

## GREEN BUILDING CODE SUPPLEMENTAL CORRECTION SHEET FOR PROJECTS SUBJECT TO THE <u>MODEL WATER</u> EFFICIENCY LANDSCAPE ORDINANCE (MWELO)

#### (2014 LAGBC)

Plan Check Submittal Date:	
Plan Check / Permit Application Number:	
Job Address:	
Applicant:	Phone:
P.C. Engineer:	Phone:
E-mail:	

## **PERFORMANCE APPROACH**

### Landscape Documentation Package (Title 23, Chapter 2.7 §492.3)

- 1. The project's address, total landscape area, water supply type, and contacts shall be stated on the plans.
- 2. Add, sign and date the following statement on the plans: "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."
- 3. Water Efficient Landscape Worksheet that includes a hydrozone information table and water budget calculations shall be submitted for plan check.
- 4. A landscape design plan and irrigation design plan shall be submitted for plan check.

### Water Efficient Landscape Worksheet (Title 23, Chapter 2.7 §492.4 and §492.13)

- 5. Incorporate the Water Efficient Landscape Worksheet into plans. Show that the Maximum Applied Water Allowance (MAWA) meets or exceeds the calculated Estimated Total Water Use (ETWU).
- 6. The evapotranspiration adjustment factor (ETAF) for the landscape project shall not exceed a factor of (0.55 for residential areas) (0.45 for non-residential areas).
- The plant factor used shall be from WUCOLS or from horticultural researchers with academic institutions. WUCOLS plants database can be found on-line at: <u>http://ucanr.edu/sites/WUCOLS/</u>
- 8. All water features shall be included in the high water use hydrozone. All temporary irrigated areas shall be included in the low eater use hydrozone.
- 9. All Special Landscape areas shall be identified on the plans. The ETAF for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.
- 10. For the purpose of calculating ETWU, the irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices.

#### Landscape Design Plan (Title 23, Chapter 2.7 §492.6)

- 11. The landscape design plans, at a minimum, shall:
  - a. Delineate and label each hydrozone by number, letter, or other methods.
  - b. Identify each hydrozone as low, moderate, high water, or mixed water use.
- c. Identify recreational areas, areas solely dedicated to edible plants, areas irrigated with recycled water, type and surface area of water features, impermeable and permeable hardscape, and any infiltration systems.

- 12. For hydrozone with a mix of both low and moderate water use plants or both moderate and high water use plants, the higher plant factor or the plant factor based on the proportions of the respective plant water uses shall be used. Hydrozones containing a mix of low and high water use plants is not permitted.
- 13. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape.
- 14. Add note to plans: "Recirculating water systems shall be used for water features"

#### Irrigation Design Plan (Title 23, Chapter 2.7 §492.7)

- 17. The irrigation plans, at a minimum, shall contain the following:
  - a. Location and size of spate water meters for landscape
  - b. Location, type, and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices.
  - c. Static water pressure at the point of connection the public water supply
  - d. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station.
- 18. A dedicated water service meter or private submeter shall be installed for all (non-residential irrigated landscapes of at least 1,000sqft) (residential irrigated landscape areas of at least 5,000sqft).
- 19. Automatic weather-based or soil-moisture based Irrigation controllers shall be installed on the irrigation system.

- 15. Add note to plans: "A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated."
- 16. Add note to plans: "For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil.

- 20. Add note to plans: "Pressure regulating devices are required if water pressure is below or exceeds the recommended pressure of the specified irrigation devices."
- 21. Manual shut-off valves shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency or routine repair.
- 22. Add note to plans: "Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur."
- 23. Areas less than 10-feet in width in any direction shall be irrigated with subsurface or drip irrigation.
- 24. Overhead irrigation shall not be permitted within 24-inches of any non-permeable surface.

### Required Statements and Certification (Title 23, Chapter 2.7 §492.6, §492.7 and §492.9)

- 25. Add the following statement on the landscape and irrigation plans: "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plans".
- 26. The final set of landscape and irrigation plans shall bear the signature of a licensed landscape architect, licensed landscape contractor, certified irrigation designer, licensed architect, licensed engineer, licensed land surveyor, or personal property owner.
- 27. Add note to plans: "A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes."
- 28. Add note to plans: "A Certificate of Completion shall be filled out and certified by either the designer of the landscape plans, irrigation plans, or the licensed landscape contractor for the project".
- 29. Add note to plans: "An irrigation audit report shall be completed at the time of final inspection."

## **PRESCRIPTIVE APPROACH** (For landscape areas between 500 and 2,500 square feet)

## Plant Material (Title 23, Chapter 2.7, Appendix D (b) (3))

- 1. For residential areas, 75% of landscape, excluding edibles and areas using recycled water, shall consist of plants that average a WUCOLS plant factor of 0.3. WUCOLS plants database can be found on-line at: <u>http://ucanr.edu/sites/WUCOLS/</u>
- 2. For non-residential areas, 100% of the plants, excluding edibles and areas using recycled water, shall consist of plants that average a WUCOLS plant factor of 0.3.

#### Turf (Title 23, Chapter 2.7, Appendix D (b) (4))

4. Turf shall not exceed 25% of the landscape area in residential areas.

3. Add note to plans: "A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated."

- 6. Turf not permitted on slopes greater than 25%.
- 7. Turf is prohibited in parkways less than 10 feet wide.

5. No turf permitted in non-residential areas

### Irrigation (Title 23, Chapter 2.7, Appendix D (b) (5))

- 8. Automatic weather-based or soil-moisture based irrigation controllers shall be installed on the irrigation system. The irrigation controller shall be of a type which does not lose programming data in the event the primary source is interrupted.
- 9. Pressure regulators shall be installed on the irrigation system to ensure dynamic pressure of the system is within the manufacturer's recommended pressure range.
- 10. Manual-shut-off valves shall be installed as close as possible to the point of connection of the water supply.
- 11. Areas less than 10-feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no runoff or overspray.

- 12. For non-residential projects with landscape areas of 1,000sqft or more, private submeter(s) to measure landscape water use shall be installed.
- 13. Add note to plans: "At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule of landscape and irrigation maintenance."
- 14. Add note to plans: "Unless contradicted by a soils test, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil"

# **ADDITIONAL CORRECTIONS / COMMENTS**

No.		Code Sec. No.
	When the building plans are complete, please make an appointment with your plan check reviewer. Bring the final set of plans along with this correction sheet and marked set for Green Building approval and permit clearance.	