

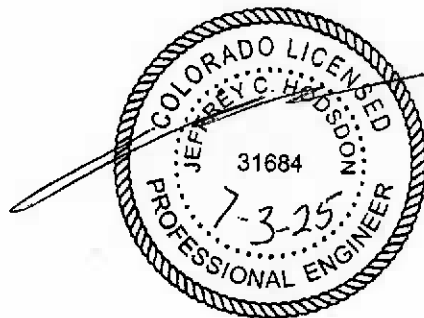


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Monument Ridge East Filing No. 1
Transportation Memorandum
EPC PCD File No.: SF2514
(LSC #S234451)
July 1, 2025

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Maria Larsen

7/1/2025
Date

Monument Ridge East

Filing No. 1

Transportation Memorandum

Prepared for:

Monument Ridge East, LLC

5050 List Drive

Colorado Springs, CO 80919

<via email>

JULY 2, 2025

LSC Transportation Consultants, Inc.

Prepared by: Jeffrey C. Hodsdon, P.E.

LSC #S234451

SF2514



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July 2, 2025

c/o Mr. David Whitehead, P.E.
Monument Ridge East, LLC
5050 List Drive
Colorado Springs, CO 80919

RE: Monument Ridge East Filing No. 1
El Paso County, CO
Transportation Memorandum
LSC #S234450
EPC PCD File No.: [SF2514](#)

Dear Mr. Whitehead,

LSC Transportation Consultants, Inc. has prepared this Transportation Memorandum for the proposed Monument Ridge East Filing No. 1 residential subdivision in northern El Paso County, Colorado. The site is located south of County Line Road and east of Monument Hill Road (Interstate-25 frontage road). Approximately 37 single-family dwelling units are planned for the site during Filing No. 1.

This report contains details specific to Filing No. 1, which is part of the overall Preliminary Plan. The full traffic impact study for the Monument Ridge East Preliminary Plan was completed in late 2024 and is dated November 8, 2024.

REPORT CONTENTS

The preparation of this report included the following:

- Review of the full traffic impact study for the Monument Ridge East Preliminary Plan dated November 8, 2024, and use of applicable data, estimates, and/or other report elements related to the Filing No. 1 portion of the overall Preliminary Plan;
- Analysis of intersection and stopping sight distance at the proposed Filing No. 1 site-access points;
- The proposed site land use and access plan;
- Estimates of average weekday and weekday peak-hour trip generation for the proposed Filing No. 1;
- Estimated directional distribution for Filing No. 1 site-generated vehicle trips;

- Projected Filing No. 1 site-generated ADT and peak-hour intersection traffic volumes at the study-area intersections:
 - I-25 southbound ramps/County Line Road
 - I-25 northbound ramps/County Line Road
 - County Line Road/Monument Hill Road (future Misty Acres Boulevard)
 - Monument Hill Road/Misty Acres Boulevard (north)
 - Monument Hill Road/Misty Acres Boulevard (south)
 - Misty Acres Boulevard/Old Antlers Way
 - Misty Acres Boulevard/Snowy Top Drive
- Identification of Filing No. 1 roadway improvements, based on the Filing No. 1 roadway phasing plan, the Master TIS, and site-generated traffic volumes. Included are requirements for any auxiliary right-/left-turn lanes at the proposed site-access points;
- Pedestrian facilities to be constructed with Filing No. 1; and
- Summary of findings and recommendations.

LAND USE AND ACCESS

Proposed Filing No. 1 Land Use

Figure 1 shows the Filing No. 1 site location relative to the overall preliminary plan and the adjacent and nearby roadways. The overall Monument Ridge East residential development site is located south of County Line Road and east of Monument Hill Road (Interstate-25 frontage road).

Filing No. 1 will include 37 lots for single-family, detached homes on the east side of the planned extension of Misty Acres Boulevard. Figure 2 shows the site plan/subdivision plat.

Filing No. 1 Access and Circulation Plan

Please refer to the “Access and Circulation” section in the Master TIS for details. Copies of the following master TIS figures are attached for reference.

Figure 2 also shows the proposed roadways, roadway realignments, and access points.

Figure 3 highlights the details of the proposed extension of Misty Acres Boulevard north to County Line Road, the realignment of the north portion of Monument Hill Road to the south to tie into the proposed extension of Misty Acres Boulevard, and the segments of existing roadway to be removed.

Filing No. 1 access points are proposed at the following locations:

- Snowy Top Drive – 725 feet south of the future County Line Road/Misty Acres Boulevard intersection
- Monument Hill Road east of Misty Acres Boulevard would be classified as an Urban Local street. This is the segment extending east of the proposed new intersection of the realigned Monument Hill Road/Misty Acres Boulevard.

Future Subdivision Filings

Two additional, future subdivision filings (after this Filing No. 1) are anticipated to be submitted within the next two years. The traffic impacts of these future filings are accounted for in the “Master TIS” for the Preliminary Plan, dated November 8, 2024.

SIGHT DISTANCE - INTERSECTIONS PROPOSED WITH FILING NO. 1

This section presents analysis of the intersection sight distance – entering and stopping sight distance – at the proposed intersections of:

- Misty Acres Boulevard/Snowy Top Drive
- Misty Acres Boulevard/Monument Hill Road
- Misty Acres Boulevard/Old Antlers Way

Intersection sight distance at the proposed Filing No. 1 public road/site-access intersection locations on Misty Acres Boulevard must meet **entering sight-distance** requirements in Table 2-21 of the *Engineering Criteria Manual (ECM)*, as well as **stopping sight distance approaching an intersection**. Sight distance lines of sight for all public road intersections/access points will need to be kept clear of any sight-distance obstructions, including landscaping, signage, structures, fencing, parking areas, etc.

This section presents an update to the preliminary intersection-sight-distance analysis presented in the master TIS report. This report presents a more detailed, final-plat/construction-drawing-level evaluation. This report updates the horizontal component of sight distance and adds the “vertical” component of the sight-distance analysis, based on the plan and profile drawings for Misty Acres Boulevard and Monument Hill Road (realigned segment) and Filing No. 1 intersecting subdivision streets.

Entering Sight Distance

Please refer the following figures for detailed entering sight distance analysis at the proposed study-area intersections along Misty Acres Boulevard:

- Figure 4: Entering Sight Distance Analysis – Misty Acres/Snowy Top Dr
- Figure 5: Entering Sight Distance Analysis – Misty Acres/Monument Hill Rd (Eastbound)
- Figure 6: Entering Sight Distance Analysis – Misty Acres/Monument Hill Rd (Westbound)
- Figure 7: Sight Distance Analysis – Misty Acres/Old Antlers Way (Eastbound)
- Figure 8: Sight Distance Analysis – Misty Acres/Old Antlers Way (Westbound)

After accounting for vertical curvature and right-of-way lines on Misty Acres Boulevard, available lines of sight at the proposed/existing study-area intersections are as follows:

- Misty Acres Boulevard/Snowy Top Drive (westbound approach)
 - Looking to the north – 792 feet
 - Looking to the south – 707 feet
- Misty Acres Boulevard/Snowy Top Drive (eastbound approach)
 - Looking to the north – 591 feet
 - Looking to the south – 495 feet
- Misty Acres Boulevard/Snowy Top Drive (westbound approach)
 - Looking to the north – 724 feet
 - Looking to the south – 495 feet
- Misty Acres Boulevard/Old Antlers Way (eastbound approach)
 - Looking to the north – 762 feet
 - Looking to the south – 511 feet
- Misty Acres Boulevard/Old Antlers Way (westbound approach)
 - Looking to the north – 641 feet
 - Looking to the south – 511 feet

The proposed design speed on Misty Acres Boulevard is 40 mph (posted speed limit of 35 mph). Based on the most recent plan-and-profile drawings for the future Misty Acres Boulevard alignment, available lines of sight for both approaches at all study-area intersections along Misty Acres Boulevard would exceed the required ECM and AASHTO entering sight distances. Please refer to the legend in Figure 4 - Figure 8 for more details regarding entering sight distance requirements at each access based on site-specific conditions.

Stopping Sight Distance Approaching an Intersection

The stopping sight distance to access/intersections along Misty Acres Boulevard from the north and south would meet the *ECM*-prescribed 305-foot stopping sight distance requirement for a 40-mph design speed (grade adjustment may apply, depending on the roadway grades shown on the plan and profile drawings for Misty Acres Boulevard).

