Before the Selwyn District Council

under: the Resource Management Act 1991

in the matter of: Proposed Private Plan Change 69 to the Operative District Plan: Lincoln South

and: **Rolleston Industrial Developments Limited**
Applicant

Summary of Evidence of Nicholas Fuller (Transport)

Dated: 23 November 2021

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SUMMARY OF EVIDENCE OF NICHOLAS FULLER

INTRODUCTION

1 My name is Nicholas Fuller and I am a Senior Transport Engineer at Novo Group Limited and have worked on resource management transport planning and engineering projects for 20 years.

2 I understand there is a range of unresolved transport matters between myself and Mr Collins (Council's transport reviewer), which are:

2.1 Traffic generation rates;

2.2 Operation of Springs Road south of Gerald Street;

2.3 Effects through the Prebbleton Corridor;

2.4 Moirs Lane corridor width;

2.5 Connectivity to surrounding urban areas; and

2.6 Timing of infrastructure upgrades.

3 I address these matters in turn below.

Traffic Generation Rates

4 The Transport Assessment for the Plan Change was prepared on the basis of the residential development generating 0.7 vehicle movements per dwelling per hour in the AM and PM peak hours. Other traffic assessments, including those undertaken in Rolleston, have adopted a rate of 0.9 vehicles per dwelling per hour. Council's concern is that a higher traffic generation rate would lead to additional traffic effects above that which have been assessed.

5 Traffic surveys were undertaken at Millstream Drive in Lincoln to validate the use of a trip rate of 0.7 vehicles per dwelling in the peak hours. The surveys were undertaken on three days[1], for two hours in the morning (07:00 to 09:00) and two hours in the evening (16:00 to 18:00) and identified the following range of peak hour trip rates:

5.1 AM Peak Hour: 0.54 to 0.60 vehicles per dwelling per hour; and

5.2 PM Peak Hour: 0.81 to 0.82 vehicles per dwelling per hour.

[1] Wednesday 10th November 2021, Monday 15th November 2021 and Tuesday 16th November 2021.

6 The above indicates that the AM peak hour traffic generation is within the scope of the original assessment, although the traffic generation for the PM peak is higher than assessed. I consider the adoption of specific traffic generation rates from the above surveys to be the most appropriate to be applied to the Plan Change proposal given the survey location is representative of the Plan Change site.

7 Additional traffic modelling has been undertaken to understand the operation of the traffic network with these updated rates. That modelling used the higher of the traffic generation rates surveyed for the relevant peak hours (i.e. 0.6 vehicles per dwelling per hour in the AM peak and 0.82 vehicles per dwelling per hour in the PM peak). The summary of this modelling is contained in Mr Smith's evidence, with further details of the operation of turning movements included in my **Attachment 1**. This modelling indicates:

7.1 AM Peak Hour: The operation of the traffic network is improved with the lower traffic generation from the Plan Change site. No intersection or access operates worse than Level of Service D, which is still within capacity and I consider the operation to be acceptable; and

7.2 PM Peak Hour: Although the increased traffic on the network (associated with the higher trip rate) has led to a marginal decrease in network performance, I consider the operation is acceptable and note that no intersection is predicted to operate worse than Level of Service D.

8 Based on the above, I consider that the road network (within the extent of the traffic model) will operate satisfactorily with the Plan Change and subject to the road network upgrades already discussed in my evidence in chief.

Operation of Springs Road South of Gerald Street

9 The critical period for the operation of this segment of road is during the AM peak, as this is when volumes are predicted to be highest. The revised modelling indicates that the traffic volumes Springs Road south of Gerald Street are higher than 900 vehicles per hour (965 vehicles per hour northbound are predicted), which is the threshold Mr Collins refers to for mid-block capacity. This value is for a single lane capacity in the RTA *Guide to Traffic Generating Developments* with regards to these capacity thresholds, I note that the RTA states[2]:

9.1 It should be noted that these are indicative figures … …

[2] Under Section 4.2.3 of that document.

9.2 *The figures in Table 4.4 are provided for strategic planning purposes only, and are not intended as a substitute for basic exercises in intersection analysis.*

10 The purpose of undertaking the traffic modelling was to establish the operation of the road corridor including the ability to turn to / from side roads. I note that the updated traffic modelling indicates improved operation of the entrances to the University parking areas, such that the Level of Service for the right turning movements is no worse than Level of Service D. The queues for these right turns are contained within the flush median and will not affect through traffic on Springs Road.

11 Given the above, I consider there is sufficient capacity in Springs Road south of Gerald Street to accommodate the Plan Change and for the side roads and accesses to operate satisfactorily.

