fuel modification plan or zones clearly illustrated on planting plan with detailed zone description
 - b fire resistive plant material
 - c fire lane shown and identified, tree canopy outside of access road clear zone
 - d combustible mulch material not within 5' of structure, replace with non-combustible mulch material
- 13 Sight distance triangles: for commercial driveways and corners use 25' / 25' / 45° and for residential driveways use 15' / 15' / 45°
all plant material within line of sight impact area to be naturally 30" or under. Do not rely on trimming to control shrub or groundcover height.
- 14 Current agronomic soil analysis and recommendations report on plans, all related notes, details and specifications shall refer to soil recommendations report

Storm Water Management

- 1 On-site water retention basins:
 - a contours and elevations indicated
 - b inlet and outlets shown
 - c bottom and slope of basin appropriately planted
- 2 Bioswale or vegetated swales:
 - a drainage flow direction shown
 - b natural, informal configuration or planting layout
 - c appropriately planted with species tolerant of both wet and dry conditions

Specifications

- 1 Include specifications that pertain to all elements of this project

Reference Documents

- 1 Provide approved conceptual landscape plan
- 2 Provide conditions of approval
- 3 Provide approved precise grading plans

Additional Information Required:

Refer to redlined landscape plans for additional correction comments.

**RETURN ALL FORMS AND PLAN CHECK SETS WITH RESPONSE COMMENTS WRITTEN
DIRECTLY ON PLANS WITH NEXT SUBMITTAL**

**APPENDIX 10.4 CITY OF WILDOMAR
CERTIFICATE OF COMPLETION**

FINAL LANDSCAPE INSPECTION

All Parts of this certificate shall be submitted to the Assigned Planner and City's Landscape Consultant with request for final landscape inspection.

PART 1. PROJECT INFORMATION SHEET

Date		
Project Name		
Name of Project Applicant	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Project Address and Location:

Street Address		Parcel, tract or lot number, if available.
City		Latitude/Longitude (optional)
State	Zip Code	

Property Owner or his/her designee:

Name	Telephone No.	
	Fax No.	
Title	Email Address	
Company	Street Address	
City	State	Zip Code

Property Owner

"I/we certify that I/we have received copies of all the documents within the Landscape Documentation Package and the Certificate of Completion and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule."

Property Owner Signature Date

Please answer the questions below:

1. Date the Landscape Documentation Package was submitted to the local agency _____
2. Date the Landscape Documentation Package was approved by the local agency _____
3. Date that a copy of the Water Efficient Landscape Worksheet (including the Water Budget Calculation) was submitted to the local water purveyor _____

APPENDIX 10.4 CITY OF WILDOMAR CERTIFICATE OF COMPLETION

FINAL LANDSCAPE INSPECTION

All Parts of this certificate shall be submitted to the Assigned Planner and City's Landscape Consultant with request for final landscape inspection.

PART 2. CERTIFICATION OF INSTALLATION ACCORDING TO THE LANDSCAPE DOCUMENTATION PACKAGE

"I/we certify that based upon periodic site observations, the work has been completed in accordance with the ordinance and that the landscape planting and irrigation installation conform with the criteria and specifications of the approved Landscape Documentation Package."

Signature*	Date	
Name (print)	Telephone No.	
	Fax No.	
Title	Email Address	
License No. or Certification No.		
Company	Street Address	
City	State	Zip Code

*Signer of the landscape design plan, signer of the irrigation plan, or a licensed landscape contractor.

Any modification from the approved Landscape Documentation Package shall be recorded on prepared as-built landscape plans. Submit as-built landscape plans with this certificate for the review and approval of the City's Landscape Consultant.

- As-built landscape plans attached
- Landscape installed per approved plans with no modifications

PART 3. IRRIGATION SCHEDULING

Provide data table with parameters for programming the irrigation controller or valve run times and cycle frequency per State's MWELo Section 492.10.

- Attached

PART 4. SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

Schedule per State's MWELo Section 492.11.

- Attached

PART 5. LANDSCAPE IRRIGATION AUDIT REPORT

Report per State's MWELo Section 492.12.

- Attached

PART 6. SOIL MANAGEMENT REPORT

Report per State's MWELo Section 462.6

- Attached

Documentation for soil amendment implementation (dated receipts, delivery tickets, photos, etc.) per State's MWELo Section 462.5

- Attached

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
TREES										
Acacia baileyana	Bailey acacia	L		20-30 ft.	20-40 ft.	X	X			
Acacia cultriformis	knife acacia	L		10-15 ft.	10-15 ft.		X			X
Acacia longifolia	Sydney golden wattle	L		20 ft.	20 ft.		X			X
Acacia pendula	weeping acacia	M		25 ft.	15 ft.		X	X		X
Acacia stenophylla	eumong/shoestring acacia	L		30 ft.	20 ft.		X	X		X
Acacia willardiana	palo blanco	L		20 ft.	10 ft.		X	X		X
Aesculus californica	California buckeye	L	●	10-20 ft.	30 ft.	X	X			X
Afrocarpus gracilior (Podocarpus)	African fern pine	M		40-60 ft.	20-30 ft.	X	X			X
Agonis flexuosa	peppermint tree	L		25-35 ft.	15-30 ft.		X	X	X	
Albizia julibrissin	silk tree	L		40 ft.	40 ft.	X			X	
Aloe spp.	aloe	L	■	varies			X	X		
Arbutus 'Marina'	Marina arbutus	M		25-30 ft.	25-35 ft.	X	X		X	
Arbutus unedo	strawberry tree	L		8-35 ft.	8-35 ft.		X		X	
Bauhinia variegata (purpurea)	purple orchid tree	M		20-35 ft.	20-35 ft.		X		X	
Brachychiton acerifolius	flame tree	M		60-70 ft.	30 ft.	X	X			
Brachychiton discolor	Queensland lace bark	M		40-60 ft.	30 ft.	X	X			
Brachychiton populneus	bottle tree	L		30-50 ft.	30 ft.	X	X		X	
Brahea armata	blue hesper palm	L		20-40 ft.	12-25 ft.		X	X		
Brahea edulis	Guadalupe palm	L	●	30 ft.	15 ft.		X	X		
Butia odorata (Butia capitata)	pindo palm	L		10-20 ft.	10-15 ft.		X	X		
Callistemon citrinus	bottle brush	L		10-15 ft.	10-15 ft.		X	X		X
Callistemon viminalis	weeping bottle brush	M		20-30 ft.	15 ft.	X	X	X		X
Calodendrum capense	cape chestnut	M		20-40 ft.	20-40 ft.	X	X			
Cassia leptophylla	gold medallion tree	M		20-25 ft.	30 ft.	X			X	
Catalpa speciosa	western catalpa	M		40-60 ft.	20-40 ft.	X	X			
Cedrus atlantica	Atlas cedar	M		60 ft.	30 ft.	X				X
Cedrus deodora	deodar cedar	M		80 ft.	40 ft.	X				X
Ceiba speciosa (Chorisia)	floss silk tree	L		30-60 ft.	30-60 ft.	X			X	
Celtis occidentalis	common hackberry	M		40-50 ft.	40-50 ft.	X				
Ceratonia siliqua	carob	L		20 ft.	20 ft.	X				
Cercis occidentalis	western redbud	L	●	10-18 ft.	10-18 ft.		X	X		X

