

To: Steve Mitchell

From: Kris Stone

Company: Scentre Group

SLR Consulting Australia

cc: Hasib Shaikh
Robert Bird Group

Date: 16 February 2024

Project No. 620.040504

**RE: Eastgardens Planning Proposal
Fronting Road Network Civil Engineering Functional Layout Plans –
Traffic Engineering Review and Comment**

Confidentiality

This document is confidential and may contain legally privileged information. If you are not a named or authorised recipient, you must not read, copy, distribute or act in reliance on it. If you have received this document in error, please notify us immediately and return the document by mail.

1.0 Introduction

SLR Consulting Australia Pty Ltd (**SLR**) has been engaged by Scentre Group to provide traffic and transport input in relation to the Eastgardens Planning Proposal (**Planning Proposal**). This advice relates specifically to the functional layout plans prepared by Robert Bird Group (**Attachment A**).

2.0 Background

The following is a summary of the Planning Proposal application and assessment background relevant to traffic and transport and this advice:

- SLR prepared a traffic and transport assessment (**SLR Assessment**) dated July 2018 (Reference 620.12132-R02-v3). The SLR Assessment was submitted to approval authorities as part of the Planning Proposal package.
- The SLR Assessment was prepared with input from, and liaison with, Bayside Council (**Council**) and Transport for New South Wales (**TfNSW**).
- Cardno was engaged by Council to undertake an independent review of traffic matters including the SLR Assessment. The Cardno review findings were documented in their advice dated June 2018 (Reference 80018011 v2).
- In October 2018, SLR prepared a response to the traffic matters raised in the Cardno peer review (Reference 620.12132-L01-v3). The advice concluded that there were no outstanding traffic matters that precluded a decision to approve the Planning Proposal with conditions.
- Subsequent liaison with Council indicated that the SLR response had adequately addressed the Cardno peer review matters and no further material was required.
- The Department of Planning and Environment issued a Gateway Determination dated 4 October 2023 (Reference RR-2022-1337) permitting the increase in maximum building height and floor-space-ratio proposed by the Planning Proposal, subject to conditions. See **Attachment A**.
- Item 2 a) ii) of the Gateway Determination conditions requires that the "*proposed mitigation measures surrounding intersection upgrades be developed into a concept stage to demonstrate feasibility.*"

3.0 Purpose

The purpose of this advice is to document the summary conclusions of a traffic engineering review of the Robert Bird functional layout plans to inform the TfNSW evaluation.

4.0 Technical Consideration

4.1 Reviewed Plans

The Robert Bird Group functional layout plans reviewed herein are:

- C3-01(E) – Wentworth-Banks Intersection – General Arrangement Plan.
- C3-02(F) – Wentworth-Denison Intersection – General Arrangement Plan.
- C3-03(E) – Wentworth-Bunnerong Intersection – General Arrangement Plan.
- C3-04(E) – Westfield-Bunnerong Intersection – General Arrangement Plan.

4.2 Consistency with SLR Assessment

The Robert Bird Group intersection layouts are consistent with the formations and phasing arrangements that were analysed and recommended as part of the SLR Assessment. The only variation is at the Wentworth Road/Bunnerong Road intersection.

- The *C3-03(E) – Wentworth-Bunnerong Intersection* layout proposes a reconfiguration of the existing two-stage signalised pedestrian crossing of Wentworth Road. A single-stage arrangement is shown given the need to reutilise the median space to better accommodate B-Double vehicles.
- The single-stage crossing distance is approx. 21.3m which is consistent with other nearby facilities. Whilst the phasing change hasn't been assessed using the previously developed AIMSUN and SIDRA analysis tools, it is anticipated that the pedestrian crossing phase can be accommodated in tandem with the primary Bunnerong Road arterial phase with no need for additional green-time.
- The single-phase crossing is consistent with *Austroads Guide to Road Design Part 4* which recommends to “avoid staged crossings wherever practicable” (Page 11) and “...desirable that pedestrians are not staged in the median but are allowed to cross the road without delay” (*Page 78).

Accordingly, SLR is of the view that the plans are sufficient to enable public exhibition of the Planning Proposal.

4.3 Design Feasibility

The Robert Bird Group intersection layouts have been reviewed by SLR and appear consistent with typically accepted design guidance, specifically:

- The proposed intersection layouts accommodate the following design vehicles consistent with TfNSW and NHVR mapping:
 - 19m articulated vehicle to/from Banks Avenue and Westfield Drive.
 - 26m B-Double vehicle to/from Denison Street, and along/turning at Wentworth Avenue and Bunnerong Road (including the signalised intersection of both).



- Some of the layouts propose to reconfigure existing signal hardware and stop line locations. The incremental changes to stop line locations are consistent with other locations with constrained road approaches.
- The layouts indicate no additional third-party land outside of road reserve is required to enable the upgrades that were recommended as part of the SLR Assessment.

Accordingly, SLR is of the view that the plans are sufficient to enable public exhibition of the Planning Proposal.

5.0 Summary

SLR Consulting Australia Pty Ltd (**SLR**) has been engaged by Scentre Group to provide traffic and transport input in relation to the Eastgardens Planning Proposal (**Planning Proposal**). This advice relates specifically to the functional layout plans prepared by Robert Bird Group (**Attachment A**).

The following key conclusions are made based on a review of the material herein:

- The Robert Bird Group intersection layouts are consistent with the formations and phasing arrangements that were analysed and recommended as part of the SLR Assessment.
- The Robert Bird Group intersection layouts have been reviewed and appear consistent with typically accepted design guidance.
- The combined Robert Bird Group functional layouts plans are sufficient to enable public exhibition of the Planning Proposal. It is anticipated that any post-exhibition commentary, including that received from TfNSW, would inform decisions regarding the need and detailed design of any external road network upgrades.

Please contact the undersigned if you have any queries in relation to this advice.

