

Date	January 9, 2026		
TO	Peter Schroeder Senior Development Associate Roers Companies		
FROM	Bill White Senior Transportation Planner CivTech, Inc.		
RE	Supplemental Traffic Analysis for Presentation Purposes, North 88 Apartments (Roers, Bella Norte, and Skyline)		
CC	Kevin Sturgeon, Roers Companies Greg Davis, IPlan Consulting Reese Anderson, Pew and Lake	Hudd Hassell, Bela Flor Karl Huish, Bela Flor Michael James, CivTech	

This memorandum provides a supplemental analysis of travel demand scenarios contemplated in relation to the three developments proposed within the northeast quadrant of the Idaho Road (SR 88) and Junction Street intersection in Apache Junction. This is a supplement to the *88-North Apartments Traffic Impact Study* (CivTech, 2022) approved by the Arizona Department of Transportation (ADOT) on November 14, 2022 and the projects referenced therein; these projects are now referred to as Roers, Bella Norte, and Skyline, respectively.

This presents an analysis of development-related travel conditions to assist with a presentation of relevant transportation conditions to the Apache Junction council. The analysis and memorandum were developed promptly in response to transportation-related questions of Council members'.

DEVELOPMENT PROPOSAL

Encompassing 32.22-acres, the proposal includes three multifamily projects, Roers, Bella Norte, and Skyline. Collectively, these projects include 610 apartments/townhomes. Access would be provided by a primary approach located on N. Idaho Road, two approaches on E. Junction Street, and one on N. Winchester Road. SR 88, designated Idaho Road by the City, is an ADOT road; E. Junction Street and N. Winchester Road are under the control of Apache Junction.

The November 2022 traffic impact study (TIS) addressed the impact of a 662-unit multifamily project on 10 intersections and proposed development approaches, as grounded on review of a 2027 project buildout year. This memorandum addresses a reduction of 52 units from the initial proposal and TIS. Only signal timing and phasing optimization was proposed with the TIS to maintain acceptable mobilities, a conclusion accepted by ADOT and the City. This TIS can be reviewed for further details on analyses or methods.

Apache Junction Council members desire to better understand the transportation conditions related to existing traffic conditions and the proposed projects. The applicants volunteered additional traffic analyses to help address Council members' questions, which includes the following topics:

1. Review peak traffic conditions during the fall/winter travel season.

2. Review collision data and identify any potential safety issues along a segment of N. Idaho Road near the proposed projects.
3. Review queue potentials for the northbound, N. Idaho Road “U” turn at Apache Trail Road, and assess whether these projects will significantly increase the current occurrences.
4. Compare travel conditions of the current residential proposal with various land use scenarios, including commercial or office could be developed on the site, as allowed per zoning code.
5. Compare conditions of the current proposal with a higher apartment density scenario allowed by zoning code.
6. Revise LOS analyses for N. Idaho Road intersections with Apache Trail, Junction Street, and Old West Highway based on seasonal forecasts that include the three projects.

WINTER TRAVEL DEMANDS

Intersection traffic counts were collected to support the originally approved TIS in June of 2022. City Council members asked whether these counts were low, given reduction of seasonal occupants in the region. Of most concern was reduced traffic on Idaho Road. To review this, an intersection count was performed for Idaho Road/Junction Street on December 18, 2025, when seasonal occupants were in the area, prior to school being let out for the Christmas holiday break. Counts were performed between 7 AM to 9 AM and 4 PM to 6 PM so commute peak hours could be considered.

As expected, a comparison between current and prior counts confirmed that peak hour volumes are higher in December versus June at this intersection. Overall, counts were noted to be about 62% higher during the AM peak hour and 60% higher during the PM peak hour on Idaho Road. Counts were noted to be 53% higher during the AM peak hour and 58% higher during the PM peak hour on Junction Street. This differential was factored/considered when reviewing mobility performances for study intersections, as discussed subsequently in this memorandum.