Effects through the Prebbleton Corridor

12 My evidence in chief set out a range of traffic improvements proposed within Prebbleton in paragraph 41 and Figure 3. This indicates that schemes are already in place to promote Shands Road as an alternate route to Springs Road, which in turn will be traffic calmed. The broader transport network effects arising cumulatively from growth in the District (including Plan Change applications) has not been assessed, as it is (in the words of Mr Collins) 'complex and requires assessment of multiple land use scenarios', where such scenarios may include growth in distant locations (e.g. Leeston), other Plan Changes that are yet to be heard or determined, and assumptions regarding the location and scale of planned and unplanned growth. That said, the traffic capacity on the Shands Road and Springs Road corridors through Prebbleton will be taken up as a result of any further growth at Rolleston, Lincoln, Prebbleton and Leeston, noting any growth in these locations will contribute traffic to these corridors. As such, the diminished capacity of these corridors over time is a function of growth in this part of the District generally, rather than Plan Change 69.

13 Therefore, addressing traffic capacity through this corridor will be a requirement for the Council (irrespective of PC69), as growth continues to occur in Rolleston, Lincoln, Prebbleton and Leeston. Development contributions from development in these locations would contribute funding towards the infrastructure upgrades required.

14 For Plan Change 69, the volumes of traffic from this Plan Change site through this corridor will progressively increase as development occurs meaning the Council will have time to investigate and implement solutions. I also note that the PC69 site has the opportunity to use alternate routes to / from Christchurch, relieving pressure on the Shands and Springs Road corridors. A recent

review of suggested journey time routes whilst in Lincoln (undertaken in 15 minute periods from 07:00 to 09:00) indicated Ellesmere Road and State Highway 75 as the preferred option to get to the City Centre[3]. As such, the residents of the Lincoln Plan Change site have the ability to choose viable alternate routes that would avoid this congestion.

15 In summary, capacity constraints on the Shands and Springs Road corridors exist and will be a factor for any future growth at Rolleston, Lincoln, Prebbleton and Leeston. Accordingly, Council will need to levy development contributions and undertake network upgrades to alleviate these constraints, irrespective of PC69. Whilst PC69 may bring forward the need for such works (on the basis that it will be expediting development that would otherwise occur at Lincoln), its contribution of traffic to this corridor will be over a period of time as the site develops, alternative route choices in and out of Christchurch are available, and development contributions will contribute to the network upgrades required.

Moirs Lane Connection

16 I have provided confirmation in my evidence in chief that Moirs Lane has a corridor width of 20.12m through confirmation of the LINZ parcel boundaries and the survey plan. I consider this addresses the available width at this location.

Plan Change 69 Intersection Arrangements

17 The proposed access arrangements to Plan Change 69 from Springs Road have been modelled as a roundabout for the southern access and traffic signals at the northern access. The reasons for the traffic signals at the northern access were improved for traffic efficiency and the ability to incorporate safe pedestrian crossing facilities.

18 I understand that Council sought a roundabout at the northern access, rather than traffic signals. I would be satisfied if the intersection arrangement proposed at this location were determined in conjunction with Council at the subdivision stage.

Connectivity to Surrounding Urban Areas

19 I consider that the proposed Plan Change has sufficient accessibility by walking and cycling to / from the main commercial area at Vernon Drive. These can use links to Hollard Crescent, Papatohora Drive and Kaitorete Drive, as well as the shared path on Springs Road. The Moirs Lane extension also provides the ability to link to Jimmy Adams Terrace. These linkages, along with the path along the northern site boundary funnel pedestrians and cyclists toward

[3] This was based on the preferred route to Christchurch City Centre using Google Maps recommended routes that account for journey times.

the linkages to Te Whariki, where they lead toward the existing commercial area.

20 I also note that the internal transport network provides good connections to the housing within the subdivision, community services in the proposed commercial centres and open spaces. Access to jobs in Christchurch, Rolleston and Lincoln are achieved through the connections to the wider roading network.

21 The Plan Change layout provides the potential for passenger transport to be provided through the site. Alternately, the pedestrian connections to the northern boundary provide the ability to walk to passenger transport services should these be provided through Te Whariki.

22 The potential lack of vehicle connections between the Plan Change site and the existing residential areas to the north is not critical from a transport perspective. Whilst it reduces permeability from a traffic perspective, it encourages trips by walking and cycling whilst reducing the potential for vehicles to rat-run through the adjacent residential developments.

