Environmentally Sustainable Design (ESD) Policy for Council Buildings and Infrastructure (Internal and External)

Sustainable Monash (Directorate: City Services)

OVERVIEW: This policy outlines requirements and process for incorporating sustainability and climate resilience considerations in building, open space and civil infrastructure assets owned and managed by Council. It is essential for Council to have this policy in place to provide clarity for stakeholders, ensure consistent consideration of ESD and achieve best practice outcomes in Council assets.	

RESPONSIBLE MANAGER:	Manager Sustainable Monash
RESPONSIBLE DEPARTMENT:	Sustainable Monash

APPROVED or RESOLVED BY:	
	COUNCIL _____ CHIEF EXECUTIVE OFFICER or COUNCIL
DATE:	16 December 2025
EDNA NO:	D26- 10308
REVIEW DATE:	16 December 2029

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1. Introduction

The purpose of the Environmentally Sustainable Design (ESD) Policy for Council Buildings and Infrastructure ('the Policy') is to incorporate sustainability and climate resilience considerations across the full lifecycle of building, open space and civil infrastructure assets owned and managed by Council.

This Policy recognises the responsibility of local governments in reducing emissions, adapting to climate change and creating a liveable city for the community. In the context of Council assets, there is significant opportunity to achieve positive sustainability and climate resilience outcomes.

In addition to numerous environmental benefits, early and ongoing consideration of ESD throughout the asset lifecycle can also result in financial and social benefits, including:

- Lower operational costs through increased energy, water and waste efficiencies.
- Lower maintenance and renewal costs over the lifecycle of assets.
- Improved health and wellbeing outcomes for the community.
- More equitable access to climate resilient facilities and public spaces.
- Improved productivity of staff.
- Increased community awareness of sustainable design.

Application of the Policy will:

- Provide clarity for internal and external project stakeholders on Council's minimum ESD expectations.
- Support the consistent consideration of sustainability and climate resilience throughout asset project processes.
- Support the delivery of best practice ESD and innovation in Council assets.
- Demonstrate commitment and leadership to the community.

2. Scope

The Policy applies to the following Council asset types & classes:

- Buildings
- Open Space (e.g. passive open space, active reserves, and urban and civic spaces)
- Civil Infrastructure (e.g. roads, paths and drainage)

The Policy (and supporting minimum ESD requirements) applies to the following project/asset activity types:

- New (including consolidation)
- Expansion
- Upgrade
- Renewal
- Maintenance (where feasible)

The Policy applies across the whole asset lifecycle as defined in the Asset Plan 2025-2035 including:

- Planning and Design (including functionality and future capacity)

- Creation and Acquisition
- Maintenance and Operations
- Renewal and Upgrade
- End of life

3. Background

Council is responsible for a range of assets on behalf of the community including buildings, roads, paths, stormwater drainage, parks and reserves. Council assets have a combined value and replacement cost of over $3.8 billion.

Climate change is already affecting many Council service areas, with impacts expected to intensify and extend across the organisation. Delivering and managing Council assets responsibly and sustainably in the context of climate change is critical to Council service delivery. Integration of ESD and improving climate resilience allows Council assets to continue to function as intended and meet the needs of users and the community.

In recognition of the above, Council adopted the Environmental Sustainable Design Policy for Council Buildings & Infrastructure in 2022. The current document replaces the existing policy, building upon the achievements and learnings of Council. The Policy reflects the current strategic context, evolving best practice and reaffirms Council's ESD and climate ambition. The policy update was informed by consultation with key internal stakeholders through a targeted workshop and additional conversations.

Strategic Context

The City of Monash has benefited from strong strategic direction relating to climate change and sustainability for many years. Several key strategic documents have particular relevance to, and influence on, ESD outcomes in assets.

This includes:

- Council Plan 2025-2029
- Environmental Sustainability Strategy 2016-2026
- Zero Net Carbon Action Plan 2020-2025
- Climate Resilience Plan 2026-2030 (in development)
- Circular Economy Strategy 2026-2030 (in development)
- Asset Plan 2025-2035
- Urban Biodiversity Strategy 2018-2028
- Urban Landscape and Canopy Vegetation Strategy (2018)
- Integrated Water Management Plan (2014) (under review)
- Open Space Strategy (2021)
- Integrated Transport Strategy (2017)
- Procurement Policy (2023)

4. Legislative Context and Governance Statement

The Policy supports a range of priorities, targets and requirements mandated by legislation and regulation such as:

- Climate Change Act 2017: Target of net zero emissions by 2045 and legislative requirement for decision-makers to have regard to climate change for specific decisions and actions.
- Local Government Act 2020: Legislative requirement to promote the economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks.
- Victorian Public Health and Wellbeing Act 2008: Requirement to consider climate change when creating the Municipal Health and Wellbeing Plan.
- Planning and Environment Act 1987: Includes a duty of care for the consideration of risk from climate change impacts in planning decisions.
- Victoria Planning Provisions and Monash Planning Scheme: Framework for land-use decisions and policy implementation that supports responses to climate change, with various state and local provisions relating ESD, climate impacts and tree canopy and urban heat.
- Recycling Victoria: A New Economy (2020): Goals to use products to create more value and to recycle more resources.

Responsible officer Statement:

In generating this Policy, Council confirms that its development, implementation, and review comply with the overarching governance principles outlined in the Local Government Act. This Policy has considered the importance of engagement, strategic planning, financial management, transparency, and service performance.

5. Definitions

Word	Definition
Asset - Consolidation	The process of combining multiple facilities into fewer, centralised locations to maximise use and improve operational efficiency.
Asset - Expansion	Works to extend or expand an existing asset at the same standard as is currently enjoyed by residents, to a new group of users.
Asset - Maintenance	Works to ensure an existing asset can reach its intended useful life expectation.
Asset - New	Creation of an asset that provides a service that does not currently exist.
Asset - Renewal	Works to an existing asset which returns the service potential or the life of the asset up to that which it had originally.

