

ORDINANCE NO. 413

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LIVINGSTON

AN ORDINANCE ADDING CHAPTER 11 TO TITLE 9 OF THE LIVINGSTON
CITY CODE: CITY OF LIVINGSTON WATER EFFICIENT LANDSCAPING
AND IRRIGATION ORDINANCE

The City Council of the City of Livingston does hereby ordain as follows:

That Chapter 11 be added to Title 9 of the Livingston City Code read as follows:

9-11-1: PURPOSE AND INTENT

Landscaping under this Ordinance is intended to enhance the environmental value and physical appearance of development in the City; Improve the environmental performance of development by reducing heat, glare and noise; Promote the percolation of storm water; Aid in improving air quality; Buffer potentially incompatible land uses from one another; Promote the conservation of water and preservation of water quality by requiring drought tolerant plant material in landscaping and the retention of existing natural vegetation, thereby reducing the need for irrigation, pesticides, herbicides, and fertilizers.

9-11-2: APPLICABILITY

Whenever landscaping or landscaping and irrigation plans are required by a condition of approval of a development project, the following landscape and irrigation system design and specifications shall apply. The City may require landscape areas that exceed 10,000 sq. ft. to conform with the water conservation requirements in the State of California Water Efficient Landscape Ordinance.

9-11-3: STANDARDS OF LANDSCAPE DESIGN

(a) Plan preparation. It is required that a licensed landscape architect or licensed landscape contractor be employed in preparing the landscape and irrigation plans. Prior to plan preparation, the Director of Parks and Recreation should be contacted for street tree information.

- (b) Plant materials. The selection of plant materials should include both evergreen and deciduous trees, shrubs and attractive erosion-preventing ground cover. It is required that at least 90 percent of the plants selected in non-turf areas be native or well suited to the climate of the region, be drought tolerant, and require minimal water once established in the landscape. Up to 10 percent of the plants may be of non-drought tolerant variety as long as they are grouped together and can be irrigated separately. Attention shall be given to the function of the plants, their appearance, height, spread, growth rate, moisture requirements, potential root damage, disease and pest susceptibility, climatic adaptability, soil type, slope, and degree of maintenance required.
- (c) Plant coverage. Plants shall be properly spaced and sized that, when mature, they will fulfill their designated function. Turf shall be limited to 30% of the total landscaped area. Shrubs shall be a minimum of 1 gallon in size and trees shall be a minimum of 15 gallons. Although a reasonable number of growing seasons will be allowed for full plant coverage to develop, interim ground cover shall be provided during this period. Interim cover of surfacing materials shall consist of rocks, gravel, wood mulch or chips, or any other acceptable material. Mulches must be a minimum of 3" thick when used as an interim measure or in ground cover.
- (d) Plant maintenance. Automated irrigation systems shall be provided to assure efficient water use with a minimum of labor and water waste. Irrigation controllers must have multiple cycle capabilities and rain sensing override switches. Plant material must be maintained in a healthy condition. Unhealthy plants shall be replaced. Planters shall be kept free of all weeds, debris and trash.
- (e) Planter construction. All planter areas shall provide positive drainage away from paved areas. They shall have either a minimum six inch raised concrete or treated wooden curb directly behind sidewalks and pavement areas, or shall be recessed 2" below adjoining paved area with a minimum 4:1 slope away from paved edge to provide protection to the landscaping and control water runoff, silt, and erosion onto the pavement. All planters constructed adjacent to buildings or structures shall be so designed to avoid irrigation water intrusion into or on that adjacent building or structure. The minimum width of a planter bed shall be forty (40) inches, with root boxes required where trees are planted, measured from the inside of curbing or acceptable permanent border.
- (f) Compacted soils. Prior to the planting of any materials, the compacted soils surrounding a building site shall be returned to a friable condition. Friable condition shall mean returning the soil to an easily crumbled or loosely compacted condition

