peopletrans

People, Passion, Perseverance

Our Ref: 22S0007

11 March 2024

Roche Group Pty Ltd 365 New South Head Road, Double Bay Sydney, NSW, 1360

Attention: Mr. Wes Van Der Gardner (Director Development)

Dear Wes,

RE: (DA/2023/0467) 469-483 Balmain Road – Response to Council Traffic RFI Balmain Road/Alberto Street Intersection Improvements

We refer to Item 7 of Inner West Councils RFI (letter received 23 February 2024) and public notification letter dated 01 March 2024 in relation to proposed safety changes at the intersection of Alberto Street/Balmain Road as indicated in **Attachment 1**.

PeopleTrans has reviewed the traffic implications of these changes as it relates to the current DA proposal for 469-483 Balmain Road, the outcomes of which, are as follows:

- (i) The proposal restricts access for heavy vehicles to a maximum of 8.8m MRV's (Refer Councils swept path analysis) when the proposed development was designed to accommodate 12.5m HRV's. A maximum 8.8m MRV is acceptable to service the needs of the proposed development and these vehicle types can also be adequately accommodated within the proposed basement loading area.
- (ii) The marginal increase in the number of heavy vehicle movements required to service the proposed development accounting for the change from HRV's to MRV's would not materially impact on the operation of this intersection or the surrounding road network.
 Future Sidra modelling undertaken as part of the original DA indicated that this intersection would operate at LoS A (refer Sidra results in **Attachment 2**) following full development of the 469-483 Balmain Road site allowing for additional capacity in the future. As such there is no need for additional traffic modelling.
- (iii) The two existing driveways which service the current development will be consolidated into a single driveway further along Alberto Street as part of the proposed DA which will allow further kerbside parking. The proposals do not impact or compromise these future access plans.

In summary the Inner West Council proposals to improve the intersection of Balmain Road / Alberto Street, in traffic terms, can be accommodated by the current DA with no need to make any changes as a result.



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I trust the above meets with your requirements, but should you have any questions or require any further information, please contact me on (02) 8226 8760.

Yours sincerely

PeopleTrans

Alan Stewart Director

Encl.

Attachment 1: Inner West Council Intersection Improvement Proposal Attachment 2: PeopleTrans AM/PM peak hour Sidra Results



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ATTACHMENT 1

Inner West Council Intersection Improvement Plan – Balmain Road/Alberto Street





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ATTACHMENT 2

Sidra Results (Development & Future 10 Year – AM/PM/SAT) Intersection Balmain Road/Alberto Street

V Site: [Balmain Road / Alberto Street Project - AM (Site Folder: Project)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

22S00007 469-483 Balmain Road, Lilyfield Balmain Road and Alberton Street intersection AM Peak Hour - Project Site Category: (None) Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Dem F [Total	nand lows HV]	Ar Fl [Total]	rival lows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South	Albe	rto Street	t												
21	L2	All MCs	21	5.0	21	5.0	0.129	5.8	LOS A	0.4	3.0	0.67	0.82	0.67	37.8
23	R2	All MCs	28	3.7	28	3.7	0.129	16.4	LOS B	0.4	3.0	0.67	0.82	0.67	13.9
Appro	ach		49	4.3	49	4.3	0.129	11.9	LOS A	0.4	3.0	0.67	0.82	0.67	31.1
East: I	Balma	ain Road													
24	L2	All MCs	60	1.8	60	1.8	0.282	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	47.0
25	T1	All MCs	474	4.0	474	4.0	0.282	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	49.3
Appro	ach		534	3.7	534	3.7	0.282	0.5	NA	0.0	0.0	0.00	0.06	0.00	49.3
West:	Balm	ain Road													
31	T1	All MCs	738	4.7	738	4.7	0.429	0.1	LOS A	0.7	5.2	0.09	0.11	0.10	49.0
32	R2	All MCs	41	2.6	41	2.6	0.429	13.5	LOS A	0.7	5.2	0.09	0.11	0.10	49.0
Appro	ach		779	4.6	779	4.6	0.429	0.8	NA	0.7	5.2	0.09	0.11	0.10	49.0
All Vel	nicles		1362	4.3	1362	4.3	0.429	1.1	NA	0.7	5.2	0.08	0.11	0.08	48.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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V Site: [Balmain Road / Alberto Street Project - PM (Site Folder: Project)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

22S00007 469-483 Balmain Road, Lilyfield Balmain Road and Alberto Street intersection PM Peak Hour - Project Site Category: (None) Give-Way (Two-Way)

