



SUMMIT

LAND MANAGEMENT

Broadstone Arrowhead Glendale, Arizona

Traffic Impact Analysis January 2025

Prepared for:

ALLIANCE RESIDENTIAL

For Submittal to:

CITY OF GLENDALE
ARIZONA DEPARTMENT OF TRANSPORTATION

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Approved for Transportation
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Executive Summary

Introduction

Alliance Residential is planning to develop 370 multi-family homes on approximately 19 acres adjacent to and south of Rose Garden Lane, and west of 75th Avenue in the City of Glendale.

Results

The proposed Broadstone Arrowhead is anticipated to generate; as a total of both directions; 2,494 daily; 148 morning peak hourly; and 189 evening peak hourly vehicles. Per the City of Glendale policy, the opening year and five (5) years into the future must be analyzed.

The 2026 and 2031 ambient traffic volumes were determined by a 3% annual increase, based upon recent historic 75th Avenue, south of Deer Valley Road, traffic counts on the City of Glendale website.

Table 1 summarizes the signalized intersection level-of-service results for 2026 and 2031; without and with Broadstone Arrowhead. The signalized intersections are 75th / Rose Garden, 75th / Aspera, 75th / SR-101 WB, and 75th / SR-101 EB. This table indicates the number of intersections, approaches, and turning movements at each level-of-service for each condition. Their purpose is a convenient comparison between the different years, without and with Broadstone Arrowhead. Detailed delay and level-of-service by individual intersection and by individual turning movement are provided late in this Executive Summary. Complete detailed delay and level-of-service printouts for all intersections are provided in **Appendix D**.

**Table 1: Level-of-Service Summary Signalized Intersections
Morning Peak Hour**

	2024	2026		2031	
	EXISTING	AMBIENT	WITH SITE	AMBIENT	WITH SITE
A	12	11	11	11	10
B	8	12	12	6	8
C	20	20	19	14	14
D	9	6	7	15	11
E	0	0	0	1	6
F	0	0	0	2	0
ALL	49	49	49	49	49

Evening Peak Hour

	2024	2026		2031	
	EXISTING	AMBIENT	WITH SITE	AMBIENT	WITH SITE
A	12	12	12	11	10
B	12	13	12	11	10
C	16	18	17	13	15
D	6	3	4	5	7
E	0	1	4	5	3
F	3	2	0	4	4
ALL	49	49	49	49	49

Table 2 summarizes the unsignalized intersection level-of-service results for 2026 and 2031; with Broadstone Arrowhead. The unsignalized intersections are the two Broadstone Arrowhead accesses: main access with Rose Garden Lane, and Joy Boulevard with Aspera Boulevard. These tables indicate the number of intersections, approaches, and turning movements at each level-of-service for each condition. Their purpose is a convenient comparison between 2026 and 2031.

Table 2: Level-of-Service Summary Unsignalized Intersections

	MORNING PEAK		EVENING PEAK HOUR	
	2026	2031	2026	2031
	WITH SITE	WITH SITE	WITH SITE	WITH SITE
A	6	8	8	8
B	4	2	2	2
C	0	0	0	0
D	0	0	0	0
E	0	0	0	0
F	0	0	0	0
ALL	10	10	10	10

Table 3 provides the summary of delays and levels-of-service by intersection, approach, and turning movement; for the intersections of 75th Avenue with Rose Garden Lane and with Aspera Boulevard for the morning peak hour. The yellow highlighting indicates those levels-of-service that are different from the previous condition.