Word	Definition
Asset - Upgrade	Works to provide enhancements to an existing asset to provide an increased level of service.
Biodiversity	The variety of living species in an environment, genetic differences within and between species and differences between the ecological systems.
Blue Infrastructure	Includes natural and engineered systems or assets that manage and enhance the movement, storage, treatment and reuse of water.
Building	A structure with internal spaces/rooms such as a library, pavilion or community centre.
Built Environment Sustainability Scorecard (BESS)	An online tool maintained by the Council Alliance for a Sustainable Built Environment (CASBE) which supports assessment against local government Environmentally Sustainable Design (ESD) planning policies.
Civil Infrastructure	Assets such as roads, paths and underground drainage.
Circular Economy	A circular economy aims to reduce the environmental impacts of production and consumption by designing waste out (of a project or building) by retaining value in existing resources, and where designing new and upgrades, prioritising product as a service, reuse, repurposing, refurbishment, remanufacturing and recycling.
Climate Adaptation	The process of proactively adjusting to the actual or anticipated impacts of climate change. Adaptation strategies play a crucial role in reducing exposure and vulnerability to climate change, with approaches ranging from proactive to transformational.
Climate Change	Changes in the state of the climate, including an increase in the occurrence of extreme weather events, long-term changes in weather patterns and sea level rise, attributed directly or indirectly to human activity.
Climate Mitigation	The process of deliberately reducing or preventing greenhouse gas emissions and resource usage in order to limit the severity of future climate change. Mitigation strategies play a key role in limiting global warming's extent and mitigating climate change impacts.
Climate Resilience	The ability to withstand and respond effectively to hazardous events or disturbances related to a changing climate while maintaining core functions and structures. Increases through a combination of adaptation and mitigation measures.

Word	Definition
Embodied Carbon	The total carbon emissions associated with all stages of an asset's lifecycle, including material extraction, manufacturing, transportation, construction, maintenance, and end of life, but excluding operational carbon.
Environmentally Sustainable Design (ESD)	Development that seeks to improve operational performance, reduce environmental impacts and resource use, and create healthy and liveable environments.
End of Life	Options for a material or good at end of asset life, including decommission, deconstruction, remanufacture, product stewardship, upcycling, recycling, disposal
Green Infrastructure	Includes elements related to vegetation, including both natural and designed greening.
Green Factor	An online tool which benchmarks and 'scores' building scale approaches to green infrastructure at the planning stage.
Green Star Buildings	A national voluntary sustainability rating system developed by the Green Building Council of Australia.
Indoor Environment Quality (IEQ)	The quality of an indoor environment such as spaces within a building which is influenced by factors such as daylight access, air quality and thermal comfort of occupants.
Integrated Water Management (IWM)	A planning and management approach which considers all elements of the water cycle including managing and protecting the health of waterways, wastewater management, alternative and potable water supply, and stormwater management.
Net Zero Emissions	No net release of carbon dioxide (or equivalent emissions) into the atmosphere, or balancing the carbon emissions emitted into the atmosphere and the carbon removed from it.
Open Space	Publicly owned land that is set aside for public use and access. This can include parks, gardens, reserves, trails, waterways, civic forecourts, plazas and open space infrastructure such as play spaces and sportsgrounds.
Operational Energy	Energy used during the operational phase of a building.
Passive House (Passivhaus)	A building standard with the objective of ensuring year-round comfortable and healthy indoor conditions, a high level of energy efficiency, and a high level of user satisfaction. Key principles relate to air tightness, insulation and glazing, heat recovery ventilation and thermal bridges.

Word	Definition
Urban Heat	Increased levels of heat in urban environments compared to non-urban areas, commonly resulting from large amounts of dark coloured and/or impermeable surfaces that absorb heat and reradiate it.
Water Sensitive Urban Design (WSUD)	A land planning and engineering design approach that integrates the urban water cycle – including stormwater, groundwater, and wastewater management and water supply – into urban design to minimise environmental degradation and improve aesthetic and recreational appeal.

Table 1 – Definitions

6. Responsibilities and Roles

The implementation of the Policy and application of the minimum ESD requirements is supported by a range of internal stakeholders within Council. Key roles are listed below.

Role	Responsibility
Project Initiator, Service or Asset owner, Service Representative	• Responsibility to integrate ESD in Phases 1-3.
Designers/Architects, Engineers, Planners, Surveyors	• Responsibility for incorporate ESD in design in Phases 1-4 (in part or whole).
Project Manager / Program Manager	• Responsibility to deliver and report on ESD outcomes in Phases 3-5.
Strategic Asset Managers, Asset Managers, Service Managers, Maintenance	• Responsible for ongoing feedback and continuous improvement for ESD measures relating to systems, processes, products and materials during asset operation with Sustainable Monash.
Sustainable Monash	• Responsible for ESD support during Phases 1-5.

Table 2 – Responsibilities and Roles

7. Policy

7.1 Vision

Council assets will contribute to a liveable city for the community, achieving positive sustainability and climate resilience outcomes through the integration of ESD considerations. High levels of ESD in Council assets will deliver a range of environmental, financial and social benefits.

7.2 Objectives

The implementation of the Policy aims to achieve a range of objectives through the integration of ESD in Council assets. Council will:

- Achieve net zero emissions from operational energy use through increased energy efficiency, supported by on-site renewable energy generation and procurement of renewable electricity.
- Reduce embodied carbon through dematerialisation and selection of materials and products with lower lifecycle impacts.
- Increase resilience to climate hazards and impacts.
- Reduce operational potable water use through increased water efficiency and rainwater reuse.
- Reduce the amount of stormwater runoff and improve the quality of stormwater.
- Protect and enhance existing landscape values, increase vegetation cover including tree canopy, and achieve positive biodiversity outcomes.
- Create comfortable and healthy indoor environments by considering thermal comfort, air quality and daylight access.
- Prioritise sustainable and zero emissions transport modes.
- Increase the amount of material that is recovered for re-use and recycling, minimise quantity of new materials and enable improved circular economy outcomes.

7.3 ESD Requirements

Numerous ESD standards, targets and design considerations are to be integrated in Council building, open space and civil infrastructure projects. These ESD expectations align with the policy objectives and Council's broader strategic goals and targets.

The asset type and scope of a project or works, influences the opportunity for different ESD outcomes to be achieved. Different ESD standards, targets and design considerations will be applied depending on these project characteristics.

Refer to Appendix 1 for specific detail of the minimum ESD requirements.

Note that if project-specific limitations restrict the ability to achieve certain minimum requirements, these may be deemed not applicable on a case-by-case basis, however, this requires appropriate rationalisation and sign-off from key project stakeholders. For example, heritage overlay or other legislative requirements impacting ability to undertake works.

7.4 Policy Implementation

The delivery of Council capital projects are guided by a defined process which provides a consistent and structured approach to project management, across the project lifecycle from concept to closure.

Implementation of the Policy requires its consideration at various points throughout the project lifecycle. Recommended key ESD integration points and considerations aligned to project lifecycle phases are detailed below.