APPENDIX 10.5

CLIMATE-APPROPRIATE PLANTS

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
<i>Chamaerops humilis</i>	Mediterranean fan palm	L		20 ft.	20 ft.		x	x		x
<i>Chilopsis linearis</i>	desert willow	L	●	15-30 ft.	10-20 ft.		x	x		
<i>Chitalpa tashkentensis</i>	chitalpa	L		20-30 ft.	20-30 ft.	x				
<i>Cinnamomum camphora</i>	camphor tree	M		50 ft.	60 ft.	x				x
<i>Citrus spp.</i>	orange, lemon etc.	M		varies					x	
<i>Cordylone australis</i>	New Zealand cabbage tree	M		20-30 ft.	10 ft.		x			
<i>Corymbia citriodora (Eucalyptus)</i>	lemon scented gum	M		45-90 ft.	15-45 ft.	x				x
<i>Corymbia ficifolia (Eucalyptus)</i>	red flowering gum	M		25-40 ft.	25-40 ft.	x	x			x
<i>Cotinus coggygria</i>	smoke tree	L		12-15 ft.	12-15 ft.		x	x		
<i>Cupaniopsis anacardioides</i>	carrotwood	M		40 ft.	30 ft.	x	x		x	
<i>Cupressus arizonica ssp. arizonica</i>	Cuayamaca cypress	L		40 ft.	20 ft.	x	x	x		x
<i>Cupressus sempervirens</i>	Italian cypress	L		60 ft.	5-10 ft.		x	x		x
<i>Dracaena draco</i>	dragon tree	L		20 ft.	30 ft.		x			
<i>Elaeocarpus decipiens</i>	Japanese blueberry tree	-		30-60 ft.	20-30 ft.	x	x			
<i>Eriobotrya deflexa</i>	bronze loquat	M		15-30 ft.	15-30 ft.		x	x	x	
<i>Erythrina coralloides</i>	naked coral tree	M		30 ft.	30 ft.	x	x		x	
<i>Erythrina x bidwillii</i>	Bidwell's coral tree	M		24-30 ft.	24-30 ft.	x	x		x	
<i>Eucalyptus camaldulensis</i>	red gum	L		60-100 ft.	40-60 ft.	x				x
<i>Eucalyptus nicholii</i>	Nichol's willow leaf peppermint	M		30-40 ft.	20-30 ft.	x	x			x
<i>Eucalyptus polyanthemos</i>	silver dollar gum	L		30-75 ft.	15-45 ft.	x				x
<i>Eucalyptus sideroxylon</i>	red iron bark	L		50-100 ft.	40-60 ft.	x				x
<i>Eucalyptus torquata</i>	coral gum	M		18-36 ft.	15-30 ft.		x			x
<i>Eucalyptus viminalis</i>	manna gum	M		40-120 ft.	50 ft.	x				x
<i>Ficus carica</i>	edible fig	M		15-30 ft.	15-30 ft.		x		x	
<i>Ficus microcarpa</i>	Indian laurel fig/ laurel fig	M		25-30 ft.	35-40 ft.	x			x	
<i>Ficus microcarpa 'Green Gem'</i>	green gem ficus	M		20-30 ft.	20-30 ft.	x			x	
<i>Ficus rubiginosa</i>	rusty leaf fig	M		20-50 ft.	30-50 ft.	x			x	
<i>Fraxinus augustifolia 'Raywood'</i>	raywood ash	M		20-30 ft.	25 ft.	x	x		x	
<i>Fraxinus velutina</i>	Arizona ash	M	●	30 ft.	30-40 ft.	x			x	
<i>Geijera parviflora</i>	Australian willow	M		25-30 ft.	20 ft.		x		x	
<i>Ginkgo biloba</i>	maiden hair tree	M		35-50 ft.	15-25 ft.	x	x			
<i>Gleditsia triacanthos</i>	honey locust	L		35-70 ft.	25-35 ft.	x				
<i>Handroanthus impetiginosus (Tabebuia)</i>	pink or lavender trumpet tree	M		25-50 ft.	25-50 ft.		x		x	