Regards,

SLR Consulting Australia



Kris Stone, BEng, CPEng, RPEQ (24687)
Principal Consultant – Transport Advisory

Attachments

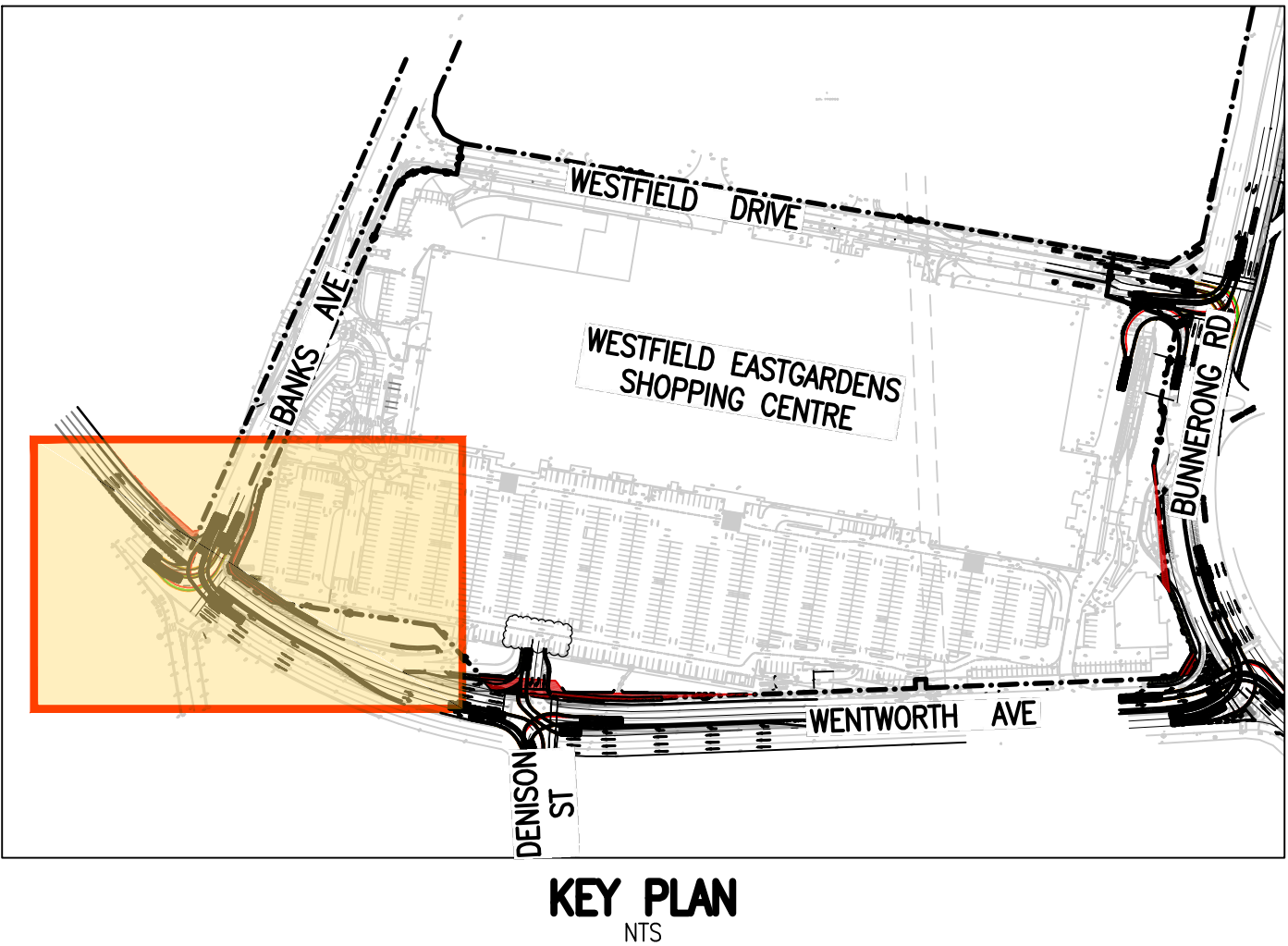
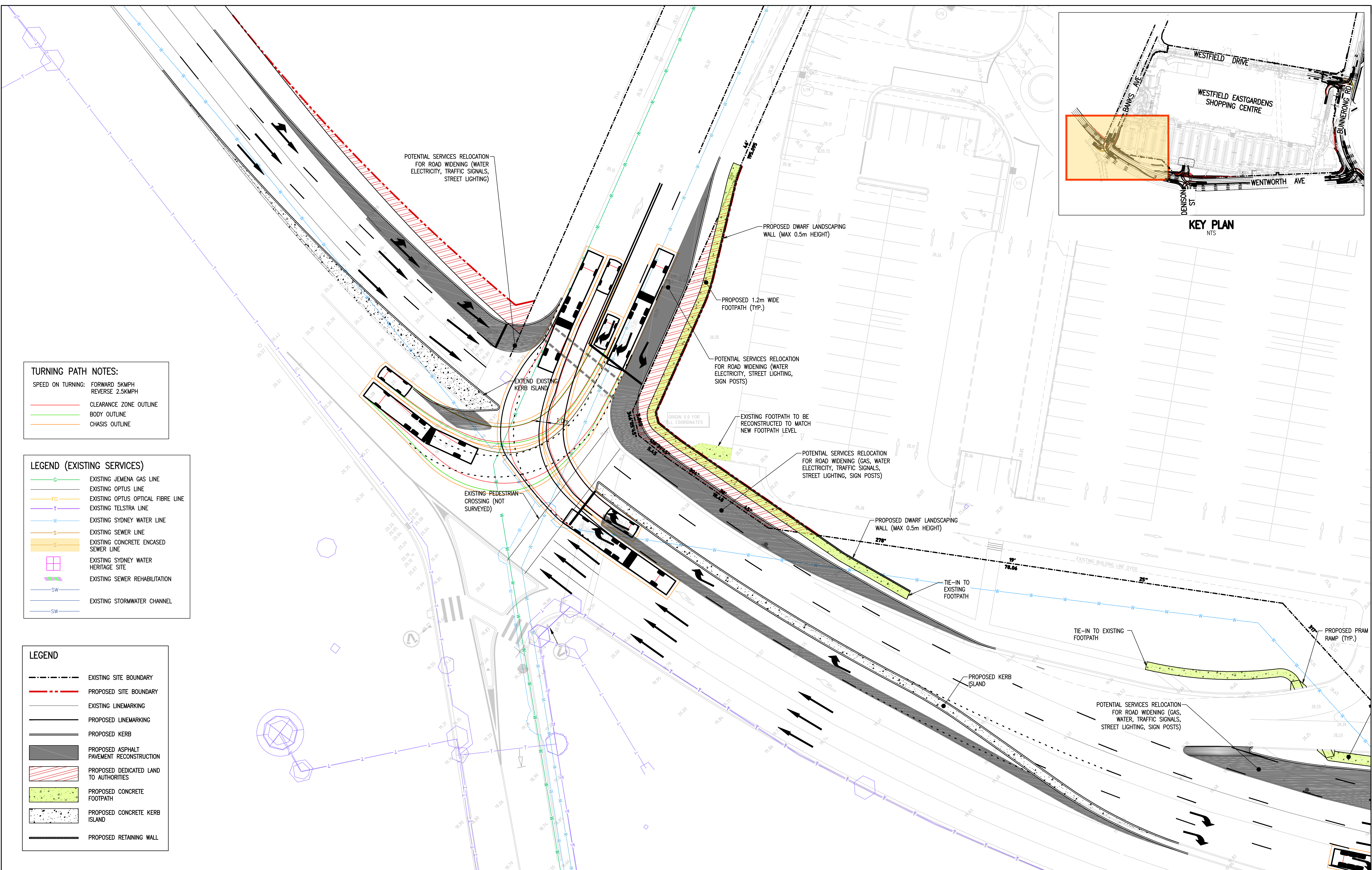
Attachment A – Intersection Functional Layout Plans [Robert Bird Group]



