

City of Ontario

Landscape and Irrigation Equipment List for City maintained areas

(Approved by the Parks and Maintenance Dept. 07/2020)

Heads and Nozzles – Only for large areas of small groundcover max 12” high or turf grass

Rotors	Rainbird
Rotary Nozzles	Rainbird R-VAN (R-van1724, R-van18, R-van-8)
Micro Spray Nozzles	Rainbird SQ Series
Spray Nozzles	Rainbird – for existing sites to match existing
Pop-up bodies	Rainbird 1800 Series SAM check valve. 6” pop-ups in turf and car overhang areas, 12” pop-ups in shrub areas Rainbird 1800 SAM-PRS-45 pressure regulation 6” pop-ups in turf and car overhang areas, 12” pop-ups in shrub areas when using Hunter MP Rotators

Tree and Vine Irrigation

Tree Bubblers	Rainbird 6” pop-up stream bubbler 5F-B on a separate valve with PCS 060- 090 for a 2-3’ radius and 0.6- 0.9 GPM. Rainbird RWS-M-B-1402 or 1404, 4”x18” deep, on a separate valve. For use only in planter areas less than 5’ wide, such as tree wells or median noses to prevent overspray No bubblers at individual shrubs to avoid overwatering
Vine Bubblers	Use Xeri-bubblers on Xeri-pop up or equal for vines

Low Volume Irrigation – All areas for water efficiency

Driplines	Netafim or RainBird. All medians, parkways, and areas 10’ wide or less shall be dripline.
Drip valves	Rainbird XCV-075-PRF for ¾”, XCV-100-PRB-COM for 1” XCV-150-LCDR for 1 ½”
Flush valves	Plastic ball valve
Air Relief Valves	Rainbird ARV050 (If using CV dripline, no air relief required)
Tree bubblers	Drip bubbler where approved and where separate tree bubbler valve is not available: Per tree 2- 18 GPH emitter on stake and poly tubing from the existing drip line, such as Rainbird UXB-360-spike, full circle (0-35 GPH)

Standard Equipment – paint brass equipment with green paint for metal to avoid theft

Valves	Rainbird EFB-CP-R, Brass only (add PRS-D for pressure regulation) (Dirty water valves for recycled water use)
Master valves	Superior 950DW for 1 1/4” and smaller Superior 3200 for 1 ½” to 3”,

	<p>Griswold 2030 4" and larger. Brass only Low Power Solenoid and Epoxy Coated (Dirty water valves, normally closed, for recycled water use) Master valve to be installed with a union</p>
Flow sensors or meters	Calsense controller
Quick couplers	Rainbird 33-LRC 3/4" with locking rubber cover – potable systems Hunter HQ44-LRC-AW-R 1" Acme Threads, non-potable, purple cap
Gate Valves	Nibco T113 (brass only) in large rectangle valve box
Backflows	Febco Reduce Pressure, Wilkins Reduce Pressure
Backflow enclosure	Strongbox SBBC-XXSS, locking, vandal-resistant, stainless steel, smallest size to fit
Pressure Regulators	Febco, Wilkins
Basket Strainer	Hayward/Eaton Model 72 Simplex Basket Strainer bronze body, stainless steel strainer, 60 mesh for recycled water
Controllers	<p>Calsense CS3000 CS3-GR and include a 5-year Data Access Service Plan</p> <ul style="list-style-type: none"> • All new irrigation controllers have city-approved communication capabilities to Calsense Central System at the city yard located at 1425 S Bon View. • Request a 'Calsense design memo', from Nolan Moxley, Calsense Product Representative 562-682-2380 nolanm@calsense.com, prior to submitting final plans. • Note controller must be certified by the manufacturer's rep prior to city project approval or permit occupancy release. • Irritrol Total Control with ET system or moisture sensors (only in approved locations) outdoor model. TC-6EX-R with CL-100-Wireless Weather Sensing System. • Battery controller in valve box (only in approved locations) Hunter Node battery-operated controller 1-6 stations
Valve Boxes	<p>NDS 14x19 Rectangle Box for all remote control and gate valves. NDS 10" Round valve box for all quick couplers, flush valves, air relief valves pull boxes. NDS Jumbo box for all Basket Strainers and drip assembly valves. Concrete valve boxes for medians and roadways</p>
Wires	<p>All master valve and flow sensor wires shall be installed in conduit (sized accordingly). One spare wire shall be included inside of conduit (different color than Master Valve and Flow Sensor Wire). Two spare wires shall be installed along the mainline along with one wire coiled in each valve box. (Different color than field wires and common wire). One spare Common wire shall be installed along the mainline and coiled up at each valve. (Color to be white) Flow Meter wire must be 14 gauge</p>

Irrigation Pumps	Rainbird
Marking Tape	Pipe under roadways shall be installed 36" deep, sleeved and identified with marking tape installed 12" below the surface identifying the type of line with APWA standard "Caution waterline buried below" in blue or "Caution recycled waterline buried below" in purple.
Sleeves	Sleeves for irrigation lines under paving and roadways shall be Schedule 40 PVC, two times the diameter of the pipe being sleeved. Min 2" sleeve size, also for wire only sleeves, for possible future use. Sleeves shall extend a minimum 12" into planters.
Note on plans	<p>Agronomic report shall be presented prior to any plantings. A preliminary agronomical soil testing and report shall be included on landscape plans. Sewage sludge or biosolids are not allowed. An additional soil test and report shall be taken by the installation contractor to verify amendments installed are satisfactory prior to planting. City staff shall be present when samples are taken.</p> <p>If soil conditioners are needed per soil report, City staff shall be present when materials are being incorporated</p> <p>Field inspections shall include City staff from Landscape Planning Division 909 395-2615 and Parks and Maintenance Department, 909 395-2628 or 909 395-2627.</p> <p>Materials shall be subject to City staff inspection and approval.</p> <p>Substitutions shall be presented to City staff for approval.</p> <p>Copies of all certifications shall be presented to City staff at the inspection day for the start of the 90 day maintenance period.</p> <p>The maintenance of the entire project shall be for 90 days from the time the City staff inspects the site and grants the start of the maintenance period.</p> <p>Calsense controller must have the capabilities to communicate with Central located at 1425 S. Bon View.</p> <p>No private irrigation system shall be connected within the public right of way. Except for the private water main between the water meter and the homeowner property line, all valves, backflows, quick couplers, irrigation system connections, pressure regulators, etc. shall be located on private property.</p> <p>Trees must meet the Guideline Specifications for Nursery Tree Quality, Urban Tree Foundation 2009, or will be rejected prior to project acceptance. http://www.urbantree.org/pdf/NurseryTreeSpecs1.pdf</p> <p>All recycle water signs to be installed on 12 gage square 2"x 2" x 36" square metal post-pre-drilled. Post to be installed in a 2.5"x 24" heavy-duty pre-drilled 7 gage anchor. Recycle water sign material shall be aluminum and a thickness of .08.</p>