23 Overall, I am satisfied that the site provides acceptable transport links.

Timing of Infrastructure Upgrades

24 Infrastructure upgrades have been identified as being required to accommodate the traffic generated by the Plan Change. Briefly, these are:

24.1 Springs Road / Ellesmere Junction Road / Gerald Street traffic signals, which I would expect the Plan Change to provide development contributions toward to fund construction;

24.2 Springs Road and Collins Road frontage upgrades, as well as the Moirs Lane connection that would be at the cost of the developer;

24.3 Ellesmere Road seal widening south of Edward Street, which I would expect the Plan Change 69 site to proportionally contribute towards. There is also a deferment on the amount of development that could be established at the Plan Change site until this upgrade is provided;

24.4 Ellesmere Road widening (north of Edward Street) and Ellesmere Road / Edward Street / Lincoln Tai Tapu Road intersection, which are to be funded by Council in 2024 / 2025 with a deferment on the Plan Change until these upgrades are completed; and

24.5 Prebbleton bypass and Shands Road corridor upgrades. The expectation is that development contributions would be sought from all developments that affect this network to proportionally contribute toward a solution.

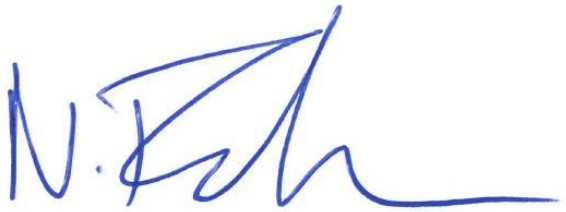
25 In brief, I consider that either funding for key improvements will be provided by this Plan Change, or deferments are included until such time as the improvements have been undertaken.

Conclusion

26 Overall, I am satisfied that the transport effects of the proposed Plan Change will be acceptable subject to the identified road upgrades that have been identified.

27 I am happy to answer any questions concerning my evidence.

Dated: 23 November 2021



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Nicholas Fuller

ATTACHMENT 1: MODEL RESULTS

Springs / Gerald / Ellesmere Jct Signals

Intersection Movement value is weighted delay for signals and roundabouts and worst movement for priority intersections

Approach values are only calculated for priority intersections

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Left	62	9	A				45	9	A				65	11	B				50	11	B			
Springs Rd North	Thru	215	19	B				53	17	B				177	39	D				138	42	D			
Springs Rd North	Right	15	20	C				10	25	C				31	51	D				12	41	D			
Gerald St East	Left	114	16	B				186	18	B				114	48	D				247	57	E			
Gerald St East	Thru	255	19	B				328	20	C				264	47	D				312	56	E			
Gerald St East	Right	84	35	D				47	26	C				79	54	D				41	46	D			
Springs Rd South	Left	25	12	B				84	16	B				107	32	C				112	25	C			
Springs Rd South	Thru	223	16	B				321	18	B				595	32	C				290	27	C			
Springs Rd South	Right	113	19	B				209	18	B				239	35	D				306	30	C			
Ellesmere Jct Rd West	Left	4	21	C				0	0	A				6	25	C				59	28	C			
Ellesmere Jct Rd West	Thru	388	19	B				290	17	B				398	24	C				299	32	C			
Ellesmere Jct Rd West	Right	118	23	C				44	23	C				168	32	C				134	29	C			
Intersection		1617	19	B				1616	18	B				2243	34	C				1999	38	D			

Gerald / James / Edward Signals

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
James St North	Left	357	11	B				316	10	B				377	11	B				331	11	B			
James St North	Right	85	18	B				18	16	B				109	22	C				15	20	C			
Edward St East	Thru	251	10	A				298	8	A				401	9	A				361	9	A			
Edward St East	Right	288	6	A				464	8	A				297	7	A				473	8	A			
Gerald St West	Left	38	16	B				22	14	B				37	18	B				24	16	B			
Gerald St West	Thru	255	20	C				258	20	C				296	21	C				331	21	C			
Intersection		1275	12	B				1376	11	B				1516	13	B				1535	12	B			

Weedons / Ellesmere Jct RAB

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Weedons Rd North	Left	413	5	A				206	2	A				524	8	A				269	3	A			
Weedons Rd North	Thru	0	0	A				0	0	A				0	0	A				0	0	A			
Weedons Rd North	Right																								
Ellesmere Jct Rd East	Left	0	0	A				0	0	A				0	0	A				0	0	A			
Ellesmere Jct Rd East	Thru	127	3	A				233	4	A				127	4	A				235	4	A			
Ellesmere Jct Rd East	Right	161	4	A				241	4	A				241	4	A				284	5	A			
West Arterial South	Left	0	0	A				0	0	A				0	0	A				0	0	A			
West Arterial South	Thru	0	0	A				0	0	A				0	0	A				0	0	A			
West Arterial South	Right	0	0	A				0	0	A				0	0	A				0	0	A			
Ellesmere Jct Rd West	Left																								
Ellesmere Jct Rd West	Thru	234	6	A				136	5	A				247	9	A				163	7	A			
Ellesmere Jct Rd West	Right	0	0	A				0	0	A				0	0	A				0	0	A			
Intersection		934	5	A				816	4	A				1139	7	A				951	5	A			