Attachment A

Intersection Functional Layout Plans [Robert Bird Group]





TURNING PATH NOTES:

SPEED ON TURNING: FORWARD 5KMPH
REVERSE 2.5KMPH

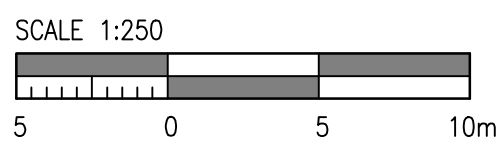
— CLEARANCE ZONE OUTLINE
— BODY OUTLINE
— CHASSIS OUTLINE

LEGEND (EXISTING SERVICES)

— G — EXISTING JEMENA GAS LINE
— FO — EXISTING OPTUS LINE
— T — EXISTING OPTUS OPTICAL FIBRE LINE
— W — EXISTING TELSTRA LINE
— W — EXISTING SYDNEY WATER LINE
— S — EXISTING SEWER LINE
— S — EXISTING CONCRETE ENCASED SEWER LINE
— S — EXISTING SYDNEY WATER HERITAGE SITE
— S — EXISTING SEWER REHABILITATION
— SW — EXISTING STORMWATER CHANNEL

LEGEND

--- EXISTING SITE BOUNDARY
--- PROPOSED SITE BOUNDARY
--- EXISTING LINEMARKING
--- PROPOSED LINEMARKING
--- PROPOSED KERB
--- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
--- PROPOSED DEDICATED LAND TO AUTHORITIES
--- PROPOSED CONCRETE FOOTPATH
--- PROPOSED CONCRETE KERB ISLAND
--- PROPOSED RETAINING WALL



Rev	Revision	Description	By	App	Date
A	PRELIMINARY ISSUE	MC	CR	30.04.18	
B	PRELIMINARY ISSUE	SM	CR	07.05.18	
C	PRELIMINARY ISSUE	SM	CR	13.11.23	
D	PRELIMINARY ISSUE	HS	CR	21.12.23	
E	PRELIMINARY ISSUE	HS	CR	15.01.24	

Rev	Revision	Description	By	App	Date
A	PRELIMINARY ISSUE	MC	CR	30.04.18	
B	PRELIMINARY ISSUE	SM	CR	07.05.18	
C	PRELIMINARY ISSUE	SM	CR	13.11.23	
D	PRELIMINARY ISSUE	HS	CR	21.12.23	
E	PRELIMINARY ISSUE	HS	CR	15.01.24	

Disclaimer: Robert Bird Group Pty Ltd ACN 010 580 246 and its related entities (RBS) do not warrant the accuracy, currency or completeness of any information or data they supply or transfer by electronic means. You are responsible for verifying that any information or data supplied or transferred by electronic means matches the information or data on the corresponding PDF or DWG version issued by RBS. RBS will not be liable for any loss or damage you or any other party incur as a result of acting in reliance on any information or data supplied or transferred by electronic means and you release RBS from any liability for any loss or damage however caused which you or any other party may directly or indirectly suffer in connection with your access to or use of that information or data. RBS provides this information for the express purpose contemplated by the underlying terms of engagement for the project which must not be used for any other purpose. The information is not a contractual document. Unless otherwise agreed in writing by RBS, all intellectual property rights in any information supplied by RBS are owned by, or licensed to, RBS. RBS only provides you with a non-transferable, fully revocable licence to use the intellectual property rights for the express purpose.

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE

Structural, Civil & Construction Engineering Consultant

RobertBirdGroup
Member of the Surbana Jurong Group

SYDNEY OFFICE
Robert Bird Group Pty Ltd
PO Box 6461
North Sydney, NSW 2059
Level 6, 100 Pacific Highway
North Sydney NSW 2060

Ph: (02) 8246 3200
Fax: (02) 8246 3201
Email: sydney@robertbird.com.au
Web: www.robertbird.com
ACN 010 580 248