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
Hymenosporum flavum	sweet shade	M		12-40 ft.	9-20 ft.		x	x	x	
Jacaranda mimosifolia	jacaranda	M		25-40 ft.	15-30 ft.	x			x	
Jubaea chilensis	Chilean wine palm	M		50-60 ft.	25 ft.		x			
Juglans c. californica	Southern California black walnut	L	●	15-30 ft.	15-30 ft.					
Juniperus scopulorum 'Tolleson's'	Tolleson's juniper	M		20 ft.	10 ft.		x	x		x
Koeleruteria bipinnata	Chinese flame tree	M		20-40 ft.	20-40 ft.	x	x			
Koeleruteria paniculata	golden rain tree	L		20-35 ft.	20-40 ft.	x	x		x	
Lagerstroemia indica and hybrids	crape myrtle	M		varies			x		x	
Lagerstroemia fauriei	Japanese crape myrtle	M		20-30 ft.	20-30 ft.		x		x	
Laurus nobilis 'Saratoga'	sweet bay	L		12-40 ft.	12-40 ft.	x				
Leptospermum laevigatum	Australian tea tree	L		10-30 ft.	10-30 ft.	x				
Ligustrum lucidum	glossy privet	M		20-40 ft.	20-40 ft.		x			
Lophostemon confertus	Brisbane box	M		35-40 ft.	25 ft.	x	x		x	
Magnolia grandiflora	southern magnolia	M		80 ft.	60 ft.	x			x	
Magnolia x soulangiana	saucer magnolia	M		25 ft.	25 ft. +		x		x	
Magnolia stellata	star magnolia	M		10 ft.	20 ft.		x	x	x	
Malus spp. (edible)	apple	M	■	varies			x			
Maytenus boaria	mayten tree	M		30-50 ft.	30-50 ft.		x		x	
Melaleuca linariifolia	flax leaf paper bark	L		20-30 ft.	20-25 ft.		x			x
Melaleuca nesophila	pink melaleuca	L		15-20 ft.	15-20 ft.		x	x		x
Melaleuca quinquinervia	cajeput tree	M		20-40 ft.	15-25 ft.	x	x			x
Nolina recurvata (Beaucarnea recurvata)	bottle palm	L		12-15 ft.	9-12 ft.		x	x		
Olea europaea	olive	L		25-30 ft.	25-30 ft.	x			x	
Parkinsonia aculeata	Mexican palo verde/ Jerusalem thorn	L		15-30 ft.	15-30 ft.		x			
Parkinsonia florida (Cercidium)	blue palo verde	VL	●	35 ft.	30 ft.	x				
Parkinsonia microphyllum (Cercidium)	little leaf palo verde	L	●	20 ft.	20 ft.		x			
Parkinsonia praecox (Cercidium)	palo brea tree	L		20 ft.	20 ft.		x			
Phoenix canariensis	Canary Island date palm	L		60 ft.	50 ft.	x				
Phoenix dactylifera	date palm	L		80 ft.	20-40 ft.	x				
Phoenix reclinata	Senegal date palm	M		20-30 ft.	20-30 ft.		x			
Phoenix roebelenii	pigmy date palm	M		6-10 ft.	6-8 ft.			x		
Pinus eldarica	afghan pine	L		30-80 ft.	15-25 ft.	x	x			x
Pinus canariensis	Canary Island pine	M		50-80 ft.	20-35 ft.	x	x			x

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
Pinus coulteri	Coulter pine	L	●	30-60 ft.	25-40 ft.	x	x			x
Pinus halepensis	Aleppo pine	L		30-60 ft.	20-40 ft.	x				x
Pinus pinea	Italian stone pine	L		40-80 ft.	40-60 ft.	x				x
Pistacia chinensis	Chinese pistache	M		30-60 ft.	30-50 ft.	x	x			
Pittosporum undulatum	victorian box	M		30-40 ft.	30-40 ft.	x	x			x
Platanus racemosa	California sycamore	M	●	30-80 ft.	20-50 ft.	x				x
Platanus wrightii	Arizona sycamore	M		80 ft.	55 ft.	x				
Platanus x acerifolia	London plane	M		40-80 ft.	30-40 ft.	x				x
Podocarpus henkelii	long leaf yellow wood	M		30-50 ft.	15-20 ft.		x			
Populus fremontii	western cottonwood	M	●	40-60 ft.	30 ft.	x				x
Populus nigra 'Italica'	Lombardy poplar	M		40-100 ft.	15-30 ft.	x				x
Prosopis chilensis	Chilean mesquite	L		30 ft.	30 ft.	x				
Prunus spp. (ornamental)	flowering plum	M	■	varies			x			x
Punica granatum	pomegranate	L		varies			x			x
Pyrus calleryana cultivars	Callery pear	M		varies			x			x
Pyrus kawakamii	evergreen pear	M		15-30 ft.	15-30 ft.		x			x
Quercus agrifolia	coast live oak	L	●	20-70 ft.	20-80 ft.	x				x
Quercus douglasii	blue oak	L	●	30-50 ft.	40-70 ft.	x				x
Quercus engelmannii	mesa oak	L	●	40-50 ft.	70-80 ft.	x				x
Quercus ilex	holly oak	L		30-60 ft.	30-60 ft.	x	x			x
Quercus suber	cork oak	L		30-60 ft.	30-60 ft.	x				x
Quercus virginiana	southern live oak	M		40-80 ft.	60-100 ft.	x				x
Rhapiolepis 'Majestic Beauty'	majestic beauty	M		15-20 ft.	8-10 ft.		x			
Rhus lancea	African sumac	L		20-30 ft.	20-35 ft.		x			x
Robinia x ambigua 'Purple Robe'	locust	L		40 ft.	30 ft.	x				x
Sambucus spp.	elderberry	L	■	varies			x			
Sapium sebiferum	Chinese tallow tree	M		30-40 ft.	25-30 ft.		x			
Schinus molle	California pepper tree	L		25-40 ft.	25-40 ft.	x	x			x
Schinus terebinthifolius	Brazilian pepper tree	M		30 ft.	30 ft.		x			x
Sequoiadendron giganteum	giant sequoia	M	●	60-100 ft.	30-50 ft.	x				
Sophora japonica	Japanese pagoda tree	M		50-70 ft.	50-70 ft.	x				
Strelitzia nicolai	giant bird of paradise	M		30 ft.	30 ft.		x			
Syagrus romanzoffiana	queen palm	M		50 ft.	20-25 ft.		x			

