

MEMORANDUM

To: Town of Castle Rock, Public Works Department

From: Cassie Slade, PE, PTOE

Date: February 3, 2026

Project: Dawson Trails

Subject: Planning Area E-2 Townhomes Traffic Conformance Letter

Executive Summary

The latest site plan shows for a portion of Planning Area E-2 will include 100 townhomes, which is within the assumed 400 units for the planning area as presented in the Master Traffic Impact Study (MTS). The traffic analysis for Planning Area E-2 townhomes was estimated to be slightly higher than the 100 apartments assumed in the MTS, within 1.5% of the total traffic for Planning Area E-2 and within 0.2% of the total traffic for Dawson Trails. There will be approximately 684 daily trips with 46 vehicle trips in the AM peak hour, 54 vehicle trips in the PM peak hour, and 54 vehicle trips in the Saturday peak hour.

Per the Dawson Trails Filing No. 2 Infrastructure Plan (CD23-0045), the collector roads will be constructed prior to the completion of Planning Area E-2 and the collectors will connect Dawson Trails Boulevard to local streets into each planning area. Dawson Plaza Street and Pat Haven Street will be a mixed-use local street that will extend through Planning Area E-2 to Planning Area D. The site plan for Planning Area E-2 townhomes includes two (2) full-movement, side-street stop-controlled accesses on Dawson Plaza.

The most current site plan for Planning Area E-2 townhomes is consistent with the assumptions of the MTS. **It is anticipated that the future planned roadway network and intersections can accommodate the project trips without the need for additional analysis or mitigation measures.**

Introduction

The Fox Tuttle Transportation Group has prepared this traffic conformance letter for the proposed development of townhomes located in Planning Area E-2 of the Dawson Trails development in Castle Rock, Colorado. The site is located in the southeast of the intersection of Gambel Ridge Boulevard and Quandary Peak Drive, as shown on **Figure 1**. This phase of Dawson Trails plans to include 100 dwelling units. It is understood that there will be two (2) full movement accesses on Dawson Plaza Street and Pat Haven Street, a Mixed-Use Local Street that will extend between Planning Areas E-2 and D-1. It should be noted that future phases will complete the remainder of Planning Area E-2, which is proposed to include additional residential units and commercial land uses (retail or office).



Figure 1. Vicinity Map

The purpose of this "traffic conformance letter" is to determine if the proposed use is significantly different than the trip generation assumptions for this site as analyzed in the "Master" study to identify if additional traffic analysis is necessary.

Comparison to Master Traffic Study

A "Master" transportation study¹ (MTS) was previously prepared for the entire 2,063± acres of Dawson Trails that will include a mix of residential, commercial, office, light industrial, schools, and recreation. The MTS assumed that Planning Area E-2 would include 400 multi-family (low-rise) homes, up to 412,000 square feet of commercial retail, and 23,000 square feet of general office. The MTS focused on the full movement intersections along Dawson Trails Boulevard and did not evaluate

¹ *Dawson Trails Master Transportation Study*. Fox Tuttle Transportation Group, LLC. June 2022.

Dawson Trails: Planning Area E-2 Townhomes

Traffic Conformance Letter

February 3, 2026

access intersection or collector/collector intersections since this detail would be more appropriate in traffic studies for phases or specific projects.

The current site plan includes 100 townhomes in this specific portion of Planning Area E-2, which is 25% of the assumed residential units for the Planning Area as compared to the *MTS*. Note that this is not the entirety of Planning Area E-2, which will be completed in future phases with supplemental traffic conformance letters.

Trip Generation

To establish the volume of trips associated with the proposed project, the data contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*² for multi-family (low-rise) homes and single-family attached homes was applied. Note that the 11th edition was utilized in the *MTS* and the 12th edition is now being used for this analysis since it provides the most current trip rates. The proposed land use is estimated to mostly be new trips, known as 'primary trips', as discussed below:

Primary Trips. These trips are made specifically to visit the site and are considered "new" trips. Primary trips would not have been made if the proposed project had not existed. Therefore, this is the only type of trip that increases the number of trips made on a regional basis.

