

MEMORANDUM

To: Sterling Ranch Development Company

From: Steve Tuttle, PE, PTOE

Date: November 26, 2025

Project: Sterling Ranch Master Transportation Study

Subject: Version 5 (November 2025) Change Log

The Fox Tuttle Transportation Group, LLC has completed the 5th update to the Sterling Ranch Master Transportation Impact Study (from the December 2019 version). This memorandum summarizes the current status of the overall development as well as the changes made in the Master Transportation Study analysis from the December 2019 (4th version) to the updated November 2025 (5th version).

As of May 2025 (corresponding with most recent counts), the following development within Sterling Ranch has been completed, approved or is currently in pre-planning stages:

- **Filing No. 1 – Providence Village** (Completed, except for Elementary School). Constructed and occupied 794 single-family detached homes, approx. 30,000 SF of retail/civic uses, a 14,000 SF daycare center, and a 4,900 SF recreation center (“The Overlook Clubhouse”). An elementary school is planned to be constructed in the next two years located in the southwest corner of Titan Road and Taylor River Circle.
- **Filing No. 2 – Providence Village** (Completed). Constructed and occupied with 48 single-family detached homes, 76 duplexes, and 50 townhomes.
- **Preliminary Plan 3 – Prospect Village** (Completed, except for the park). Constructed and occupied 371 single-family homes, 120 duplexes, 127 townhomes, and 232 apartments. A 8-acre park is under construction with a pool, playground, fields/courts, and open space.
- **Preliminary Plan 4 – Ascent Village** (Completed). This is the northern portion of the planned Ascent Village and 511 single-family detached homes and 142 townhomes are completed and occupied.
- **Preliminary Plan 5 – Ascent Village** (Under Construction). This is the western portion of the planned Ascent Village. At the time of this analysis, 322 single-family homes were completed

and occupied with the remaining 39 single-family homes under construction. The superblock on the southwest corner of the area (Lot 352), is under construction with 109 townhomes and 264 apartments.

- **Preliminary Plan 6 – Ascent Village** (Approved, Under Construction). This is the southern portion of the planned Ascent Village and at the time of this analysis, 128 single-family homes and 50 townhomes were occupied or on sale, southeast of Waterton Road. Preliminary Plan 6 Traffic Impact Study (April 2021) included a total of 522 single-family detached homes, 279 townhomes/duplexes, 232 apartments, and 66,500 square feet of commercial retail and services. The latest plans were adjusted to 394 single-family detached homes, 104 townhomes, 100 duplexes, 300 apartments, a charter school, and 66,500 square feet of commercial. The charter school is under construction and anticipated to be opened for the Fall 2026 school year.
- **Preliminary Plan 7 – Legends Village** (Approved, Under Construction). The Preliminary Plan 7 Traffic Impact Analysis (dated August 2022) assumed up to 1,087 single-family detached homes, 614 townhomes/duplexes, 330 apartments, 111,600 square feet of commercial retail/office/services, and an elementary school. Filing 7A is under construction and includes 344 single-family detached homes and 173 townhomes/duplexes. Filing 7B has been approved with 75 single-family detached homes and 72 townhomes/duplexes. Filing 7C has been approved with 104 single-family detached homes and 362 townhomes/duplexes.

The approved or planned developments above represent just under 6,900 homes. This is approximately 57% of the originally envisioned 12,050 homes and approximately 43% of the currently proposed 16,050 homes within the expanding boundary of Sterling Ranch.

Summary of Changes Made to the Updated Master Transportation Study

The following is a log of revisions that were made to this report from the previous version (v4, dated December 2019) based on the most current roadway network plan:

1. Gathered new counts in Year 2024 and Year 2025.
2. Expanded Sterling Ranch boundary with the Rush, ARS Pit, and Chemours properties.
3. Increased the total number of proposed dwelling units within the expanding boundary from 12,050 units to 16,050 units.
4. Updated overall site plan for most current version (Figure 2).
5. Updated Roadway Network Plan (Figure 3) for current planned roadway alignments and included required laneage based on traffic projections (Figure 12). This includes:

- Added intersections associated with new properties added to the boundary
 - Avenue F does not extend to Waterton Road and now will intersect with Roxborough Park Road instead
 - A signal at Waterton Road and Moore Road/Southern Connector
 - A multilane roundabout at Waterton Road and Eagle River Street
 - Options for signal or roundabout at the Waterton Road intersections at Roxborough Park Road, Middle Fork Street, Waterton Road and Moore Road/Southern Connector and new accesses for the Zebulon and Chemours area along Waterton Road (south)
 - A roundabout at Roxborough Park Road and Sterling Ranch Avenue
 - A roundabout at Sterling Ranch Avenue at Hooper Street (Avenue F)
 - Updated intersections and accesses on Waterton Road, Southern Connector, and Roxborough Park Road
 - Updated Titan Interchange to the ultimate design of a continuous flow intersection and southbound-to-westbound free-flow ramp
 - Updated Airport Road at US 85 intersection to ultimate design of a grade-separated diamond interchange
 - Moved the signal on Waterton Road from Mt. Ouray Road to Mt. Kataka Street for optimal arterial signalized intersection spacing (~0.50 mile).
6. Updated discussion of traffic counts trends to Section 4.3 (page 15).
 7. Updated existing intersection volumes to most recently gathered data (Figure 4).
 8. Updated 20-year horizon year from Year 2040 to Year 2050.
 9. Updated background traffic projections, including the Zebulon Regional Sports Complex and other known developments in the area (see Section 5.3).
 10. Updated site trip generation estimates to reflect completed, approved, and anticipated land uses within the full build of 16,050 DU (Table A1). All land use ITE trip rates were updated based on the current ITE *Trip Generation Manual* (12th Edition, 2025). Note that for almost all land uses, current ITE rates represent reductions in trips vs. the previously used 10th Edition data.
 11. Increased number of TAZs from 9 zones to 14 zones to match the proposed Sterling Ranch Villages as illustrated in Figure 2.

12. Updated site trip assignment to reflect current Roadway Network Plan and TAZs (Figure 7 and Figure 8).
13. Updated Year 2050 Background Volumes and removed existing Sterling Ranch traffic (Figure 5).
14. Updated Year 2050 Total Volumes (Figure 9 and Figure 10).
15. Updated Level of Service analysis for all study intersections to reflect changes to background volumes, site trip assignment, and roadway network (Figure 11).
16. Updated Figure 12 with revised roadway and intersection network and laneage recommendations; changes to recommended buildout lane geometry and traffic controls from the previous version include:
 - US 85 & Titan Road Interchange: Changed to a partial continuous flow intersection (CFI); with a CFI, the west (southbound US 85) ramp intersection would need to be signalized, but the east (northbound US 85) would not need to be signalized. In comparison to the previously developed concept plans for the CFI, a second westbound lane would need to be added at the west ramp (signalized) intersection (the concept plan only showed a single westbound lane).
 - Waterton Road at Moore Road/Southern Connector: Added northbound-to-westbound second left-turn lane; added southbound Moore Rd. to eastbound Waterton Road (Southern Connector) left-turn due to added development in this area (Chemours + Zebulon).
 - Rampart Range Road at Waterton Road: Added a 2nd northbound left-turn lane based on existing and projections volumes.
17. Updated Section 6.6 corridor signal progression tables to reflect most current Waterton Access Plan and Titan Road signalization plan.
18. Updated technical appendices to reflect changes noted above.

/SGT