Phase 1 – Concept

- Integrate requirements of the Policy when defining project scope, strategic alignment and preparing initial documentation (e.g. brief/concept development, risk and budget estimate).
- Engage with Sustainable Monash Department as a key stakeholder, allowing early opportunity for input.

Phase 2 – Develop

- Engage Sustainable Monash as a key stakeholder / subject matter experts when researching the project idea and seeking feedback.
- Integrate requirements of the Policy into any key project activities/outputs (e.g. business case development including scope, delivery approach budget, deliverables and outcomes).
- Ensure design milestones consider whether ESD requirements of the Policy have been included.
- Request review by Sustainable Monash.

Phase 3 – Plan

- Continue to engage and consult with Sustainable Monash as a key stakeholder / subject matter experts.
- Include ESD requirements of the Policy as Acceptance Criteria for successful delivery.
- Ensure design milestones and acceptance criteria include ESD requirements of the Policy.

Phase 4 – Procure and Deliver

- Integrate ESD requirements of the Policy in key project outputs (e.g. Project Design Brief; Design Specifications; Tender Documents, Reporting Template).
- Ensure ESD requirements of the Policy continue to be integrated in this phase as it evolves, consulting with Sustainable Monash if any proposed scope variation impacts ESD measures.
- Ensure the contractor completes the sustainability reporting template with forecast and actual data throughout the project through reporting templates.
- Ensure ESD measures relating to building systems, processes, products and materials are commissioned and communicated during asset handover and to maintenance staff in a digestible manner.
- Input to monitoring and evaluation activities.

Phase 5 – Closure

- Include Sustainable Monash in the Lessons Learnt workshop, to contribute to insights on the Policy application and the integration of ESD measures.
- Assess whether the proposed ESD objectives/benefits were realised and whether the Policy was successfully applied, as part of the End Project Evaluation.

Maintenance Works (Buildings, Civil Infrastructure and Open space)

For maintenance works (not Capital), ESD outcomes should still be pursued where possible during these works. This may include the selection of products, materials and other building components with improved sustainability outcomes (e.g. higher efficiency; lower environmental impact).

The ESD Policy should be embedded in all maintenance contracts, including reporting templates, to ensure our contractors are aligning with our commitments in the delivery of works and in the way their business is conducted. Any preferred maintenance products and materials should comply with ESD policy.

Council's Design Standards, Specifications and Drawings (Civil Infrastructure and Open space)

The design and construction of civil infrastructure and open space assets is driven by Council's design standards, specifications and drawings. Integrating ESD into Council's suite of standard specifications and drawings supports

circular economy objectives, through the specification of alternative materials such as those with lower embodied carbon and/or with recycled content.

As part of reviews of standard specifications and drawings, Council will pursue opportunities to incorporate alternative materials, considering their suitability for integration into Council's business-as-usual approach.

8. Gender Impact Assessment

In consultation with the Diversity, Equity and Inclusion team at Council, it was agreed that this Policy update did not require a Gender Impact Assessment to be undertaken.

9. Human Rights Considerations

Council must give proper consideration to human rights when making decisions. Proper consideration to human rights must be undertaken before a decision is made and may impact on people's rights.

We confirm that this policy has been carefully reviewed to ensure it does not affect human rights. We are committed to respecting human rights and will continue to monitor the policy to ensure it remains compliant.

10. Administrative Amendments

From time to time, circumstance may require minor amendments be made to this Policy. Where this does not materially alter the Policy, such amendments may be made administratively by the Chief Executive Officer.

Any amendment which materially alters the Policy must be approved by Council.

11. Review

This policy will be reviewed by Manager Sustainable Monash every four years.

12. Document Version

Version Number	Date	Author	Reviewed By	Approved By	Comments
1.0	25/01/2025	Carmel Ron	Kristy Green	Jarrod Doake	

13. Contact

If you have any questions about this Policy, please contact Council:

By emailing: mail@monash.vic.gov.au

By calling Zero Carbon Program Lead, Sustainable Monash, on 9518 3085.

14. Appendices

Refer to next page for the appendices.

Appendix 1. Minimum ESD Requirements – Buildings

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Certification/Rating	Achieve Built Environment Sustainability Scorecard (BESS) 'Excellence' (overall score 70% or greater). For High Profile projects (Level 1): Achieve 5 Star Green Star Buildings certified rating (or other independent certification) where Council would like to lead by example.	N/A	N/A
Sustainability Management Plan (SMP)	Prepare a Sustainability Management Plan (SMP) detailing all ESD commitments and related assessments.	Prepare a Sustainability Management Plan (SMP) detailing all ESD commitments and related assessments, recognising any limitations related to the scope of what is being upgraded / renewed.	N/A
Siting and Layout	Optimise the building location, size, form and internal layout to maximise opportunities for passive solar heating and natural ventilation. Aim for the smallest footprint to achieve the building purpose.	N/A	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Multi Purpose Use	Ensure new buildings respond to future user needs, with the design of internal spaces to allow multipurpose/flexible use where appropriate.	If internal layout is within scope: Ensure design of internal spaces to allow multipurpose/flexible use where appropriate.	N/A
Construction Environmental Management Plan	Environmental Management Plan covering the scope of construction activities and detailing approach to managing impacts to stormwater, soil compaction/infiltration, vegetation and other relevant environmental factors.	Environmental Management Plan covering the scope of construction activities and detailing approach to managing impacts to stormwater, soil compaction/infiltration, vegetation and other relevant environmental factors.	N/A
Net Zero Emissions	Net zero carbon emissions from all operational energy use through all electric design and no gas connections.	If systems and appliances are within scope: Net zero carbon emissions from all operational energy use through replacement of gas systems and appliances to all-electric alternatives.	Where feasible, replacement of gas systems and appliances to all-electric alternatives.
Building Fabric Energy Efficiency	Thermal fabric reduces heating and cooling energy consumption to achieve at least a 10 per cent improvement compared to the reference case (NCC Section J).	If building fabric upgrade within scope: Thermal fabric reduces heating and cooling energy consumption to achieve at least a 10 per cent improvement compared to the reference case (NCC Section J).	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
On-site Renewable Energy	Provide a solar PV system with a capacity of at least 25W per square metres of the building footprint, or with a system capacity optimised for expected user demand.	If no existing solar PV system and no switchboard or roofing constraints: Provide a solar PV system with a capacity of at least 25W per square metres of the the building footprint, or with a system capacity optimised for expected user demand. If switchboard or roof constraints, consider solar PV for inclusion within upgrade scope.	N/A
Battery Storage	Consider battery storage in combination with solar PV when building usage predominantly occurs outside daylight hours (e.g. pavilions).	If solar PV system is within scope: Consider battery storage in combination with solar PV when building usage predominantly occurs outside daylight hours (e.g. pavilions).	N/A
Renewable Energy Supply	All residual operational energy is 100 per cent renewable energy through the power purchase agreement.	All residual operational energy is 100 per cent renewable energy through the power purchase agreement.	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Embodied Carbon Reduction	Reduce embodied carbon emissions by selecting lower embodied carbon materials and products such as those containing recycled content, and through dematerialisation strategies. For High and Medium Profile projects (Level 1 and 2): Demonstrate upfront carbon emissions are less than those of a reference building.* *Reference building to be defined as Business as Usual or as defined by Green Star Buildings 'Upfront Carbon Emissions' Credit- refer to Green Building Council of Australia or Council. Aim to achieve at least a 10% reduction.	Reduce embodied carbon emissions by selecting lower embodied carbon materials and products such as those containing recycled content, and through dematerialisation strategies.	Reduce embodied carbon emissions by selecting lower embodied carbon materials and products such as those containing recycled content, and through dematerialisation strategies.
Circular And Recycled content	Preference for product as a service (e.g. leasing lighting, carpet, furniture), materials with recycled content (e.g. concrete), and interior fitout with refurbished, repurposed, remanufactured or reused items, with Product Stewardship Schemes in place for end of life.	Preference for product as a service (e.g. leasing lighting, carpet, furniture), materials with recycled content (e.g. concrete), and interior fitout with refurbished, repurposed, remanufactured or reused items, with Product Stewardship Schemes in place for end of life.	Preference for product as a service (e.g. leasing lighting, carpet, furniture), materials with recycled content (e.g. concrete), and interior fitout with refurbished, repurposed, remanufactured or reused items, with Product Stewardship Schemes in place for end of life.