SCENTRE GROUP
Owner and Operator of *Westfield* in Australia and New Zealand

Client

Title
**WENTWORTH – BANKS
INTERSECTION – GENERAL
ARRANGEMENT PLAN**

Project
**WESTFIELD EASTGARDENS
INTERSECTIONS UPGRADE**

Scale at A1
AS SHOWN
Date
12.02.2024

Drawing Number
C3-01

Drawn
S.MANANDHAR
Designer
H.SHAIKH

Design Checker
C.ROPE
Approved
C.ROPE
Job Number
18183C

Revision
E

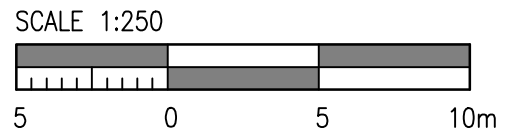
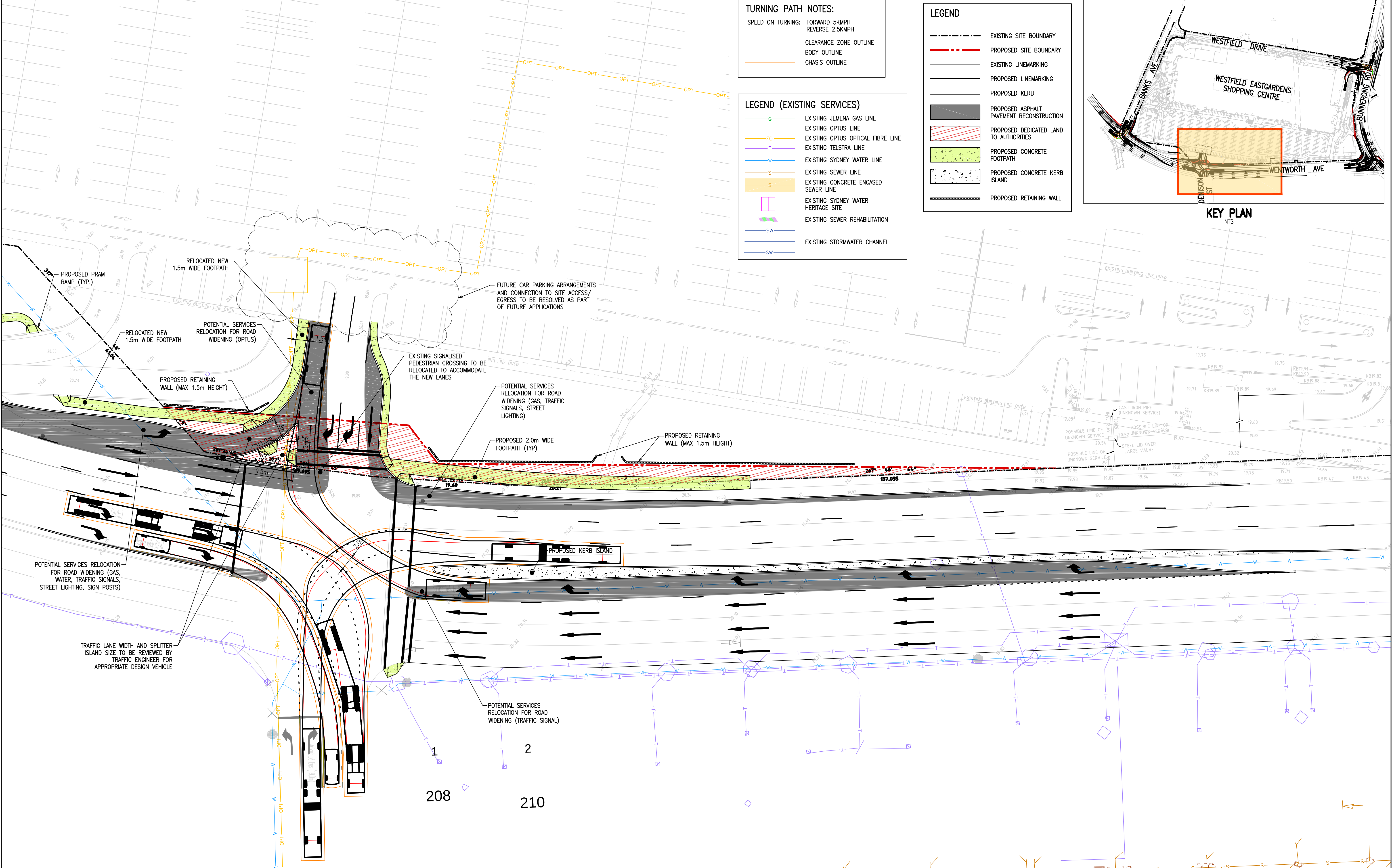
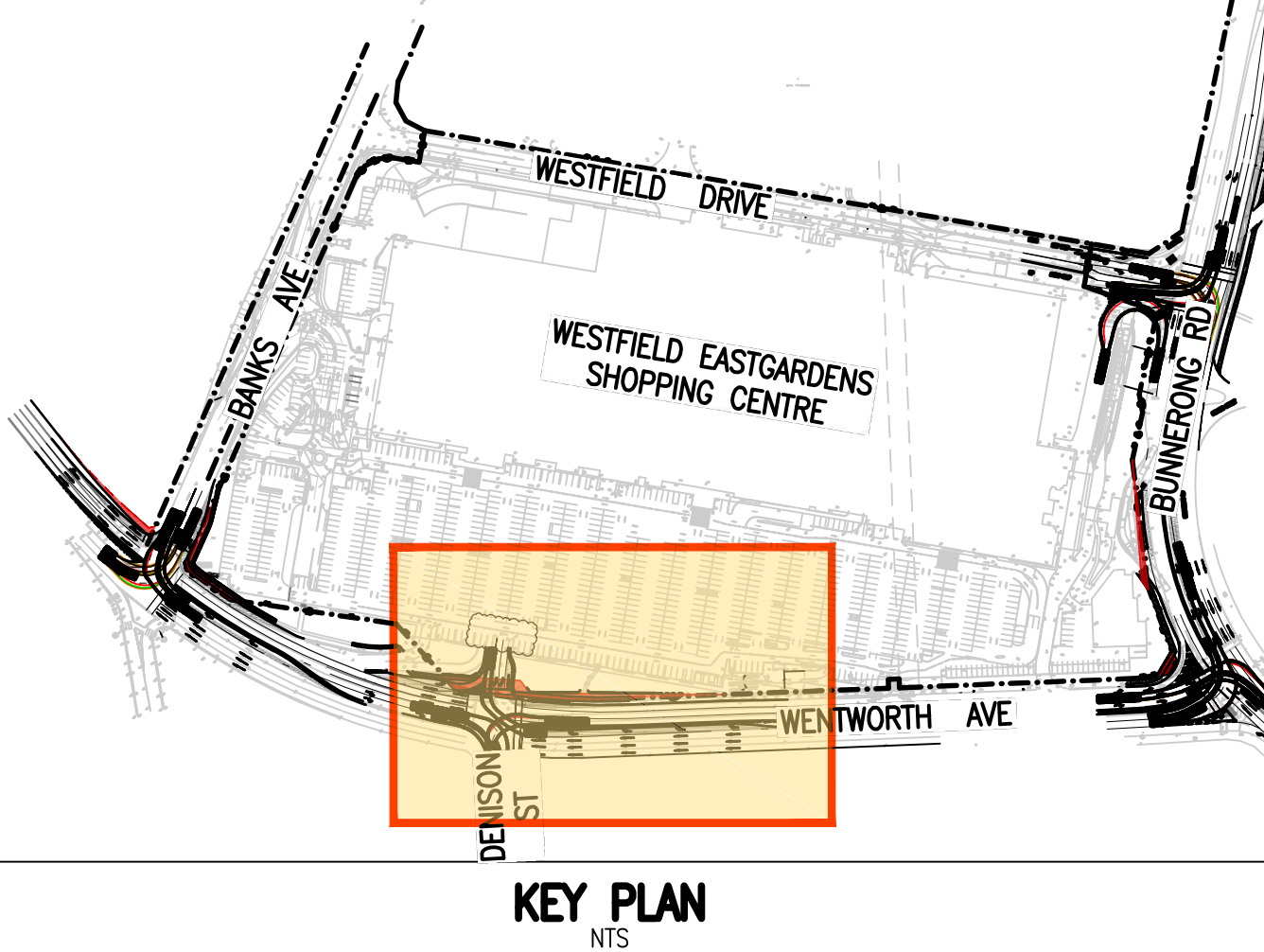
NOT FOR CONSTRUCTION

