

PARRAMATTA LIGHT RAIL

Annual Sustainability Report 2023

Package 5 – Supply, Operate and Maintain (SOM) Works

December 2023

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Foreword

Great River City Light Rail is proud to produce our fifth Annual Sustainability Report, covering our sustainability progress between August 2022 and August 2023.

Great River City Light Rail is a joint venture between Transdev and CAF Australia and is responsible for delivering the Supply, Operate and Maintain (SOM) Works for Parramatta Light Rail Stage 1 (the Project). This includes the design, construction, testing and commissioning of light rail systems, high voltage traction works, stops above slab level, light rail vehicles, and a stabling and maintenance facility at Camellia. After construction has been completed Great River City Light Rail will be responsible for all light rail operations, customer service and asset management and maintenance for an initial term of eight years.

Great River City Light Rail is committed to ensuring a sustainable future for Parramatta Light Rail, our customers and the Greater Parramatta Area. Since Great River City Light Rail was established in early 2019, we have been actively setting up our business structures and systems and advancing the design of the SOM Works. Between August 2022 and August 2023 (the reporting period), substantial progress in the construction of the Project has been achieved, with activities progressing out of the design phase and into the construction phase. Great River City Light Rail is committed to ensuring that sustainability is embedded across all that we do.

Sustainability highlights during this period include but not limited to:

- Development of Design Phase Credit Summary Forms and evidence for ISC submission
- Re-accreditation of GRCLR Environment and Sustainability Management System.
- Early gap analysis and improvement of sustainability reporting and data quality.

This Annual Sustainability Report includes a review of the implementation of proposed sustainability objectives and the outlook moving forward. Future Annual Sustainability Reports will demonstrate progress including metrics to demonstrate progress, as we move from design to construction and into operations.

Alan Brittain
Project Director, Great River City Light Rail

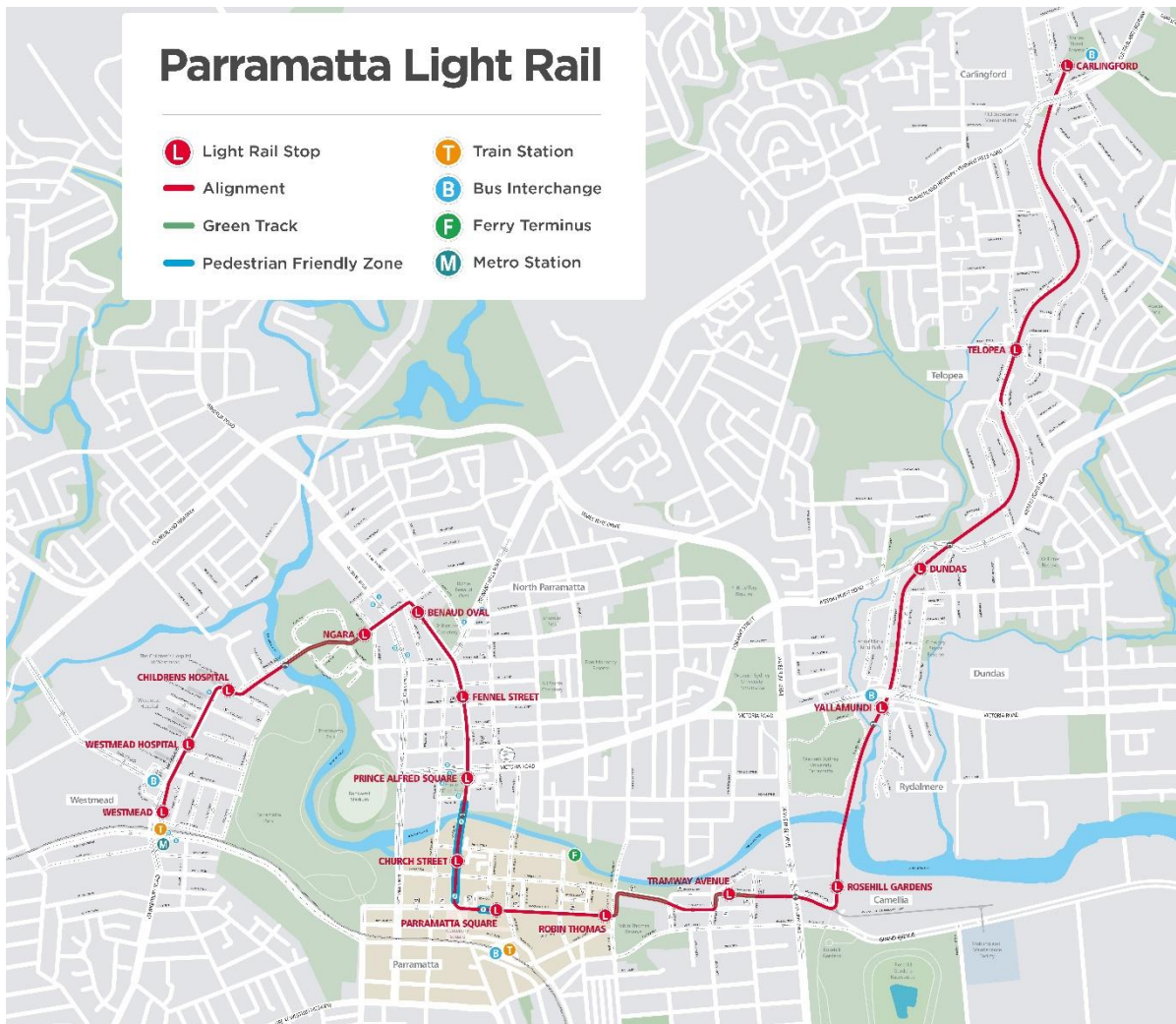


Artist's impression of the Parramatta Light Rail on Macquarie Street.