It should be noted that other contributing factors influence the difference between counts. These factors include, but are not limited to, the generation of trips from recent developments built over the last 3 years in the area. Also, higher-than typical activities occurring at the adjacent “Fry’s” shopping center were due to counts being performed the week prior to Christmas. Historically, high traffic occurs during the weeks before the holiday. Thus, given the timing of the counts, the week before Christmas, the analysis in this memorandum *overstates* the amount of typical traffic during the AM/PM peak hours in the winter months.

Regardless, the differential was enough to update the LOS for Idaho Road and Junction Street intersections, considering elevated traffic counts. However, given contributing factors listed above, the intersection volumes used to support this study should be considered conservative (high-end).

COLLISION DATA

A review of collision data was performed to address City Council questions regarding safety for drivers along Idaho Road (SR 88). Per standard industry practice, 3-year collision data was reviewed for this analysis. Most current, available data from ADOT was assembled for a period extending between January 1, 2022 to December 31, 2024.

The study reviews collision histories for the Apache Trail Road, Junction Street, and Old West Highway intersections with Idaho Road; also, for segments between these junctions. The resulting total collision data is summarized with **Table 1**, also shown are severities and incident types. Noted in green is totals per year and the average incidents per year. Shown in blue is severities and yellow is incident type.

Table 1. Summary Collision Data

Intersection	Total Collisions					Severities			Incident Type										
	Tot	Avg	2022	2023	2024	Inj	Fat	PDO	SV	Ang	LT	RE	HO	SS	Oth	Ped	Bike		
Apache Trail Rd/Idaho Rd-SR 88	16	3.2	8	4	4	5	0	11	2	4	2	3	1	4	0	0	1		
Junction Street/Idaho Rd-SR 88	3	1.0	1	1	0	0	1	2	0	1	1	0	1	0	0	0	0		
Old West Highway/Idaho Rd-SR 88	40	13.3	10	17	13	9	0	31	2	13	5	3	2	10	5	0	0		
Segment	Total Collisions					Severities			Incident Type										
	Tot	Avg	2022	2023	2024	Inj	Fat	PDO	SV	Ang	LT	RE	HO	SS	Oth	Ped	Bike		
Idaho Rd, Apache Trail to Junction	4	1.3	3	0	1	2	0	2	1	0	1	1	0	1	0	0	0		
Idaho Rd, Junction to Old West Hwy	14	4.7	9	3	2	2	0	12	1	7	3	2	0	1	0	0	0		
<ul style="list-style-type: none"> - Tot: Total collisions in 3-year period. - Avg: Average collisions per year. - Inj: Collisions involving injuries. - Fat: Collisions involving a fatality. - PDO: Property damage only collisions. - SV: A single vehicle incident usually involving a vehicle running off the road, hitting a fixed object, or colliding with a parked vehicle. - Ang: An angled incident involving a left or right-turning vehicle colliding with another vehicle traveling through an intersection or driveway. - LT: A left turning vehicle collides with a through vehicle in an intersection or driveway approach. 									<ul style="list-style-type: none"> - RE: A rear end collision that occurs when a closely following vehicle strikes a proceeding stopped or turning vehicle. - HO: A vehicle in an opposing lane crosses centerline resulting in a collision with an oncoming vehicle. - SS: A vehicle swipes the side of another vehicle traveling in the same or opposite direction. - Other: Typically addresses incidents that are not defined by the primary categories noted prior. - Ped: Refers to an incident involving one or more pedestrians. - Bike: Refers to an incident involving one or more bicyclists. 										

Rationale for further analyses is highlighted when a high density of collisions is noted at a location or along a roadway segment. A standard industry practice is to perform further analyses for a minor intersection or road segment experiencing more than 5 collisions per year; this is typical of local roads and collectors. A major intersection or road segment, typically an arterial or highway, is reviewed when experiencing more than 10 collisions per year.

Per the consideration note above, only the intersection at Old West Highway and Idaho Road has collision experiences that exceeds an average of 10 incidents per year. The other intersections and road segments of focus do not have collision densities that surpass general thresholds. This is not to say that the collisions noted are not important to the City; it is a way to affirm collisions do not exceed what is typical and expected along roadways.