TURNING PATH NOTES:
SPEED ON TURNING: FORWARD 5KMPH
REVERSE 2.5KMPH

CLEARANCE ZONE OUTLINE
BODY OUTLINE
CHASSIS OUTLINE

- LEGEND (EXISTING SERVICES)
- G EXISTING JEMENA GAS LINE
 - FO EXISTING OPTUS OPTICAL FIBRE LINE
 - T EXISTING TELSTRA LINE
 - W EXISTING SYDNEY WATER LINE
 - S EXISTING SEWER LINE
 - S EXISTING CONCRETE ENCASED SEWER LINE
 - EXISTING SYDNEY WATER HERITAGE SITE
 - EXISTING SEWER REHABILITATION
 - SW EXISTING STORMWATER CHANNEL

- LEGEND
- EXISTING SITE BOUNDARY
 - PROPOSED SITE BOUNDARY
 - EXISTING LINEMARKING
 - PROPOSED LINEMARKING
 - PROPOSED KERB
 - PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
 - PROPOSED DEDICATED LAND TO AUTHORITIES
 - PROPOSED CONCRETE FOOTPATH
 - PROPOSED CONCRETE KERB ISLAND
 - PROPOSED RETAINING WALL



Rev	Revision Description	By	App	Date
A	PRELIMINARY ISSUE	MC	CR	30.04.18
B	PRELIMINARY ISSUE	SM	CR	07.05.18
C	PRELIMINARY ISSUE	SM	CR	13.11.23
D	PRELIMINARY ISSUE	HS	CR	21.12.23
E	PRELIMINARY ISSUE	HS	CR	15.01.24
F	PRELIMINARY ISSUE	HS	CR	12.02.24

Rev	Revision Description	By	App	Date
A	PRELIMINARY ISSUE	MC	CR	30.04.18
B	PRELIMINARY ISSUE	SM	CR	07.05.18
C	PRELIMINARY ISSUE	SM	CR	13.11.23
D	PRELIMINARY ISSUE	HS	CR	21.12.23
E	PRELIMINARY ISSUE	HS	CR	15.01.24
F	PRELIMINARY ISSUE	HS	CR	12.02.24

Disclaimer: Robert Bird Group Pty Ltd ACN 010 580 246 and its related entities (RBS) do not warrant the accuracy, currency or completeness of any information or data they supply or transfer by electronic means. You are responsible for verifying that any information or data supplied or transferred by electronic means matches the information or data on the corresponding PDF or DWG version issued by RBS. RBS will not be liable for any loss or damage you or any other party incur as a result of acting in reliance on any information or data supplied or transferred by electronic means and you release RBS from any liability for any loss or damage however caused which you or any other party may directly or indirectly suffer in connection with your access to or use of that information or data.

RBS provides this information for the express purpose contemplated by the underlying terms of engagement for the project which must not be used for any other purpose. The information is not a contractual document. Unless otherwise agreed in writing by RBS, all intellectual property rights in any information supplied by RBS are owned by, or licensed to, RBS. RBS only provides you with a non-transferable, fully revocable licence to use the intellectual property rights for the express purpose.

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE

Structural, Civil & Construction Engineering Consultant

RobertBirdGroup
Member of the Surbana Jurong Group

SYDNEY OFFICE
Robert Bird Group Pty Ltd
PO Box 6461
North Sydney, NSW 2059
Level 6, 100 Pacific Highway
North Sydney NSW 2060

Ph: (02) 8246 3200
Fax: (02) 8246 3201
Email: sydney@robertbird.com.au
Web: www.robertbird.com
ACN 010 580 248