ESD Focus	**New/Extension**	**Upgrade/Renewal**	**Maintenance**
Operational Waste	Spatial allocation at minimum for the collection of general waste, commingled recyclables, glass and organics. Recycling facilities are as conveniently located as those for general waste.	Spatial allocation at minimum for the collection of general waste, commingled recyclables, glass and organics. Recycling facilities are as conveniently located as those for general waste.	N/A
Construction/Deconstruction	Construction/Deconstruction Plan with 80% of construction and demolition waste recovered and reused, with transparency of chain of custody (showing who received the materials and their recovered/reused use) (achieves requirements of Green Star Buildings 'Responsible Construction' Credit- refer to Green Building Council of Australia or Council).	Construction/Deconstruction Plan with 80% of construction and demolition waste recovered and reused, with transparency of chain of custody (showing who received the materials and their recovered/reused use) (achieves requirements of Green Star Buildings 'Responsible Construction' Credit- refer to Green Building Council of Australia or Council).	N/A
Electric Vehicle Readiness	Refer to NCC requirements (J9D4).	Consider opportunities to retrofit car parking areas to support electric vehicle readiness (e.g. cabling and electrical capacity to support EV charging outlets)	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Electric Vehicle Charging	Consider installing EV charging infrastructure complete with chargers and signage to 5 per cent of all new car parking spaces, or to a minimum of one car parking space, whichever is greater.	Consider opportunities to install EV charging infrastructure complete with charger and signage to a minimum of one car parking space.	N/A
Water Efficiency	Reduce potable water use on site by at least 30% in interior and irrigation uses, in comparison to an equivalent standard development (refer to Green Building Council of Australia or Council).	Minimum WELS star rating of fixtures, fittings and appliances (taps, toilets, urinals, showers and dishwashers) within one WELS rating Star of the most efficient equivalent capacity unit available	Minimum WELS star rating of fixtures, fittings and appliances (taps, toilets, urinals, showers and dishwashers) within one WELS rating Star of the most efficient equivalent capacity unit available
Water Sensitive Urban Design (WSUD)	Explore suitability of Water Sensitive Urban Design (WSUD) measures such as raingardens and swales.	If external site area / landscaping is within scope: Explore suitability of Water Sensitive Urban Design (WSUD) measures such as raingardens and swales.	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Stormwater Quality	Improve the quality of stormwater discharging from the site by meeting best practice urban stormwater standards: _Suspended solids: 80 per cent reduction _Phosphorus: 45 per cent reduction _Nitrogen: 45 per cent reduction _Litter: 70 per cent reduction Demonstrate through a Blue Factor or STORM Rating or MUSIC modelling.	Explore opportunities for inclusion of a rainwater tank/s, with capacity optimised to maximise capture from available roof catchment and aligned to predicted reuse demand.	N/A
Existing Vegetation Protection	Retain as many mature, healthy canopy trees on site as possible, and prioritise retention of established understorey. Any works within a Tree Protection Zone (TPZ) to ensure protection of tree roots and consider alternate methods to minimise disturbance.	Retain as many mature, healthy canopy trees on site as possible, and prioritise retention of established understorey. Any works within a Tree Protection Zone (TPZ) to ensure protection of tree roots and consider alternate methods to minimise disturbance.	N/A
Plant Species	Ensure that landscaping and plant selection enhances local biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient.	If external site area / landscaping is within scope: Ensure that landscaping and plant selection enhances local biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient.	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Vegetation Cover	Target a minimum 30% vegetation cover as a proportion of the total site area, prioritising tree canopy cover as well as understorey planting through landscaping, on site or on land adjacent to the site where necessary.	If external site area / landscaping is within scope: Target a minimum 30% vegetation cover as a proportion of the total site area, prioritising tree canopy cover as well as understorey planting, on site or on land adjacent to the site where necessary.	N/A
Climate Change Risk and Adaptation	Assess the vulnerability of buildings to the impact of a changing climate (e.g. flooding, drought, urban heat) to inform design. This can be considered through Council's existing Integrated Site Planning approach. For High Profile projects (Level 1): Development of a project-specific Climate Change Risk and Adaptation Assessment* for the building informed by a project-specific site investigation, with 'High' and 'Extreme' risks addressed through specific design responses. *Assessment to achieve requirements of Green Star Buildings 'Climate Change Resilience' Credit- refer to Green Building Council of Australia or Council).	Assess the vulnerability of buildings to the impact of a changing climate (e.g. flooding, drought, urban heat) to inform design. This can be considered through Council's existing Integrated Site Planning approach.	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Urban Heat Mitigation	Provide at least 75% of the development's total site area with a combination of the following elements to reduce the impact of the urban heat island effect: _Green infrastructure _Roof and shading structures with cooling colours and finishes that have a solar reflectance index (SRI) of: __For roofing with less than 15 degree pitch, a SRI of at least 64 __For roofing with a pitch of greater than 15 degrees, a SRI of at least 34 __Shading for east and west windows _Water features or pools _Hardscaping materials with SRI of minimum 34	If horizontal external surfaces within scope: Provide at least 75% of the development's total site area with a combination of the following elements to reduce the impact of the urban heat island effect: _Green infrastructure _Roof and shading structures with cooling colours and finishes that have a solar reflectance index (SRI) of: __For roofing with less than 15 degree pitch, a SRI of at least 64 __For roofing with a pitch of greater than 15 degrees, a SRI of at least 34 __Shading for east and west windows _Water features or pools _Hardscaping materials with SRI of minimum 34	If horizontal external surfaces (e.g. roofs and shading structures) are being replaced: _Roof and shading structures with cooling colours and finishes that have a solar reflectance index (SRI) of: __For roofing with less than 15 degree pitch, a SRI of at least 64 __For roofing with a pitch of greater than 15 degrees, a SRI of at least 34
Airtightness	For High Profile projects (Level 1): Design to achieve an airtightness of 5 or fewer air changes per hour (ACH) at 50pa of pressure under tests conditions and verify post-construction with a blower door test.	N/A	N/A

