

Construction Management Plan & Tree management Plan – Lake Wendouree and Victoria Park Link Lighting Project

Reviewed and approved by –

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Title Page

The following Construction Management Plan has been completed in partnership by the City of Ballarat Major Projects team and City of Ballarat Arborocultural team for the Lake Wendouree and Victoria Park Link Lighting project.

The City of Ballarat, in partnership with the Victorian State Government, are delivering the Lake Wendouree and Victoria Park Link lighting project. The project received a funding of \$2.5m from the Victorian State Government and \$300,000 from the City of Ballarat.

The project proposes to install two hundred and twenty five (225) light poles and fitting around the Lake Wendouree foreshore to extend the useable hours of the Steve Moneghetti Track in the mornings and evening. The project also proposed to install seven (7) light along Morrison Street to connect the Lake Wendouree Precinct to Sturt Street and Victoria Park.

The project location is the Steve Moneghetti Track which is a six (6) kilometre path around the Lake Wendouree Foreshore, Lake Wendouree, VIC 3350 CA2019 – Lake Wendouree.

The project was issued with a Planning Permit (PLP/2021/11158) on 25 November 2021 which contained a number of conditions, including Condition 4 which outlines the requirement for this Tree Management Plan.

The project was also issued with a Heritage Victoria Permit (P33955) on 02 September 2021, pertaining to the Ballarat Botanical Gardens, Gillies Street and Wendouree Parade Lake Wendouree, Ballarat (H2252). This permit also contained a number of conditions.

A second Heritage Victoria Permit (P36523) was issued on 27 May 2022 for the Lake Wendouree Foreshore precinct that was the subject site of an Interim Protection Order issued by the Heritage Council of Victoria.

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1. Introduction

The City of Ballarat, in partnership with the Victorian State Government, are delivering the Lake Wendouree and Victoria Park Link lighting project (the Project). The Project received a funding of \$2.5m from the Victorian State Government and \$300,000 from the City of Ballarat.

The Project proposes to install two hundred and twenty five (225) light poles and fitting around the Lake Wendouree foreshore to extend the useable hours of the Steve Moneghetti Track in the mornings and evening. The Project also proposed to install seven (7) light along Morrison Street to connect the Lake Wendouree Precinct to Sturt Street and Victoria Park.

The Project location is the Steve Moneghetti Track which is a six (6) kilometre path around the Lake Wendouree Foreshore, Lake Wendouree, VIC 3350 CA2019 – Lake Wendouree.

2. Referenced Documents and Australian Standards

2.1 Referenced Documents

This Construction Management Plan references the following documentation that has been provided in the appendices:

- Arboricultural Impact Assessment and Report (*ArborSafe, March 2020*)
- Department of Environment, Land, Water and Planning Landowner Consent (*September 2021*)
- City of Ballarat Planning Permit (*City of Ballarat, October 2021*)
- Cultural Heritage Management Plan 15224 (*Wadawurrung, December 2018*)
- Cultural Heritage Management Plan Amendment 15224 (*Wadawurrung, October 2021*)
- For Construction Issue Design Drawings (*Stantec, April 2022*)
- Heritage Victoria Permit P33955 (*Heritage Victoria, September 2021*).
- Project Tender Specification (*Stantec & City of Ballarat, November 2021*)

2.2 Referenced Australian Standards

This Construction Management Plan references the following Australian Standards for compliance:

- AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines
- AS/NZS 2436-2021 Guide to Noise and Vibration Control of Construction, Demolition and Maintenance sites
- AS1742.3 Traffic Management Plan Principles and Guidelines
- AS3000 Electrical Installations (Wiring) and AS/NZS 61439 Low Voltage Switchgear and Control Gear Assemblies
- AS/NZS 3008.1.1 Electrical Installation – Selection of Cables
- AS 3500 Plumbing and Drainage
- AS/NZS 1158.3.1:2020 Lighting for Public Spaces – Pedestrian Area Lighting
- AS/NZS 2053 Conduits and Fittings for Electrical Installations – General Requirements
- AS 4970 Protection of Trees on Development Sites
- AS 3000. 8.3 Field Control Wiring for Extra Low Voltage
- AS 4687-2007 Temporary Fencing and Hoardings

3. Construction Methodology and Specification

3.1 Construction Methodology

The Project will be constructed as per the provided Tender Specification, and be categorised as per following:

- Investigation of existing site conditions, services, and installations.
- Switchboards
- Lighting circuits
- Lighting installation
- Conduit underground boring

The conduits for the lighting will be bored at a depth of 1000mm as per the recommendation from the provided independent Arborist Report to minimise impacts of Tree Protection Zones. A Project Arborist will undertake inductions with contractors onsite and will be onsite during the delivery of the project to ensure the delivery of the project is undertaken in accordance with AS 4970 Protection of Trees on Development Sites. As per the provided design drawings, the locations of the footing for each of the light poles has been selected outside of Tree Protection Zones and Structural Root Zones.