Table 1 summarizes and compares the trip generation estimated from the *MTS* and the latest site plan for the first phase of Planning Area E-2 for weekday daily, weekday AM, weekday PM, and Saturday peak periods.

² *Trip Generation Manual*. 11th Edition. Institute of Transportation Engineers. Washington, DC. 2021.

Dawson Trails: Planning Area E-2 Townhomes

Traffic Conformance Letter

February 3, 2026

Table 1. Trip Generation Summary and Comparison

Planning Area	Land Use	Size	Unit	Non-Auto Factor	Internal Capture Adjust	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips				Saturday Peak Hour Trips			
						Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Master Transportation Study¹																					
Part of E-2 South	ITE 220 - Multi-Family Housing (Low-Rise)	100	Dwelling Units	0.95	0.90	6.74	576	288	288	0.40	34	8	26	0.51	44	28	16	0.41	35	17	18
Updated Traffic Conformance Letter²																					
Part of E-2 South	ITE 215 - Single-Family Attached Housing	100	Dwelling Units	0.95	1.00	6.57	624	312	312	0.47	45	11	34	0.51	48	27	21	0.47	45	22	23
Difference in Trips (MTS vs. Updated)						48	24	24		11	3	8		4	-1	5		10	5	5	

¹ Source : ITE Trip Generation Manual and Handbook, 11th Edition, 2021.

² Source : ITE Trip Generation Manual and Handbook, 12th Edition, 2025.

Since the assumed apartment units have a lower trip rate than townhomes, the above comparison of trip volumes is slightly higher with the latest site plan. It is estimated that there will be an additional 48 daily trips with 11 more vehicle trips in the AM peak hour and four (4) more vehicle trips in the PM peak hour, as well as 10 more vehicle trips in the Saturday peak hour. This equates to a change of approximately 0.7% in Planning Area E-2 and approximately 0.09% increase for the overall development of Dawson Trails community.

Proposed Access

Per the Dawson Trails Filing No. 2 Infrastructure Plan (CD23-0045), the collector roads will be constructed prior to the completion of Planning Area E-2 and the collectors will connect Dawson Trails Boulevard to local streets into each planning area. The proposed townhomes of Planning Area E-2 are surrounded by Gambel Ridge Boulevard along the west boundary and Quandary Peak Drive along the north boundary. Gambel Ridge Boulevard will be extended west from Dawson Trails Boulevard at Crystal Valley Boulevard which will lead to the proposed residential community. Per Town direction, this roadway will be a four-lane, major arterial through the first roundabout at Quandary Peak Drive with a center median and left-turn pockets at intersections. Southwest of the roundabout, adjacent to Planning Area E-2, Gambel Ridge Boulevard will become a two-lane major collector and further south it will transition to a two-lane residential collector. Quandary Peak Drive has been designed as a two-lane major collector that is a short roadway between Dawson Trails Boulevard and Gambel Ridge Boulevard.

The site plan for the subject townhomes in Planning Area E-2 provides two (2) full-movement, side-street stop-controlled accesses on Dawson Plaza Street and Pat Haven Street, a two-lane local street

Dawson Trails: Planning Area E-2 Townhomes

Traffic Conformance Letter

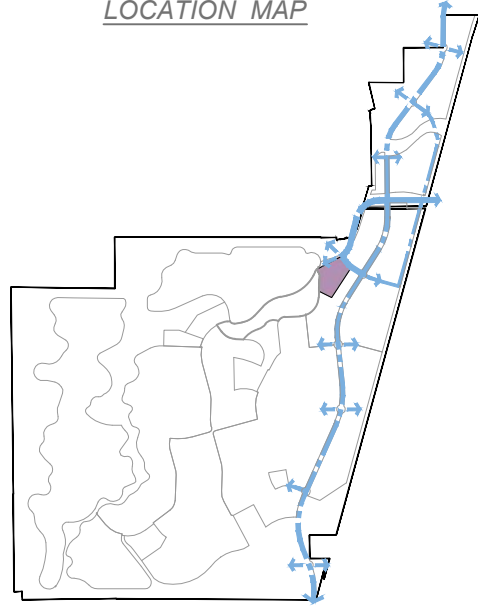
February 3, 2026

that will serve the mixed uses within the area. Dawson Plaza will connect directly to Quandary Peak Drive as a right-in, right-out intersection due to the proximity to Dawson Trails Boulevard and Gambel Ridge Boulevard. The local roadway (Dawson Plaza Street) will extend south to link to Blanca Peak Parkway. The intersection at Blanca Peak Parkway was approved with Planning Area D-1 as a full-movement, side-street stop-controlled intersection.