ESD Focus	New/Extension	Upgrade/Renewal	Maintenance
Air Ventilation	For High and Medium Profile projects (Level 1 and 2): Achieve an air ventilation rate of 1ACH every 2 hours (under natural air exchange conditions). Including the recovery of heat to 90% in exchanged air and filtering of air to M5 / G4	If air ventilation is within scope: Achieve an air ventilation rate of 1ACH every 2 hours (under natural air exchange conditions). Including the recovery of heat to 90% in exchanged air and filtering of air to M5 / G4	N/A

Appendix 2. Minimum ESD Requirements – Open Space

ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Construction Environmental Management Plan	Environmental Management Plan covering the scope of construction activities and detailing approach to managing impacts to stormwater, soil compaction/infiltration, vegetation and other relevant environmental factors.	Environmental Management Plan covering the scope of construction activities and detailing approach to managing impacts to stormwater, soil compaction/infiltration, vegetation and other relevant environmental factors.	Environmental Management Plan covering the scope of construction activities and detailing approach to managing impacts to stormwater, soil compaction/infiltration, vegetation and other relevant environmental factors.
Net Zero Emissions	Net zero carbon emissions from all operational energy use through all electric design and no gas connections.	Net zero carbon emissions from all operational energy use through all electric design and no gas connections.	Net zero carbon emissions from all operational energy use through all electric design and no gas connections.
Energy Efficiency	Council owned public lighting specified as high efficiency LED.	Council owned public lighting specified as high efficiency LED.	Council owned public lighting specified as high efficiency LED.
Renewable Energy Supply	Operational energy is 100 per cent renewable energy through the power purchase agreement (where supplied).	Operational energy is 100 per cent renewable energy through the power purchase agreement (where supplied).	Operational energy is 100 per cent renewable energy through the power purchase agreement (where supplied).
Dematerialisation (High Carbon Elements)	Reduce the extent of high carbon elements such as concrete, steel, aluminium and kiln dried timber.	Reduce the extent of high carbon elements such as concrete, steel, aluminium and kiln dried timber.	Reduce the extent of high carbon elements such as concrete, steel, aluminium and kiln dried timber.

ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Concrete	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reused Material for details. Incorporate recycled materials such as: Roads, Paths & Kerb Edgings (Concrete): _50% Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag. _100% recycled crushed concrete as bedding material only. _30% washed (replacement of the total mass of fine aggregate); 10% unwashed (replacement of the total mass of fine aggregate). Pipes and Pits (Concrete): _Supplementary Cementitious Materials (SCMs) such as fly or ground granulated blast furnace slag. Concrete Reinforcement (Steel Reinforcement): _Minimum 85% recycled scrap steel. Bridges and Retaining Structures (Structural Concrete): _Fly Ash (contents varies with concrete mix). _Plastic (as aggregate replacement or fibre subject to approved mix design).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reused Material for details. Incorporate recycled materials such as: Roads, Paths & Kerb Edgings (Concrete): _50% Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag. _100% recycled crushed concrete as bedding material only. _30% washed (replacement of the total mass of fine aggregate); 10% unwashed (replacement of the total mass of fine aggregate). Pipes and Pits (Concrete): _Supplementary Cementitious Materials (SCMs) such as fly or ground granulated blast furnace slag. Concrete Reinforcement (Steel Reinforcement): _Minimum 85% recycled scrap steel. Bridges and Retaining Structures (Structural Concrete): _Fly Ash (contents varies with concrete mix). _Plastic (as aggregate replacement or fibre subject to approved mix design).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reused Material for details. Incorporate recycled materials such as: Roads, Paths & Kerb Edgings (Concrete): _50% Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag. _100% recycled crushed concrete as bedding material only. _30% washed (replacement of the total mass of fine aggregate); 10% unwashed (replacement of the total mass of fine aggregate). Pipes and Pits (Concrete): _Supplementary Cementitious Materials (SCMs) such as fly or ground granulated blast furnace slag. Concrete Reinforcement (Steel Reinforcement): _Minimum 85% recycled scrap steel. Bridges and Retaining Structures (Structural Concrete): _Fly Ash (contents varies with concrete mix). _Plastic (as aggregate replacement or fibre subject to approved mix design).

ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Low Carbon and Recycled Content Materials & Products	Preference low carbon alternatives (including those with recycled content or natural sources) for materials, products and construction techniques.	Preference low carbon alternatives (including those with recycled content or natural sources) for materials, products and construction techniques.	Preference low carbon alternatives (including those with recycled content or natural sources) for materials, products and construction techniques.
Asphalt	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reuse Materials for details. Incorporate recycled materials such as: _Reclaimed Asphalt Pavement (varies 10-40% based on asphalt and binder type). _Reclaimed Crushed Glass (5% minimum excluding crumb rubber asphalt). _Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag (100% as filler excluding crumb rubber asphalt).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reuse Materials for details. Incorporate recycled materials such as: _Reclaimed Asphalt Pavement (varies 10-40% based on asphalt and binder type). _Reclaimed Crushed Glass (5% minimum excluding crumb rubber asphalt). _Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag (100% as filler excluding crumb rubber asphalt).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reuse Materials for details. Incorporate recycled materials such as: _Reclaimed Asphalt Pavement (varies 10-40% based on asphalt and binder type). _Reclaimed Crushed Glass (5% minimum excluding crumb rubber asphalt). _Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag (100% as filler excluding crumb rubber asphalt).

ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Plastic, Metal and Other Materials	Incorporate recycled materials such as: _Recycled plastic in items such as street furniture, fencing, garden stakes, decking, planter boxes, tree guards, traffic safety bollards, road humps, star pickets and tree surrounds, made from locally sourced material with end of life product stewardship schemes in place. _Reclaimed and reused materials such as timber and bricks. _Recycled rubber playground surfaces. _Recycled content metal in bins surrounds, bike racks and drinking fountains. _Recycled glass in road surface treatment paint. Refer to Council's Furniture Design Standards and Sustainability Victoria's Buy Recycled Directory.	Incorporate recycled materials such as: _Recycled plastic in items such as street furniture, fencing, garden stakes, decking, planter boxes, tree guards, traffic safety bollards, road humps, star pickets and tree surrounds, made from locally sourced material with end of life product stewardship schemes in place. _Reclaimed and reused materials such as timber and bricks. _Recycled rubber playground surfaces. _Recycled content metal in bins surrounds, bike racks and drinking fountains. _Recycled glass in road surface treatment paint. Refer to Council's Furniture Design Standards and Sustainability Victoria's Buy Recycled Directory.	Incorporate recycled materials such as: _Recycled plastic in items such as street furniture, fencing, garden stakes, decking, planter boxes, tree guards, traffic safety bollards, road humps, star pickets and tree surrounds, made from locally sourced material with end of life product stewardship schemes in place. _Reclaimed and reused materials such as timber and bricks. _Recycled rubber playground surfaces. _Recycled content metal in bins surrounds, bike racks and drinking fountains. _Recycled glass in road surface treatment paint. Refer to Council's Furniture Design Standards and Sustainability Victoria's Buy Recycled Directory.

ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Organic Recycled Products	Incorporate recycled materials such as: _Local recycled organic mulch and compost products, ideally originating from council kerbside green bin contents to create end markets for this material. _Recycled soil, clean fill, clay, soil conditioner, gypsum, bark and topsoil. Refer to Sustainability Victoria's Buy Recycled Directory.	Incorporate recycled materials such as: _Local recycled organic mulch and compost products, ideally originating from council kerbside green bin contents to create end markets for this material. _Recycled soil, clean fill, clay, soil conditioner, gypsum, bark and topsoil. Refer to Sustainability Victoria's Buy Recycled Directory.	Incorporate recycled materials such as: _Local recycled organic mulch and compost products, ideally originating from council kerbside green bin contents to create end markets for this material. _Recycled soil, clean fill, clay, soil conditioner, gypsum, bark and topsoil. Refer to Sustainability Victoria's Buy Recycled Directory.
Water Sensitive Urban Design (WSUD)	Explore suitability of Water Sensitive Urban Design (WSUD) measures such as raingardens, swales and trees pits to support passive irrigation.	Explore suitability of Water Sensitive Urban Design (WSUD) measures such as raingardens, swales and trees pits to support passive irrigation. Applicable to land adjacent to playing surface.	Explore suitability of Water Sensitive Urban Design (WSUD) measures such as raingardens, swales and trees pits to support passive irrigation.
Surface Permeability	If car parking provided, consider specification of permeable materials for low traffic areas. Consider use of permeable paving for paths and seating areas. Design landscaped zones with deep-rooted vegetation to improve soil permeability.	If car parking provided, consider specification of permeable materials for low traffic areas. Consider use of permeable paving for paths and seating areas.	Target greater than 50% of surfaces to be permeable. Encourage multi-functional design where permeability supports both amenity and stormwater management.

ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Stormwater Harvesting	Explore on-site retention of stormwater, for reuse for irrigation demands.	Explore on-site retention of stormwater, for reuse for irrigation demands.	Explore on-site retention of stormwater, for reuse for irrigation demands. Consider solutions such as tree pits and 'soil cells' where appropriate for passive irrigation.
Drainage Capacity	Design site drainage in accordance for future climate conditions / anticipated increased rainfall intensity. Consider the role of WSUD measures as part of the drainage strategy.	Design site drainage in accordance for future climate conditions / anticipated increased rainfall intensity. Consider the role of WSUD measures as part of the drainage strategy.	Design site drainage in accordance for future climate conditions / anticipated increased rainfall intensity. Consider the role of WSUD measures as part of the drainage strategy.
Existing Vegetation Protection	Retain as many mature, healthy canopy trees on site as possible, and prioritise retention of established understorey. Any works within a Tree Protection Zone (TPZ) to ensure protection of tree roots and consider alternate methods to minimise disturbance.	Retain as many mature, healthy canopy trees on site as possible, and prioritise retention of established understorey. Any works within a Tree Protection Zone (TPZ) to ensure protection of tree roots and consider alternate methods to minimise disturbance.	Retain as many mature, healthy canopy trees on site as possible, and prioritise retention of established understorey. Any works within a Tree Protection Zone (TPZ) to ensure protection of tree roots and consider alternate methods to minimise disturbance.

ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Vegetation Cover	Target a minimum 40% tree canopy cover at full maturity as a proportion of the total site area, and integrate understorey planting through landscaping.	Consider opportunities to increase the extent of tree canopy cover and integrate understorey planting through landscaping, on site or on land adjacent to the site where available. Ensure trees are selected and planted to minimise the effects on playing surfaces.	Target a minimum 40% tree canopy cover at full maturity as a proportion of the total site area, and integrate understorey planting.
Plant Species	Ensure plant selection follows Landscape Character Types as described in the Monash Urban Landscape Character and Canopy Vegetation Strategy. Ensure that landscaping and plant selection enhances biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient (with reference to the Landscape Character Types).	Ensure plant selection follows Landscape Character Types as described in the Monash Urban Landscape Character and Canopy Vegetation Strategy. Ensure that landscaping and plant selection enhances biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient (with reference to the Landscape Character Types). Applicable to land adjacent to playing surface. Include warm season grass species on playing surfaces as default.	Ensure plant selection follows Landscape Character Types as described in the Monash Urban Landscape Character and Canopy Vegetation Strategy. Ensure that landscaping and plant selection enhances biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient (with reference to the Landscape Character Types). Consider impact of species selection on adjacent infrastructure such as paths, drainage, fences, kerbs and road pavement. Appropriate species based on ultimate location, trunk size and root growth. Ensure species selection is appropriate for local microclimate conditions