The methodology of the works also includes a number of requirements from the Contractor, as outlined in the provided Tender Specification, including but not limited to:

- Environmental Management Plan
- Traffic Management Plan
- Pedestrian Management Plan (including maintain access to the Steve Moneghetti Track)
- Conditions regarding precinct events and access
- Noise Management Protocols

The Project construction will also comply with the management conditions and other conditions stipulated in the following:

- Heritage Victoria Permit P33955
- Cultural Heritage Management Plan 15224
- Planning Permit PLP 2021158

3.2 Construction Sequencing

The Project will be delivered via the following sequencing:

- Onsite Services Locations
- Cultural Heritage and Arborist Inductions for Contractors
- Establishment of works compound (located in an existing Car Park free of vegetation)
- Underground boring for light pole conduits
- Underground Boring of new supply pits
- Installation of in-ground footings for light poles
- Cabling installed within bored conduits and pits
- Installation of new supply pits and upgrading of existing supply pits
- Light poles and fittings assembled onsite and erected onsite
- Aiming and commissioning of light to design with certification from the lighting engineer

Works onsite may be stopped at anytime should the ground conditions or other environmental conditions result in construction activities posing a high risk as per the Environmental Management Plan, the Arborocultural conditions, and advise of the onsite Arborist.

3.3 Management Conditions

The following management conditions have been included in the Project's construction methodology and will be managed throughout the delivery of the Project:

- All conduit works required for the project are to be delivered via direction drilling (boring) at a depth of 1000mm
- For Construction plans showing Tree Protection Zones and Structural Root Zones within the works zone (see provided) in line with Australian Standard AS4970 (Protection of Trees on Development Sites).
- The placement of all pole foundation locations outside of Tree Protection Zones and Structural Root Zones.
- Engagement of a suitably qualified Arborist as part of the project management team.
- Onsite inductions for contractors from the Project Arborist.
- Onsite inductions for contractor by a Cultural Heritage Advisor in accordance with the Cultural Heritage Management Plan.
- The requirement for the contractor to maintain an approved Environmental Management System for the duration of the works which includes procedures to control and manage the following:
 - Water Quality, and Erosion and Sediment Control;
 - Air Quality;
 - Noise Pollution;
 - Management of Prescribed Wastes;
 - Soil Management (including Contaminated and Acid Sulphate Soils)
 - Visual Impacts and Amenities;
 - Storage of Fuels/Chemicals and any other hazardous materials onsite;
 - Community Relations;
 - Flora and Fauna; and
 - Products and materials.
- All works onsite are to occur between the hours of 7.00am and 5.30pm, Monday to Friday, unless otherwise required under the Contract and pre-approved by the Superintendent.

4. Restricted Activities

The following Activities are restricted under this Tree Management Plan within Tree Protection Zones unless approved by the Responsible Authority and with written consent from the Superintendent:

- Machine excavation including trenching
- Excavation for silt fencing
- Cultivation
- Storage or dumping of materials or waste
- Preparation of chemicals (including cement products)
- Parking or access of vehicles and machinery
- Refuelling
- Wash down and equipment cleaning
- Placement of fill
- Lighting of fires
- Soil level changes
- Temporary or permanent installation of utilities and signs
- Physical damage to trees and other vegetation

5. Tree Management Plan Schedule

5.1 The following details specifications and methodology relating to all tree protection activities required within each of the following stage of the Development:

Stages	Protection Specifications and Activities
Pre-Construction	<ul style="list-style-type: none"> - All contractors are to undertake an onsite site induction with the Project Arborist to fully understand the classification and parameters of all Tree Protection Zones and Structural Root Zones. - All contractors are to be made aware of all restricted activities as listed in part 4 of this document
Construction	<ul style="list-style-type: none"> - No machine excavation is to occur in Tree Protection Zones and Structural Root Zones unless approved by the Responsible Authority and with written consent from the Superintendent. - All directional drilling and boring will be undertaken to a depth of 1000mm - All foundation and footing works are to be undertaken as per the issued specification which has been approved by the Responsible Authority - Should the condition of the works area become unsuitable and pose a risk to any vegetation or Tree Protection Zones (for example, during period of prolonged rainfall), all works must be ceased immediately. The resumption of works will be at the discretion of the Project Arborist and Superintendent. - All restricted activities, as listed in Part 4 of this document, will be adhered too in full. - The contractor is responsible for the establishment and management of a safe and tidy work site including clear signage and make good of the site after the completion of works activities each day.
Final Certification	<ul style="list-style-type: none"> - The full as built documentation provided from the contractor must include all tree protection zones as is specified in the for construction documentation. - All testing and commissioning of lighting will be undertaken inline with the restricted activities listed in part 4 of this document.

The following also applies as part of this Tree Management Plan Schedule:

- All contractors onsite must ensure that, prior to the commencement of works, be advised of the status of all trees located in the works zone and are made aware of their obligations in relation to the protection of those trees.
- All protective fencing must adhere to Australian Standard 4687-2007 Temporary Fencing and Hoardings.

6. Tree Management Plan Certification

The following provides a checklist during each stage of the development that will be certified by the project arborist and submitted to the Superintendent.

Construction Stage	Activity	Date	Certification Compliance	Notes
Pre-Construction	Onsite Arborist Induction		Yes/No	
	Identification of all TPZs and SRZs		Yes/No	
	Environmental Management Plan submitted by contractor		Yes/No	
Construction	Meeting with Contractors		Yes/No	
	Routine Site Inspections		Yes/No	
	Issues Log submitted by Contractor		Yes/No	
	Foundation Inspections		Yes/No	
Final Certification	Meeting with Contractors		Yes/No	
	As Built Documentation submitted		Yes/No	
	Certificates submitted by Contractor		Yes/No	

7. Appendices

- 7.1 Arboricultural Impact Assessment and Report (ArborSafe, March 2020)
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