The next steps are to compare conditions with a comparable location, to assess whether this density of incidents is unusual for Old West Highway, and to further examine severity conditions. The Ironwood Drive junction with Old West Highway is a comparable location west of Idaho Road. By comparable, this intersection is also signalized, has similar lane geometry and signal phasing, and has comparable traffic volumes; both intersections support approximately 22,000 entering vehicles per day.

Collision data was collected for the 2022 to 2024 timeframe at the **Ironwood Drive / Old West Highway intersection**. ADOT histories indicates a total of 58 collisions occurred over three years at a consistent rate of about 19 collisions per year, and with a high injury rate (38% at 22 of 58 incidents). Given comparable conditions, the number of incidents at this location exceeds those occurring at Idaho

Road / Old West Highway, and with a lower injury rate (25% at 10 of 40 incidents). **The Idaho Road / Old West Highway intersection does not appear to experience a collision or injury rate that exceeds those of a comparable intersection along the route.**

A review of severities is performed to help confirm whether an unusual safety issue(s) is occurring at the intersection. There were 9 injury incidents and a fatality at the intersection; this represents a 25% casualty occurrence at this location. Even with a very unfortunate fatality, this is a low rate, leading to a likely conclusion of low speed and low impact incidents. A review of causal factors yields no conclusion, given lack of any consistent occurrences relating to incident type. Low severity issues with lack of causal factors confirms the conclusion that occurrences are not unusual; project trips are not likely to influence incidents at this location.

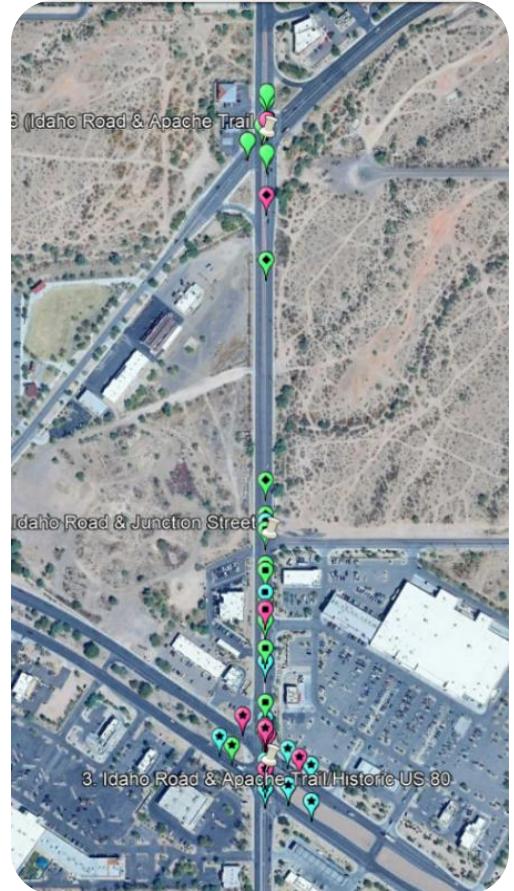
One more item of note is the location of incidents, as shown to the right through illustration. There is a lack of collision density occurring along Idaho Road adjacent to the project. This would be the site access areas where generated-trips could have the highest impact, at/near Approach A or Junction Road. Yet, the conclusion is a lack of collisions for project trips to exasperate along Idaho Road; the three projects should not precipitate atypical changes in these conditions.

Per the illustration, the highest concentration of road segment collisions occurs from Fry's driveway extending south to Old Highway West; a function of turn movements accessing the shopping center. Project trips will primarily be directed through this area, not unusually impacting turning movements outside of those few trips working to access retail/commercial sites.

LAND DEVELOPMENT SCENARIOS

The site includes 32.22-acres located in an area zoned B-3 "City Center" by Apache Junction. Zoning code defines this as being "intended for commercial, recreational, and/or multi-family residential land uses located within the Core Downtown Area." Although some land uses may require a conditional use permit as a part of the entitlement process, B-3 is one of the more flexible zoning designations within the City.