			created in highly urbanised environments.
ESD Focus	Passive Open Space (e.g. parks, playspaces)	Active Reserves (i.e. sportsgrounds)	Urban and Civic Spaces (e.g. squares, plazas)
Planting Conditions	Prioritise ground preparation including the addition of organic matter to assist in soil water retention for plant health. Prioritise climate suitability and ability to withstand damage and disturbance when designing areas adjacent to active recreation areas (e.g. playgrounds). Use recycled bush mulch rather than pine bark mulch.	Prioritise ground preparation including the addition of organic matter to assist in soil water retention for plant health. Applicable to land adjacent to playing surface. Prioritise climate suitability and ability to withstand damage and disturbance when designing areas adjacent to playing surfaces. Use recycled bush mulch rather than pine bark mulch.	Prioritise high-quality ground preparation, and maximise soil volumes and root plate area so trees and vegetation have the best possible foundation for growth. Carefully match any manufactured soil to specific species mix requirements. Prioritise permeable surfaces surrounding the tree base to improve water penetration and root growth. Appropriate planting adjacent to existing infrastructure to avoid future problems. Consider the installation of recycled water irrigation systems for major civic projects with understorey landscapes to ensure planting success.
Urban Heat Mitigation	75% of horizontal surface materials classified as reducing urban heat, aligned to Green Star Communities 'Heat resilience' credit criteria - refer to Green Building Council of Australia or Council.	75% of horizontal surface materials classified as reducing urban heat, aligned to Green Star Communities 'Heat resilience' credit criteria- refer to	75% of horizontal surface materials classified as reducing urban heat, aligned to Green Star Communities 'Heat resilience' credit criteria - refer

		Green Building Council of Australia or Council.	to Green Building Council of Australia or Council.
ESD Focus	**Passive Open Space (e.g. parks, playspaces)**	**Active Reserves (i.e. sportsgrounds)**	**Urban and Civic Spaces (e.g. squares, plazas)**
Climate Change Risk and Adaptation	Assess the vulnerability of open spaces to the impact of a changing climate (e.g. flooding, drought, urban heat) to inform design. This can be considered through Council's existing Integrated Site Planning approach.	Assess the vulnerability of open spaces to the impact of a changing climate (e.g. flooding, drought, urban heat) to inform design. This can be considered through Council's existing Integrated Site Planning approach.	Assess the vulnerability of open spaces to the impact of a changing climate (e.g. flooding, drought, urban heat) to inform design. This can be considered through Council's existing Integrated Site Planning approach.
Durability	Consider the lifespan of products and materials to reduce maintenance and extend renewal timeframes.	Consider the lifespan of products and materials to reduce maintenance and extend renewal timeframes.	Consider the lifespan of products and materials to reduce maintenance and extend renewal timeframes.

Appendix 3. Minimum ESD Requirements – Civil Infrastructure

ESD Focus	Roads and Carparks (e.g. local roads and off-street carparks)	Pathways (e.g. on-road footpaths and shared pathways)	Stormwater Drainage (e.g. pipes and pits)
Dematerialisation (High Carbon Elements)	Reduce the extent of high carbon elements such as concrete and asphalt (e.g. consider reduction in extent/widths of asphalted pavement).	Reduce the extent of high carbon elements such as concrete and asphalt.	Reduce the extent of high carbon elements such as concrete. Consider using plastic pipes within easements, nature strips and reserves where appropriate for loading conditions. Consider pipe lining techniques where existing pipe capacity is sufficient and requires repair.
Low Carbon and Recycled Content Materials & Products	Preference low carbon alternatives (including those with recycled content) for materials, products and construction techniques.	Preference low carbon alternatives (including those with recycled content) for materials, products and construction techniques.	Preference low carbon alternatives (including those with recycled content) for materials, products and construction techniques.
Pedestrian Priority	Prioritise walking / the pedestrian experience within the movement network (e.g. inclusion of pram and 'zebra' crossings).	Prioritise walking / the pedestrian experience within the movement network (e.g. inclusion of pram and 'zebra' crossings).	N/A
Active Transport	Consider opportunities for on-road bicycle lanes.	Consider opportunities for shared user paths.	N/A

ESD Focus	Roads and Carparks (e.g. local roads and off-street carparks)	Pathways (e.g. on-road footpaths and shared pathways)	Stormwater Drainage (e.g. pipes and pits)
Concrete	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reused Material for details. Incorporate recycled materials such as: Roads, Paths & Kerb Edgings (Concrete): _50% Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag. _100% recycled crushed concrete as bedding material only. _30% washed (replacement of the total mass of fine aggregate); 10% unwashed (replacement of the total mass of fine aggregate). Pipes and Pits (Concrete): _Supplementary Cementitious Materials (SCMs) such as fly or ground granulated blast furnace slag. Concrete Reinforcement (Steel Reinforcement): _Minimum 85% recycled scrap steel. Bridges and Retaining Structures (Structural Concrete): _Fly Ash (contents varies with concrete mix).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reused Material for details. Incorporate recycled materials such as: Roads, Paths & Kerb Edgings (Concrete): _50% Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag. _100% recycled crushed concrete as bedding material only. _30% washed (replacement of the total mass of fine aggregate); 10% unwashed (replacement of the total mass of fine aggregate). Pipes and Pits (Concrete): _Supplementary Cementitious Materials (SCMs) such as fly or ground granulated blast furnace slag. Concrete Reinforcement (Steel Reinforcement): _Minimum 85% recycled scrap steel. Bridges and Retaining Structures (Structural Concrete): _Fly Ash (contents varies with concrete mix). _Plastic (as aggregate replacement or fibre subject to approved mix design).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reused Material for details. Incorporate recycled materials such as: Drainage (Concrete): _Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag (content varies with concrete mix). Roads, Paths & Kerb Edgings (Concrete): _50% Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag. _100% recycled crushed concrete as bedding material only. _30% washed (replacement of the total mass of fine aggregate); 10% unwashed (replacement of the total mass of fine aggregate). Pipes and Pits (Concrete): _Supplementary Cementitious Materials (SCMs) such as fly or ground granulated blast furnace slag. Concrete Reinforcement (Steel Reinforcement): _Minimum 85% recycled scrap steel. Bridges and Retaining Structures (Structural Concrete): _Fly Ash (contents varies with concrete mix). _Plastic (as aggregate replacement or fibre subject to approved mix design).