A high-level estimate of traffic entering and exiting the two (2) accesses was performed, assuming roadway infrastructure connectivity is completed. It was anticipated that the north access into the E-2 Townhomes will serve approximately 45% of the trips and the remaining 55% will utilize the south access, based on number of homes in proximity to each access. Volumes throughout and into Planning Area E-2 were estimated by utilizing the anticipated land use types and sizes from the MTS and recent updates in available developable property within E-2. It was assumed that the other tracts will have two (2) full movement access points on the internal local streets, which are subject to change with future filings.

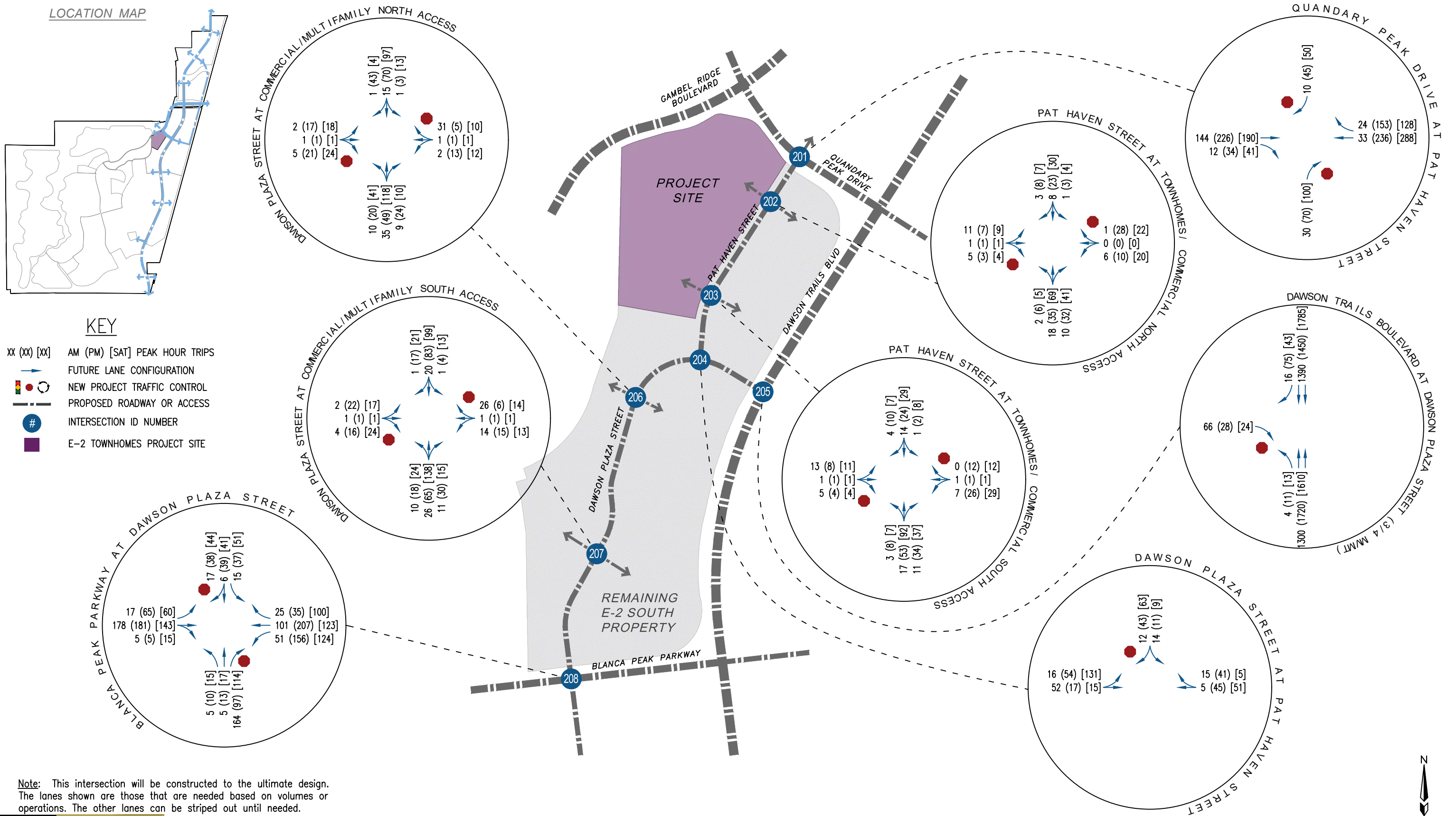
The estimated intersection turning volumes, as shown on **Figure 2**, indicate there is no need for auxiliary lanes on the Mixed-Use Local Road into the townhomes of Planning Area E-2 driveways and along the internal streets (Dawson Plaza Street and Pat Haven Street). The daily roadway volumes within and around Planning Area E-2 South are shown on **Figure 3**.