Context

Parramatta Light Rail Project

The Parramatta Light Rail (PLR) is a 12-kilometre two-way light rail track connecting Westmead to Carlingford via Parramatta CBD and Camellia, commissioned by Transport for NSW (TfNSW) as our client. The core travel nodes within the light rail network include Parramatta CBD and train station, Westmead Hospital Precinct, Parramatta North Growth Centre, Camellia Town Centre, Western Sydney University Campuses and suburbs between Camellia and Carlingford.



Parramatta Light Rail network.

The key project features include:

- A new dual track light rail network of approximately twelve (12) kilometres in length, including approximately seven (7) kilometres within the existing road corridor and approximately five (5) kilometres within the existing Carlingford Line and Sandown Line, replacing former heavy rail services
- Sixteen (16) stops that are fully accessible and integrated into the urban environment including a terminus stop at each end of Westmead and Carlingford

- High frequency 'turn-up-and-go' services operating seven days a week from 5am to 1am. Weekday services will operate approximately every 7.5 minutes in the peak period between 7am and 7pm
- Modern and comfortable air-conditioned light rail vehicles, nominally 45 metres long and driver-operated, each carrying up to 300 passengers.
- Intermodal interchanges with existing public transport services at Westmead terminus, Parramatta CBD and the Carlingford terminus
- Creation of two light rail and pedestrian zones (no general vehicle access) within the Parramatta CBD along Church Street (generally between Market Street and Macquarie Street) and along Macquarie Street (generally between Horwood Place and Smith Street)
- A Stabling and Maintenance (SaM) Facility located in Camellia for light rail vehicles to be stabled, cleaned and maintained
- New bridge structures along the alignment including over James Ruse Drive and Clay Cliff Creek, Parramatta River (near the Cumberland Hospital), Kissing Point Road and Vineyard Creek, Rydalmere
- Alterations to the existing road network including line marking, additional traffic lanes and turning lanes, new traffic signals, and changes to traffic flows
- Relocation and protection of existing utilities
- Public domain and urban design work along the corridor and at Stop precincts
- Closure of the heavy rail line between Carlingford and Clyde
- Active transport corridors and additional urban design features along sections of the alignment and within Stop precincts
- Integration with the Opal Electronic Ticketing System (ETS)
- Real time information in light rail vehicles and at Stops via visual displays and audio.
- Due to be operational in 2024.

Benefits of Light Rail

The PLR will create new communities, connect great places and help locals and visitors move around and explore what the region has to offer. A journey from Carlingford to the Parramatta CBD is expected to take just 18 minutes, six minutes less than by bus.

By 2026 an estimated 130,000 people will be within walking distance of a light rail stop and by 2041 the PLR will carry an estimated 15,000 customers per day, taking 25,000 cars off the road.

The LRVs will be in service in the City of Parramatta for decades, continuing to provide an appealing transport option and enhancing the quality of life of residents and visitors.



Artist's impression of the Parramatta Light Rail crossing Lennox Bridge.

Sustainability Goals

Transport for NSW (TfNSW) has developed six key goals to guide success in achieving sustainability outcomes for the Parramatta Light Rail (PLR) Supply Operate and Maintain (SOM) project.

- 1. Reinforce the Inherent Sustainability Benefits of the PLR SOM:** The inherent sustainability benefits of the project and the operating asset will be realised through diversion of trips to light rail from less sustainable or efficient modes, considering the needs of current and future communities and integrating transport choices by facilitating increased cycling, walking and other public transport uses within the project corridor.
- 2. Benchmark against Recognised Rating Tools:** The PLR SOM project will target an ISC IS 'Excellent' rating (with a minimum score of 70) for the design and as built phase and a rating for the operational phase of the Project.
- 3. Maximise Energy Efficiency, Renewables and Greenhouse Gas Reduction:** PLR SOM has committed to implementation of the energy hierarchy (avoidance, energy efficiency, renewables, low emission and offset), including identification of opportunity for generation of renewable energy and to improve the project energy efficiency and reduce the carbon footprint.
- 4. Advocate for Sustainable Communities:** GRCLR is working with relevant stakeholders along the alignment to realise common goals for sustainable communities, residents, customers, local and regional business. This includes realising opportunities for workforce skills and diversity and planning a resilient asset that strives to meet the challenges of a changing climate.

5. **Utilise an Environmental Management System:** PLR SOM has identified that the Environmental Management System, ISO14001 will continue to be used as a framework to enable the project to meet with TfNSW, stakeholder and community expectations.
6. **Report on our Progress:** PLR SOM will create a dashboard of information on relevant and material sustainability issues and report regularly on the progress made in our sustainability journey through monthly reports.

TfNSW's Environment and Sustainability Policy is included in Appendix A.



Artist's impression of the Parramatta Light Rail green tracks at Robin Thomas Reserve.

Great River City Light Rail

Great River City Light Rail (GRCLR) is a joint venture between Transdev and CAF Australia. GRCLR is responsible for delivering the Supply, Operate and Maintain (SOM) Works for Parramatta Light Rail Stage 1. This includes the design, construction, testing and commissioning of light rail systems, high voltage traction works, stops above slab level, light rail vehicles, and the Stabling and Maintenance Facility (SaMF) at Camellia. After construction has been completed GRCLR will be responsible for all light rail operations, customer service and asset management and maintenance for an initial term of eight years.