Client

SCENTRE GROUP
Owner and Operator of **Westfield** in Australia and New Zealand

Title
**WENTWORTH - DENISON
INTERSECTION - GENERAL
ARRANGEMENT PLAN**

Project
**WESTFIELD EASTGARDENS
INTERSECTIONS UPGRADE**

Scale at A1
AS SHOWN
Date
12.02.24

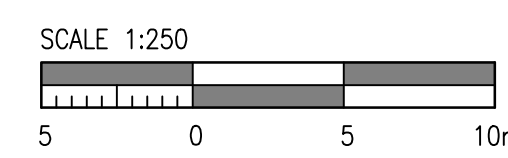
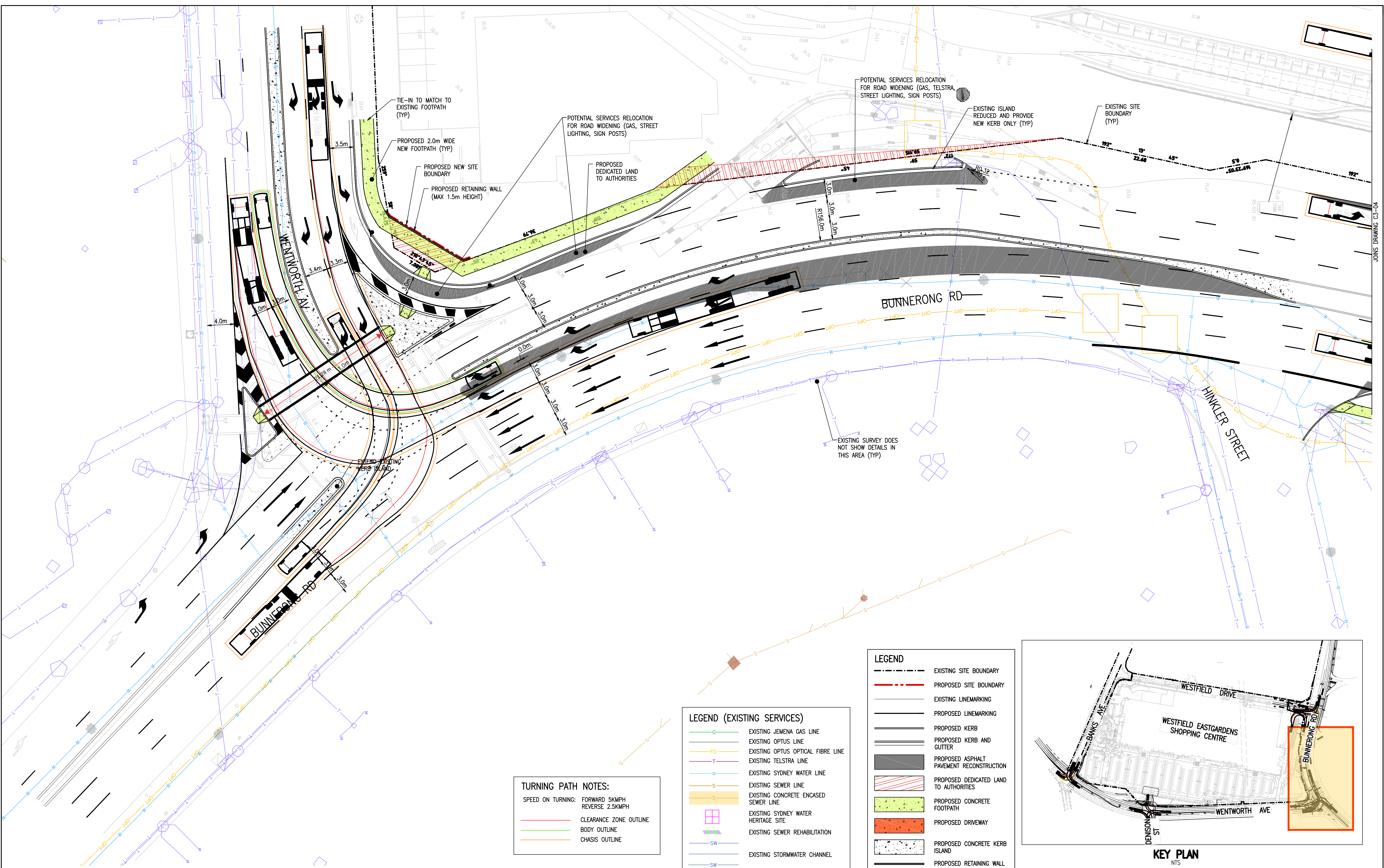
Drawn
S.MANANDHAR
Designer
H.SHAIKH

Design Checker
C.ROPE
Approved
C.ROPE
Job Number
18183C

NOT FOR CONSTRUCTION

Drawing Number
C3-02

Revision
F



Rev	Revision Description	By	App	Date
A	PRELIMINARY ISSUE	SM	CR	03.05.18
B	PRELIMINARY ISSUE	SM	CR	07.05.18
C	PRELIMINARY ISSUE	SM	CR	13.11.23
D	PRELIMINARY ISSUE	HS	CR	21.12.23
E	PRELIMINARY ISSUE	HS	CR	15.01.24
F	PRELIMINARY ISSUE	HS	CR	12.02.24

Rev	Revision Description	By	App	Date
A	PRELIMINARY ISSUE	SM	CR	03.05.18
B	PRELIMINARY ISSUE	SM	CR	07.05.18
C	PRELIMINARY ISSUE	SM	CR	13.11.23
D	PRELIMINARY ISSUE	HS	CR	21.12.23
E	PRELIMINARY ISSUE	HS	CR	15.01.24
F	PRELIMINARY ISSUE	HS	CR	12.02.24

Disclaimer: Robert Bird Group Pty Ltd ACN 010 580 246 and its related entities (RBS) do not warrant the accuracy, currency or completeness of any information or data they supply or transfer by electronic means. You are responsible for verifying that any information or data supplied or transferred by electronic means matches the information or data on the corresponding PDF or DWG version issued by RBS. RBS will not be liable for any loss or damage you or any other party incur as a result of acting in reliance on any information or data supplied or transferred by electronic means and you release RBS from any liability for any loss or damage however caused which you or any other party may directly or indirectly suffer in connection with your access to or use of that information or data. RBS provides this information for the express purpose contemplated by the underlying terms of engagement for the project which must not be used for any other purpose. The information is not a contractual document. Unless otherwise agreed in writing by RBS, all intellectual property rights in any information supplied by RBS are owned by, or licensed to, RBS. RBS only provides you with a non-transferable, fully revocable licence to use the intellectual property rights for the express purpose.