Springs Rd Uni Entrance North Priority

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Thru	345	2	A	435	3	A	272	2	A	283	2	A	346	8	A	453	12	B	512	1	A	523	1	A
Springs Rd North	Right	89	6	A				11	10	A				107	26	D				12	8	A			
Springs Rd South	Left	5	2	A	347	1	A	2	3	A	488	2	A	23	0	A	965	1	A	3	0	A	663	1	A
Springs Rd South	Thru	342	1	A				486	2	A				942	1	A				660	1	A			
Uni Access West	Left	24	5	A	25	6	A	127	10	B	131	10	B	7	9	A	9	14	B	48	10	A	55	11	B
Uni Access West	Right	2	23	C				4	18	C				2	29	D				7	19	C			
Intersection		808	23	C	808	6	A	902	18	C	902	10	B	1428	29	D	1428	14	B	1241	19	C	1241	11	B

Springs Rd Uni Entrance South Priority

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Thru	127	1	A	348	6	A	251	1	A	277	2	A	265	1	A	350	7	A	507	1	A	518	1	A
Springs Rd North	Right	221	9	A				26	5	A				84	27	D				11	6	A			
Springs Rd South	Left	16	2	A	293	2	A	3	2	A	185	2	A	33	2	A	961	1	A	5	1	A	404	1	A
Springs Rd South	Thru	277	2	A				182	2	A				928	1	A				399	1	A			
Uni Access West	Left	35	4	A	39	5	A	249	4	A	274	5	A	28	13	B	34	13	B	214	9	A	277	9	A
Uni Access West	Right	4	11	B				25	7	A				6	13	B				63	11	B			
Intersection		680	11	B	680	6	A	737	7	A	737	5	A	1345	27	D	1345	13	B	1199	11	B	1199	9	A

Springs / Anaru Priority

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Left	7	2	A	132	2	A	9	2	A	281	2	A	6	2	A	273	2	A	16	2	A	580	2	A
Springs Rd North	Thru	125	2	A				272	2	A				267	2	A				564	2	A			
Anaru Rd East	Left	3	2	A	43	2	A	7	2	A	11	2	A	12	2	A	82	2	A	56	2	A	66	2	A
Anaru Rd East	Right	40	2	A				4	1	A				70	2	A				11	2	A			
Springs Rd South	Thru	293	2	A	299	2	A	185	1	A	196	1	A	892	2	A	925	2	A	394	2	A	429	2	A
Springs Rd South	Right	6	2	A				11	2	A				33	2	A				35	2	A			
Intersection		473	2	A	473	2	A	488	2	A	488	2	A	1280	2	A	1280	2	A	1075	2	A	1075	2	A

Springs / Southfield Priority

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Left	18	2	A	127	1	A	25	1	A	279	1	A	17	2	A	279	1	A	24	2	A	619	1	A
Springs Rd North	Thru	109	1	A				255	1	A				262	1	A				595	1	A			
Southfield Dr East	Left	23	2	A	86	6	A	41	4	A	49	5	A	35	12	B	72	20	C	61	8	A	68	9	A
Southfield Dr East	Right	63	7	A				9	7	A				37	27	D				7	16	C			
Springs Rd South	Thru	236	1	A	279	1	A	188	1	A	242	1	A	888	2	A	958	2	A	421	3	A	496	4	A
Springs Rd South	Right	43	2	A				53	3	A				70	5	A				75	9	A			
Intersection		492	7	A	492	6	A	570	7	A	570	5	A	1310	27	D	1310	20	C	1182	16	C	1182	9	A

Springs / Verdeco Priority

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Thru	79	3	A	133	3	A	245	3	A	295	3	A	246	2	A	297	5	A	606	9	A	659	8	A
Springs Rd North	Right	54	3	A				51	4	A				51	17	C				53	7	A			
Springs Rd South	Left	4	0	A	145	2	A	6	1	A	207	2	A	15	2	A	839	2	A	15	1	A	470	2	A
Springs Rd South	Thru	141	2	A				201	2	A				824	2	A				454	2	A			
Verdeco Dr West	Left	138	4	A	144	4	A	41	5	A	50	5	A	134	28	D	147	28	D	41	8	A	59	13	B
Verdeco Dr West	Right	6	7	A				9	8	A				13	35	D				18	24	C			
Intersection		422	7	A	422	4	A	552	8	A	552	5	A	1282	35	D	1282	28	D	1187	24	C	1187	13	B