We reviewed the impact that different types of land use development would have on the area, as compared with the current proposal. To address this question, five land use scenarios were developed for review: the currently proposed three resident projects at currently proposed densities (less 52-units from the approved TIS), maximum density residential, commercial/shopping, general office, and healthcare. The traffic generated with each of these land use scenarios was determined using equations and rates provided by the Trip Generation Manual (12th Edition, ITE, 2025).



Collision Location Illustration

Residential, Current Proposal and Maximum. The current proposal includes the development of 610 apartment/townhome units. B-3 zoning allows residential densities of up to 40-units per acre, with a minimum required density of 13 units per acre. Based on area/acreage, the site could be developed with up to 1,228 units; double the total for the three projects, a unit count that exceeds the current proposal by 618 units. Trips were estimated using ITE Land Use Code 220 for Low-Rise Multifamily Housing, which addresses buildings of three-floors or less.

Commercial/Retail. The site can support commercial development with allowances that includes most retail uses except for large “big-box stores” and “warehouse clubs” like Walmart and Costco. ITE Land Use Code 820 is a flexible application that addresses a wide range of retail development scenarios. This was used to address the commercial/retail development potential of the site. Building footprints tend to occupy between 20% and 30% of a site, the balance typically occupied by parking, drainage and utility areas, and landscaping. A total building area of 355,000 square-feet (sf) was assumed for the purpose of this scenario; this is over 25% of the total site area.

General Office. An equivalent facility area was assumed for office, 355,000 sf. ITE Land Use 710 for General Office Building was used to predict site traffic, a land use that reflects “legal, accounting, engineering, consulting, real estate, insurance, financial, or other professional services.”

Medical. ITE Land Use Code 720 Medical-Dental office building describes where “facility or clinic with one more tenant that provide diagnoses and outpatient care on routine basis” are provided. A facility area of 355,000 sf was also assumed for this review.

SCENARIO TRIP GENERATION

Summary trip generation for each of the land use scenarios is shown with **Table 2**. Noted in light green is trip generation for the current land use proposal. Noted in light blue is the max-density residential, shopping center, general office, and medical office/health care trip generation forecasts. Trips are forecast for the AM and PM peak hours of the weekday.

Table 2. Scenario Trip Generation

Land Use Scenario	AM Peak Hour Trips			PM Peak Hour Trips		
	In	Out	Total	In	Out	Total
Current Proposal, Apartments	54	172	226	186	114	300
Scenario One: Max Density Apartments	106	337	443	370	227	597
Scenario Two: Shopping Center	217	132	349	597	622	1,219
Scenario Three: General Office	367	51	418	61	322	383
Scenario Four: Medical Office/Healthcare	582	164	746	392	916	1,308

Conclusions drawn from a comparison of current versus potential trip generation totals are as follows:

- **Current Proposal.** The current proposal for the three projects is the lowest trip generation proposal, compared with the other development scenarios/types permitted in this area.
- **Max Residential.** The maximum residential scenario represents nearly a 100% increase in trip generation over the current proposal between the commute peak hours.
- **Shopping Center.** The shopping center proposal represents a 260% increase in trips for the weekday with a range of 50% to 300% noted between the AM and PM peak hours, respectively.

- **General Office.** The office AM peak hour is nearly 90% and PM peak hour just over 30% higher than the residential proposal.
- **Medical Office/Healthcare.** The AM and PM Peak hour traffic are about three times and four times higher, respectively, than residential proposal.

A review of trip generation confirms that other potential developments in zoning allowances result in trip generation that exceed the current proposal, some very substantially. As capacity conditions are considered based on peak hour analyses, the impact of these trip gains is discussed with the next LOS analysis section.