Vehic	cle M	ovemen	t Perfo	orma	nce										
Mov ID	Turn	Mov Class	Dem F [Total veh/h	nand lows HV] %	Ar F∣ [Total veh/h	rival lows HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back [Veh. veh	Of Queue Dist] m	e Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South	: Albe	rto Street	t												
21	L2	All MCs	21	10.0	21	10.0	0.128	7.4	LOS A	0.4	3.0	0.72	0.86	0.72	36.7
23	R2	All MCs	22	4.8	22	4.8	0.128	19.1	LOS B	0.4	3.0	0.72	0.86	0.72	12.7
Appro	ach		43	7.3	43	7.3	0.128	13.4	LOS A	0.4	3.0	0.72	0.86	0.72	30.9
East: Balmain Road															
24	L2	All MCs	76	2.8	76	2.8	0.403	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	47.3
25	T1	All MCs	689	3.4	689	3.4	0.403	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.3
Appro	ach		765	3.3	765	3.3	0.403	0.5	NA	0.0	0.0	0.00	0.05	0.00	49.3
West:	Balm	ain Road													
31	T1	All MCs	709	2.2	709	2.2	0.415	0.1	LOS A	0.9	6.2	0.11	0.13	0.12	48.6
32	R2	All MCs	36	2.9	36	2.9	0.415	21.0	LOS B	0.9	6.2	0.11	0.13	0.12	48.6
Appro	ach		745	2.3	745	2.3	0.415	1.1	NA	0.9	6.2	0.11	0.13	0.12	48.6
All Ve	hicles		1554	2.9	1554	2.9	0.415	1.1	NA	0.9	6.2	0.07	0.11	0.08	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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V Site: [Balmain Road / Alberto Street Project - SAT (Site Folder: Project)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

22S00007 469-483 Balmain Road, Lilyfield Balmain Road and Alberto Street intersection Saturday Midday - Project Site Category: (None) Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Dem F [Total	nand Iows HV 1	Ar Fl [Total	rival lows HV 1	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist 1	e Prop. Que	Eff. Stop Rate	Aver. No. of Cvcles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m			- 7	km/h
South	: Albe	rto Street	t												
21	L2	All MCs	23	4.5	23	4.5	0.109	6.1	LOS A	0.3	2.5	0.66	0.81	0.66	38.3
23	R2	All MCs	22	4.8	22	4.8	0.109	16.4	LOS B	0.3	2.5	0.66	0.81	0.66	14.6
Appro	ach		45	4.7	45	4.7	0.109	11.1	LOS A	0.3	2.5	0.66	0.81	0.66	33.3
East:	Balma	ain Road													
24	L2	All MCs	61	3.4	61	3.4	0.315	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	47.3
25	T1	All MCs	538	3.3	538	3.3	0.315	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	49.4
Appro	ach		599	3.3	599	3.3	0.315	0.5	NA	0.0	0.0	0.00	0.06	0.00	49.3
West:	Balm	ain Road													
31	T1	All MCs	685	2.2	685	2.2	0.410	0.1	LOS A	0.9	6.5	0.13	0.15	0.14	48.6
32	R2	All MCs	52	2.0	52	2.0	0.410	14.7	LOS B	0.9	6.5	0.13	0.15	0.14	48.6
Appro	ach		737	2.1	737	2.1	0.410	1.1	NA	0.9	6.5	0.13	0.15	0.14	48.6
All Ve	hicles		1381	2.7	1381	2.7	0.410	1.2	NA	0.9	6.5	0.09	0.13	0.10	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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V Site: 2 [Balmain Road / Alberto Street Future - AM (Site Folder: Future)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

22S00007 469-483 Balmain Road, Lilyfield Balmain Road and Alberton Street intersection AM Peak Hour - Future 10 year Site Category: (None) Give-Way (Two-Way) Design Life Analysis (Final Year): Results for 10 years

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Dem F [Total veh/h	nand lows HV] %	Ar Fl [Total veh/h	rival lows HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back [Veh. veh	Of Queue Dist] m	e Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Alberto Street															
21	L2	All MCs	21	5.0	21	5.0	0.156	6.0	LOS A	0.5	3.5	0.71	0.86	0.71	36.4
23	R2	All MCs	28	3.7	28	3.7	0.156	20.0	LOS B	0.5	3.5	0.71	0.86	0.71	12.3
Appro	ach		49	4.3	49	4.3	0.156	14.1	LOS A	0.5	3.5	0.71	0.86	0.71	29.2
East: Balmain Road															
24	L2	All MCs	60	1.8	60	1.8	0.307	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	47.3
25	T1	All MCs	521	4.0	521	4.0	0.307	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	49.4
Appro	ach		581	3.8	581	3.8	0.307	0.5	NA	0.0	0.0	0.00	0.06	0.00	49.3
West:	Balm	ain Road													
31	T1	All MCs	812	4.7	812	4.7	0.470	0.1	LOS A	1.0	7.0	0.09	0.10	0.12	48.9
32	R2	All MCs	41	2.6	41	2.6	0.470	15.2	LOS B	1.0	7.0	0.09	0.10	0.12	48.9
Appro	ach		853	4.6	853	4.6	0.470	0.9	NA	1.0	7.0	0.09	0.10	0.12	48.9
All Vel	hicles		1483	4.3	1483	4.3	0.470	1.2	NA	1.0	7.0	0.08	0.11	0.09	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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V Site: 2 [Balmain Road / Alberto Street Future - PM (Site Folder: Future)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

