Disclaimer: The information provided on this specification is for general information purposes only, all information provided is in good faith, We take no responsibility regarding the accuracy, adequacy, validity, reliability, availability or completeness of any information provided.

Irrigation specification

Water supply

The irrigation water supply is to be from: (Delete as required)

The water authority recycled water supply (All components of the irrigation system must be identified as "Recycled Water Do Not Drink" and coloured lilac) to meet authority requirements

The water authority potable water supply

The onsite rainwater harvesting system (All components of the system must be identified as "Rainwater Water Do Not Drink")

Design performance

The certified irrigation designer should design the irrigation system to meet
Best Practice Guidelines for functional open space (Developed as a combined effort of Irrigation Australia,Sports Turf Association and a Water Authority) paying particular attention to section 4

The guideline can be found as a free resource by following the link below
The irrigation contractor and designer are to ensure that the available water supply has sufficient capacity (Flow and pressure) to deliver a minimum of 35mm of watering across all irrigated areas within a 7 day period. The allowable watering window is 8 hours and must adhere to all current water restrictions including alternate day watering requirements (If applicable).

If a water tapping is required then all contribution and tapping fees to the water authority must be allowed for. All other associated fees to the water authority must be allowed for.

https://waterportal.com.au/swf/images/swf-files/bpg-final.pdf

Backflow Prevention

The irrigation system must include a zone backflow prevention device selected and sized appropriately for the application to meet all australian plumbing regulations.

A containment protection device must also be allowed to be installed directly downstream of the water meter to meet water authority requirements (If such a device does not already exist.)

Irrigation method

All components must be from reputable well known commercial irrigation brands

All **garden areas** are to be irrigated using **drip line**

-pinned a 2m intervals
-"dug in" with 50mm-100mm of soil cover
-Pressure Compensating
-Utilise vacuum breakers with commercial grade squat valve boxes
-Utilise manual flushing ball valves within commercial grade squat valve boxes

All **lawn areas** are to be irrigated using **4" popups**
-Large lawn areas are to use gear driven popup sprays
-Smaller lawn areas are to use match precipitated screw on nozzles
-Top of popup to be installed 10mm below FSL
-Installed on articulated risers
-With built in anti drain device
-With built in pressure regulation suited to operating range of chosen nozzle

Irrigation control

The irrigation controller must have the following capability

-Connection to a cloud based software for remote access (Contractor to supply WIFI dongle)
-Have the ability to operate as a standard time based controller
-Use conventional or a 2 wire path with decoders if < 30 stations
-Be a decoder style system with a 2 wire path if > 30 stations
-Have earth grounding as per manufacturer's recommendations
-Be connected to a flow sensor
-Have a rain sensor or weather station installed away from tampering/vandalism OR have vandal protection on the rain sensor
-The irrigation controller should be installed within a vandal proof enclosure
-Adjust programme according to local weather patterns
-Have an in built battery backup supply

The first years subscription to the cloud based service must be allowed for, an estimated ongoing cost of subscription and data plan must be provided for review by customer.

Materials

Mainline and mainline components - All mainline and components are to be chosen and installed as per AS/NZS 3500.1.2018 Plumbing and drainage Part 1: Water services
For this specification the mainline is the sections from the point of water supply connection to the irrigation system master valve **AND** downstream of the irrigation master valve to the field solenoid valves.

Upon completion of the irrigation system the customer must be provided with a certificate of plumbing compliance that warrants the mainline and all mainline components for 6 years from the date of completion. The plumbing certificate must give a description of all plumbing works carried out from the water connection point to the last field valve.

Lateral pipework and components

All lateral pipework (Downstream of the field solenoid valves) must be installed with either

-Class 12 PVC using Class 18 PVC fittings (Installed and joined as per manufacturer's recommendations)

-HDPE class 12.5 poly using PN16 fittings (Installed and joined as per manufacturer's recommendations)

All lateral pipework must be installed with a minimum 200mm of soil cover

LDPE must not be used as lateral pipework unless it is being used for the purpose of dripline manifolds. All dripline manifolds must have a minimum of 100mm soil cover

Solenoid Valves

Each solenoid valve must

-Be installed within its own commercial grade rectangular valve box (Valve box minimum 300mm deep) (approx. 430mm Long x 295mm Wide x 315mm Deep). Installed on 90mm x 90mm H4 treated pine frame. 50mm of ¼ minus screening to be installed as a “bed” for the frame. Entire box and frame to be wrapped with geofabric to prevent ingress of soil.(1 Valve per Box)
-Be installed with a tested ball valve or gate valve installed directly upstream of solenoid valve
-Be selected appropriately to suit water quality
-Be Selected to suit manufacturers recommendations for installation, flow rates and pressures
-Be identified using a “Cow Ear” identification tag cable tied to active cable

-Include filtration and pressure regulation from drip zones

Irrigation Cable and Joiners

- Sized as per manufacturer's recommendations.
- All cable joins are to be made using a 3M DBY/R style connector commonly used with decoder systems, On this project all joins irrigation cabling is to be joined with this style of connector

Trenching

- If excavated material is deemed to be inappropriate for the backfill of trenches by the landscape architect, then white washed sand is to be used as pipe bedding.

Licencing and certification

The irrigation system is to be designed by a Certified Irrigation Designer, Certified with Irrigation Australia Limited - a directory of certified designers can be found on the Irrigation Association of Australia website.

The irrigation system is to be installed by a Certified Irrigation Contractor OR Certified Irrigation Installer, certified with Irrigation Australia Limited - a directory of contractors/installers can be found on the Irrigation Association of Australia website.

The irrigation contractor must be licenced with the Victorian Building Authority Under the category of Urban Irrigation.

Insurances

The irrigation contractor is to hold the following insurances

-Workcover
-5m professional indemnity
-20m Public liability (With the irrigation installers licence number listed on insurance certificate of currency)

Disclaimer: The information provided on this specification is for general information purposes only, all information provided is in good faith, We take no responsibility regarding the accuracy, adequacy, validity, reliability, availability or completeness of any information provided.

Pre Contract Award Checklist (Irrigation contractor must meet ALL of the following requirements)

-Check certificate of currency for the following insurances

Tick

- ❏ -20m Public liability (With the irrigation installers licence number listed on insurance certificate of currency)
- ❏ -5m professional indemnity
- ❏ -Workcover

-Plumbing Licence Check

Tick

- ❏ -Plumber/Urban Irrigation Installer

  Name:.....

  Lic. Number…….

  Currency of licence checked via VBA website

  https://www.vba.vic.gov.au/tools/find-practitioner

-Irrigation Installer OR Contractor certification check

Tick

- ❏ -Contractor/Installer certification valid

  Name:.....

  Certification Number……

  Irrigation Australia Certification Directory (Contractor and Installer directory starts on page 23 of document)

  Directory

  https://www.irrigationaustralia.com.au/documents/item/893

-Irrigation Designer Certification Check

Tick

- ❏ -Designer certification valid

  Name:.....

  Certification Number……

  Irrigation Australia Certification Directory (Designer directory start on page 26 of document)

  Directory

  https://www.irrigationaustralia.com.au/documents/item/893