LOCATION MAP



KEY

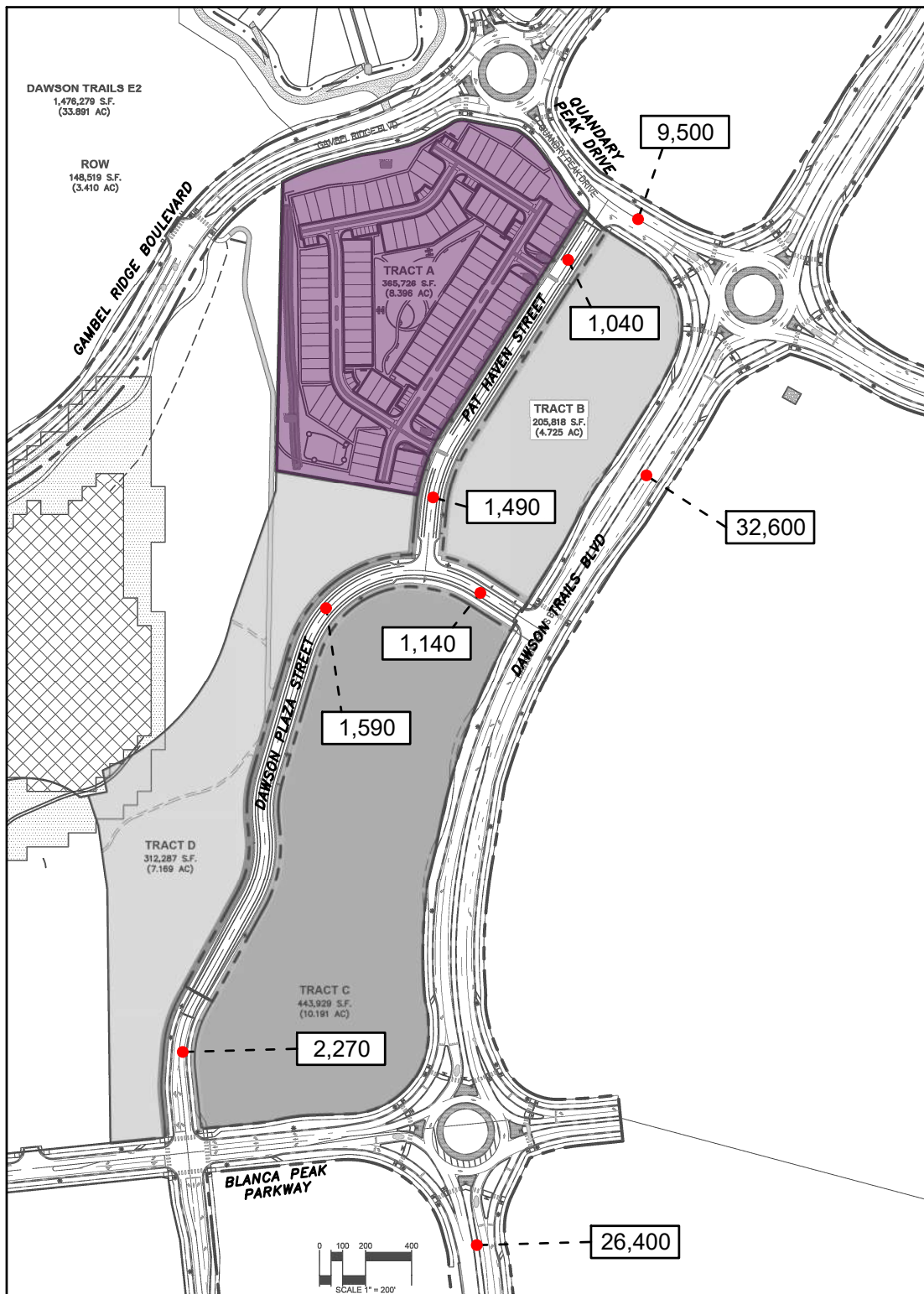
- XX (XX) [XX] AM (PM) [SAT] PEAK HOUR TRIPS
- FUTURE LANE CONFIGURATION
- NEW PROJECT TRAFFIC CONTROL
- PROPOSED ROADWAY OR ACCESS
- INTERSECTION ID NUMBER
- E-2 TOWNHOMES PROJECT SITE