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE

Structural, Civil & Construction Engineering Consultant

RobertBirdGroup
Member of the Surbana Jurong Group

SYDNEY OFFICE
Robert Bird Group Pty Ltd
PO Box 6461
North Sydney, NSW 2059
Level 6, 100 Pacific Highway
North Sydney NSW 2060

Ph: (02) 8246 3200
Fax: (02) 8246 3201
Email: sydney@robertbird.com.au
Web: www.robertbird.com
ACN 010 580 248

Client

SCENTRE GROUP
Owner and Operator of **Westfield** in Australia and New Zealand

Title
**WENTWORTH - BUNNERONG RD
INTERSECTION - GENERAL
ARRANGEMENT PLAN**

Project
**WESTFIELD EASTGARDENS
INTERSECTIONS UPGRADE**

Scale at A1
AS SHOWN
Date
12.02.2024

Drawn
S.MANANDHAR
Designer
H.SHAikh

Design Checker
C.ROPE
Approved
C.ROPE
Job Number
18183C

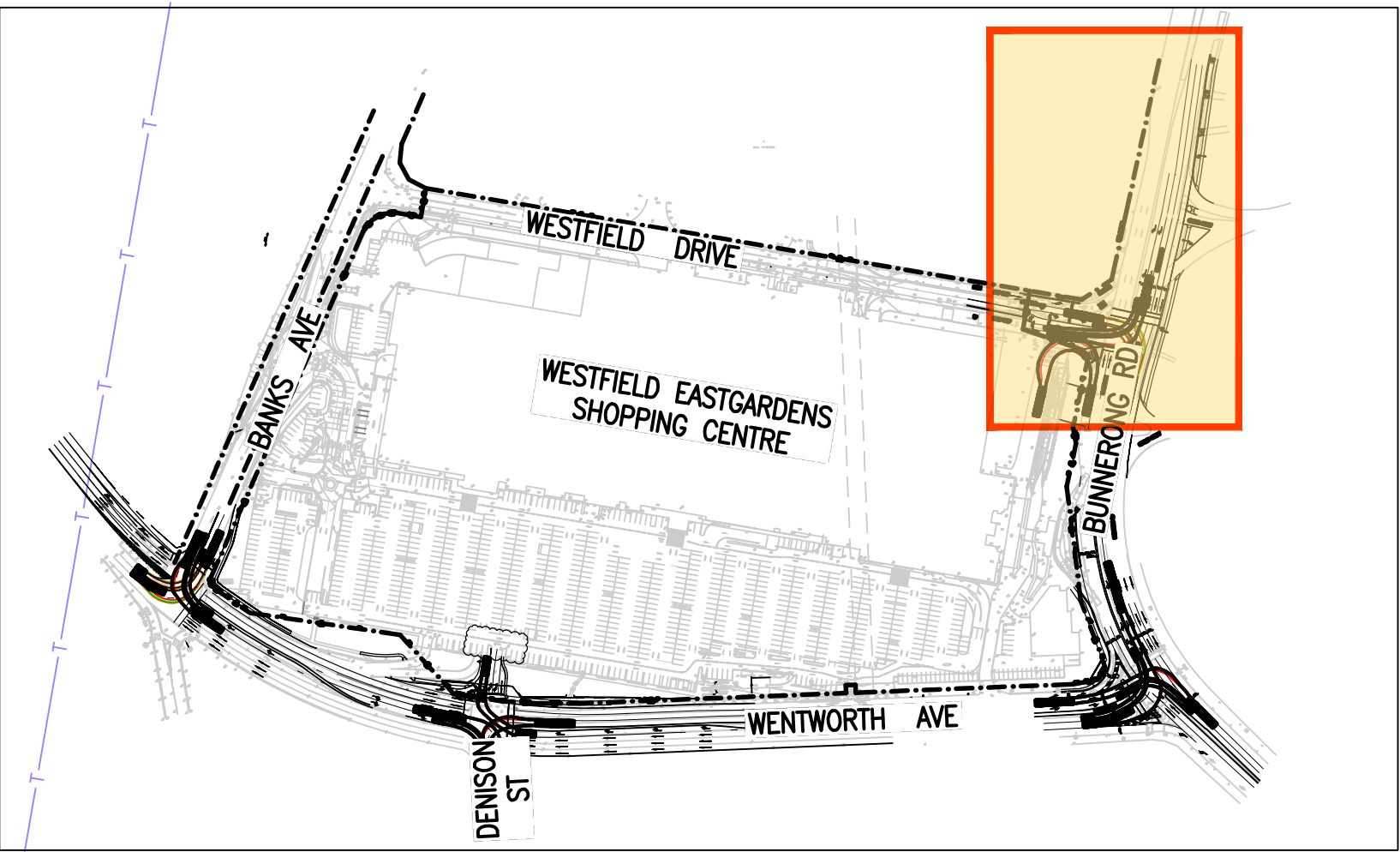
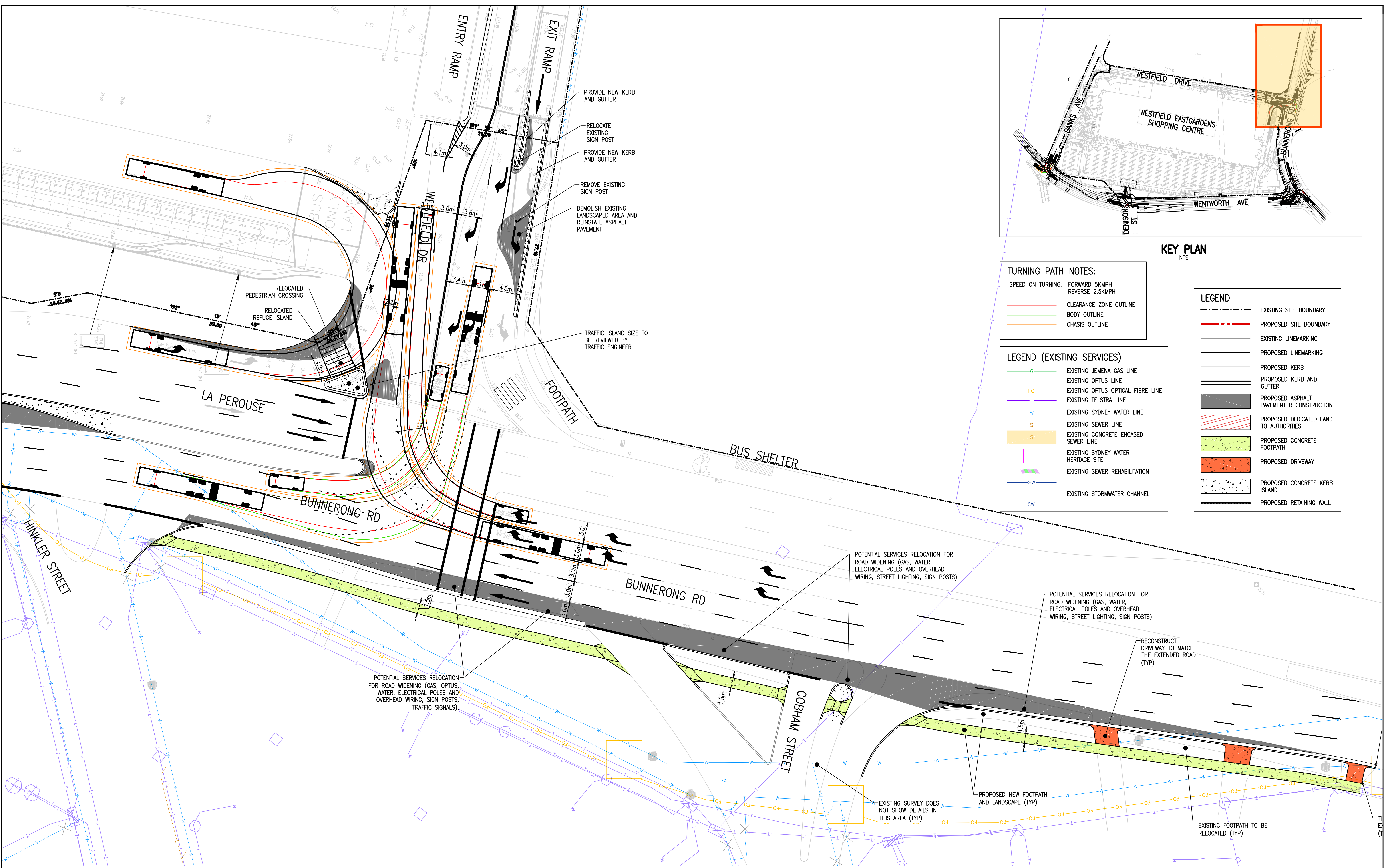
NOT FOR CONSTRUCTION