Springs / ODP Access North Signals

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Left	0	0	A				0	0	A				133	11	B				345	20	C			
Springs Rd North	Thru	104	2	A				315	2	A				183	14	B				557	22	C			
Springs Rd North	Right	0	0	A				0	0	A				0	0	A				0	0	A			
ODP Road East	Left	0	0	A				0	0	A				23	11	B				68	18	B			
ODP Road East	Thru	0	0	A				0	0	A				0	0	A				0	0	A			
ODP Road East	Right	0	0	A				0	0	A				430	22	C				180	19	B			
Springs Rd South	Left	0	0	A				0	0	A				0	0	A				0	0	A			
Springs Rd South	Thru	151	1	A				257	2	A				457	19	B				404	14	B			
Springs Rd South	Right	0	0	A				0	0	A				26	22	C				56	51	D			
West Arterial West	Left	0	0	A				0	0	A				0	0	A				0	0	A			
West Arterial West	Thru	0	0	A				0	0	A				0	0	A				0	0	A			
West Arterial West	Right	0	0	A				0	0	A				0	0	A				0	0	A			
Intersection		255	1	A				572	2	A				1253	18	B				1610	20	C			

Springs / ODP Access South RAB

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Left	0	0	A				0	0	A				8	3	A				31	3	A			
Springs Rd North	Thru	32	3	A				138	3	A				27	2	A				118	3	A			
Springs Rd North	Right	0	0	A				0	0	A				11	3	A				41	3	A			
ODP Road East	Left	0	0	A				0	0	A				2	3	A				9	3	A			
ODP Road East	Thru	0	0	A				0	0	A				8	3	A				30	3	A			
ODP Road East	Right	0	0	A				0	0	A				53	3	A				27	4	A			
Springs Rd South	Left	0	0	A				0	0	A				0	0	A				0	0	A			
Springs Rd South	Thru	108	1	A				56	1	A				98	2	A				44	2	A			
Springs Rd South	Right	0	0	A				0	0	A				4	1	A				5	1	A			
ODP Road West	Left	0	0	A				0	0	A				101	2	A				53	1	A			
ODP Road West	Thru	0	0	A				0	0	A				7	2	A				26	1	A			
ODP Road West	Right	0	0	A				0	0	A				0	0	A				1	0	A			
Intersection		140	2	A				194	2	A				319	2	A				387	3	A			

Springs / Collins Priority

		No ODP												ODP with updated trip rates											
		AM Peak (0800-0900)						PM Peak (1700-1800)						AM Peak (0800-0900)						PM Peak (1700-1800)					
		Movement			Approach			Movement			Approach			Movement			Approach			Movement			Approach		
Approach	Movement	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS	Flow	Average Delay	LOS
Springs Rd North	Left	0	0	A	32	2	A	0	0	A	138	2	A	0	0	A	28	2	A	1	0	A	128	2	A
Springs Rd North	Thru	0	0	A				0	0	A				0	0	A				0	0	A			
Springs Rd North	Right	32	2	A				138	2	A				28	2	A				127	2	A			
Collins Rd East	Left	0	0	A	0	0	A	0	0	A	0	0	A	0	0	A	10	3	A	0	0	A	17	3	A
Collins Rd East	Thru	0	0	A				0	0	A				6	2	A				15	3	A			
Collins Rd East	Right	0	0	A				0	0	A				5	3	A				2	3	A			
Springs Rd South	Left	0	0	A	0	0	A	0	0	A	0	0	A	0	0	A	0	0	A	0	0	A	0	0	A
Springs Rd South	Thru	0	0	A				0	0	A				0	0	A				0	0	A			
Springs Rd South	Right	0	0	A				0	0	A				0	0	A				0	0	A			
Collins Rd West	Left	108	3	A	108	3	A	55	2	A	55	2	A	96	3	A	104	3	A	48	3	A	55	3	A
Collins Rd West	Thru	0	0	A				0	0	A				8	3	A				7	4	A			
Collins Rd West	Right	0	0	A				0	0	A				0	0	A				0	0	A			
Intersection		140	3	A	140	3	A	194	2	A	194	2	A	143	3	A	143	3	A	199	2	A	199	3	A