down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

9-11-4: **LANDSCAPE PLAN SPECIFICATIONS**

- (a) Three (3) copies of the landscape plan shall be submitted for review and approval by the Parks and Recreation Director in accordance with the standards of landscape design set forth in this chapter.
- (b) One (1) copy of all building elevations and site grading plans or one (1) copy of all building plans shall be submitted together with the landscape plan. The building elevation and site grading plans shall be in sufficient detail to permit determination of the location, width and height of all doors and windows and roof overhangs on all proposed buildings within or adjacent to proposed landscape areas.
- (c) The landscape plans shall be legible and drawn to a scale no smaller than one (1) inch equals twenty (20) feet. Maximum sheet size on all drawings shall be 24" x 36".
- (d) The landscape plans shall indicate property lines, important dimension lines, setback lines, walls and fences, driveways, adjacent street, outline of all structures and adjacent land uses.
- (e) The landscape plans shall indicate planting details, pre-emergent soil treatment rates and materials.
- (f) A soil test for horticultural suitability shall be required to ascertain texture, infiltration rate, PH, and soluble salts. The results of soil tests shall be submitted with the landscape plan. Soils shall be prepared and/or amended as appropriate.
- (g) A minimum of three (3) inches of mulch shall be added in non-turf areas to the soil surface after planting. Plant types that are intolerant of mulch shall be excluded from this requirement.
- (h) Sheet plastic and other non-porous material shall not be placed under mulch.
- (i) The use of turf as a plant material will not be permitted in narrow planter areas (less than ten (10) feet in width), in traffic median strips, parking strips, between curbs and sidewalks, or on slopes that are in excess of three to one (3:1).

On slopes exceeding 15%, a level buffer zone of 18 inches is required between bermed turf areas and any hardscape (i.e. streets, walkways, etc.).

- (j) The landscape plans shall include a plant list giving the common and botanical names of plants to be used, container size, spacing, and quantities of each group of plants. This plant list shall be arranged in legend form with a key number assigned to each plant.

Each plant shall be identified by a key number on the plan. The size of the plant, its spacing, and the quantity to be used shall follow in the legend, as the following example illustrates:

<u>No.</u>	<u>Botanical Name</u>	<u>Common Name</u>	<u>Container Size</u>	<u>Space</u>	<u>Quantity</u>
1.	Campanula isophylla	Italian Bellflower	Flat	6"	8
2.	Eucalyptus polyanthemos	Silver dollar gum	15 gal.	20'	4
3.	Pinus mugo mughus	Mugho pine	1 gal.	10'	5

9-11-5: IRRIGATION PLAN SPECIFICATIONS

- (a) Three (3) copies of the irrigation plans shall be submitted with the landscape plans to the Parks and Recreation Director for review and approval to ensure adequate irrigation coverage and compliance with the plumbing code requirements of the City. The irrigation system shall be designed with water conservation in mind. Wind direction, surface drainage, soil type and application method shall be considered.

- (b) The irrigation plan shall indicate the electrical power point of connection, the water system point of connection and size, water pressure available, and maximum demand of the system in gallons per minute or gallons per hour if appropriate.

Reclaimed water may also be used as an alternate irrigation water source if it is supplied through a dual distribution system that conforms to Merced County Health Department Standards.

- (c) Irrigation equipment specified must be identified by manufacturer's name and equipment identification number.

- (d) Performance data for irrigation heads and emitters including discharge rates, effective diameter, and operating pressure shall be listed in the irrigation legend.

- (e) All locations of irrigation valves, controllers, hose bibs, quick coupler valves, sprinkler heads and backflow prevention devices, valves, filters, pressure regulators, emitters, rain switches and moisture sensors must be indicated.

- (f) Irrigation details must be provided to clarify particular situations. Typical details should include backflow prevention

devices, valves, irrigation heads, emitters, filters, pressure regulators, moisture sensors, rain switches, check valves, irrigation controllers, and any required enclosures. Manufacturer's specification sheets may be substituted for details.

- (g) All irrigation lines must be sized.
- (h) Schedule 40 P.V.C. pipe is required under all paved areas. Piping must be installed a minimum of 12 inches underground for non-pressure irrigation lines and 18 inches underground for constant pressure irrigation lines. Emitter distribution tubing may be located at grade.
- (i) Irrigation watering schedules for the entire year must be provided on irrigation drawings. These schedules will include an establishment (first 12 months) and post establishment period. Post establishment schedules will be divided into four quarters. Those quarters are winter, spring, summer and fall.
- (j) The irrigation system must be designed by a Licensed Landscape Architect or Licensed Landscape Contractor.

Pop-up sprinklers in turf areas shall have minimum four inch pop-up height. Sprinkler coverage shall be 100%. Heads shall be placed at a maximum of 50% of the diameter of throw (head to head), unless specific justification is provided for greater spacing. Sprinkler heads must have matched precipitation rates within each control valve circuit.