ROAD AND TRAFFIC CONDITIONS AND MTCP CLASSIFICATION

Existing Roadway and Traffic Conditions

Please refer to the Monument Ridge East Master TIS report (for the Preliminary Plan), dated November 8, 2024.

Traffic Crash History Data Analysis

In response to El Paso County comments, the following is an analysis of the three-year crash history at the study-area intersections. LSC received reported crash history data for the study-area intersections dating from January 22, 2022 through May 26, 2025. Three years of crash history data (as of May 1st) have been included in Table 1 below.

Table 1: Three-Year Crash History Data Summary

County Line Rd + I-25 SB Ramp				
Crashes	Injuries	Fatalities	Date	Crash Description
2	0	0	06/09/2022	2 WB vehicles crashed when changing lanes
	0	0	05/01/2023	SB vehicle crashed into vehicle on shoulder
County Line Rd + I-25 NB Ramp				
Crashes	Injuries	Fatalities	Date	Crash Description
8	0	0	05/21/2022	EBT vehicle collided with NBL vehicle
	0	1	06/20/2022	EBT vehicle collided with NBL vehicle
	0	0	08/30/2022	NB vehicle didn't stop at stop sign
	0	0	12/08/2022	EBT vehicle collided with NBL vehicle
	0	0	01/19/2023	EBT vehicle collided with NBL vehicle
	0	0	02/05/2023	EBT vehicle collided with NBL vehicle
	0	0	05/25/2023	Rear-end collision at stop sign
	0	0	10/17/2024	EBT vehicle collided with NBL vehicle
County Line Rd + Monument Hill Rd				
Crashes	Injuries	Fatalities	Date	Crash Description
5	0	0	05/17/2022	Crash involving wild animal (deer)
	0	0	12/27/2022	Crash involving wild animal (deer)
	0	0	03/09/2023	EBT vehicle collided with NBL vehicle
	0	0	08/02/2024	EBT vehicle collided with NBL vehicle
	0	1	10/29/2024	EBT vehicle collided with NBL vehicle
Misty Acres Blvd + Monument Hill Rd				
Crashes	Injuries	Fatalities	Date	Crash Description
1	0	0	11/08/2022	NBT vehicle collided with WBL vehicle
County Line Rd + Doewood Rd				
Crashes	Injuries	Fatalities	Date	Crash Description
1	0	0	06/23/2023	EBT vehicle collided with NBL vehicle
Misty Acres Blvd + Old Antlers Way				
Crashes	Injuries	Fatalities	Date	Crash Description
1	0	0	07/18/2022	Speeding vehicle lost control

¹ Crashes more than 3 years old were not included in the "Crashes" column, per MUTCD

Note: Some of the crashes identified in the table above occurred during the period of time when the Interstate 25 interchange at County Line Road was under construction as part of the I-25 Gap project.

Note: Some of the crashes identified in the table above occurred during the period of time when the Interstate 25 interchange at County Line Road was under construction as part of the I-25 Gap project.

A total of 8 crashes were reported at the intersection of County Line Road/I-25 northbound ramps during the previous 3-year period. Of these crashes, 6 involved collisions between a vehicle turning northbound-left from the I-25 off-ramp and an eastbound-through vehicle traveling on County Line Road. An additional crash involved a rear-end collision between queued vehicles waiting at the stop sign on the northbound approach, while the remaining crash involved a vehicle that ignored the stop sign and entered the intersection without stopping.

It is worth noting that site-generated traffic from this development would turn northbound-right at the I-25 northbound ramp, while all reported crashes involved vehicles turning northbound-left onto County Line Road.

PEDESTRIAN AND BICYCLE FACILITIES – FILING NO. 1 ONLY

The proposed subdivision streets within Filing No. 1 will include sidewalks.

The proposed extension of Misty Acres north to County Line Road is proposed as an Urban Non-Residential Collector cross-section. This standard cross-section to be constructed will include sidewalks and paved outside shoulders, which will accommodate bicycles.

The existing west side of Misty Acres Boulevard on the south end near the high school is striped for an outside paved shoulder, but along most of the roadway there is no shoulder striping. The roadway has sufficient width to accommodate bicycles. Monument Hill Road and County Line Road do not currently have paved outside shoulders.

TRIP GENERATION

Estimates of the vehicle trips projected to be generated by Filing No. 1 are as presented in the master TIS and are based on the nationally published trip-generation rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE). Corresponding trip-generation rates from the ITE Land Use category “210 – Single-Family (Detached) Housing” have been used to develop trip-generation estimates for the proposed 37 dwelling units.

Table 2 below presents a summary of the estimated site trip generation for Filing No. 1. A detailed trip-generation estimate for the site, including ITE rates, is presented Table 3 (attached). The proposed preliminary Filing No. 1 site plan is attached for reference.

The 37 single-family dwelling units proposed during Filing No. 1 are projected to generate about 338 total vehicle trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. During the morning peak hour, approximately 7 entering

vehicles and 19 exiting vehicles are estimated to be generated. Approximately 22 entering and 13 exiting vehicles are estimated to be generated by the site during the afternoon peak hour.

Table 2: Summary of Estimated Site Vehicle-Trip Generation

Analysis Period - Weekdays	Trips Generated		
	Entering	Exiting	Total
Morning Peak Hour (vehicles/hour)	7	19	26
Afternoon Peak Hour (vehicles/hour)	22	13	35
Daily/24-hour (vehicles/day)	169	169	338

TRIP DISTRIBUTION AND ASSIGNMENT

Filing No. 1 Trip Directional Distribution

The directional-distribution estimate of Filing No. 1 site-generated vehicle trips to the study-area roads and intersections is a necessary component in determining the site’s traffic impacts. Figure 9 shows the percentages of the Filing No. 1 site-generated vehicle trips projected to be oriented to and from the site’s major approaches. These estimates are based on the trip-distribution estimate used to prepare the master TIS.

Filing No. 1 Site-Generated Traffic

Site-generated volumes have been calculated by applying the directional-distribution percentages estimated by LSC (from Figure 9) to the Filing No. 1 trip-generation estimates (from Table 2). Figure 10 shows the projected site-generated traffic volumes for the weekday morning and afternoon peak hours **for Filing No. 1 only**.

SHORT- AND LONG-TERM PROJECTED TOTAL TRAFFIC VOLUMES AND ANALYSIS

Please refer to the “master” TIS report (November 2024) for short and long-term background and total traffic projections and level of service analysis.

TRAFFIC-SIGNAL WARRANT-THRESHOLD ANALYSIS

The planned intersection of County Line Road/Misty Acres Boulevard has been analyzed to estimate the potential future approximate timeframe for meeting *MUTCD* four-hour-volume traffic-control signal-warrant thresholds. The morning and late afternoon traffic-count data collected as part of the master TIS and future projected Monument Ridge East site-generated and background traffic volumes from the “master TIS” were utilized in this analysis. Note: future traffic projections for the AM and PM peak hours were factored to estimate hourly volumes for four separate hours needed for use in the analysis.

The combination of **major-street** approach volumes (both directions – includes the sum of eastbound and westbound approach volumes) and **minor-street** left-turn volumes (greater of the northbound or southbound approach volume each hour) were analyzed to determine if the combination would exceed the threshold criteria for Four-Hour Vehicular-Volume Traffic-Signal Warrants in the 2024 *Manual on Uniform Traffic Control Devices (MUTCD)*.

The following four separate one-hour periods have been analyzed:

- 6:30 a.m. – 7:30 a.m.
- 7:30 a.m. – 8:30 a.m.
- 4:00 p.m. – 5:00 p.m.
- 5:00 p.m. – 6:00 p.m.

Note: For volumes used in the signal-warrant-threshold evaluation, the northbound minor-street approach governs. Moreover, only the northbound-**left/(through)-turning**-movement volume was included, with evaluation with one major lane/one minor lane criteria has been applied. This is worst case compared to the use of the total approach volume and one-or-more lanes and two-or-more lanes.

2027 Total (2027 Background plus Monument Ridge East Filings 1-3) Traffic Scenario

The four-hour traffic-signal warrant threshold analysis for the projected 2027 Total scenario (2027 background plus buildout of Monument Ridge East Filing Nos. 1-3) is presented in Figure 11 and Table 4 below. Figure 11 shows the projected major- and minor-street volume data points from Table 4 plotted on the *MUTCD* Warrant 2, Four-Hour Vehicular-Volume (*MUTCD* Figure 4C-1) signal-warrant chart. As shown in the table, none of the major-/minor-street-volume data points exceed the minimum threshold curve for an intersection with “one lane” for the major-street approaches and “one lane” for the minor-street approach (higher-volume minor street). As a result, the Four-Hour Vehicular-Volume Traffic-Signal Warrant is **not** projected to be satisfied for the intersection of County Line Road/Misty Acres Boulevard, based on the four hours analyzed for the 2027 short-term traffic scenario.