Note: This intersection will be constructed to the ultimate design. The lanes shown are those that are needed based on volumes or operations. The other lanes can be striped out until needed.



DAWSON TRAILS E-2 TOWNHOMES TRAFFIC STUDY
YEAR 2040 FULL BUILDOUT TRAFFIC VOLUMES (INTERSECTION PEAK HOURS)



XX,XXX WEEKDAY DAILY TRAFFIC VOLUME



DAWSON TRAILS E-2 TOWNHOMES TRAFFIC STUDY
 YEAR 2040 FULL BUILDOUT TRAFFIC VOLUMES (DAILY ROADWAY)

FT Project #	20092	Original Scale	NTS	Date	1/26/2026	Drawn by	CRS	Figure #	3
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Dawson Trails: Planning Area E-2 Townhomes

Traffic Conformance Letter

February 3, 2026

The daily roadway volumes within the townhomes of Planning Area E-2 are shown on **Figure 4**. The analysis indicates that the two (2) entry roadways are anticipated to have less than 500 vehicles per day (vpd) adjacent to the mixed-use local street. The internal local roadways were estimated to have less than 200 vpd. The roadway designs will accommodate the volumes associated with Planning Area E-2 townhomes parcel.

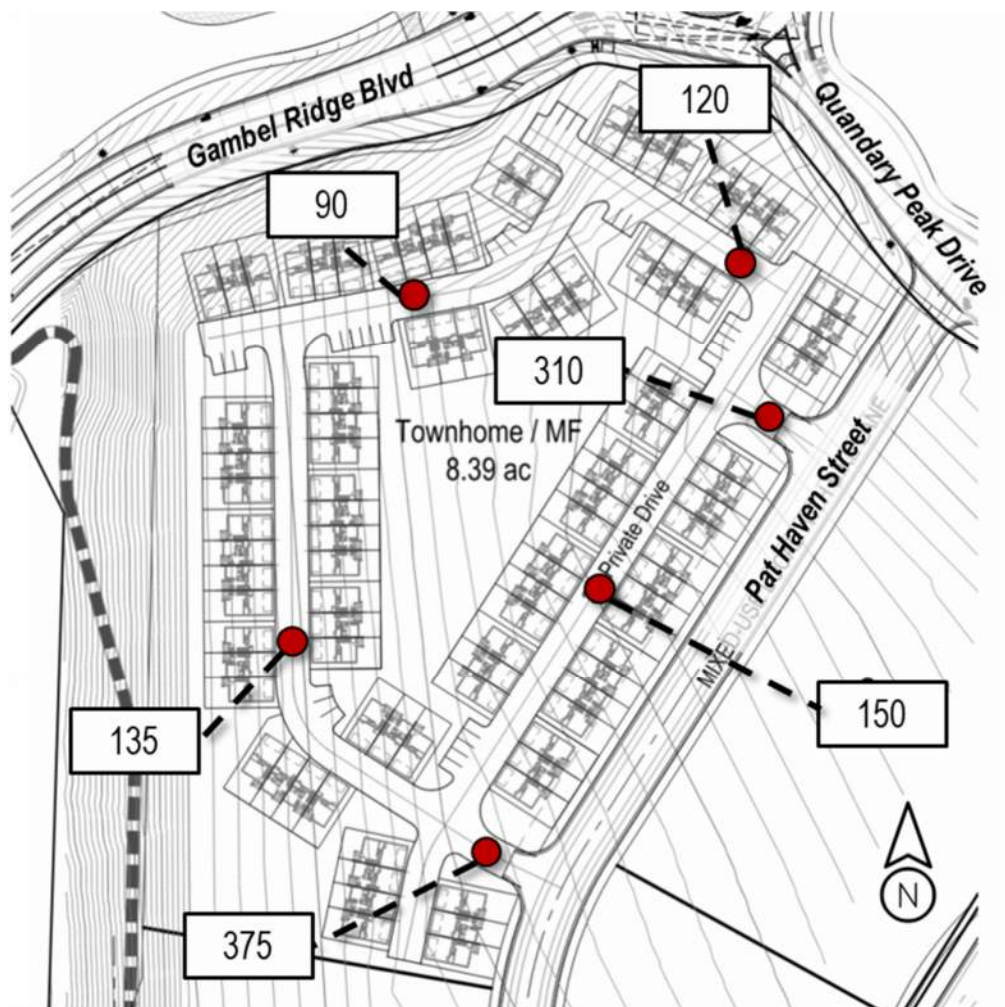


Figure 4. Estimated Daily Roadway Volumes within Planning Area E-2 Townhomes Parcel

Capacity Analysis

A capacity analysis was conducted for the AM peak hour, PM peak hour, and Saturday peak hour for the intersections within Planning Area E-2 South between Blanca Peak Parkway and Quandary Peak Drive. The analysis includes the full buildout of the Dawson Trails community with maximum density and inclusion of background growth. Refer to **Table 2** for the estimated delays, level-of-services, 95th percentile queues, and volume-to-capacity ratio. This table shows that all of the intersections associated with Planning Area E-2 will operate overall at LOS A in the three (3) peak hours and all movements will operate at acceptable performance in the Year 2040 with full buildout. The 95th percentile queues were calculated to be one vehicle or less.