Table 3: Level-of-Service Detailed Summary 75th at Rose Garden and at Aspera – AM Peak Hour

	EXISTING 2024		2026		2026 WITH SITE		2031		2031 WITH SITE	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
75th / ROSE GARDEN	29.9	C	24.0	C	24.2	C	29.6	C	41.7	D
Northbound	25.6	C	19.0	B	19.8	B	23.0	C	25.6	C
Left	53.7	D	25.8	C	31.4	C	36.3	D	38.9	D
Through	20.3	C	20.3	C	20.3	C	23.7	C	26.7	C
Right	3.2	A	5.0	A	5.0	A	7.9	A	6.7	A
Southbound	34.5	C	29.5	C	29.3	C	36.6	D	60.6	E
Left	12.5	B	12.7	B	12.7	B	14.2	B	16.4	B
Through	41.8	D	33.1	C	33.1	C	41.1	D	69.2	E
Right	5.3	A	1.8	A	2.6	A	2.3	A	3.0	A
Eastbound	27.9	C	17.3	B	19.8	B	21.7	C	21.2	C
Left	38.5	D	24.5	C	27.5	C	29.7	C	28.8	C
Through	34.1	C	29.2	C	29.7	C	32.4	C	29.3	C
Right	6.4	A	0.3	A	2.7	A	2.4	A	4.3	A
Westbound	24.7	C	15.8	B	16.0	B	21.4	C	18.9	B
Left	35.4	D	23.6	C	23.6	C	28.2	C	24.4	C
Through	34.2	C	28.9	C	29.0	C	32.4	C	29.2	C
Right	7.9	A	0.8	A	0.8	A	0.8	A	0.7	A
75th / ASPERA	12.3	B	12.9	B	13.2	B	14.3	B	13.5	B
Northbound	9.9	A	11.0	B	11.0	B	11.4	B	11.3	B
Left	25.3	C	29.3	C	29.1	C	31.3	C	32.0	C
Through	4.9	A	5.0	A	5.0	A	5.1	A	4.7	A
Southbound	14.8	B	15.0	B	15.6	B	17.5	B	15.9	B
Through	15.4	B	15.7	B	16.3	B	18.3	B	16.6	B
Right	3.5	A	3.4	A	3.4	A	3.2	A	3.0	A
Eastbound	8.7	A	9.0	A	8.8	A	9.2	A	10.0	B
Left	18.6	B	19.1	B	19.2	B	21.3	C	23.9	C
Right	5.6	A	5.6	A	5.6	A	5.8	A	6.4	A

Table 4 provides the same information for the two (2) interchanges of 75th Avenue with State Route 101.

Table 4: Level-of-Service Detailed Summary 75th & SR-101 – AM Peak Hour

	EXISTING 2024		2026		2026 WITH SITE		2031		2031 WITH SITE	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
75th / SR-101 NORTH (WB) RAMP	31.6	C	32.3	C	34.2	C	51.4	D	47.7	D
Northbound	44.2	D	39.5	D	41.1	D	89.7	F	68.3	E
Left	23.7	C	23.0	C	23.1	C	39.9	D	31.0	C
Through	45.7	D	42.7	D	44.5	D	99.1	F	75.3	E
Southbound	32.3	C	35.3	D	38.2	D	42.5	D	47.6	D
Through	41.0	D	44.2	D	48.0	D	52.8	D	60.3	E
Right	7.5	A	7.4	A	7.4	A	9.9	A	7.3	A
Westbound	19.3	B	18.4	B	18.7	B	27.6	C	25.8	C
Left	44.3	D	42.4	D	42.9	D	66.6	E	63.2	E
Through	13.3	B	12.4	B	12.8	B	18.5	B	16.6	B
Right	8.0	A	8.1	A	8.0	A	9.1	A	9.0	A
75th / SR-101 SOUTH (EB) RAMP	27.0	C	27.6	C	28.9	C	40.4	D	37.7	D
Northbound	21.0	C	21.0	C	21.1	C	33.0	C	28.0	C
Through	22.6	C	22.2	C	22.0	C	31.5	C	27.1	C
Right	17.8	B	18.9	B	19.5	B	35.6	D	29.7	C
Southbound	28.7	C	29.4	C	32.7	C	45.3	D	42.8	D
Left	27.6	C	28.8	C	29.9	C	44.7	D	40.6	D
Through	30.7	C	30.5	C	37.6	D	46.4	D	46.8	D
Eastbound	29.3	C	29.9	C	28.4	C	37.9	D	36.5	D
Left	36.0	D	36.6	D	35.1	D	44.5	D	43.5	D
Through	30.8	C	31.0	C	29.4	C	40.3	D	38.5	D
Right	6.1	A	4.3	A	3.3	A	7.0	A	6.7	A

Table 5 and Table 6 provide the same information as Table 3 and Table 4 for the evening peak hour.