LOS ANALYSIS

The supplemental analysis reviews levels of service (LOS) results for the Idaho Road intersections with Apache Trail, Junction Street, and Old West Highway as based upon the land use scenarios noted above; also, for three new site intersections on Idaho Road and Junction Street. A description of LOS methods and procedure is provided with the original TIS. The LOS analysis was prepared based on forecasts that were developed as follows:

- Traffic counts from the original TIS were factored to address seasonal variations. Per the prior section, a 60% adjustment was used for Idaho Road, and 55% adjustment for Junction Street (approximate).
- Per the original TIS, a 3.5% growth factor was then applied to revised counts to generate year 2027 baseline (non-project) forecasts for the AM and PM peak hours.
- Trips were assigned to the street and intersection system based on the distributions used with the approved TIS, this was repeated for all land use scenarios.
- Assignments were combined repeatedly with baseline forecasts to generate with-project forecasts for each scenario.

Elevated intersection traffic volumes have been attached via Excel spreadsheets. LOS calculations were performed based on the land use forecasts highlighted above. A summary of LOS is provided with **Table 3** for the AM and PM peak hours. The LOS analysis was developed using Synchro Version 12 (Cubic, 2025). Shown in yellow is existing conditions (based on revised, exiting volumes), green represents LOS for the current proposal, and blue are the land use scenarios reviewed for this study. Summary LOS in Synchro can be provided in worksheets or the software platform upon request.

Table 3. Summary LOS

Intersection Location	AM Peak Hour						PM Peak Hour					
	Exist	Prop	Max	Retail	Office	Med	Exist	Prop	Max	Retail	Office	Med
Apache Trail Rd/Idaho Rd-SR 88	D	D	D	D	D	D	D	D	D	D	D	D
Approach A/Idaho Rd-SR 88	NA	B	C	B	B	C	B	B	C	F	C	F
Junction Street/Idaho Rd-SR 88	B	C	C	B	C	D	NA	C	C	F	D	F
Old West Highway/Idaho Rd-SR 88	D	D	D	D	D	D	D	D	D	E	D	F
Fry's Marketplace Dr/Junction St	A	B	B	B	B	C	B	B	B	E	B	D
Outpost Rd/Junction St	A	A	A	B	B	B	B	B	B	B	B	B
Winchester Rd/Junction St	A	A	A	A	B	A	B	B	B	B	B	B
Exist – Existing Condition						Office – General Office Scenario						
Prop – Current Development Proposal						Med – Medical Office/Health Care Scenario						

Max – Maximum Residential Scenario
Retail – Shopping Center/Retail Scenario

NA – Not applicable, not an intersection.

The City and ADOT maintain a LOS D standard for intersections located on urban streets. Highlighted in red are LOS that do not meet standard. The existing conditions analysis indicates no LOS failures prevail at study intersections between the AM and PM peak hours. Note that the existing conditions LOS were developed based on intersection volumes adjusted for seasonal variation.

The forecast analysis concludes that LOS are acceptable under most land use scenarios during peak hours with exception of the retail and medical/healthcare scenarios due to high trip generation potentials; deficiencies are again shown in red. Under these scenarios, the off-site intersection of Old West Highway/Idaho Road is forecast to function at LOS E under the retail scenario. Up to three proposed access are forecast to function at LOS E/F between during the PM peak hour.

The best overall LOS results are highlighted with the current project proposal; this is a result of reduced trip generation. In fact, by adding the three proposed projects, there are only minor LOS changes between the existing condition and current proposal condition during the AM peak hour, and there is no material change forecast during the PM peak hour. This confirms the conclusions in the original TIS that the project proposal has a minor impact on mobility conditions.

Elements of note for the Synchro/LOS analysis include:

- Signal split times were optimized with each land use scenario to represent how signals operate during peak hours in response to travel demands.
- Two-stage gap allowances were used for the stopped approach of Approach A and Junction Street along Idaho Road due to availability of a two-way left-turn lane; a single vehicle queue was assumed as storage in the two-stage maneuver.

NORTHBOUND U-TURN

The northbound left-turn lane at the Apache Trail Road / Idaho Road intersection extends 200-feet to support turning and U-turn movements. This is sufficient to support between 8 to 9 vehicles dwelling within the stopped approach. The concern of council is whether this movement will experience a substantial queue issue as development occurs along Idaho Road.