Drawing Number
C3-03

Revision
F

JOINS DRAWING C3-04

JOINS DRAWING C3-03



KEY PLAN
NTS

TURNING PATH NOTES:

SPEED ON TURNING: FORWARD 5KMPH
REVERSE 2.5KMPH

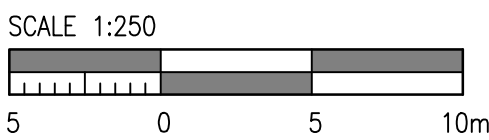
- CLEARANCE ZONE OUTLINE
- BODY OUTLINE
- CHASSIS OUTLINE

LEGEND (EXISTING SERVICES)

- G EXISTING JEMENA GAS LINE
- FO EXISTING OPTUS LINE
- FO EXISTING OPTUS OPTICAL FIBRE LINE
- T EXISTING TELSTRA LINE
- W EXISTING SYDNEY WATER LINE
- S EXISTING SEWER LINE
- S EXISTING CONCRETE ENCASED SEWER LINE
- SW EXISTING SYDNEY WATER HERITAGE SITE
- SW EXISTING SEWER REHABILITATION
- SW EXISTING STORMWATER CHANNEL

LEGEND

- EXISTING SITE BOUNDARY
- PROPOSED SITE BOUNDARY
- EXISTING LINEMARKING
- PROPOSED LINEMARKING
- PROPOSED KERB
- PROPOSED KERB AND GUTTER
- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED DEDICATED LAND TO AUTHORITIES
- PROPOSED CONCRETE FOOTPATH
- PROPOSED DRIVEWAY
- PROPOSED CONCRETE KERB ISLAND
- PROPOSED RETAINING WALL



Rev	Revision Description	By	App	Date
A	PRELIMINARY ISSUE	SM	CR	03.05.18
B	PRELIMINARY ISSUE	SM	CR	07.05.18
C	PRELIMINARY ISSUE	SM	CR	13.11.23
D	PRELIMINARY ISSUE	HS	CR	21.12.23
E	PRELIMINARY ISSUE	HS	CR	15.01.24

Rev	Revision Description	By	App	Date
A	PRELIMINARY ISSUE	SM	CR	03.05.18
B	PRELIMINARY ISSUE	SM	CR	07.05.18
C	PRELIMINARY ISSUE	SM	CR	13.11.23
D	PRELIMINARY ISSUE	HS	CR	21.12.23
E	PRELIMINARY ISSUE	HS	CR	15.01.24

Disclaimer: Robert Bird Group Pty Ltd (RBG) and its related entities (RBE) do not warrant the accuracy, currency or completeness of any information or data they supply or transfer by electronic means. You are responsible for verifying that any information or data supplied or transferred by electronic means matches the information or data on the corresponding PDF or DWG version issued by RBG. RBG will not be liable for any loss or damage you or any other party incur as a result of acting in reliance on any information or data supplied or transferred by electronic means and you release RBG from any liability for any loss or damage however caused which you or any other party may directly or indirectly suffer in connection with your access to or use of that information or data. RBG provides this information for the express purpose contemplated by the underlying terms of engagement for the project which must not be used for any other purpose. The information is not a contractual document. Unless otherwise agreed in writing by RBG, all intellectual property rights in any information supplied by RBG are owned by, or licensed to, RBG. RBG only provides you with a non-transferable, fully revocable licence to use the intellectual property rights for the express purpose.

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS
REFER TO GENERAL NOTES UNLESS NOTED OTHERWISE

Structural, Civil & Construction
Engineering Consultant

RobertBirdGroup
Member of the Surbana Jurong Group

SYDNEY OFFICE
Robert Bird Group Pty Ltd
PO Box 6461
North Sydney, NSW 2059
Level 6, 100 Pacific Highway
North Sydney NSW 2060

Ph: (02) 8246 3200
Fax: (02) 8246 3201
Email: sydney@robertbird.com.au
Web: www.robertbird.com
ACN 010 580 248

SCENTRE GROUP
Owner and Operator of **Westfield** in Australia and New Zealand

Client

Title
**WESTFIELD DR-BUNNERONG RD
INTERSECTION GENERAL
ARRANGEMENT PLAN**

Project
**WESTFIELD EASTGARDENS
INTERSECTIONS UPGRADE**

Scale at A1
AS SHOWN
Date
12.02.2024

Drawn
S.MANANDHAR
Designer
H.SHAIKH

Design Checker
C.ROPE
Approved
C.ROPE
Job Number
18183C

NOT FOR CONSTRUCTION

Drawing Number
C3-04

Revision
E