Other packages of work, being delivered under separate contracts, include:

- **Early Works:** Including remediation of the SaMF site (Stage 1 of the Remediation Action Plan) involving the design and construction of hydraulic barrier walls to the perimeter of the SaMF site.
- **Enabling Works:** Works including the design and construction of specific local road network improvements and adjustments to maintain performance of the local road network.
- **Infrastructure Works:** Design and construction of all civil works and light rail track and slab up to road level and stop level, including relocation of underground services, road widening and urban design.
- **Electronic Ticketing System Contract:** Includes supply, installation and operation of ETS equipment at Stops.

- **Robin Thomas Reserve Works (RTR):** Includes upgrades to RTR in accordance with the City of Parramatta RTR master plan.

Program of Works – Construction

During the reporting period, GRCLR was mostly in the construction stage of the SOM works, while some design elements were being concurrently finalised.



GRCLR is currently in the construction stage.

The design process was undertaken in defined stages to ensure that the design was progressively developed, reviewed, refined and finally endorsed, which included the incorporation of environmental and sustainability requirements. The implementation of construction activities is regularly reviewed to ensure that GRCLR and subcontractors are meeting the required sustainability objectives.



Artist's impression of Parramatta Light Rail operating alongside the Active Transport Link.

Sustainability Framework

GRCLR ensures that sustainability is embedded in the delivery and operation of the PLR SOM Contract, by utilising the Infrastructure Sustainability Council (ISC) Infrastructure Sustainability (IS) Rating Tool. The ISC IS Rating Tool measures sustainability performance throughout the project lifecycle of design, construction and operation. It provides an external and independent validation and valuation of an infrastructure's contribution

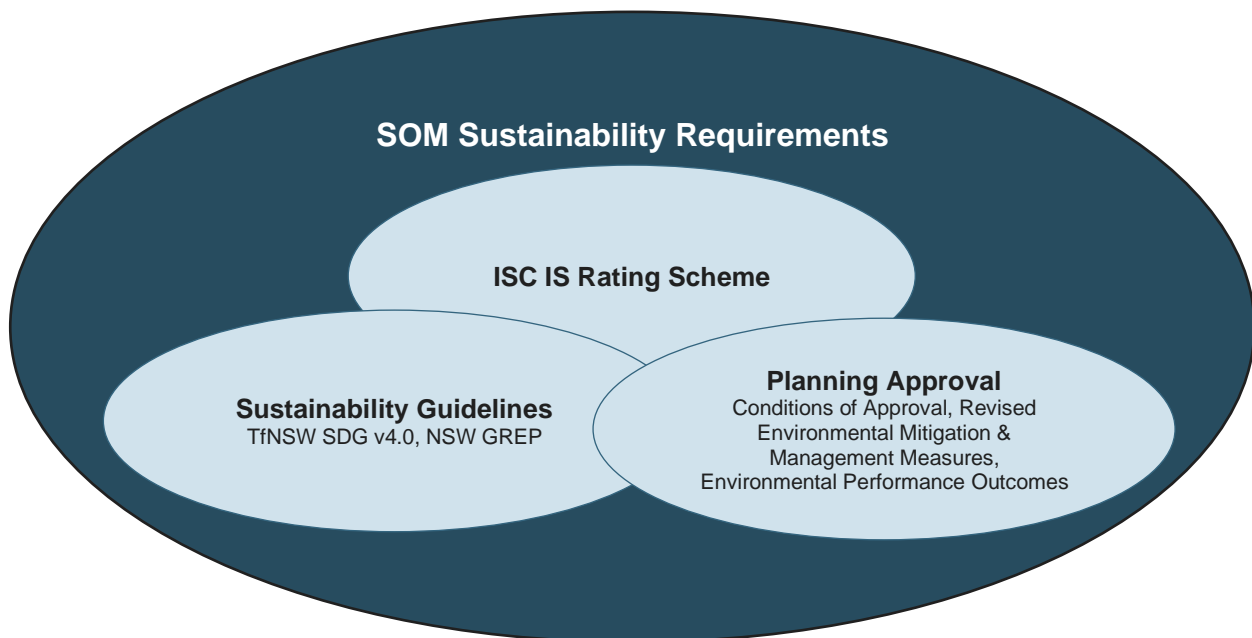
towards improving triple-bottom-line (environmental, social and economic) outcomes. GRCLR's Environment and Sustainability Policy outlines the organisation's commitment to sustainability and is included in Appendix B.

ISC is the peak industry body in Australia for promoting and facilitating sustainability outcomes in major infrastructure projects. Over \$80 billion of infrastructure and civil projects have been certified or registered under the ISC rating framework. Under the SOM contract, GRCLR is required to achieve a minimum Design & As-Built ISC IS Rating of 'excellent', with at least 70 credit points. Credit Points are allocated across the following categories:

- Management Systems
- Procurement & Purchasing
- Climate Change Adaptation
- Energy & Carbon
- Water
- Materials
- Discharges (Air, Land & Water)
- Land
- Waste
- Ecology
- Community Health, Wellbeing & Safety
- Heritage
- Stakeholder Participation
- Urban & Landscape Design
- Innovation