Table 2. Estimated Peak Hour LOS and Queues

Intersection and Lanes Groups	2040 Bkgrd + Full Build Out											
	AM Peak				PM Peak				Sat Peak			
	Delay	LOS	95th % Queue	v/c ratio	Delay	LOS	95th % Queue	v/c ratio	Delay	LOS	95th % Queue	v/c ratio
STOP SIGN CONTROL												
201. Quandary Peak at Pat Haven Street	1	A			2	A			2	A		
Eastbound Through	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Eastbound Right	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Westbound Through	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Westbound Right	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Northbound Right	9	A	3'	0.04	10	A	8'	0.10	10	A	10'	0.13
Southbound Right	9	A	0'	0.01	10	A	5'	0.06	10	B	5'	0.08
202. Pat Haven St at Townhome / Comm North Access	3	A			3	A			3	A		
Eastbound Left+Through+Right	9	A	3'	0.02	9	A	0'	0.01	9	A	0'	0.02
Westbound Left+Through+Right	9	A	0'	0.01	9	A	3'	0.04	9	A	5'	0.52
Southbound Left+Through+Right	7	A	0'	0.00	7	A	0'	0.00	7	A	0'	0.00
Northbound Left+Through+Right	7	A	0'	0.00	7	A	0'	0.00	8	A	0'	0.00
203. Pat Haven St at Townhome / Comm South Access	3	A			3	A			3	A		
Eastbound Left+Through+Right	9	A	3'	0.02	9	A	0'	0.01	10	A	3'	0.02
Westbound Left+Through+Right	9	A	0'	0.01	9	A	3'	0.05	10	A	5'	0.06
Southbound Left+Through+Right	7	A	0'	0.00	7	A	0'	0.01	7	A	0'	0.01
Northbound Left+Through+Right	7	A	0'	0.00	7	A	0'	0.00	8	A	0'	0.01

Dawson Trails: Planning Area E-2 Townhomes

Traffic Conformance Letter

February 3, 2026

Table 2. Estimated Peak Hour LOS and Queues [continued]