Figure 11: MUTCD Warrant 2, 4-Hour Vehicular Volume (2027 Total, Filings 1-3)

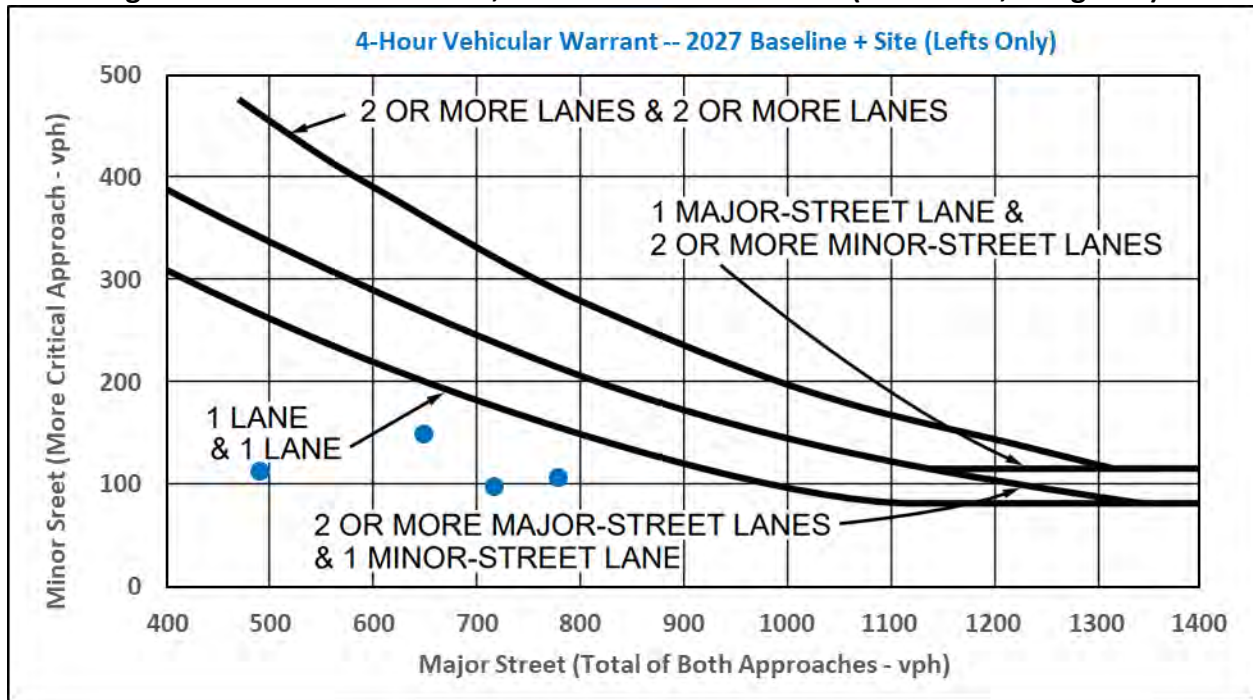


Table 4: Major/Minor Volumes for 4-Hour Signal Warrants (2027 Total, Filings 1-3)

Start	End	Major Street Volume	Minor Street Volume	4-Hour Warrant Met?
6:30	7:30	648	151	No
7:30	8:30	489	113	No
4:00	5:00	779	107	No
5:00	6:00	716	99	No
# of hours meeting respective warrant thresholds/hours required to satisfy the warrant (warrant satisfied?)				0 / 4 (No)

2049 Total (2049 Background plus Monument Ridge East Filings 1-3) Traffic Scenario

A Four-Hour Vehicular-Volume Traffic-Signal Warrant is projected to satisfy warrant-volume criteria at the intersection of County Line Road/Misty Acres Boulevard by 2049, based on projected long-term total future traffic volumes (including Monument Ridge East buildout site-generated traffic from Filings 1-3).

The four-hour traffic-signal warrant-threshold analysis for the projected 2049 Total scenario (2049 background plus buildout of Monument Ridge East Filing Nos. 1-3) is presented in Figure 12 and in Table 5 below. Figure 12 shows the projected major- and minor-street volumes volume data points from Table 5 plotted on the MUTCD Warrant 2, Four-Hour Vehicular-Volume (MUTCD Figure 4C-1) signal warrant chart. As shown in the table, all the major-/minor-street-volume data points exceed the minimum threshold curve for an intersection with “one lane” for the

major-street approaches and “one lane” for the minor-street approach (higher-volume minor street). As a result, the Four Hour Vehicular-Volume Traffic-Signal Warrant is projected to be satisfied for the intersection of County Line Road/Misty Acres Boulevard, based on the four hours analyzed for the 2049 long-term traffic scenario.

Major- and minor-street volumes shown in Figure 12 are summarized in Table 5 below:

Figure 12: MUTCD Warrant 2, 4-Hour Vehicular Volume (2049)

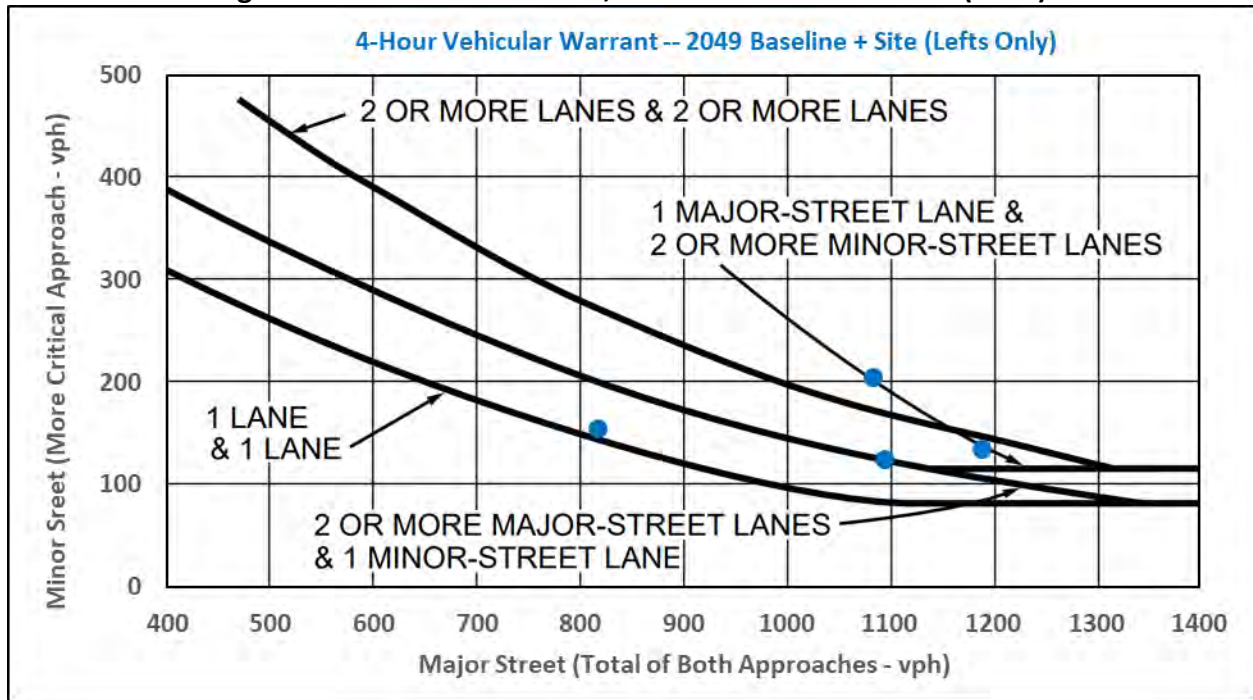


Table 5: Major/Minor Volumes for 4-Hour Signal Warrants (2049, Filings 1-3)

Start	End	Major Street Volume	Minor Street Volume	4-Hour Warrant Met?
6:30	7:30	1083	205	Yes
7:30	8:30	816	155	Yes
4:00	5:00	1189	135	Yes
5:00	6:00	1094	125	Yes
# of hours meeting respective warrant thresholds/hours required to satisfy the warrant (warrant satisfied?)				4 / 4 (Yes)

Other Considerations

Based on the reported crash-history data at the intersection of Monument Hill Road/County Line Road (which this proposed intersection will replace), shown in Table 1, fewer than five crashes in a single year were reported for this intersection. Additionally, based on the review of the crash descriptions, only three of the crashes appear to have been of a type of crash “susceptible to

correction by a traffic-control signal.” Therefore, it is unlikely that part B of “*Warrant 7, Crash Experience*” would be satisfied, as fewer than five crashes were reported of type “susceptible to correction by a traffic-control signal.” From the *MUTCD*, “*Warrant 7, Crash Experience*” *signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.* Details of this warrant are contained in Section 4C.08 of the *MUTCD*.