Sprinklers and sprays shall not be used in areas less than eight (8) feet wide. Drip and bubblers that do not exceed 1.5 gallons per minute per device shall be used.

Soil moisture sensing devices or rain sensing devices are required on landscapes of \$50,000 square feet or larger. Moisture sensing devices shall be installed as shown on the plans or as directed by the Landscape Architect.

Irrigation systems shall avoid runoff, low head drainage, overspray, or similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways or structures.

Serviceable check valves are required where elevation differential may cause low head drainage.

Irrigation controllers must be capable of dual or multiple programming. Controllers must have multiple cycle start capacity and a flexible calendar program. Controllers shall be set to operate when evaporation is at a minimum.

Water application rates shall be less than .25 inches per cycle. A minimum of a one-hour period shall be allowed prior to the application of additional water.

(k) Copies of pressure/flow calculations shall accompany the irrigation plans.

(l) Decorative water features shall use recirculating water systems.

9-11-6: **INSPECTION**

Upon installation of landscaping and irrigation system, the installer must contact the Parks and Recreation Department and request an inspection. The landscape and irrigation installation must conform to the approved plans before final inspection or issuance of a certificate of occupancy by the Building Division.

9-11-7: **MAINTENANCE**

The landscaping and irrigation system shall be maintained in accordance with the approved landscape and irrigation plan. Maintenance includes removal of weeds, litter or other debris and replacement of dead plant materials.

9-11-8: **FEES**

A landscaping and irrigation plan review and inspection fee shall be paid to the Planning Department when the Building Permit is issued. The amount of the fee will be calculated by multiplying the total square footage of landscaped area times a rate determined by resolution of the Council.

9-11-9: **DEFINITIONS**

- A. **"Landscaped Area"** shall mean the total area of the site not covered by buildings, parking lots, driveways, patios, plazas, sidewalks, hardcourts, swimming pools, spas and parkway areas.
- B. **"Turf"** shall mean a single-bladed grass or sod.
- C. **"Water Conserving Plant"** shall mean any plant which exhibits drought tolerant characteristics, that is to say, will, in designed location, survive with limited supplemental water. Cool season grass, Hybrid Tall Type fescues and warm season grasses, such as Hybrid Bermuda grass, shall be considered water conserving.

A list of acceptable water conserving plants will be available from the Parks and Recreation Department upon request.

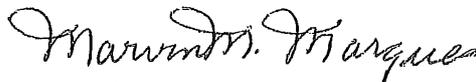
- D. **"Rain Sensing Device"** shall mean a system which automatically shuts off the irrigation system when it rains.
- E. **"Backflow Prevention Device"** shall mean a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

- F. **"Check Valve"** shall mean a valve located under a sprinkler head to hold water in the system so it minimizes drainage from the lower elevation sprinkler heads.
- G. **"Emitter"** means drip irrigation fittings that deliver water slowly from the system to the soil.
- H. **"Friable Condition"** shall mean returning the soil to an easily crumbled or loosely compacted condition down to a minimum depth per planting material requirement, whereby the root structure of a newly planted water conserving plant will be allowed to spread unimpeded.
- I. **"Mulch"** shall mean any material such as bark, straw or other materials left loose and applied to the soil surface to reduce evaporation.

9-11-10: **VALIDITY**

If any section, subsection, paragraph, sentence, clause, word or phrase of this Ordinance is for any reason held to be unconstitutional or otherwise invalid, such decision shall not affect the validity of the remainder of the Ordinance. The City Council hereby declares that they would have passed this Ordinance, and each section, subsection, paragraph, sentence, clause, word or phrase thereof, irrespective of the fact that any one or more section, subsection, paragraph, sentence, clause, word or phrase be declared unconstitutional or invalid.

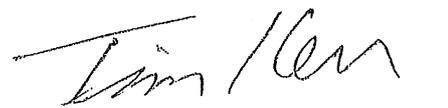
Introduced: December 15, 1992
 Passed and Adopted: January 5, 1993


 MARVIN M. MARQUES, Mayor
 of the City of Livingston

State of California)
 County of Merced)
 City of Livingston)

I, hereby certify, that the foregoing ordinance was duly introduced on the 15th day of December, 1992, and was regularly passed and adopted by the City Council of the City of Livingston on this 5th day of January, 1993, by the following vote:

AYES: Mayor Winton and Councilmen Friesen, Nagi, and Van Guilder
 NOES: None
 ABSENT: None


 TIM KERR, Deputy City Clerk
 of the City of Livingston