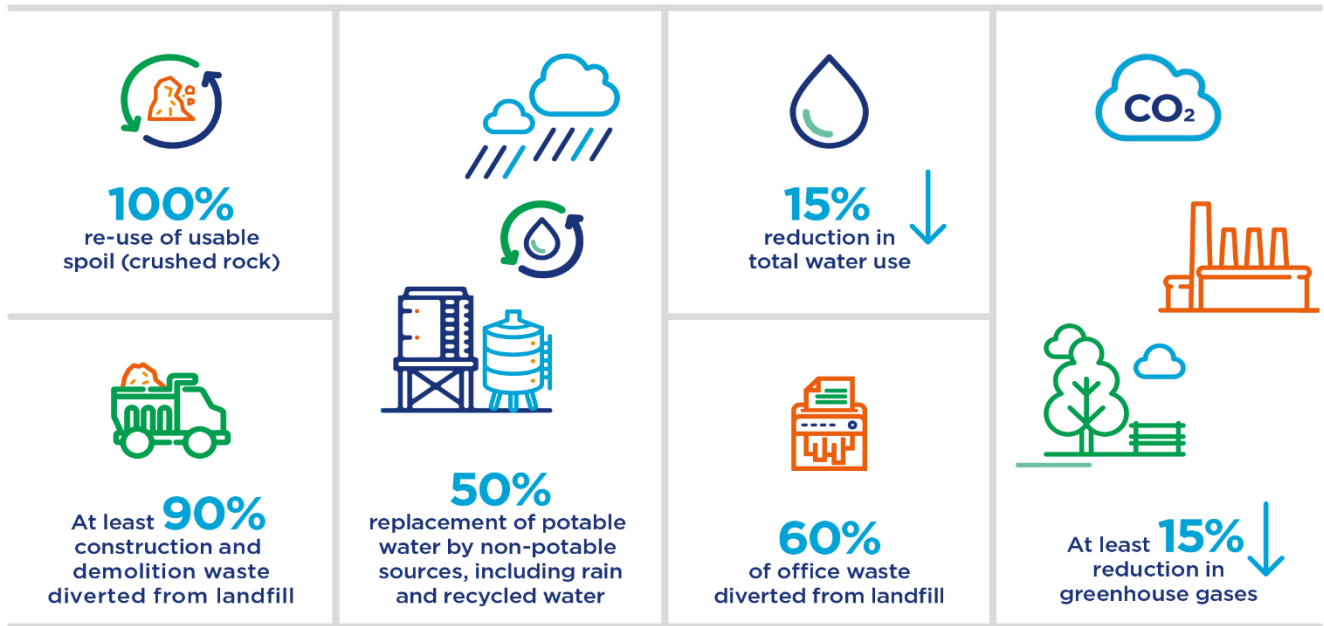
GRCLR's progress against these categories is noted in the following section, along with the 6-12 month outlook.

In addition to the ISC IS Rating Scheme, there are further sustainability requirements to be met by GRCLR which are covered under the SOM Contractual requirements, Planning Approval requirements and guidelines such as the TfNSW Sustainable Design Guidelines V4.0 and NSW Government Resource Efficiency Policy.



GRCLR Sustainability Framework.

Sustainability Targets



At least **15%** reduction in material lifecycle impacts

Sustainability Progress -Design

| Theme | Target | Performance* |
|------------------------|--|---|
| Water Usage | 50% replacement of potable water by non-potable water sources | <ul style="list-style-type: none"> >60% replacement of potable water with non-potable sources |
| Water Reduction | At least 15% reduction in total water usage | <ul style="list-style-type: none"> >20% reduction in total water demand |
| Energy | At least 15% reduction in Greenhouse Gas emissions from energy | <ul style="list-style-type: none"> >20% reduction in Greenhouse Gas emission from energy |
| Materials | At least 15% reduction in Greenhouse Gas emissions from material lifecycle impacts | <ul style="list-style-type: none"> >15% reduction in Greenhouse Gas emissions from material lifecycle impacts |

*Performance figures when compared with PLR SOM IS V1.2 base case.

Sustainability Performance Summary

| Sustainability Themes | Objective | Progress to date | Outlook (next 6-12 months) |
|----------------------------------|--|--|--|
| General | <p>GRCLR will comply with the Sustainability Framework, which comprises of the ISC IS Rating Scheme, TfNSW SDG v4.0 and NSW GREP.</p> <p>GRCLR will achieve a Design & As-Built ISC Rating of at least 70 for the SOM Works.</p> | <ul style="list-style-type: none"> IS Management Plan Developed in conjunction with Infrastructure Sustainability Team. SOM Package ISC Weightings Assessment and Base Case Submitted for verification. ISC Verifiers briefed. Base Case and Design submission completed. Gap analysis and improvement plan for sustainability raw data. Development of Design phase CSFs and associated evidence | <ul style="list-style-type: none"> SOM Package ISC Design Verification. Ongoing data quality improvement (refer to further detail in Appendix C). |
| Management and Governance | <p>Communication, leadership and robust management systems are core to delivering and operating a sustainable PLR. These elements will be focussed upon heavily in the early stages of the project.</p> | <ul style="list-style-type: none"> SOM Sustainability Working Group has been formed to discuss priority issues on a regular basis. GRCLR Environment and Sustainability Policy developed and available on GRCLR website. Sustainability Management System Audit by independent Sustainability Professional completed. Re-accreditation of GRCLR Environment and Sustainability Management System. | <ul style="list-style-type: none"> Compliance against sustainability requirements and targets monitored and reported (monthly). Monthly evaluation/analysis of sustainability opportunities. |