22S00007 469-483 Balmain Road, Lilyfield Balmain Road and Alberto Street intersection PM Peak Hour - Future 10 Year Site Category: (None) Give-Way (Two-Way) Design Life Analysis (Final Year): Results for 10 years

Vehicle Movement Performance

Mov	Turn	Mov	Dem	nand	Ar	rival	Deg.	Aver.	Level of	95% Back	Of Queue	Prop.	Eff.	Aver.	Aver.
ם		Class	اط Tatal		- Tatal		Satn	Delay	Service	[\/ob	Diet 1	Que	Stop	No. of	Speed
				пvј %		пvј %	vic	Sec		veh	Dist j m		Nale	Cycles	km/h
South: Alberto Street														<u> </u>	
			-												
21	L2	All MCs	21	10.0	21	10.0	0.158	8.1	LOS A	0.5	3.6	0.77	0.89	0.77	35.1
23	R2	All MCs	22	4.8	22	4.8	0.158	23.8	LOS B	0.5	3.6	0.77	0.89	0.77	11.1
Appro	ach		43	7.3	43	7.3	0.158	16.1	LOS B	0.5	3.6	0.77	0.89	0.77	28.8
East: Balmain Road															
24	L2	All MCs	76	2.8	76	2.8	0.439	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	47.5
25	T1	All MCs	758	3.4	758	3.4	0.439	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.3
Appro	ach		834	3.3	834	3.3	0.439	0.5	NA	0.0	0.0	0.00	0.05	0.00	49.3
West:	Balm	ain Road													
31	T1	All MCs	780	2.2	780	2.2	0.456	0.3	LOS A	1.2	8.7	0.10	0.13	0.15	48.3
32	R2	All MCs	36	2.9	36	2.9	0.456	24.9	LOS B	1.2	8.7	0.10	0.13	0.15	48.3
Appro	ach		816	2.3	816	2.3	0.456	1.4	NA	1.2	8.7	0.10	0.13	0.15	48.3
All Ve	hicles		1694	2.9	1694	2.9	0.456	1.3	NA	1.2	8.7	0.07	0.11	0.09	48.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).

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Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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V Site: 2 [Balmain Road / Alberto Street Future - SAT (Site Folder: Future)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

22S00007 469-483 Balmain Road, Lilyfield Balmain Road and Alberto Street intersection Saturday Midday - Future 10 Year Site Category: (None) Give-Way (Two-Way) Design Life Analysis (Final Year): Results for 10 years

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Dem Fl	and ows	Ar Fl	rival lows	Deg. Satn	Aver. Delay	Level of Service	95% Back	Of Queue	Prop. Que	Eff. Stop	Aver. No. of	Aver. Speed
			[Total veh/h	HV] %	[Total veh/h	HV] %	v/c	sec		[Veh. veh	Dist] m		Rate	Cycles	km/h
South: Alberto Street															1111/11
21	L2	All MCs	23	4.5	23	4.5	0.132	6.5	LOS A	0.4	3.0	0.69	0.85	0.69	37.1
23	R2	All MCs	22	4.8	22	4.8	0.132	20.0	LOS B	0.4	3.0	0.69	0.85	0.69	13.0
Appro	ach		45	4.7	45	4.7	0.132	13.1	LOS A	0.4	3.0	0.69	0.85	0.69	31.6
East: Balmain Road															
24	L2	All MCs	61	3.4	61	3.4	0.344	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	47.5
25	T1	All MCs	592	3.3	592	3.3	0.344	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.4
Appro	ach		653	3.3	653	3.3	0.344	0.5	NA	0.0	0.0	0.00	0.05	0.00	49.3
West:	Balm	ain Road													
31	T1	All MCs	754	2.2	754	2.2	0.449	0.2	LOS A	1.2	8.7	0.12	0.15	0.16	48.4
32	R2	All MCs	52	2.0	52	2.0	0.449	16.8	LOS B	1.2	8.7	0.12	0.15	0.16	48.4
Appro	ach		805	2.1	805	2.1	0.449	1.3	NA	1.2	8.7	0.12	0.15	0.16	48.4
All Ve	hicles		1503	2.7	1503	2.7	0.449	1.3	NA	1.2	8.7	0.09	0.13	0.11	48.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab)

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

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Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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