Note: The traffic-signal warrant analysis can be reevaluated with future final plat submittals, as required by CDOT.

ROADWAY IMPROVEMENTS

Roadway improvements associated with Filing No. 1 are summarized in Table 6 (attached). This table lists the planned/required improvements (and escrow requirement), along with timing/“trigger” information and responsibility for each.

Auxiliary Turn Lanes

Auxiliary Turn-Lane Thresholds and Design Parameters

Section 2.3.7.D of the *ECM* lists ingress/egress volume thresholds in which exclusive right- or left-turn lanes would be required, by classification. Prescribed auxiliary turn lanes would be required to meet design criteria outlined in Section 2.3.7.E of the *ECM*.

At the intersection of Misty Acres Boulevard/County Line Road, the ***Colorado State Highway Access Code*** criteria (Section 4.8) would apply.

Based on the classification, the **design speed** of Misty Acres Boulevard is 40 mph. Regarding County Line Road, LSC based recommendations on an anticipated future **posted speed** of 40 mph on County Line Road generally between Doewood Drive and the I-25 Interchange (i.e., through the Misty Acres Boulevard intersection).

The existing posted speed on County Line Road between the I-25 northbound ramps and Monument Hill Road is 30 mph before increasing to 45 mph east of Doewood Drive. Given the addition of turn lanes at the new Misty Acres/County Line intersection, LSC has assumed the speed limit on this roadway segment would increase to 40 mph. However, due to other site-specific conditions, such as grades and intersection spacing, it would be reasonable to assume an increase to 40/45 mph posted/design speed through Misty Acres/County Line intersection rather than an increase to 45/50 mph posted/design speed (which is the condition east of this location).

Auxiliary Turn-Lane Needs Analysis

Please refer to the attached copies of relevant figures from the master TIS which depict the preliminary recommendations from the master TIS for auxiliary turn lanes at the study-area intersections.

County Line Road/Interstate-25 Northbound Ramp Intersection

A separate northbound right-turn lane is shown as needed in the **long term** to mitigate the projected level of service below D. This will be needed due to a combination of traffic generated by this project, future development west of I-25, and other background traffic growth. CDOT has indicated that this development will be required to construct the northbound right-turn lane at buildout. As such, this improvement would not be required to be installed with this first subdivision filing.

For reference, the CDOT comment in the review letter (for the Master TIS report) dated November 13, 2024 was, as follows:

CDOT would not be taking an escrow for NBR at the NB off-ramp. Rather, we will require the construction of the NBR lane at buildout by the Monument Ridge East developer. The reimbursement could be an option from the future developments, such as the Travel Center in the SW corner of the interchange. This will need to be coordinated with El Paso County.

County Line Road/Misty Acres Boulevard

Until signal warrants are met, LSC recommends two-way, stop-sign (TWSC) traffic control at this intersection, with stop signs installed on the northbound and southbound approaches. The County Line Road (eastbound and westbound) approaches would not be controlled.

The intersection of Misty Acres Boulevard/County Line Road will likely need to be signalized in the future.

The intersection auxiliary turn-lane improvements at the intersection of County Line Road/Misty Acres Boulevard intersection will be completed with Filing No.1.

A concept of these intersection improvements was originally included in Figures 12 and 13 of the master TIS report (Please refer to the **Attachments from Master TIS, dated: November 8, 2024 which contains copies of Figures 12 and 13 from the Master TIS with LSC notes added**. Please refer to the CD set prepared by PRC Engineering for the actual design.

The following narrative **from the Master TIS** has been included for reference:

The following auxiliary turn lanes would be required at the future County Line Road/Misty Acres Boulevard intersection. Turn lanes on County Line Road are based on County Line Road grades of between 5-7 percent. Per ECM Table 2-5, a deceleration-lane grade-adjustment factor of 0.80 is applied on upgrades of 5-7 percent, while a factor of 1.35 is applied to the required turn-lane length on downgrades of 5-7 percent. Please refer to the site plan, which depicts the following laneage at this intersection. LSC provided the laneage recommendations for inclusion on the site plan.

- *Northbound Right Turn Deceleration Lane*
 - *175 feet of full-width lane (including storage) + 80-foot bay taper = 255 feet total*
- *Westbound-Left Turn Deceleration Lane*
 - *176 feet of full-width lane + 50 feet of storage + 162-foot taper = 388 feet total*
- *Eastbound-Right-Turn Deceleration Lane*
 - *140 feet of full-width lane + 75-foot taper = 215 feet total*
 - *Will require a design waiver from CDOT, as based on SHAC criteria, a 356-foot lane plus 144-foot taper is prescribed for a total of 500 feet. This waiver would be requested due to the challenging topography to the west of the intersection. The plans show a larger corner radius on the southwest corner as mitigation for the shorter lane which would allow for right turns at a higher speed, thus reducing the speed differential between eastbound through traffic and right-turning traffic.*

*An eastbound-left-turn deceleration lane would **not** be required based on projected turning volumes and the threshold requirement for a turn lane. However, in this situation LSC recommends a short eastbound-left-turn bay for vehicle storage. The space will be available to stripe this lane between the eastbound and westbound through lanes on the west leg of this intersection.*

- *Eastbound-left-Turn-Storage-Bay*
 - *75 feet of full-width lane for vehicle storage + 120-foot taper = 195 feet total*
 - *Not required based on projected volumes but recommended by LSC.*
 - *The "turn pocket" is recommended to maintain through-lane alignment as there is an opposing westbound left turn lane needed. Also, the short turn bay will allow for storage of the occasional eastbound left turning vehicle.*

*A separate northbound-left-turn deceleration lane would **not** be required, as the proposed shared northbound-left/through turn lane is a "de facto left" turn lane due to the very low northbound-through volume. Per Section 3.5(5) of the State Highway Access Code, a left-turn lane may be dropped when the through volume is less than 100 vehicles per hour.*

Misty Acres Boulevard/Snowy Top Drive (North Filing No. 1 Access)

LSC recommends stop-sign traffic control at this intersection, with a stop sign installed on the westbound approach. The Misty Acres Boulevard (northbound and southbound) approaches would not be controlled.

Only the east leg of this proposed intersection will be constructed with Filing No. 1. The west leg will be added with future development and a stop sign will be installed for the eastbound approach at that time.

The following **from the Master TIS** has been included for reference:

*Based on projected total volumes, auxiliary turn lanes would **not** be **required** on any approach at the intersection of Misty Acres Boulevard/Snowy Top Drive.*

Although the projected left-turn volume does not exceed the ECM threshold requiring a northbound-left-turn lane on Misty Acres Boulevard, the proposed major collector cross section of Misty Acres Boulevard includes a striped median for left-turning movements at intersections/access points.

Monument Hill Road (Realigned)/Misty Acres Boulevard/Filing No. 1 South Access (New Proposed Intersection)

LSC recommends two-way, stop-sign (TWSC) traffic control at this intersection, with stop signs installed on the eastbound and westbound approaches. The Misty Acres Boulevard (northbound and southbound) approaches would not be controlled.

The following **from the Master TIS** has been included for reference:

*A 315-foot southbound-right-turn lane would be required on Misty Acres Boulevard approaching Monument Hill Road. This 315-foot turn lane would consist of 155 feet of deceleration length plus a 160-foot taper. Based on projected total volumes, other auxiliary turn lanes would **not** be required at the intersection of Misty Acres Boulevard/Monument Hill Road. The width that would otherwise be six-foot paved shoulder in the southbound direction (as part of the overall Misty Acres Boulevard cross section) could be utilized as part of the 12-foot right-turn lane width.*

Although the projected left-turn volume does not exceed the ECM threshold requiring a northbound-left-turn lane on Misty Acres Boulevard, the proposed Major Collector cross section of Misty Acres Boulevard includes a striped median for left-turning movements at intersections/access points.