| Sustainability Themes | Objective | Progress to date | Outlook (next 6-12 months) |
|-----------------------------------|---|---|--|
| Procurement and Purchasing | <p>GRCLR is committed to achieving sustainable procurement throughout project lifecycle of PLR.</p> <p>Core elements will include identification, evaluation and management of sustainable suppliers.</p> | <ul style="list-style-type: none"> A sustainable procurement strategy has been developed in line with the ISC IS Pro-1, Pro-2, Pro-3 and Pro-4 credit requirements. Sustainable procurement strategy rolled out, including tender requirements and assessment criteria. Sustainability procurement strategy disseminated to supply chain for implementation | <ul style="list-style-type: none"> Subcontractor engagement for various procurement packages. Ongoing procurement management in line with strategy. |
| Climate Change Adaptation | <p>PLR will be designed, built and operated to be resilient against climate change impacts, with mitigation measures implemented for all 'extreme' and 'high' climate change risks and at least 25% of 'medium' climate change risks.</p> | <ul style="list-style-type: none"> GRCLR has facilitated five (5) Climate Change Risk Assessment Workshops with PCPLR (Infrastructure Contractor). A Climate Change Risk Assessment (CCRA) Report and Risk Register has been developed in collaboration with PCPLR and submitted as part of DDR design. The CCRA Report and Risk Register has been distributed to the GRCLR delivery partners. | <ul style="list-style-type: none"> Regular meetings with the construction team to monitor progress of the implementation of identified mitigation measures. |
| Energy and Carbon | <p>GRCLR is committed to a minimum of 15% reduction in GHG emissions across the infrastructure lifecycle.</p> | <ul style="list-style-type: none"> Base-case construction and operational energy consumption models have been developed and audited to assess performance of current energy reduction initiatives. | <ul style="list-style-type: none"> Energy modelling analysis will be used to inform future construction initiatives for energy reduction during the delivery phase. |

| Sustainability Themes | Objective | Progress to date | Outlook (next 6-12 months) |
|-----------------------|--|---|---|
| | | <ul style="list-style-type: none"> • Three renewable energy technologies have been investigated for construction. | <ul style="list-style-type: none"> • Continued monitoring of project energy use to assess project performance against the sustainability objectives and targets. |
| Water | <p>GRCLR is committed to achieving a minimum of 15% reduction in total water use across the infrastructure lifecycle of the project and a minimum of 50% substitution of total water-use with non-potable water.</p> | <ul style="list-style-type: none"> • Current SaMF design substitutes potable operational water-use with non-potable water sources including captured rainwater and/or recycled water. • The current wash plant design at the SaMF will be partially supplied by captured rainwater. • Irrigation on the SaMF will be supplied by the recycled water network. • Base case construction and operational water use modelling have been developed to assess performance of current water reduction initiatives. | <ul style="list-style-type: none"> • Monitoring of project water use to assess project performance against the sustainability objectives and targets. |
| Materials | <p>GRCLR is committed to achieving a minimum of 15% reduction in embodied energy of materials used.</p> | <ul style="list-style-type: none"> • Materials and embodied energy requirements and targets have been assigned to relevant design disciplines through the Sustainability Requirements Matrix. • Base case construction and operational material use modelling have been developed to assess performance of current water reduction initiatives. | <ul style="list-style-type: none"> • Compliance against materials requirements and targets will be monitored (monthly). |

| Sustainability Themes | Objective | Progress to date | Outlook (next 6-12 months) |
|--|---|--|--|
| Discharges to Air, Land and Water | GRCLR will seek to reduce water quality, noise and vibration, air quality and light pollution impacts to the neighbouring area and sensitive environments during construction and operation of PLR. | <ul style="list-style-type: none"> The Construction Environmental Management Plan has been developed to address water quality, air quality, noise and vibration issues. An Acoustic Consultant has been engaged to facilitate compliance with noise and vibration requirements. | <ul style="list-style-type: none"> Ongoing monitoring of construction activities to monitor performance against water quality, air quality, noise and vibration objectives and targets. |
| Land | GRCLR is committed to making efficient land use decisions by reusing developed land, conserving and reusing soils where feasible and maintaining flood resilience. | <ul style="list-style-type: none"> A finalised flood model and design report has developed by PCPLR in conjunction with GRCLR. The IS Management Plan has been developed to detail shared responsibility for Flood Management between GRCLR and PCPLR. | <ul style="list-style-type: none"> Sediment and erosion control and soil conservation continue to be a focus of regular inspections and monitoring. |
| Waste | GRCLR is committed to diverting 90% of construction and demolition waste and 60% of office waste from landfill during construction, and reusing 100% of useable spoil. | <ul style="list-style-type: none"> The Construction Environmental Management Plan has been developed and updated to address waste management. Waste requirements and targets have been assigned to relevant design disciplines through the Sustainability Requirements Matrices. | <ul style="list-style-type: none"> Compliance against waste requirements and targets will be monitored (monthly). |
| Ecology | The ecological value of the PLR site will be maintained. | <ul style="list-style-type: none"> The Construction Environmental Management Plan has been developed and updated to address flora and fauna | <ul style="list-style-type: none"> Compliance against ecological requirements and targets in design will be monitored (monthly). |