	_Plastic (as aggregate replacement or fibre subject to approved mix design).		
Asphalt	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reuse Materials for details. Incorporate recycled materials such as: _Reclaimed Asphalt Pavement (varies 10-40% based on asphalt and binder type). _Reclaimed Crushed Glass (5% minimum excluding crumb rubber asphalt). _Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag (100% as filler excluding crumb rubber asphalt).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reuse Materials for details. Incorporate recycled materials such as: _Reclaimed Asphalt Pavement (varies 10-40% based on asphalt and binder type). _Reclaimed Crushed Glass (5% minimum excluding crumb rubber asphalt). _Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag (100% as filler excluding crumb rubber asphalt).	Refer to Council's Engineering Standard Drawing R100.01 Recycled and Reuse Materials for details. Incorporate recycled materials such as: _Reclaimed Asphalt Pavement (varies 10-40% based on asphalt and binder type). _Reclaimed Crushed Glass (5% minimum excluding crumb rubber asphalt). _Supplementary Cementitious Materials (SCMs) such as fly ash or ground granulated blast furnace slag (100% as filler excluding crumb rubber asphalt).
Water Sensitive Urban Design (WSUD)	Explore suitability of Water Sensitive Urban Design (WSUD) measures such as raingardens, swales and trees pits to support passive irrigation.	Explore suitability of Water Sensitive Urban Design (WSUD) measures such as raingardens, swales and trees pits to support passive irrigation.	N/A
Surface Permeability	Consider specification of permeable materials for low traffic areas such as on-street car parking.	Preference the specification of permeable materials.	N/A

ESD Focus	Roads and Carparks (e.g. local roads and off-street carparks)	Pathways (e.g. on-road footpaths and shared pathways)	Stormwater Drainage (e.g. pipes and pits)
Stormwater Harvesting	Explore suitability of the on-site retention of stormwater, for reuse for irrigation demands. Consider solutions such as tree pits and 'soil cells' where appropriate for passive irrigation.	N/A	Consider opportunities for drainage infrastructure design to accommodate future connections to stormwater harvesting systems.
Drainage Capacity	Design drainage infrastructure, stormwater management and flood mitigation in accordance for future climate conditions / anticipated increased rainfall intensity. Apply updated Australian Rainfall and Runoff (ARR) 2024 guidelines to provide "climate change adjustment factors" that vary based on storm duration and location. For a small urban catchment with a critical duration of one hour, apply a minimum increase of 18% in rainfall intensity to be considered and incorporated into Council's drainage design.	Design drainage infrastructure, stormwater management and flood mitigation in accordance for future climate conditions / anticipated increased rainfall intensity. Apply updated Australian Rainfall and Runoff (ARR) 2024 guidelines to provide "climate change adjustment factors" that vary based on storm duration and location. For a small urban catchment with a critical duration of one hour, apply a minimum increase of 18% in rainfall intensity to be considered and incorporated into Council's drainage design.	Design drainage infrastructure, stormwater management and flood mitigation in accordance for future climate conditions / anticipated increased rainfall intensity. Apply updated Australian Rainfall and Runoff (ARR) 2024 guidelines to provide "climate change adjustment factors" that vary based on storm duration and location. For a small urban catchment with a critical duration of one hour, apply a minimum increase of 18% in rainfall intensity to be considered and incorporated into Council's drainage design.

ESD Focus	Roads and Carparks (e.g. local roads and off-street carparks)	Pathways (e.g. on-road footpaths and shared pathways)	Stormwater Drainage (e.g. pipes and pits)
Vegetation Cover	Target a minimum 40% tree canopy cover at full maturity as a proportion of the total site area, and integrate understorey planting. Where possible, minimise or reduce overhead power infrastructure to support tree canopy growth.	Target a minimum 40% tree canopy cover at full maturity as a proportion of the total site area, and integrate understorey planting. Where possible, minimise or reduce overhead power infrastructure to support tree canopy growth.	N/A
Plant Species	Ensure plant selection follows Landscape Character Types as described in the Monash Urban Landscape Character and Canopy Vegetation Strategy. Ensure that landscaping and plant selection enhances local biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient (with reference to the Landscape Character Types). Consider impact of species selection on adjacent infrastructure such as paths, drainage, fences, kerbs and road pavement. Appropriate species based on ultimate location, trunk size and root growth.	Ensure plant selection follows Landscape Character Types as described in the Monash Urban Landscape Character and Canopy Vegetation Strategy. Ensure that landscaping and plant selection enhances local biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient (with reference to the Landscape Character Types). Consider impact of species selection on adjacent infrastructure such as paths, drainage, fences, kerbs and road pavement. Appropriate species based on ultimate location, trunk size and root growth.	Ensure plant selection follows Landscape Character Types as described in the Monash Urban Landscape Character and Canopy Vegetation Strategy. Ensure that landscaping and plant selection enhances local biodiversity values with preference for at least 70% by area of new plants being native and/or climate resilient (with reference to the Landscape Character Types). Consider impact of species selection on adjacent infrastructure such as paths, drainage, fences, kerbs and road pavement. Appropriate species based on ultimate location, trunk size and root growth.

ESD Focus	Roads and Carparks (e.g. local roads and off-street carparks)	Pathways (e.g. on-road footpaths and shared pathways)	Stormwater Drainage (e.g. pipes and pits)
Planting Conditions	Prioritise high-quality ground preparation, and maximise soil volumes and root plate area so trees have the best possible foundation for growth. Carefully match any manufactured soil to specific species mix requirements. Prioritise permeable surfaces surrounding the tree base to improve water penetration and root growth. Appropriate planting adjacent to existing infrastructure to avoid future problems.	Prioritise high-quality ground preparation, and maximise soil volumes and root plate area so trees have the best possible foundation for growth. Carefully match any manufactured soil to specific species mix requirements. Prioritise permeable surfaces surrounding the tree base to improve water penetration and root growth. Appropriate planting adjacent to existing infrastructure to avoid future problems.	Prioritise high-quality ground preparation, and maximise soil volumes and root plate area so trees have the best possible foundation for growth. Carefully match any manufactured soil to specific species mix requirements. Prioritise permeable surfaces surrounding the tree base to improve water penetration and root growth. Appropriate planting adjacent to existing infrastructure to avoid future problems.
Urban Heat Mitigation	Preference horizontal surface materials classified as reducing urban heat, aligned to Green Star Communities 'Heat resilience' credit criteria.	Preference horizontal surface materials classified as reducing urban heat, aligned to Green Communities 'Heat resilience' credit criteria.	N/A
Durability	Consider the lifespan of products and materials to reduce maintenance and extend renewal timeframes.	Consider the lifespan of products and materials to reduce maintenance and extend renewal timeframes.	Consider the lifespan of products and materials to reduce maintenance and extend renewal timeframes.