Fortunately, this is not expected to be the case. In the analysis, this was not predicted to be a high-use movement during peak hours; there are 15 to 20 peak hour vehicles currently using the lane during each peak hour. This would increase to a range of between 25 to 30 vehicles using the lane during each peak hour, respectively, under the forecast scenarios. Using Synchro, this results in an average queue condition of between 1 to 2 vehicles during each peak hour, with 2 to 3 vehicles for the 95th percentile demand condition during each peak hour. For context, average refers to queues that occur normally in a lane (or lanes) during the peak hour, a 95th percentile queue only occurs a few times during a peak hour. In all cases, average and 95th percentile queues are well below the available 8 to 9 vehicles of storage.

LOS are favorable at the Approach A and Junction Street intersections with Idaho Road; thus, left turns can occur without traffic needing to use the Apache Trail Road / Idaho Road intersection for U-

turns. However, to provide some assurance to council, a threshold analysis was performed to help vet when queues could be an issue for this movement. The traffic volumes within this lane were reviewed to help confirm when queued vehicles might exceed the available turn pocket. It was confirmed that a 95th percentile queue of more than 200-feet (8 to 9 vehicles) would occur with elevation of traffic to about **150-vehilces (+/-) during peak hours**. This is well beyond the traffic forecasts presented with the initially accepted TIS and this subsequent analysis. This should provide assurances that lane capacity is available, even if a higher degree of site trips were to perform U-Turns over what has been expected by this analysis.

SUMMARY OF RESULTS

This memo provides a supplemental and informal analysis of travel demand scenarios contemplated in relation to the North 88 Apartments. The analysis was built from the *88-North Apartments Traffic Impact Study* (CivTech, 2022) approved by ADOT in November of 2022; the projects are now noted as the Roers, Bella Norte and Skyline projects. The conclusions from the analyses are as follows:

1. The proposal represents a reduction of 52 units from the initially proposed TIS.
2. Seasonal travel demands impact Idaho Road (SR 88), December 2025 counts were noted to be about 55% higher than June 2022 counts during the AM peak hour and 60% higher during the PM peak hour.
3. While every incident is unfortunate, and fatalities tragic, the collision analysis does confirm that there are no unusual collisions issues occurring within the study area. Further, the project does not generate the levels of traffic anticipated to precipitate an issue, especially given no existing issues adjacent to the proposed development.
4. Four land use scenarios were reviewed as an alternative to the current land use proposal of 610-units. A 1,288 max density residential, shopping center / retail center, general office, and medical office/health care, respectively were reviewed. The current proposal for the three residential projects results in trip generation that is 100 to 300% lower than other reviewed land use scenarios, and lower during peak AM and PM hours than the office scenario. Peak hour traffic volumes are between 30% to 300% lower under all land use scenarios.
5. LOS are most favorable with the proposed three residential projects; the LOS D standard is met for all study Idaho Road intersections and Idaho Road and Junction Street approaches. In fact, there are only minor variations in LOS between the existing and current project proposal conditions. This indicates a reduction from 610 units to a lower unit count for the three projects would not cause notable reduction in LOS benefit.
6. Average and 95th percentile queue potentials in the northbound left-turn lane at Apache Trail Road/Idaho Road are not forecast to exceed three vehicles between peak hours, this includes left-turns and U-turns. Demands are not currently high, nor are they forecast to be high, with the accepted, original TIS or via this study (maximum use of 25-vehilces predicted). 95th percentile queues are not anticipated to surpass the 200-foot queue pocket until a demand of about 150 vehicles use the lane during peak hours.

The conclusion of this study is confirmation of the original TIS, the project can be developed without unacceptably impacting travel conditions within the City of Apache Junction.

Please let us know if you have questions regarding this memorandum. Please note that a scoping and review process would be required with agencies, Apache Junction engineers and ADOT, if this study were to be finalized and submitted for formal review by agencies.