| Sustainability Themes | Objective | Progress to date | Outlook (next 6-12 months) |
|--|---|---|---|
| | | <p>management, including during testing and commissioning of LRVs.</p> <ul style="list-style-type: none"> • Ecological requirements and targets have been assigned to relevant design disciplines through the Sustainability Requirements Matrix. • The IS Management Plan has been developed to detail shared responsibility for Ecological Management between GRCLR and PCPLR. | <ul style="list-style-type: none"> • GRCLR to assess opportunity for potential scope out of ecological requirements of IS V1.2 due to limited ecological impact. |
| Community, Health, Wellbeing and Safety | GRCLR is committed to building an infrastructure that is beneficial to solving key community health, wellbeing and social issues. | <ul style="list-style-type: none"> • A wide range of initiatives are being developed to enhance the benefit of the project to the local community. These include: <ul style="list-style-type: none"> ▪ direct investment into Aboriginal participation, social enterprises and small to medium enterprises; ▪ training for young workers and apprentices; inclusion of disadvantaged, ▪ disabled and underrepresented groups; and ▪ employing women in non-traditional roles. | <ul style="list-style-type: none"> • Initiatives to be implemented and progress monitored. |
| Heritage | Aboriginal and European cultural heritage values at | <ul style="list-style-type: none"> • The Construction Heritage Management Plan has been developed to include | <ul style="list-style-type: none"> • Installation of various heritage interpretation elements to be completed. |

| Sustainability Themes | Objective | Progress to date | Outlook (next 6-12 months) |
|-----------------------------------|--|---|---|
| | Parramatta will be enhanced through interpretation strategies and architectural / urban design treatment. | heritage mitigation measures during construction. <ul style="list-style-type: none"> The Heritage Interpretation Strategy (PCPLR) and GRCLR's Heritage Interpretation Implementation Plan have been completed. | |
| Stakeholder Participation | GRCLR is undertaking stakeholder engagement activities to understand and address stakeholder and community issues. GRCLR aspires to form a collaborative relationship with stakeholders to build a PLR that satisfies their needs. | <ul style="list-style-type: none"> A series of introductory meetings with major stakeholders have been undertaken to establish points of contact and understand key issues for all parties. GRCLR is an active member of the Parramatta Light Rail Business Reference Group and actively supporting TfNSW in their business activation strategy. GRCLR has initiated relationships with the Health Administration Corporation, Western Sydney University, Urban Growth and Australian Turf Club. GRCLR Community Engagement Strategy developed and audited by an Independent Community Engagement specialist. | <ul style="list-style-type: none"> GRCLR will actively manage major stakeholders for PLR on commencement of construction and during operation. |
| Urban and Landscape Design | PLR will improve the landscape and setting of the surrounding community and environment through planning, design and | <ul style="list-style-type: none"> Urban design workshops are currently in progress. Workshops include the Infrastructure Contractor, City of | <ul style="list-style-type: none"> Compliance will be monitored through design review process which involves ongoing liaison with the Design Review Panel. |

| Sustainability Themes | Objective | Progress to date | Outlook (next 6-12 months) |
|-----------------------|--|---|--|
| | consideration of aesthetics, arrangement and function. | <p>Parramatta Council and GRCLR designers.</p> <ul style="list-style-type: none"> • A strategy for developing and implementing public art has been outlined and is under discussion with City of Parramatta Council. • Incorporation of recommendation and advice by the Design Review Panel • Finalised Urban Design Report submitted to Design Review Panel and DPE. | <ul style="list-style-type: none"> • Complete the implementation of Urban and Landscape Design at TPSs and SAMF. |
| Innovation | GRCLR is actively looking to pioneer sustainability initiatives during design and delivery to address key environmental, economic and social issues. | <ul style="list-style-type: none"> • A number of ISC IS Innovation categories are being investigated including piloting the IS v2.0 materials categories • Innovative opportunities in relation to heritage interpretation and material reduction are being investigated. | <ul style="list-style-type: none"> • Further development on current Innovation Challenges, and identification and implementation of new innovation opportunities. |

NSW Government Resource Efficiency Policy Reporting

The NSW Government Resource Efficiency Policy (GREP) aims to reduce the operating cost of NSW Government agencies by requiring facilities to meet sustainable requirements in areas of energy, water, air emissions and more. GRCLR will ensure that all staffed facilities during PLR operations comply with the relevant requirements of the GREP. These facilities will include the SaMF and the Back-up Operational Control Centre.

The SaMF will be located at Grand Avenue, Camellia, and will be used for LRV stabling, cleaning and maintenance during PLR operation. The facility will include the stabling area, maintenance workshop, Operational Control Centre, LRV wash plant, administration offices and staff/driver facilities.

The Back-up Operational Control Centre will be located adjacent to the Dundas Stop and will provide back-up services if the Operational Control Centre is not usable.

The annual sustainability report will cover the performance of the above facilities in achieving the related GREP requirements. The related GREP requirements to the facilities are:

- Requirement A2 – Low-VOC surface coatings.
- Requirement E3 – Minimum standards for new electrical appliances and equipment.
- Requirement W3 – Minimum standards for new water using appliances.

Requirement A2 – Low-VOC surface coatings

All surface coatings and other VOC emitting products will comply with the Property NSW Guidance Note on Low-VOC Emission Materials.

These requirements have been communicated to the relevant GRCLR delivery partners during the design and the procurement and construction phases, respectively.

Requirement E3: Minimum standards for new electrical appliances and equipment

All new electrical equipment purchased by Government must be at least 0.5 stars above the market average star rating or comply with high efficiency standards specified by this measure.

The below table provides a compliance summary of the requirements against the proposed design.