Table 5: Level-of-Service Detailed Summary 75th at Rose Garden and at Aspera – PM Peak Hour

	EXISTING 2024		2026		2026 WITH SITE		2031		2031 WITH SITE	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
75th / ROSE GARDEN	33.0	C	26.3	C	25.0	C	28.8	C	28.8	C
Northbound	47.1	D	30.6	C	27.7	C	33.6	C	33.9	C
Left	14.7	B	12.9	B	17.5	B	13.2	B	20.4	C
Through	54.8	D	34.1	C	31.1	C	37.8	D	37.8	D
Right	4.6	A	3.8	A	3.8	A	4.3	A	9.6	A
Southbound	28.6	C	25.6	C	26.0	C	26.6	C	26.4	C
Left	15.4	B	13.6	B	13.6	B	13.2	B	13.3	B
Through	30.6	C	27.0	C	28.6	C	28.2	C	28.8	C
Right	0.2	A	0.1	A	0.3	A	0.1	A	1.0	A
Eastbound	11.6	B	12.5	B	13.4	B	19.8	B	20.2	C
Left	16.5	B	16.8	B	18.5	B	23.7	C	25.4	C
Through	21.9	C	23.8	C	24.2	C	29.8	C	30.0	C
Right	0.2	A	0.1	A	0.2	A	0.2	A	0.2	A
Westbound	16.6	B	11.4	B	12.2	B	18.2	B	18.5	B
Left	22.9	C	17.6	B	18.3	B	24.8	C	24.8	C
Through	21.4	C	23.7	C	23.9	C	29.8	C	30.1	C
Right	5.2	A	0.5	A	0.6	A	2.5	A	2.5	A
75th / ASPERA	10.5	B	12.9	B	10.6	B	13.0	B	13.3	B
Northbound	8.2	A	11.0	B	8.4	A	11.3	B	11.6	B
Left	22.3	C	29.3	C	22.4	C	30.1	C	30.1	C
Through	5.3	A	5.0	A	5.9	A	8.0	A	8.3	A
Southbound	13.0	B	15.0	B	13.2	B	15.2	B	15.7	B
Through	13.6	B	15.7	B	13.7	B	15.7	B	16.3	B
Right	3.6	A	3.4	A	3.7	A	3.6	A	3.6	A
Eastbound	10.7	B	9.0	A	10.4	B	11.2	B	11.1	B
Left	18.9	B	19.1	B	18.8	B	19.3	B	19.4	B
Right	5.7	A	5.6	A	5.6	A	5.3	A	5.3	A

Table 6: Level-of-Service Detailed Summary 75th & SR-101 – PM Peak Hour

	EXISTING 2024		2026		2026 WITH SITE		2031		2031 WITH SITE	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
75th / SR-101 NORTH (WB) RAMP	49.4	D	44.3	D	49.2	D	67.7	E	68.8	E
Northbound	81.8	F	71.7	E	65.2	E	94.7	F	92.9	F
Left	33.8	C	28.6	C	35.4	D	55.4	E	55.4	E
Through	94.6	F	81.1	F	71.5	E	104.1	F	101.5	F
Southbound	33.5	C	33.2	C	50.0	D	63.5	E	67.2	E
Through	42.5	D	41.8	D	64.0	E	81.8	F	86.5	F
Right	9.6	A	7.7	A	8.8	A	9.6	A	10.3	B
Westbound	38.8	D	34.1	C	34.3	C	49.4	D	49.9	D
Left	87.5	F	80.1	F	76.9	E	106.8	F	110.4	F
Through	29.2	C	24.4	C	27.0	C	42.5	D	42.1	D
Right	8.3	A	8.2	A	8.2	A	8.3	A	8.4	A
75th / SR-101 SOUTH (EB) RAMP	22.8	C	24.2	C	24.7	C	38.4	D	31.5	C
Northbound	14.4	B	14.9	B	15.1	B	16.5	B	17.7	B
Through	14.4	B	19.9	B	20.1	C	21.8	C	23.7	C
Right	5.8	A	5.3	A	5.3	A	5.8	A	5.5	A
Southbound	26.8	C	28.5	C	29.1	C	57.4	E	40.2	D
Left	25.5	C	28.8	C	29.5	C	62.5	E	39.8	D
Through	28.5	C	28.1	C	28.7	C	51.8	D	40.6	D
Eastbound	25.4	C	27.1	C	28.1	C	23.6	C	30.6	C
Left	36.8	D	37.7	D	39.6	D	32.3	C	42.8	D
Through	20.2	C	22.7	C	22.9	C	20.5	C	25.4	C
Right	0.6	A	1.1	A	1.1	A	2.0	A	3.2	A