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
Thevetia thevetioides	giant thevetia	M		12 ft.	12 ft.		x	x	x	
Tipuana tipu	tipu tree	M		20-40 ft.	30-60 ft.	x			x	
Trachycarpus fortunei	windmill palm	M		30 ft.	10 ft.		x	x		
Tristaniopsis laurina	Water gum	M		45 ft.	30 ft.	x	x			
Ulmus parvifolia	Chinese evergreen elm	M		40-60 ft.	50-70 ft.	x			x	
Umbellularia californica	California bay	M	●	20-25 ft.	20-25 ft.	x				
Vachellia farnesiana (Acacia farnesiana)	sweet acacia	VL		20 ft.	15-25 ft.		x			
Vitex agnus-castus	chaste tree	M		25 ft.	25 ft.		x			
Washingtonia filifera	California fan palm	L		60 ft.	20 ft.		x	x		
Washingtonia robusta	Mexican fan palm	L		100 ft.	10 ft.		x	x		
Zeakova serrata	saw leaf zeakova	M		60 ft.	60 ft.	x			x	
SHRUBS										
Abelia x grandiflora	glossy abelia	M		8 ft.	5 ft.		x		x	
Achillea millefolium & hybrids	common yarrow	L	■	2-3 ft.	2-3 ft.		x	x	x	
Aeonium spp.	Canary Island rose	L		varies	varies		x		x	
Agapanthus africanus	lily-of-the-Nile	M		1-2 ft.	2-3 ft.		x	x	x	
Agapanthus orientalis	lily-of-the-Nile	M		3-5 ft.	2-3 ft.		x	x	x	
Agave spp.	agave	L		varies	varies	x	x		x	
Aloe spp.	aloe	L	■	varies	varies	x	x		x	
Alyogyne huegelii	blue hibiscus	L		5-8 ft.	5-8 ft.		x		x	
Anigozanthos flavidus & hybrids	kangaroo paw	L		varies	varies		x		x	
Anisacanthus spp.	desert honeysuckle	L		4 ft.	4 ft.		x			
Anisodonteia scabrosa	false mallow	M		4-6 ft.	4-6 ft.		x			
Anisodonteia X hypomadarum	South African mallow	M		4 ft.	4 ft.		x			
Arbutus unedo 'Compacta'	compact strawberry tree	L		6-10 ft.	5-6 ft.	x	x			
Arctostaphylos spp.	manzanita	L	■	varies	varies	x	x			x
Asparagus densiflorus 'Myers'	Myers asparagus	M		2 ft.	3-4 ft.		x			
Asparagus densiflorus 'Sprengeri'	Sprenger asparagus	M		2-3 ft.	3-6 ft.		x			
Aspidistra elatior	cast iron plant	M		2 ft.	2-3 ft.		x	x		
Atriplex spp.	saltbush	VL	■	varies	varies		x		x	
Baccharis 'Centennial'	bentennial baccharis	L	●	3 ft.	4-5 ft.	x	x		x	
Baileya multiradiata	desert marigold	L	●	1-1 1/2 ft.	1-2 ft.		x	x	x	

APPENDIX 10.5

CLIMATE-APPROPRIATE PLANTS

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
Bambusa spp.	clumping bamboo				varies	x	x			
Berberis spp.	barberry	L/M per species	■	varies	varies	x	x			
Bougainvillea spp.	bougainvillea	L		3-6 ft.	3-6 ft.	x	x			x
Bouteloua curtipendula	sideoats gramma	L	●	1-2 ft.	2 ft.		x	x		
Bouteloua gracilis	blue gramma	L	●	1 1/2-2 ft.	1 ft.		x	x		
Buddleia marrubifolia	wooly butterfly bush	L		5 ft.	5 ft.	x	x			
Bulbine frutescens	stalked bulbine	L		1 ft.	2-3 ft.		x	x		
Buxus microphylla japonica	Japanese boxwood	M		4-6 ft.	4-6 ft.		x		x	
Caesalpinia gilliesii	desert bird of paradise	L		10 ft.	8 ft.	x	x			
Caesalpinia mexicana	Mexican bird of paradise	L		10-12 ft.	6-8 ft.	x	x			
Caesalpinia pulcherrima	dwarf poinciana	M		10 ft.	10 ft.	x	x			
Calamagrostis spp.	feather reed	M	■	2-3 ft.	2-3 ft.		x	x		
Calliandra californica	Baja fairy duster	L	●	5 ft.	5-6 ft.		x			
Calliandra eriophylla	fairy duster	VL	●	3 ft.	4-5 ft.		x			
Calliandra haematocephala	pink powder puff	M		10 ft.	10 ft.	x				
Calliandra tweedii	Trinidad flame bush	M		6-8 ft. +	6-8 ft. +	x				
Callistemon citrinus	bottle brush	L		10-15 ft.	10-15 ft.	x				
Callistemon 'Better John'	dwarf bottle brush	L		3 ft.	3 ft.		x	x		
Camellia sasanqua	sasanqua camellia	M		varies	varies	x	x			
Campanula spp.	bell flower	M		varies	varies					
Carex buchanani	leatherleaf sedge	M		3 ft.	2 1/2 ft.		x	x		
Carex conica	snowline sedge	M		2 ft.	2 ft.		x	x		
Carex elata 'Aurea'	Bowles golden sedge	M		2 1/2 ft.	1 1/2 ft.		x	x		
Carex flagellifera	New Zealand sedge	M		3 ft.	2-2 1/2 ft.		x	x		
Carex morrowii expallida	Japanese sedge	M		1 ft.	1 1/2 ft.		x	x		
Carex pansa	California meadow sedge	M	●	6-8 in.	1 ft.		x	x		
Carex tumulicola	Berkeley sedge	L	●	6-8 in.	1 ft.			x		
Carissa spp.	Natal plum	M		2-4 ft.	3-6 ft.		x		x	
Carpenteria californica	bush anemone	M	●	4-6 ft.	4-6 ft.	x	x			
Ceanothus spp.	California lilac	L	■	3-15 ft.	3-15 ft.	x	x			x
Centaurea cineraria	dusty miller (cineraria)	M		1 ft.	1 ft.			x		
Choisya ternata	Mexican orange	M		6-8 ft.	6-8 ft.	x	x			
Cistus spp.	rockrose	L		3-6 ft.	3-6 ft.	x	x		x	