*A separate eastbound-left-turn deceleration lane would **not** be required due to the very low eastbound-through and eastbound-right volumes. This turning movement essentially only serves*

eastbound-left traffic. Only a few eastbound-through or eastbound-right vehicles would use the turn lane to head to/from the small residential area on the east side of Misty Acres Boulevard. Per Section 3.5(5) of the State Highway Access Code, a left-turn lane may be dropped when the through volume is less than 100 vehicles per hour.

Other Recommendations

New Street/Roadway Construction

- Misty Acres Boulevard and realignment of Monument Hill Road will be completed with Filing No. 1
- As part of the realignment of Monument Hill Road, LSC recommended, in the master TIS, MUTCD-standard horizontal-curve warning signage be installed on Monument Hill Road for traffic approaching the proposed curve to the east adjacent to the site. A concept for specific signs and sign placement recommendations was originally included in Figure 14 of the master TIS report (Please refer to the **Attachments from Master TIS, dated: November 8, 2024 which contains a copy of Figure 14 from the Master TIS with LSC notes added**). Please refer to the CD set prepared by PRC Engineering for the actual design.

Future Traffic Signal at County Line Road/Misty Acres Boulevard

CDOT is requiring an escrow toward future installation of a signal at this intersection. Please refer to the section below “CDOT Access Permitting.”

FILING NO. 1 ROADWAY CLASSIFICATIONS – FILING NO. 1 ONLY

The Filing No. 1 streets will be classified as Urban Local. Misty Acres Boulevard adjacent to Filing No. 1 (as well as new sections constructed through Monument Ridge East) will be classified as Urban Non-Residential Collector. For reference, the “master” TIS includes additional details regarding the classification of the existing sections of Misty Acres Boulevard to the south of Filing No. 1.

COUNTY ROAD IMPROVEMENT FEE PROGRAM – FILING NO. 1 ONLY

Transportation Impact Fees

Per ECM Appendix B:

State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment.

The applicant will opt out of the PID options and pay the full fee up front. The current fee rate per dwelling unit is \$4,101 per lot. Based on 37 lots, the total fee amount would be \$151,737.

Reimbursable Improvements

The following roadway improvement projects have been identified as being needed by the year 2045, per Figure 27 and Table 6 of El Paso County's 2024 *Major Transportation Corridors Plan (MTCP)*:

- Project 495 – County Line Road from Monument Hill Road to Vista Clara Lane (\$9,200,000) Upgrade to 2-lane Rural Minor Arterial

CDOT ACCESS PERMITTING

CDOT is requiring a new access permit for the Monument Ridge East project and the application is being submitted with Filing No. 1. The permit, once issued, will identify the terms and conditions with respect to the required escrow amounts and improvements. The permit will also contain a list of items required prior to the issuance of an NTP (notice to proceed). Two applications are being submitted to CDOT – a “benchmark” permit application for the entire development and a Filing No. 1 application for the 37 lots within this first filing and the new road connections.

The terms and conditions for the “benchmark permit” and the Filing No. 1 permit will identify the CDOT escrow amounts and roadway improvements required at buildout (based on the master TIS report) and with Filing No. 1, respectively.

Escrow for a Future Traffic Signal at County Line Road/Misty Acres Boulevard

Per CDOT comments dated May 29, 2025, escrow will be required for Filing 1 toward the cost to install a traffic signal in the future at the County Line Road/Misty Acres Boulevard intersection.

An escrow payment for the future traffic signal at County Line Rd and Misty Acres Blvd for the proportional amount of volume contributing to the signal warrant.

Monument Ridge East (Entire Project – Filing Nos. 1-3)

For Monument Ridge East, an escrow amount has been estimated based on CDOT methodology used previously in El Paso County.

Monument Ridge East (Filings 1-3) buildout, site-generated traffic is projected to contribute an average of 75 percent of future minor-street traffic volumes which directly impact the signal warrant. Assuming a CDOT estimated total cost of \$650,000 for a traffic signal, the total Monument Ridge East (all three filings) escrow amount will be \$484,866. Please refer to Table 7 for details.

Table 7: Traffic Signal Escrow Calculation Table – Monument Ridge East (Filing Nos. 1-3)

Start	End	Off-Peak Ratio	Major Street Volume	Minor Street Cut-Off	Minor Street Site	% Site vs. Cut-Off
6:30	7:30	84%	1083	83	78	94%
7:30	8:30	75%	816	142	70	49%
4:00	5:00	97%	1189	80	64	80%
5:00	6:00	92%	1094	81	61	75%
Average of 4 hours						75%
Portion of total signal cost of \$650,000						\$484,866
Note: The Minor Street cut-off and Site Volumes include the northbound left plus through movement volumes but not the northbound right turn volumes.						

Filing No. 1 Only

The estimated Filing No. 1-**only** portion is 15 percent of the total Monument Ridge East buildout amount based on the Filing 1 percentage of AM and PM buildout traffic for the northbound left-turning movement volumes. This percentage has been calculated based on Figure 10 of this report and Figure 7 of the **Master TIS** (dated November 8, 2024). Appendix Figure 1 shows future site-generated traffic from Filing Nos. 2 and 3. Fifteen percent of \$484,866 is \$72,730 for the **Filing No. 1** escrow amount.

CDOT Roadway Improvements

The intersection improvements at the intersection of County Line Road/Misty Acres Boulevard intersection will be completed with Filing No.1.

CDOT has indicated that this development will be required to construct a northbound right-turn lane at the I-25 northbound ramp/County Line Road intersection **at buildout**. As such, this improvement would not be required to be installed with this first subdivision filing and an escrow for this improvement is not required.

Other

CDOT will not require an access permit for the current intersection adjacent to the site on Monument Hill Road, as jurisdictional control of Monument Hill Road has been transferred to El Paso County.

Prior access permits for County Line Road/Monument Hill Road are under Colorado State Highway Access Permit numbers 204054 and 204055. Newer permits may have been issued.

The previous permit terms and conditions identified that *“an eastbound right turn deceleration lane is required however, due to topography, the Permittee may elect to submit a design waiver.”*

An abbreviated, eastbound right-turn lane at the County Line Road/Monument Hill Road intersection was shown on the lane concept in the master TIS (copy attached). Please refer to the CD set prepared by PRC Engineering. CDOT will be reviewing these plans as part of the access permit process. The access permit offer(s) is likely to include terms and conditions relevant to the design plans. Typically, final design plan approval is a requirement of the notice-to-proceed (NTP).

DEVIATIONS, DESIGN WAIVERS, AND LDC WAIVERS

Deviations to EPC ECM Criteria

Three deviations were approved with the Preliminary Plan application. Copies of these approved deviations are attached for reference.

CDOT Design Waivers

- CDOT will review the CDs prepared by PRC Engineering for County Line Road/Misty Acres Boulevard intersection. Any CDOT Design Waivers (CDOT Form #112) identified as needed will be called out in a CDOT comment letter or as a NTP requirement in the permit offer.

FINDINGS AND CONCLUSIONS

- The proposed Filing No. 1 development is projected to generate about 338 new driveway vehicle trips on the average weekday.
- During the weekday morning peak hour, 7 vehicles would enter the site while 19 vehicles would exit.
- During the weekday afternoon peak hour, 22 vehicles would enter the site while 13 vehicles would exit.
- The applicant proposes to construct the Misty Acres connection north to County Line Road and the realignment of the northernmost portion of Monument Hill Road with Filing No. 1. The new intersection of Misty Acres Boulevard/County Line Road would also be completed. CDOT will require escrow toward a future traffic signal at this intersection. Please refer to the applicable report sections above, Table 6, and Table 7 for details.