GREP requirements for electrical appliances and equipment.

| Appliances and equipment | NSW GREP Requirement | Compliance |
|---|----------------------|------------|
| Greenhouse and Energy Minimum Standards (GEMS) | | |
| Refrigerators | 2 Star GEMS | • Achieved |
| Clothes dryers | 2.5 Star GEMS | • N/A |
| Washing machines | 3 Star GEMS | • N/A |

| Appliances and equipment | NSW GREP Requirement | Compliance |
|--|--|------------|
| Dishwashers | 4 Star GEMS | • Achieved |
| Pool pumps | 5 Star GEMS | • N/A |
| Fridge/freezes | 2.5 Star GEMS | • Achieved |
| Freezers | 2.5 Star GEMS | • Achieved |
| Air-to-air heat pumps and air conditioners | 3.5 Star GEMS if < 4kW / 2.5 Star GEMS if > 4KW | • Achieved |
| Televisions | 4 Star GEMS | • Achieved |
| Refrigerated commercial display cabinets (AS1731.14) | High efficiency | • N/A |
| Distribution transformers (AS2374.1.2) | High efficiency | • Achieved |
| Electric motors (AS1359.5) | High efficiency | • Achieved |
| External power supplies (AS4879.2) | High efficiency | • Achieved |
| ENERGY STAR® in Australia | | |
| Computers (i.e. desktops, notebooks and tablets, workstations, small-scale servers and thin clients) | High efficiency | • Achieved |
| Printers | High efficiency | • Achieved |
| Photocopiers | High efficiency | • Achieved |
| DVD players | High efficiency | • NA |
| Other | | |
| Air-cooled liquid chilling packages | IPLV of 5.1 | • N/A |
| Water-cooled liquid chilling packages | IPLV of 9.6 | • N/A |
| Closed-control air-conditioners | AEER of 3.3 | • Achieved |

Requirement W3: Minimum standards for new water using appliances

All new water-using appliances purchased by agencies must be at least 0.5 stars above the average Water Efficiency Labelling and Standards (WELS) star rating by product type, except toilets and urinals, which must be purchased at the average WELS star rating.



The below table provides a compliance summary of the requirements against the proposed design.

Proposed performance of water appliances and equipment at SDR against GREP requirements.

| Appliances and equipment | NSW GREP Requirement | Proposed Design (SDR) | Compliance |
|----------------------------------|----------------------|-----------------------|------------|
| Showerheads | 3 Star WELS | 3 Star WELS | ✓ |
| Toilets | 4 Star WELS | 4 Stars | ✓ |
| Urinals | 4 Star WELS | 6 Star WELS | ✓ |
| Washing Machines | 4.5 Star WELS | N/A | N/A |
| Dishwashers | 5 Star WELS | 5 Star WELS | ✓ |
| Taps and flow controllers | 5 Star WELS | 6 Star WELS | ✓ |

Appendix A – TfNSW PLR Environment and Sustainability Policy

Parramatta
Light Rail

 **Transport
for NSW**

Parramatta Light Rail Environment and Sustainability Policy

This policy relates to the delivery of the Parramatta Light Rail (PLR) project and is aligned with the Transport for New South Wales (TfNSW) Environment and Sustainability Policy approved by the Secretary in August 2015.

The PLR project will not only deliver a sustainable transport outcome but will also contribute to the urban renewal, sustainable growth and transformation of the Greater Parramatta to Olympic Peninsula Priority Growth area including Westmead Health Precinct, Greater Parramatta, Sydney Olympic Park and Camelia.

This policy outlines the commitment to:

- Develop effective and appropriate responses to sustainability including climate resilience, urban place making and integration of public and active transport modes.
- Minimising environmental impacts of the project and embedding sustainability principals into the planning, construction and operational phases of the project.
- Proactively comply with all applicable environmental laws, regulations and statutory obligations in both domestic and international jurisdictions where they apply.

To deliver on policy commitments the PLR team will work in the following areas:

Leadership

- Encourage innovation through design and procurement in the areas of sustainability and climate resilience.
- Explore new benchmarks for sustainability in the transport infrastructure sector by expecting quality, value for money and benefit maximisation (environment, economic and social) from our designers, contractors, and suppliers.
- Implement coordinated and transparent decision-making, through collaboration across government departments, stakeholders and suppliers.

Customers, Community and Stakeholders

- Deliver our customers an efficient accessible and convenient transport service.
- Establish positive relationships with the local community to maximise opportunities to create places our customers are drawn to by enhancing liveability, community and economic outcomes.
- Work with the community and our stakeholders to develop workforce skills and diversity.
- Develop and maintain collaborative relationships with our key stakeholders and other important partnerships in order to obtain mutually beneficial sustainability outcomes.

Embedding Sustainability

- Establish, monitor, measure and report on sustainability objectives and targets.
- Develop and integrate an environmental and sustainability management system throughout the project lifecycle.
- Apply assurance processes to monitor performance and identify appropriate rewards and corrective actions.
- Be responsible in the sourcing of goods and services by implementing best practice sustainable procurement protocols.
- Hold project employees and contractors accountable for proactively meeting their environmental, sustainability and climate resilience responsibilities and provide appropriate training, information and resources for all project personnel.

Appendix B – GRCLR Environment and Sustainability Policy

GREAT RIVER CITY LIGHT RAIL ENVIRONMENT AND SUSTAINABILITY POLICY

Intent

Great River City Light Rail Pty Ltd (GRCLR) is the Supply, Operate and Maintain (SOM) Contractor for Parramatta Light Rail Stage 1. We understand what goes into making every journey an exceptional customer experience that is safe, reliable and integrated with other modes of transport.

GRCLR will design, construct, operate and maintain a world-class light rail network that empowers prosperity for the Greater Parramatta Area and supports the realisation of the Future Transport 2056 Strategy.

GRCLR is committed to ensuring an environmentally sustainable future for Parramatta Light Rail, our customers and the Greater Parramatta Area.