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Clivia miniata	Kaffir lily	M		2 ft.	2 ft.			x		
Coccolus laurifolius	laurel leaf cocculus	M		25 ft.	25 ft.	x				
Convolvulus cneorum	bush morning glory	L		2-4 ft.	2-4 ft.		x			
Coprosma x kirkii	creeping coprosma	M		1-3 ft.	4-6 ft.	x	x		x	
Coprosma repens	mirror plant	M		10 ft.	6 ft.	x	x		x	
Cordylone stricta	palm lily	M		15 ft.	6 ft.	x				
Cotoneaster congestus	Pyrenees cotoneaster	M		3 ft.	3 ft.		x	x		
Cotoneaster glaucophyllus	bright bead cotoneaster	M		5 ft.	5 ft.	x	x			
Cotoneaster parneyi	Parney cotoneaster	M		8 ft.	10 ft.	x				
Cotoneaster salicifolius	willowleaf cotoneaster	M		15-18 ft.	15-18 ft.	x				
Crassula spp.	crassula	L		1-4 ft.	1-4 ft.		x		x	
Cuphea spp.	cuphea	M		1-3 ft.	1-3 ft.		x	x		
Cycas revoluta	sago palm	M		2-3 ft. +	4-6 ft.		x			
Dalea bicolor	dalea (bicolor)	L		8 ft.	5-6 ft.	x				
Dasyliiron spp.	desert spoon	L		3-5 ft.	4-5 ft.	x				
Dendromecon harfordii	island bush poppy	L	●	8-20 ft.	8-20 ft.	x				
Dendromecon rigida	bush poppy	L	●	4-8 ft.	4-6 ft.	x				
Deschampsia caespitosa	tufted hairgrass	L	●	1-2 ft.	2 ft.		x	x		
Dianella revoluta cultivars	flax lily	L		varies	varies	x	x		x	
Dianella tasmanica	Tasmin flax lily	M		3-4 ft.	1-2 ft.		x	x	x	
Dianthus spp.	pink/carnation	M		1-1 1/2 ft.	1-1 1/2 ft.		x		x	
Dietes bicolor	fortnight lily	M		2-3 ft.	3 ft.		x	x	x	
Dietes iridioides	fortnight lily	M		3-4 ft.	3-4 ft.		x		x	
Dodonaea viscosa 'Purpurea'	purple hopseed bush	M		10-15 ft.	10-15 ft.	x				x
Dudleya spp.	dudleya, live forever	L	●	1 1/2 ft.	1-2 ft.			x	x	
Echeveria spp.	hens and chickens	L		3-6 in.	1 1/2 ft.			x	x	
Echinocactus spp.	barrel cactus	L	■	4 ft.	2 1/2 ft.		x	x		
Echinopsis spp.	torch cactus	L		4-12 in.	varies		x			
Echium candicans	pride of Madeira	L		5-6 ft.	6-10 ft.	x				
Elaeagnus pungens	silverberry	L		10-15 ft.	10-15 ft.	x			x	
Elymus magellanicus	Magellan wheatgrass	M		1 1/2 ft.	1 1/2 ft.			x		
Encelia californica	California encelia	L	●	3 ft.	4 ft.		x		x	
Encelia farinosa	brittle bush	L	●	3 ft.	4 ft.		x		x	

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CLIMATE-APPROPRIATE PLANTS

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<i>Epilobium californica</i> 'Everett's Choice'	Everett's choice California fuschia	L	●	2-4 in.	3-5 ft.					
<i>Epilobium californica</i> varieties (Zauschneria)	California fuschia	L	●	varies			x			
<i>Eriogonum fasciculatum</i>	California buckwheat	L	●	1-3 ft.	4 ft.		x			x
Escallonia 'Compakta'	compact escallonia	M		3 ft.	3 ft.		x			
Escallonia 'Frades'	Frades escallonia	M		5-6 ft.	5-6 ft.	x	x			
<i>Euryops pectinatus</i>	shrub daisy	L		3-6 ft.	3-6 ft.		x			
<i>Feijoa sellowiana</i>	pineapple guava	M		10-25 ft.	10-25 ft.	x			x	
<i>Felicia amelloides</i>	blue marguerite	M		1 1/2 ft.	4-5 ft.		x		x	
<i>Ferocactus</i> spp.	barrel cactus	L	■	8-9 ft.	3 ft.	x	x			
<i>Festuca californica</i>	California fescue	M	●	2-3 ft.	1-2 ft.		x	x		
<i>Festuca glauca</i>	blue fescue	M		1 ft.	10 in.			x		
<i>Fouquieria splendens</i>	ocotillo	L	●	8-25 ft.	5-10 ft.	x				
<i>Frangula californicus</i> (Rhamnus)	coffeeberry	L	●	15 ft.	8 ft.	x			x	
<i>Fremontodendron</i> spp.	flannel bush	L	●	20 ft.	12 ft.	x				x
<i>Gaillardia x grandiflora</i>	blanket flower	M		2-4 ft.	1 1/2 ft.		x	x		
<i>Galvesia speciosa</i>	island bush snapdragon	L	●	3 ft.	5 ft.		x			
<i>Gardenia</i> spp.	gardenia	M		varies			x			
<i>Garrya elliptica</i>	coast silktassel	M	●	10-20 ft.	10-20 ft.	x				
<i>Geranium</i> 'Johnson's Blue'	Johnson's blue geranium	M		1 1/2-2 ft.	2 ft.			x		
<i>Geranium sanguineum</i>	bloody cranesbill	M		8-18 in.	2 1/2 ft.			x		
<i>Grevillea</i> 'Noelli'	Noel's grevillea	L		4 ft.	4-5 ft.	x				
<i>Grewia occidentalis</i>	lavender star flower	M		6-10 ft.	6-10 ft.	x				
<i>Helictotrichon sempervirens</i>	blue oat grass	M		2-3 ft.	2-3 ft.		x	x		
<i>Hemerocallis</i> spp.	day lily	M		varies			x		x	
<i>Hesperaloe parviflora</i>	red/ yellow yucca	L		3-4 ft.	3-4 ft.		x			
<i>Heteromeles arbutifolia</i>	toyon	L	●	6-10 ft.	6-10 ft.	x				
<i>Heuchera maxima</i>	island alum root	M	●	1-2 ft.	3-4 ft.		x		x	
<i>Heuchera sanguinea</i>	coral bells	M		1-2 ft.	1-2 ft.		x	x		
<i>Hibiscus rosa-sinensis</i>	Chinese hibiscus	M		8-15 ft.	5-8 ft.	x	x			
<i>Ilex cornuta</i> and varieties	Chinese holly	M		varies			x			
<i>Ilex vomitoria</i> and varieties	yaupon	L		varies			x			
<i>Imperata cylindrica</i> 'Rubra'	Japanese blood grass	M		1-2 ft.	1 ft.			x		
<i>Iris douglasiana</i>	Douglas iris	M	●	1 1/2-2 ft.	1-1 1/2 ft.			x	x	