At the four (4) signalized study intersections, only the 75th / SR-101 interchange ramps experience level-of-service “E” or “F”. These are the northbound, southbound, and westbound approaches and left turns. This is typical of urban freeway interchange ramps during peak traffic periods. With the Broadstone Arrowhead multi-family homes, the average delay increases by less than five (5) seconds – too minimal to be noticeable by drivers.

At the 75th / Rose Garden intersection, during the morning peak hour, all movements are acceptable at level-of-service “C” or better. In 2031, without or with the Broadstone Arrowhead homes, three (3) movements (northbound left, southbound left, and southbound approach) are at level-of-service “D” in the morning peak hour and one (1) movement (northbound through) is at “D” in the evening peak hour. On the eastbound approach of Rose Garden Lane at 75th Avenue, all movements experience an average delay of 30 seconds or less in both peak periods, through 2031, without and with Broadstone Arrowhead.

The 75th Avenue interchange with State Route 101, westbound ramp, is anticipated to experience some levels-of-service “E” and “F” in 2031 without the Broadstone Arrowhead apartments, during both the morning and evening peak hours. The 75th Avenue interchange with State Route 101, westbound ramp, is anticipated to experience some levels-of-service “E” and “F” in 2026 with the Broadstone Arrowhead apartments, during both the morning and evening peak hours.

Table 7 provides the delays and levels-of-service by intersection, approach, and turning movement for the two (2) accesses of Broadstone Arrowhead. The main access is with Rose Garden Lane, and the secondary access is via Joy Boulevard to Aspera Boulevard.

Table 7: Level-of-Service Detailed Summary Site Accesses – AM and PM Peak Hours

	MORNING PEAK HOUR				EVENING PEAK HOUR			
	2026 WITH SITE		2031 WITH SITE		2026 WITH SITE		2031 WITH SITE	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
MAIN ACCESS / ROSE GARDEN	2.1	A	2.8	A	3.4	A	2.8	A
Northbound	10.5	B	9.8	A	9.5	A	9.8	A
Right	10.5	B	9.8	A	9.5	A	9.8	A
Westbound	0.9	A	3.3	A	4.2	A	3.3	A
Left	7.9	A	7.9	A	7.8	A	7.9	A
JOY BOULEVARD / ASPERA	0.2	A	0.1	A	0.2	A	0.1	A
Southbound	14.7	B	14.2	B	12.8	B	14.2	B
Left	14.7	B	14.2	B	12.8	B	14.2	B
Westbound	0.0	A	0.0	A	0.0	A	0.0	A
Right	0.0	A	0.0	A	0.0	A	0.0	A

The two (2) unsignalized accesses to Broadstone Arrowhead will operate at level-of-service “A” or “B” during peak traffic periods.

There are no collision patterns that suggest intersection configuration or traffic control modifications at the two (2) intersections or near the interchange vicinity.

Recommendations without Broadstone Arrowhead

No improvements to the lane configuration or traffic signal operation are recommended at any of the four (4) study intersections in 2026 or 2031 without the development of the Broadstone Arrowhead multi-family homes.

Recommendations with Broadstone Arrowhead

No improvements to the lane configuration or traffic signal operation are recommended at any of the four (4) study intersections in 2026 or 2031 with the development of the Broadstone Arrowhead multi-family homes.