Intersection and Lanes Groups	2040 Bkgrd + Full Build Out											
	AM Peak				PM Peak				Sat Peak			
	Delay	LOS	95th % Queue	v/c ratio	Delay	LOS	95th % Queue	v/c ratio	Delay	LOS	95th % Queue	v/c ratio
STOP SIGN CONTROL												
204. Dawson Plaza St at Pat Haven St	3	A			4	A			6	A		
Eastbound Left+Through	7	A	0'	0.01	8	A	3'	0.04	8	A	8'	0.09
Westbound Through+Right	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Southbound Left+Right	9	A	3'	0.03	9	A	5'	0.63	9	A	8'	0.09
205. Dawson Trails Blvd at Dawson Plaza St	0	A			0	A			0	A		
Eastbound Right	18	C	20'	0.20	17	C	8'	0.09	21	C	8'	0.10
Northbound Left	13	B	0'	0.01	15	B	3'	0.03	18	C	5'	0.05
Northbound Through	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Southbound Through	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Southbound Right	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
206. Dawson Plaza St at Comm / Multifamily North Access	4	A			3	A			3	A		
Eastbound Left+Through+Right	9	A	0'	0.01	9	A	5'	0.05	10	B	5'	0.06
Westbound Left+Through+Right	9	A	3'	0.04	10	A	3'	0.03	11	B	3'	0.04
Southbound Left+Through+Right	7	A	0'	0.01	7	A	0'	0.01	8	A	3'	0.03
Northbound Left+Through+Right	7	A	0'	0.00	7	A	0'	0.00	8	A	0'	0.01
207. Dawson Plaza St at Comm / Multifamily South Access	4	A			3	A			3	A		
Eastbound Left+Through+Right	9	A	0'	0.01	10	A	5'	0.05	10	B	5'	0.06
Westbound Left+Through+Right	9	A	3'	0.04	10	A	3'	0.03	10	B	3'	0.04
Southbound Left+Through+Right	7	A	0'	0.01	8	A	0'	0.01	8	A	3'	0.02
Northbound Left+Through+Right	7	A	0'	0.00	7	A	0'	0.00	8	A	0'	0.01
208. Blanca Peak Pkwy at Dawson Plaza St	5	A			7	A			7	A		
Eastbound Left	8	A	0'	0.01	8	A	3'	0.05	8	A	5'	0.05
Eastbound Through+Right	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Westbound Left	8	A	3'	0.04	8	A	10'	0.12	8	A	8'	0.10
Westbound Through	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Westbound Right	0	A	0'	0.00	0	A	0'	0.00	0	A	0'	0.00
Northbound Left	13	B	0'	0.01	28	D	5'	0.07	21	C	5'	0.07
Northbound Through	13	B	0'	0.01	23	C	5'	0.07	19	C	5'	0.07
Northbound Right	10	B	20'	0.21	10	A	10'	0.13	10	A	15'	0.18
Southbound Left	15	B	3'	0.04	32	D	23'	0.23	25	C	23'	0.24
Southbound Through+Right	10	A	3'	0.03	18	C	24'	0.24	15	B	18'	0.20

Note: Delay represented in average seconds per vehicle.

Multi-Modal

Dawson Trails will provide an extensive trail and multi-modal network to encourage the community to reduce vehicular travel and to provide amenities for recreation. **Figure 5** provides a conceptual plan for the trail network in and around Planning Area E-2 and the connectivity to Planning Area B-1, Planning Area D, and Dawson Trails Boulevard. Refer to the plan set for more details on the pedestrian and bicycle network.