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CLIMATE-APPROPRIATE PLANTS

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Iris spp.	bearded iris	M	■	varies			x		x	
Juncus effusus	soft rush	M	●	2 1/2 ft.	2 1/2 ft.		x	x		
Juncus patens	California gray rush	M	●	2 ft.	2 ft.		x	x		
Juniperus spp.	juniper	L	■	varies		x	x			x
Justicia brandegeana	shrimp plant	M		3-4 ft.	3-4 ft.		x			
Justicia californica	chuparosa	L	●	6 ft.	6 ft.	x	x			
Kalanchoe spp.	kalanchoe, garden varieties	L		1-2 ft.	1-2 ft.		x	x	x	
Kniphofia uvaria and hybrids	red hot poker	L		varies			x		x	
Lantana camara	bush lantana	L		6 ft.	6 ft.	x	x			
Lantana montevidensis and hybrids	trailing lantana	L		varies			x		x	
Laurus nobilis	sweet bay	L		12-40 ft.	12-40 ft.	x				
Lavandula spp.	lavender	L		2-4 ft.	2-6 ft.		x			
Lavatera assurgentiflora	tree mallow	L	●	12 ft.	12 ft.	x				
Lavatera maritima	California tree mallow	M		8 ft.	4 ft.	x				
Leonotis leonurus	lion's tail	L		6 ft.	6 ft.	x				
Leptospermum scoparium	New Zealand tea tree (shrub varieties)	M		4-12 ft.	4-8 ft.	x				
Leucophyllum frutescens 'Compacta'	compact Texas ranger	L		5 ft.	5 ft.	x	x			
Leymus 'Canyon Prince'	canyon prince rye	M		4 ft.	3 ft.		x	x		
Ligustrum japonicum and varieties	Japanese privet	M		varies		x				
Limonium vulgare	Mediterranean sea lavender	L		1-2 ft.	1-2 ft.		x	x	x	
Liriope muscari varieties	lilyturf	M		1-1 1/2 ft.	1-2 ft.			x	x	
Lobelia laxiflora	Mexican bush lobelia	VL		3 ft.	6 ft.	x	x			
Loropetalum chinense	fringe flower	-		6-10 ft.	6-10 ft.	x				
Mahonia aquifolium	Oregon grape	M		6 ft.	5 ft.	x	x			x
Mahonia 'Golden Abundance'	golden abundance mahonia	M		6 ft.	5 ft.	x				x
Mahonia nervosa	longleaf mahonia	M		2-3 ft.	3 ft.	x	x			x
Mahonia nevinii	Nevin mahonia	L		6 ft.	6 ft.	x				x
Melaleuca armillaris	bracelet honey-myrtle	M		12-15 ft.	15-30 ft.	x				
Mimulus aurantiacus	sticky monkey flower	L	●	4 1/2 ft.	4 1/2 ft.		x			x
Miscanthus sinensis varieties	eulalia grass	M		varies			x			x
Molinia caerulea	Moor grass	-		varies			x			
Muhlenbergia capillaris	hairy awn muhly	-		3 ft. +	6 ft.	x	x			x
Muhlenbergia rigens	deer grass	M	●	4 ft. +	4 ft.	x	x			x

APPENDIX 10.5

CLIMATE-APPROPRIATE PLANTS

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
Myrsine africana	African boxwood	M		8 ft.	6 ft.	x	x		x	
Myrtus communis	true myrtle	M		5-6 ft.	4-5 ft.	x	x			
Nandina domestica	heavenly bamboo	M		varies			x		x	
Nandina spp.	compact, upright heavenly bamboo	M		4-6 ft.	3 ft.		x	x	x	
Nandina spp.	low growing heavenly bamboo	M		1-3 ft.	1-3 ft.		x	x	x	
Neprolepis exaltata 'Bostoniensis'	Boston fern	M		3 ft.	4 ft.		x			
Nerium oleander	oleander	L		20 ft.	12 ft.	x				x
Nolina microcarpa	bear grass	VL	■	3 ft.	6 ft.	x	x			
Ophiopogon japonicus	mondo grass	M		6-8 in.	6-8 in.					
Opuntia macrocentra	prickly pear cactus	L		4 ft.	6 ft.		x		x	
Opuntia microdasys	bunny ears	L		2-3 ft.	4-5 ft.		x		x	
Osmanthus fragrans	sweet olive	M		10 ft.	6-8 ft.	x				
Pennisetum spp.	fountain grass (no self sowing selections)	-		varies			x			x
Penstemon hybrids	border penstemon	M	■	2-4 ft.	3 ft.		x	x	x	
Penstemon heterophyllus varieties	penstemon	-	●	1 1/2-2 ft.	2-3 ft.		x	x	x	
Phlomis fruticosa	Jerusalem sage	L		4 ft.	4 ft.		x			
Phormium hybrids	flax	M		varies		x	x			
Photinia x fraseri	Fraser photinia	M		15 ft.	15 ft.	x			x	
Pittosporum crassifolium	evergreen pittosporum	M		25 ft.	20 ft.	x			x	
Pittosporum tobira	mock orange	M		15 ft.	15 ft.	x			x	
Pittosporum tobira 'Wheeler's Dwarf'	dwarf pittosporum	M		2-3 ft.	4-5 ft.		x		x	
Plumbago auriculata 'Monott'	royal cape plumbago	M		5 ft.	6-8 ft.	x	x		x	
Podocarpus macrophyllus maki	shrubby yew pine	M		8-15 ft.	2-4 ft.	x			x	
Prunus caroliniana	Carolina laurel cherry, compact varieties	M		10 ft.	8 ft.	x			x	
Prunus ilicifolia	holly leaf cherry	VL	●	10-25 ft.	10-25 ft.	x			x	
Prunus lyonii	Catalina cherry	L	●	15-20 ft.	15-20 ft.	x				
Punica granatum 'Nana'	dwarf pomegranate	M		3 ft.	6 ft.		x		x	
Pyracantha spp.	firethorn	M		4-10 ft.	4-10 ft.	x			x	
Rhaphiolepis spp.	Indian hawthorne	M		5 ft.	6 ft.	x	x		x	
Rhapis excelsa	lady palm	M		5-12 ft.	5-12 ft.	x				
Rhus integrifolia	lemonade berry	L		10 ft.	10 ft.	x			x	
Rhus laurina	laurel sumac	L	●	15 ft.	15 ft.	x				x
Rhus ovata	sugar bush	L	●	10 ft.	10 ft.	x				