* * * * *

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.
Principal

JCH/JAB:jas

Enclosures: Table 3 and Table 6
Figure 1 - Figure 10
Appendix Figure 1
Attachments from Master TIS
Deviations Approved with the Preliminary

Tables 3 and 6



Table 3: Detailed Trip Generation Estimate

ITE		Trip Generation Rates ²							Total Driveway Trips Generated				
Code	Description	Value	Units ¹	Average	A.M.		P.M.		Average	A.M.		P.M.	
				Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
210	Single-Family (Detached) Housing	37	DU	9.15	0.17	0.49	0.58	0.34	338	7	19	22	13
¹ DU = dwelling units													
² Source: <i>Trip Generation, 11th Edition (2021)</i> by the Institute of Transportation Engineers (ITE)													
Updated: 03/11/2025													

Table 6
Roadway Improvements
Monument Ridge East Filing No. 1

Part A: Roadway Segments			
Item #	Improvement	Timing	Responsibility
A.1	Extend Misty Acres Boulevard north to County Line Road	Proposed for completion as part of Filing No 1 by the applicant.	Applicant
A.2	Realign the north end of Monument Hill Road	Proposed for completion as part of Filing No 1 by the applicant.	Applicant
Part B: Internal Subdivision Roadways			
Item #	Improvement	Timing	Responsibility
B.1	Construct internal Filing No. 1 streets to County Urban Local standards.	With the development of Filing No. 1	Applicant
Part C: CDOT Intersections			
1) I-25 NB Ramp/County Line Road			
Item #	Improvement	Timing	Responsibility
C.1.1	Northbound right-turn deceleration lane	Construct prior to Project Buildout - per CDOT	Applicant
2) County Line Road/County Line Road			
Item #	Improvement	Timing	Responsibility
C.2.1	Construct the intersection with TWSC and Auxiliary Turn Lane Improvements	Proposed for completion as part of Filing No 1 by the applicant.	Applicant
C.2.2	Escrow towards cost of future signalization. CDOT escrow for participation in the cost of future signalization - \$72,730*	The Filing No. 1 escrow amount will be required as part of the Filing No. 1 Access permit process and will be required prior to issuance of a NTP (Notice-to-Proceed).	Applicant Note: Opportunity for County fee Program credit/reimbursement for a portion; also opportunity for cost recovery as other area project are required to escrow funds and if/when this development's overall fair share percentage is reduced accordingly in the future.

Date: 7/2/2025

* The estimated Filing No. 1-only portion is 15 percent of the total Monument Ridge East buildout amount based on the Filing 1 percentage of AM and PM buildout traffic for the northbound left turning movement volumes. This percentage has been calculated based on Figure 10 of this report and Figure 7 of the Master TIS (dated November 8, 2024). Appendix Figure 1 shows future site-generated traffic from Filing Nos. 2 and 3. Fifteen percent of \$484,866 is \$72,730 for the Filing No. 1 escrow amount.

Figures 1-10



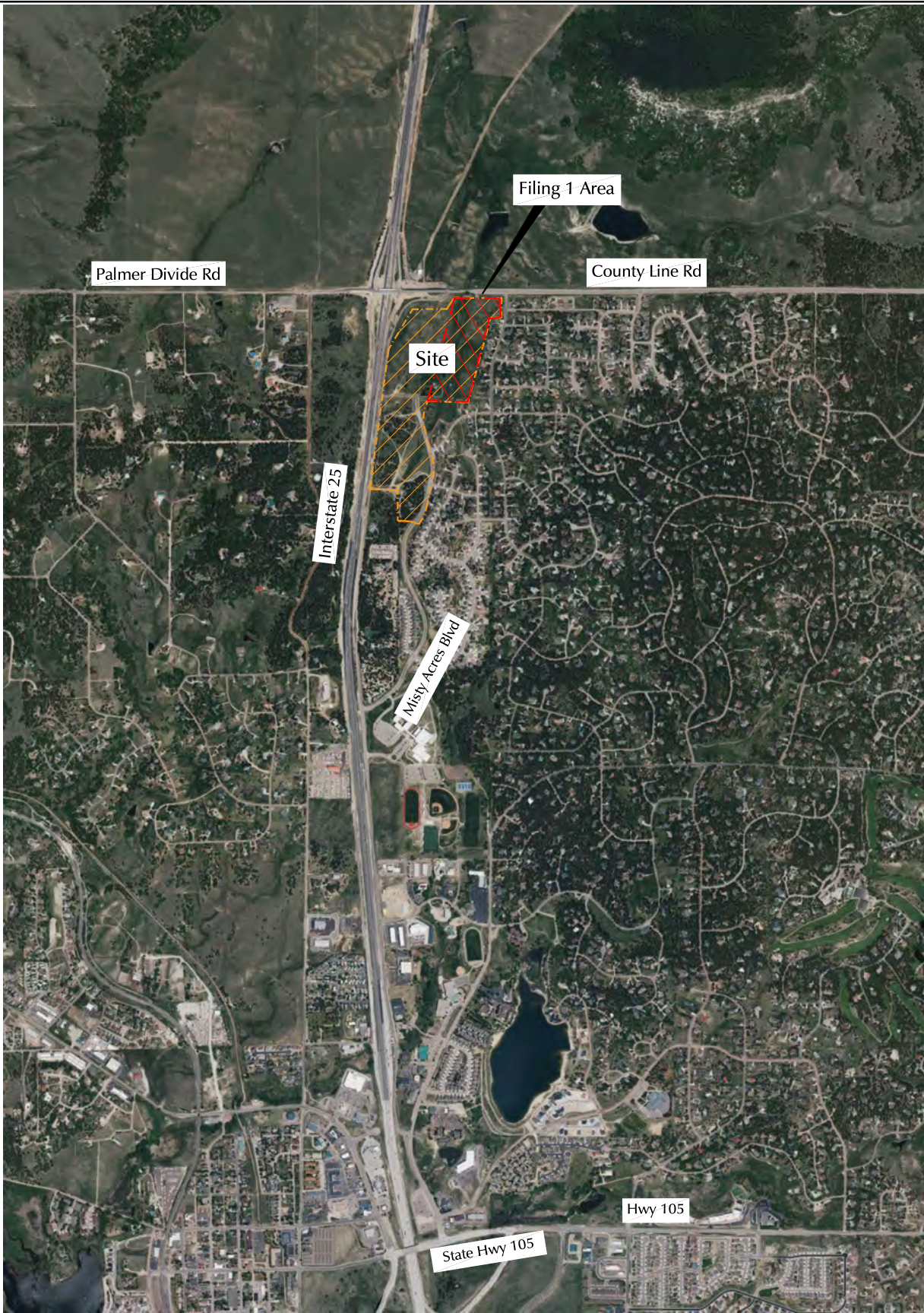


Figure 1

Vicinity

Monument Ridge East Filing No. 1 (LSC# S234451)