Policy

To achieve this, GRCLR will:

1. Lead effectively and live our accountabilities and responsibilities at all levels of the organisation, starting with the Directors through to employees and Subcontractors. This includes all upholding the principles of social sustainability and social accountability across our workforce, our activities and our supply chain;
2. Comply with all environmental and sustainability requirements included in relevant legislation, the Conditions of Approval, Preferred Infrastructure Report and the Environmental Impact Statement;
3. Integrate sustainability principals across all GRCLR activities, including design, construction, procurement, commissioning, operations and maintenance;
4. Collaborate with and proactively engage with all stakeholders at all levels;
5. Create a culture of continuous improvement for environment and sustainability management;
6. Establish annual objectives for environmental management and regularly verify the compliance and effectiveness of the measures to ensure that objectives are met;
7. Promote sourcing sustainably and ethically, prioritising local industry participation including social procurement initiatives and targeting indigenous participation;
8. Encourage and pursue sustainability initiatives and programs that are consistent with the scope of work and technical criteria, provide value for money, and leave net positive legacies for GRCLR, project stakeholders, the environment and communities;
9. Commit to the prevention of pollution, protection of biodiversity, implementation of restorative actions, minimisation of resource use and waste, reduction of greenhouse gas emissions, and enhancement of climate change resilience through adaptation and mitigation across the delivery of works and during operations; and
10. Identify environmental and sustainability aspects and document the related impacts. Assess the risk exposures from the work activities and establish objectives and targets for "High" and "Medium" risks. Plan effectively and provide and use the necessary resources to meet environmental and sustainability objectives and targets.

To support this policy, GRCLR has established an Integrated Management System (IMS), with appropriate policies, procedures and practices in place, which captures the requirements of AS/NZS ISO 14001:2015.

This Policy will be communicated to and applies to all GRCLR employees and Subcontractors, and will be made publicly available.

| Document Number | Revision | Version | Date of Issue |
|-------------------------------|----------|---------|---------------|
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| | | | Annual |
| | | | 26/10/2024 |

Appendix C – Construction sustainability performance and improvement matrix

| Area | Description | Contract Target | Cumulative performance | Data confidence level | Commentary and Analysis |
|---|---|--|------------------------|-----------------------|---|
| Sustainability Rating | IS Design, As-built and Operations Rating | 70 | TBC | NA | Awaiting finalisation. |
| Emissions Reduction | Reductions in greenhouse gas emissions compared to a base case footprint, including scope 1, scope 2 and land clearing emissions | 15% Reduction in Greenhouse Gas emissions during construction | >20% | Moderate | Compared to base case. Actual emissions are calculated on the basis of cumulative energy use and emission factors. |
| | | Offset a minimum of 25% of total electricity use during construction | TBC | NA | GRCLR is in the process of quantifying year on year energy usage so that offsets may be appropriately purchased for cumulative energy use and ongoing. |
| Water Reduction | Reduction in total water use compared to a base case footprint | 15% Water Reduction | >20% | Moderate | Compared to base case. Reductions achieved via water efficiency etc. |
| Water Substitution | Water use from non-potable sources, from reclaimed or recycled waste water or harvested water | 50% replacement of potable water | >60% | Moderate | Compared to base case. A high degree of recycled water usage has been achieved. Some further assessment against the base case is required to increase the level of confidence in the data |
| Environmental Labelling | Material or products have an ISC approved environmental label | 3-9% Environmentally Labelled Products | TBC | NA | Work is being conducted to confirm and quantify the level of environmental labelling to date. |
| Material Lifecycle Impact Measurement and Reduction | Monitoring and modelling of materials lifecycle impacts is undertaken using the Materials Calculator and a reduction is demonstrated compared to a base case footprint across the infrastructure lifecycle. | 15% Reduction in life cycle impacts | TBC | NA | Work is being conducted to confirm and quantify life cycle impact reduction. |
| Quantity of Waste to be Recycled | Percentage of spoil waste diverted from landfill for recycling or reuse | 100% | >90% | High | There has been a consistently high level of spoil recycled on the project. Good data exists for this aspect and some basic data collation is underway to ensure these data can be analysed in a simple and timely manner. |
| | Percentage of inert or non-hazardous waste diverted from | 90% | >95% | High | Data sources for this aspect are good quality and at a high level of completeness. Basic |

| Area | Description | Contract Target | Cumulative performance | Data confidence level | Commentary and Analysis |
|----------------------------------|---|--|------------------------|-----------------------|--|
| | landfill for recycling or reuse | | | | data collation being carried out to ensure da |
| | Percentage of paper and cardboard / co-mingled office waste diverted from landfill for recycling or reuse | 60% | 63% approximately | High | Data sources for this aspect are good quality and at a high level of completeness. Collation is ongoing. |
| Concrete – Substitute | Concrete mix for all applications where specifications and | 25% substitution | | | Cumulative amount needs to be quantified to a higher level of confidence. |
| Cementitious Content (SCM) | supply do not limit, in accordance with AS 5100.5 | of fly ash or 50% blast furnace slag | TBC | Moderate | Project requirements for different specifications of concrete. Different specs will be identified as being SCM or not and this will then be extrapolated across cumulative data. |
| Reclaimed Asphalt Pavement (RAP) | Use asphalt and reclaimed asphalt pavement | 25% for asphalt | >25% | High | Data sources for this aspect are good quality and at a high level of completeness. Collation is ongoing. |
| | | 100% for sub-base | >95% | High | Data sources for this aspect are good quality and at a high level of completeness. Collation is ongoing. |
| Workforce Development | | Relevant workforce development targets (unless captured elsewhere) | TBC | NA | Further assessment required to quantify this for future reports. |

Table 1: Construction sustainability performance.