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CLIMATE-APPROPRIATE PLANTS

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Ribes aureum	golden currant	L	●	6 ft.	6 ft.	x	x			
Romneya coulteri	Matilija poppy	L	●	6-8 ft.	6-8 ft.	x	x			
Rosa californica	California wild rose	L	●	3-9 ft.	3-9 ft.		x			
Rosa, bush hybrids	rose	M		varies			x			
Rosa rugosa	Ramona's rose	-		3-6 ft.	3-6 ft.		x			
Rosmarinus officinalis	rosemary, upright varieties	L		5-7 ft.	2-5 ft.		x			x
Rudbeckia hirta and varieties	Gloriosa daisy	M		1-4 ft.	1 1/2 ft.		x			
Salvia spp.	sage	L	■	varies		x	x			x
Salvia 'Dara's Choice'	Sonoma sage	L	●	2-3 ft.	3-6 ft.		x			x
Salvia 'Mrs. Beard'	Mrs. Beard sage	-	●	2-4 ft.	4-6 ft.		x			x
Salvia clevelandii & hybrids	Cleveland/Alan Chickering etc.	L	●	5 ft.	8 ft.	x	x			x
Salvia greggii & hybrids	autumn sage	L		4 ft.	4 ft.		x			x
Salvia mexicana	Mexican sage	-		10 ft. +	3-5 ft.	x				x
Salvia sonomensis	creeping/Sonoma sage	-	●	1 ft.	3-4 ft.		x			x
Salvia spathacea	hummingbird/pitcher sage	-	●	1-2 ft.	3-4 ft.		x			x
Sambucus spp.	elderberry	L	■	30 ft.	20 ft.	x				
Santolina spp.	lavender cotton	L		2 ft.	3 ft.		x			
Senecio cineraria	dusty miller	L		2-3 ft.	2-3 ft.		x			x
Senna artemesioides (Cassia artemesioides)	feathery cassia/senna	L		5 ft.	5 ft.		x			
Senna spectabilis (Cassia excelsa)	senna/cassia (spectabilis/excelsa)	L		6 ft.	6 ft.	x				
Sesleria autumnalis	autumn moor grass	-		8-18 in.	8-18 in.		x			
Sesleria caerulea	blue moor grass	-		6-8 in.	6-8 in.		x			
Simmondsia chinensis	jojoba	VL	●	6 ft.	6 ft.	x				
Stachys byzantina	lamb's ears	M		1 1/2 ft.	2 ft.		x			
Stipa pulchra	purple feather grass	L	●	3 ft.	2 ft.		x			x
Strelitzia reginae	bird of paradise	M		5-6 ft.	5-6 ft.		x			
Syzygium paniculatum varieties	Australian brush cherry	M		varies		x				x
Teucrium cossonii majoricum	Majorcan germander	L		8 in.	1 1/2 ft.					
Teucrium fruticans	bush germander	L		4-8 ft.	4-8 ft.	x				
Thevetia peruviana	yellow oleander	M		8 ft. +	8 ft. +	x				
Thuja occidentalis varieties	American arborvitae, garden selections	M		varies		x				x
Trichostema lanatum	woolly/mountain blue curls	L	●	3-5 ft.	4-8 ft.		x			
Tulbaghia violacea	society garlic	M		10-24 in.	1-2 1/2 ft.		x			x

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area	*Allowed in High Fire Areas	Avoid in High Fire Areas
Verbena stricta	hoary vervain	M		3 ft.	1 1/2 ft.		x	x		
Viburnum japonicum	Japanese viburnum	M		15 ft.	12 ft.	x				
Viburnum tinus and varieties	laurustinus	M		varies		x				
Westringia 'Morning Light'	morning light westringia	L		3 ft.	3 ft.	x	x	x		
Westringia fruticosa	coast rosemary	L		3-6 ft.	5-8 ft.	x	x			
Woodwardia fimbriata	giant chain fern	M	●	4-5 ft.	3 ft.		x			
Xylosma congestum	shiny xylosma	M		10 ft.	10 ft.					
Yucca spp.	yucca	L	■	varies		x	x		x	
Zephyranthes spp.	zephyr flower	M		6-15 in.	1 ft.		x	x		
GROUND COVERS										
Abelia x grandiflora 'Prostrata'	prostrate glossy abelia	M		1 1/2-2 ft.	4-5 ft.		x			
Acacia redolens	prostrate acacia, low-growing forms	L		2 ft.	12 ft.	x				x
Achillea tomentosa	woolly yarrow	L		6-10 in.	1 1/2 ft.			x		
Arctostaphylos cultivars	manzanita, ground cover cultivars	L	■	varies			x			
Arctotheca calendula	cape weed	M		6-12 in.	1 1/2-2 ft.		x	x		
Armeria maritima	sea pink	M	●	6-10 in.	1 ft.		x	x		
Artemisia caucasica	silver spreader	L	●	3-6 in.	2 ft.		x	x		x
Baccharis pilularis cvs.	dwarf coyote brush	L	●	8-24 in.	6 ft.	x	x			x
Bougainvillea spp.	bougainvillea	L		1 1/2-4 ft.	6-30 ft.	x				x
Campanula portenschlagiana	Dalmatian bellflower	M		4-6 in.	2 ft.		x	x		
Campanula poscharskyana	Serbian bellflower	M		8 in.	2 ft.		x	x		
Carissa macrocarpa	Natal plum, spreading varieties	M		1-2 ft.	4 ft.		x			x
Ceanothus gloriosus 'Point Reyes'	Point Reyes	L	■	1-2 1/2 ft.	15 ft.	x	x			
Cerastium tomentosum	snow in summer	M		6-8 in.	2-3 ft.		x	x		
Convolvulus sabatius	ground morning glory	L		1-2 ft.	3 ft.		x	x		
Coprosma petriei 'Verde vista'	verde vista coprosma	M		1-3 ft.	4-6 ft.		x			
Coreopsis auriculata 'Nana'	dwarf coreopsis	L		5-6 in.	2 ft.		x	x		
Cotoneaster spp. (ground covers)	cotoneaster	M		1-3 ft.	6-15 ft.	x	x			
Dalea capitata	dalea (capitata)	-		8 in.	3 ft.		x	x		
Dalea greggii	trailing indigo bush	L		1 1/2 ft.	6 ft.	x	x			
Drosanthemum floribundum	rosea ice plant	L		6 in.	5 ft.		x			x
Dymondia margaritae	dymondia	L		2-3 in.	20 in.		x	x		