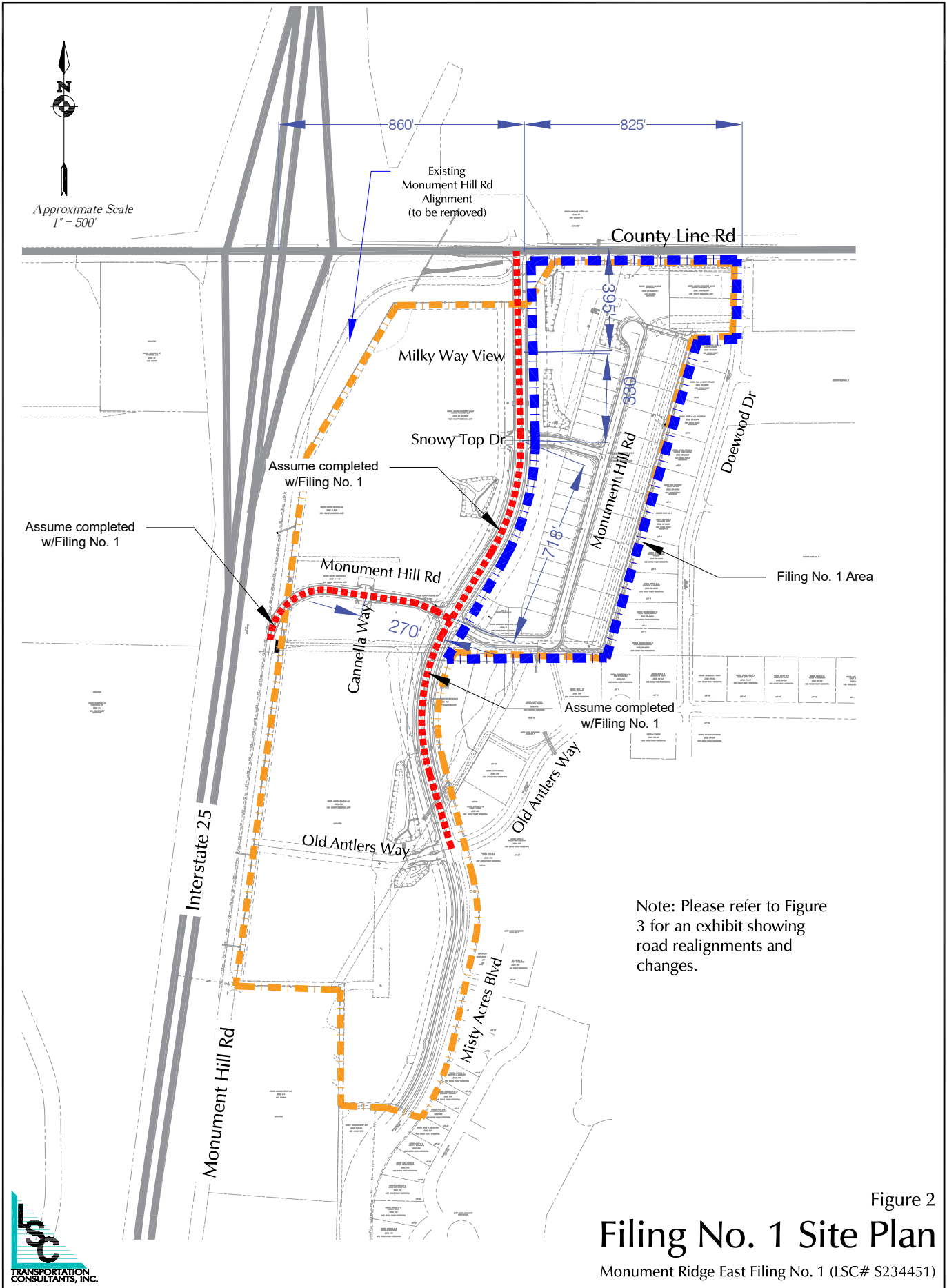


Figure 2
Filing No. 1 Site Plan
 Monument Ridge East Filing No. 1 (LSC# S234451)



Approximate Scale
1" = 500'

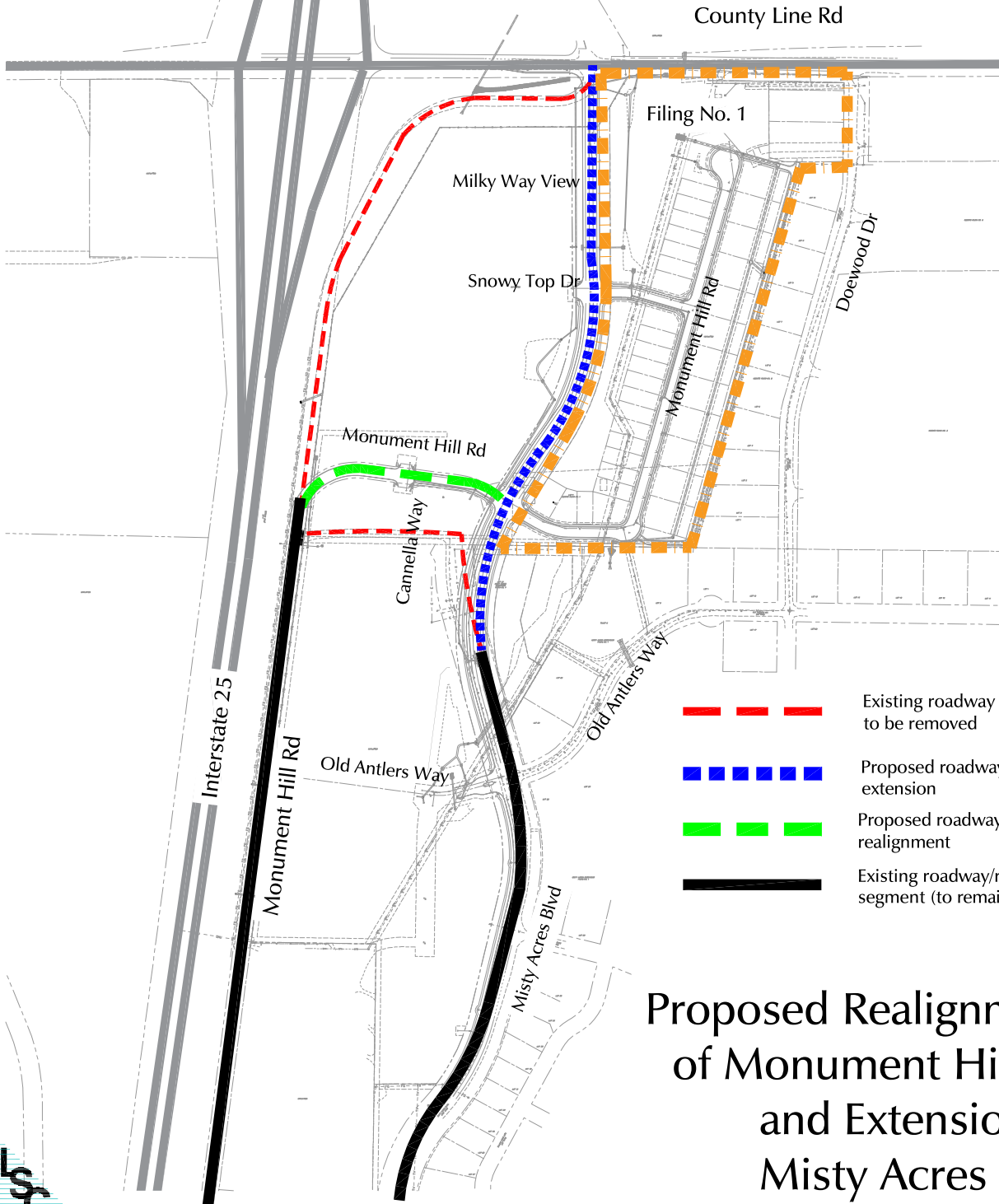
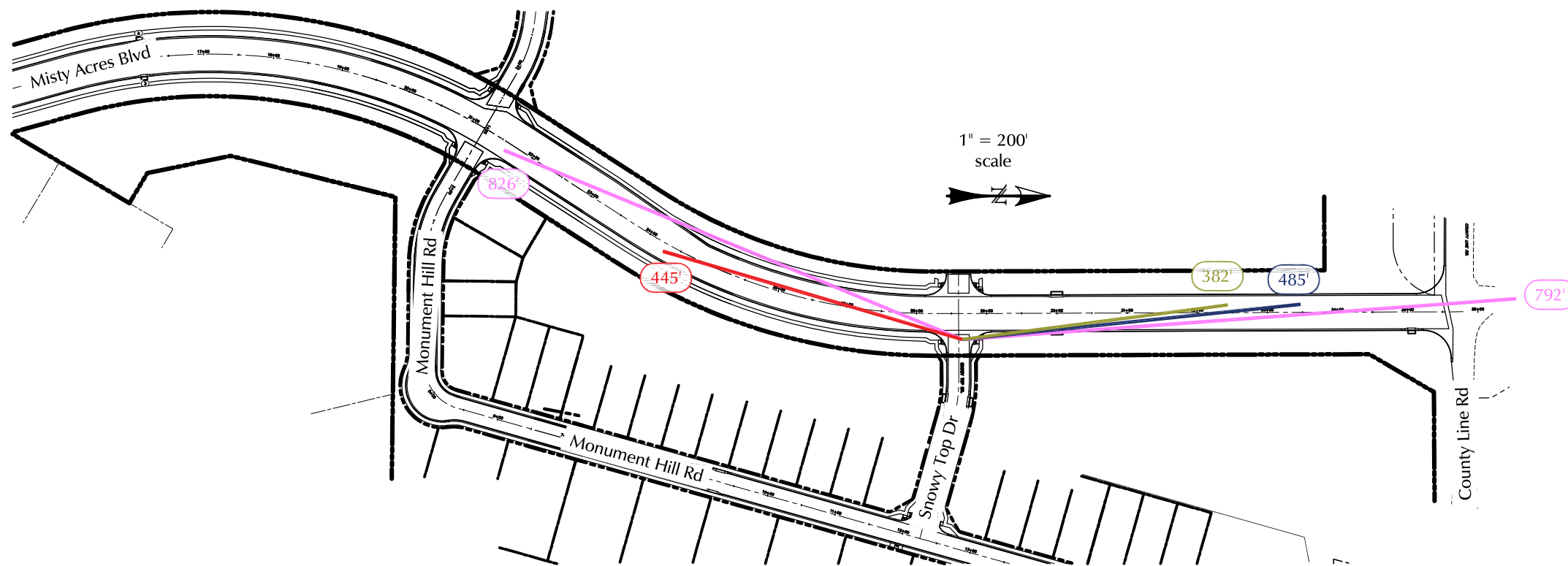


Figure 3

Proposed Realignment of Monument Hill Rd and Extension of Misty Acres Blvd

Monument Ridge East Filing No. 1 (LSC# S234451)



Design Speed

V_{major} is the design speed of the higher functional classification roadway. The proposed design speed of Misty Acres Boulevard is 40 mph.