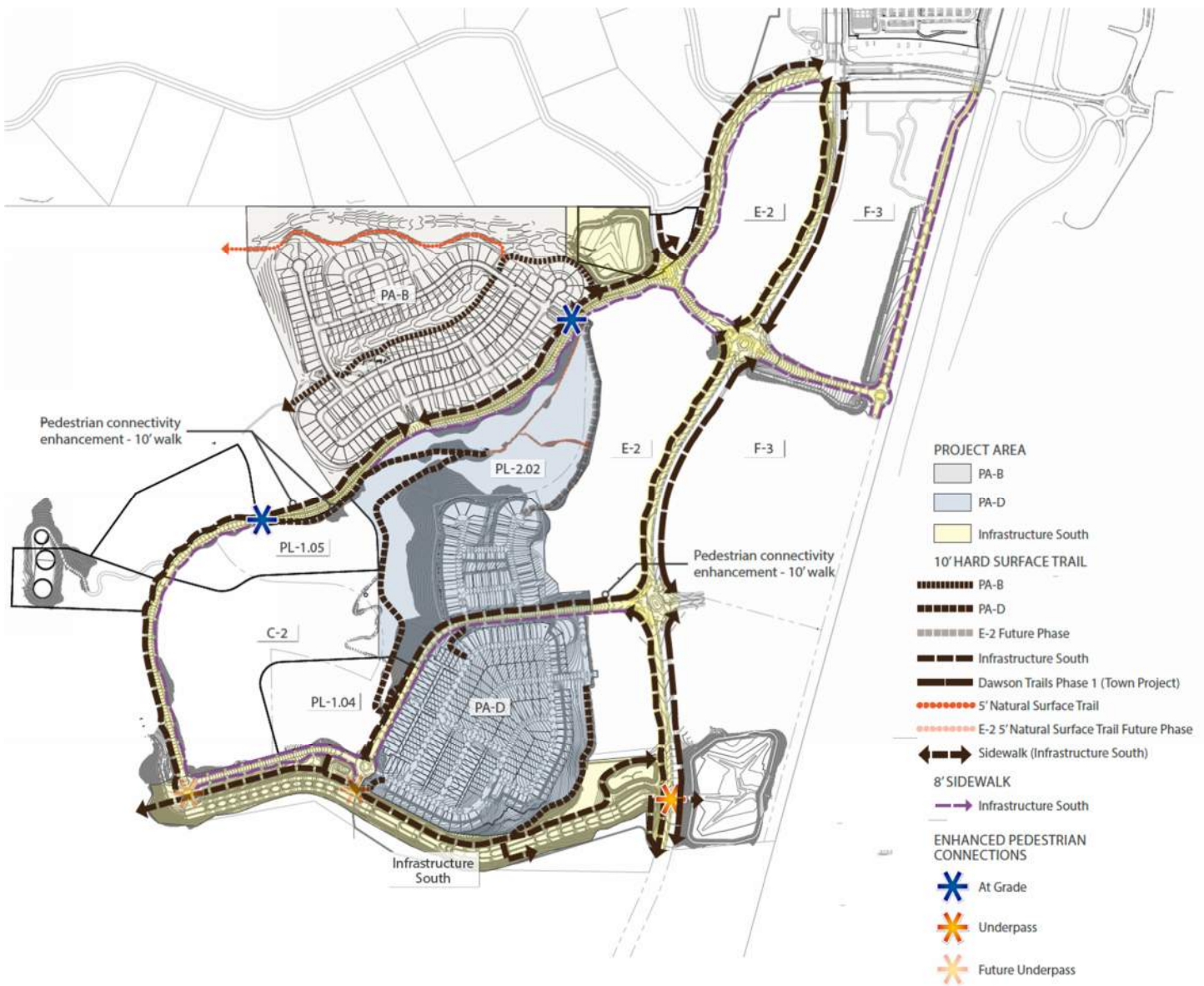


Figure 5. Proposed Multi-Modal Network for Planning Area E-2

Dawson Trails: Planning Area E-2 Townhomes

Traffic Conformance Letter

February 3, 2026

Conclusions

The most current site plan for Planning Area E-2 townhomes is consistent with the assumptions of the MTS with the land uses in the planning area. The trips are slightly higher with the change from assumed apartments to townhomes and the change in trips is within 0.7% for Planning Area E-2 and 0.09% of the overall site. **It is anticipated that the future planned roadway network and intersections can accommodate the project trips without the need for additional analysis or mitigation measures.**

Hopefully the contents of this memorandum are helpful. If you have any questions, please give me a call.

Sincerely,

FOX TUTTLE TRANSPORTATION GROUP, LLC



Cassie Slade, P.E., PTOE
Principal