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Erigeron karvinskianus	fleabane	M		10-20 in.	3 ft.		x	x		
Euonymus fortunei	euonymum, prostrate forms	M		1/2-2 ft.	varies		x			
Fragaria spp.	strawberry	M	■	4-8 in.	1-1 1/2 ft.			x		
Gazania hybrids	gazania	M		6-10 in.	3-4 ft.					
Graptopetalum spp.	graptopetalum	L		7 in.	1 ft.			x		
Helianthemum nummularium	sunrose	-		6-8 in.	3 ft.					
Hypericum calycinum	Aaron's beard	M		1 ft.	3-4 ft.		x			
Iberis sempervirens	evergreen candy tuft	M		8-12 in.	8-12 in.			x		
Iva hayesiana	poverty weed	L	●	1 ft.	3 ft.		x			
Lampranthus spp.	trailing ice plant	L		1 ft.	1 1/2-2 ft.			x		x
Lantana montevidensis	trailing lantana	L		2 ft.	3-6 ft.		x			
Lonicera japonica 'Halliana'	Hall's honeysuckle	L		2 ft. +	15-30 ft.			x		x
Mahonia repens	creeping mahonia	M		1 ft.	3 ft.		x			x
Myoporum parvifolium & cvs.	myoporum	L		3-6 in.	9 ft.		x		x	
Myoporum 'Pacificum'	pacific saltbush	M		2 ft.	30 ft.		x		x	
Osteospermum spp.	African daisy	L		6-12 in.	2-4 ft.		x	x		
Pelargonium peltatum	ivy geranium	M		1 ft.	5 ft.		x		x	
Rosemarinus 'Prostratus'	trailing rosemary	L		2 ft.	8 ft.		x			
Scaevola 'Mauve Clusters'	fan flower	M		4-6 in.	3-5 ft.		x			
Sedum spp.	stone crop	L	■	varies			x		x	
Senecio mandraliscae	kleinia	M		1-1 1/2 ft.	2 ft.		x	x		
Teucrium x lucidrys	germander	L		1 ft.	2 ft.			x		
Teucrium cossonii majoricum	Majorcan germander	L		9 in.	2 1/2 ft.			x		
Trachelospermum asiaticum	Asian star jasmine	M		18 in.	5 ft.		x			
Trachelospermum jasminoides	star jasmine	M		2 ft.	10 ft.		x			
Verbena gooddingii	Goodding verbena	L	●	1 1/2-2 ft.	3-4 ft.		x			
Verbena lilacina	lilac verbena	L	●	1 ft.	3 ft.		x			
Verbena peruviana	Peruvian verbena	L		18 in.	3 ft.		x			
Verbena rigida	vervian	M		1-2 ft.	3-4 ft.		x		x	
Vinca minor	periwinkle	M		4-6 in.	1 1/2 ft.		x	x		
Zinnia grandiflora	prairie zinnia	M		1 ft.	1 1/2 ft.			x		

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VINES										
<i>Bignonia capreolata</i>	cross vine	-		40-60 ft.		X				
<i>Bougainvillea</i> spp.	bougainvillea	L		15-30 ft.		X				X
<i>Campsis</i> spp.	trumpet creeper	M		40 ft.		X				
<i>Cissus</i> spp.	Texas grape ivy	M		30-50 ft.		X				
<i>Cissus rhombifolia</i>	grape ivy	M		20 ft.		X	X			
<i>Clytostoma callistigioides</i>	violet trumpet vine	M		15-25 ft.					X	
<i>Distictis buccinatoria</i>	blood red trumpet vine	M		20-30 ft.		X	X		X	
<i>Ficus pumila</i>	creeping fig	M		40-60 ft.		X	X			
<i>Gelsemium sempervirens</i>	Carolina jessamine	M		20 ft.			X			
<i>Hardenbergia violacea</i>	lilac vine	M		10 ft.			X		X	
<i>Hedera helix</i>	English ivy	M		20 ft.			X			X
<i>Jasminum polyanthum</i>	pink jasmine	M		20 ft.			X			
<i>Lonicera japonica</i>	Japanese honeysuckle	L		30 ft.		X	X			X
<i>Lonicera sempervirens</i>	trumpet honeysuckle	M		10-20 ft.			X		X	
<i>Macfadyena unguis-cati</i>	cat's claw	L		25-40 ft.		X	X			
<i>Pandorea jasminoides</i>	bower vine	M		20-30 ft.		X	X		X	
<i>Parthenocissus quinquefolia</i>	Virginia creeper	M		20 ft.			X		X	
<i>Parthenocissus tricuspidata</i>	Boston ivy	M		20 ft.			X		X	
<i>Passiflora</i> spp.	passion vine	M		20-30 ft.			X		X	
<i>Rosa banksiae</i>	Lady Banks rose	M		20 ft.		X	X		X	
<i>Rosa</i> spp.	climbing roses	M		varies		X	X		X	
<i>Vigna caracalla</i>	snail vine	M		10-20 ft.			X			
<i>Vitis californica</i>	California wild grape	L	●	30 ft.		X			X	
<i>Vitis girdiana</i>	desert grape	L	●	30 ft.		X			X	
<i>Wisteria</i> spp.	wisteria	M		15-30 ft.		X			X	