Time Gap

The time gap variable (t_g) represents the time a stopped driver will accept to accelerate and complete a turning maneuver into traffic. The acceptable time gap is different for a right, left, or crossing maneuver. The acceptable time gap also depends on the design vehicle making the maneuver.

Left Turn from a Stop Sign Looking to the Right

Per AASHTO Table 9-6, a time gap of 7.5 seconds is required for passenger vehicles. However, this metric was adjusted for the proposed Urban Non-Residential Collector laneage on Misty Acres Blvd. Due to the presence of a two-way left-turn lane (TWLTL), 0.5 seconds was added. An additional 0.25 seconds was added for a near-side 6-ft paved shoulder. For this case, $t_g = 8.25$ and $V_{major} = 40$ mph.

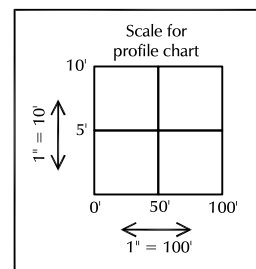
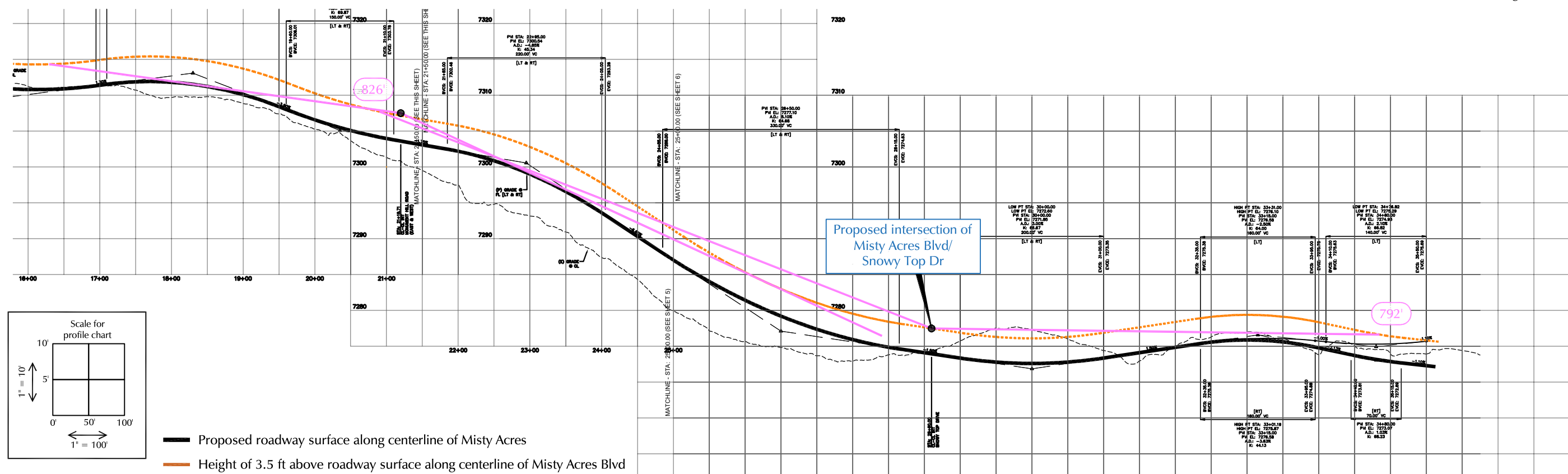
Left Turn from a Stop Sign Looking to the Left

AASHTO Case B2 has been considered for this condition. Per AASHTO page 9-44, "a sight triangle to the left is also needed for the left-turning vehicle to cross the near lane(s) of the major road on which traffic approaches from the left." For this case, $t_g = 7.5$ seconds.

Required Entering Sight Distances

485 ft = AASHTO Case B1 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)

382 ft = AASHTO Case B2 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)



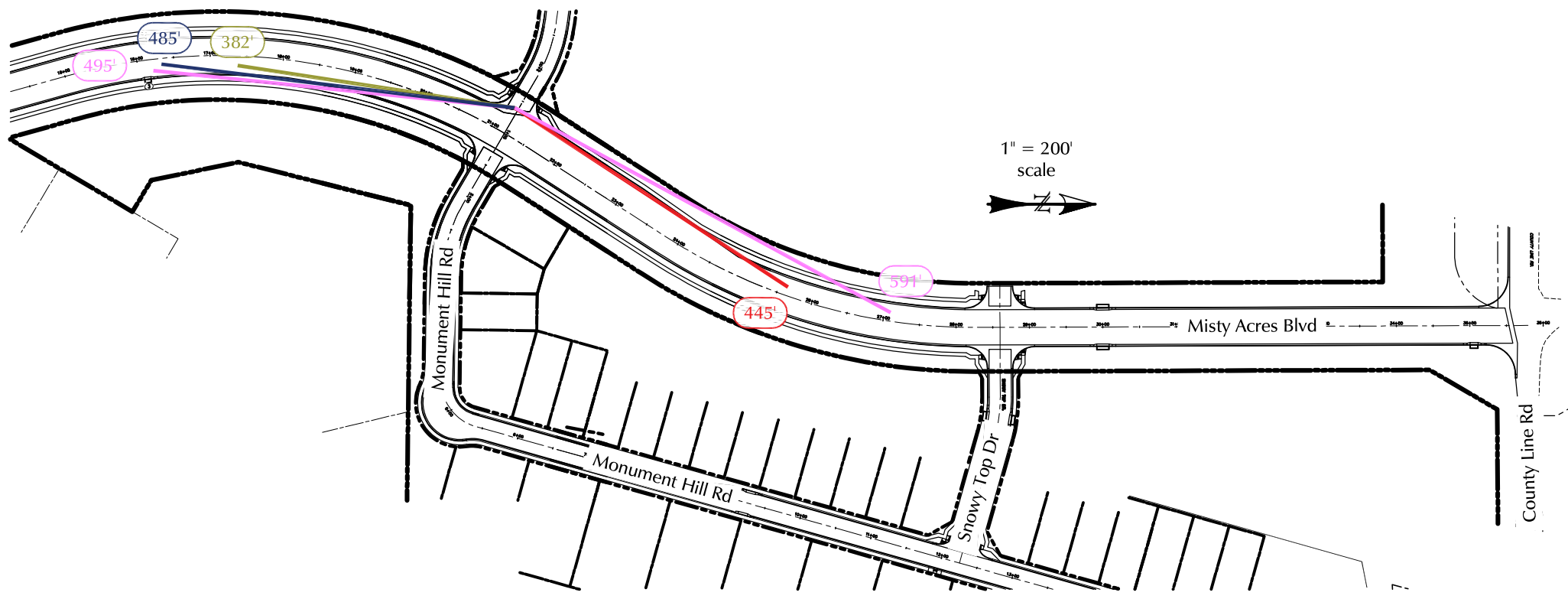
- Proposed roadway surface along centerline of Misty Acres
- Height of 3.5 ft above roadway surface along centerline of Misty Acres Blvd
- Proposed intersection location with Misty Acres Blvd
- XXX' Available sight distance based on proposed roadway profile (feet) or line of sight limited by ROW line
- 445' Required entering sight distance for intersections along Misty Acres Blvd (ECM Table 2-21)
- 485' Required entering sight distance for AASHTO Case B1
- 382' Required entering sight distance for AASHTO Case B2



Figure 4

Entering Sight Distance Analysis Misty Acres Blvd/Snowy Top Dr

Monument Ridge East, Filing 1 (LSC# S234451)



Design Speed

V_{major} is the design speed of the higher functional classification roadway. The proposed design speed of Misty Acres Boulevard is 40 mph.

Time Gap

The time gap variable (t_g) represents the time a stopped driver will accept to accelerate and complete a turning maneuver into traffic. The acceptable time gap is different for a right, left, or crossing maneuver. The acceptable time gap also depends on the design vehicle making the maneuver.

Left Turn from a Stop Sign Looking to the Right

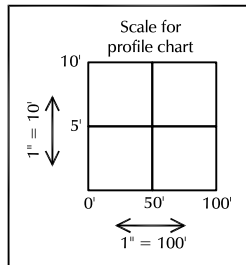
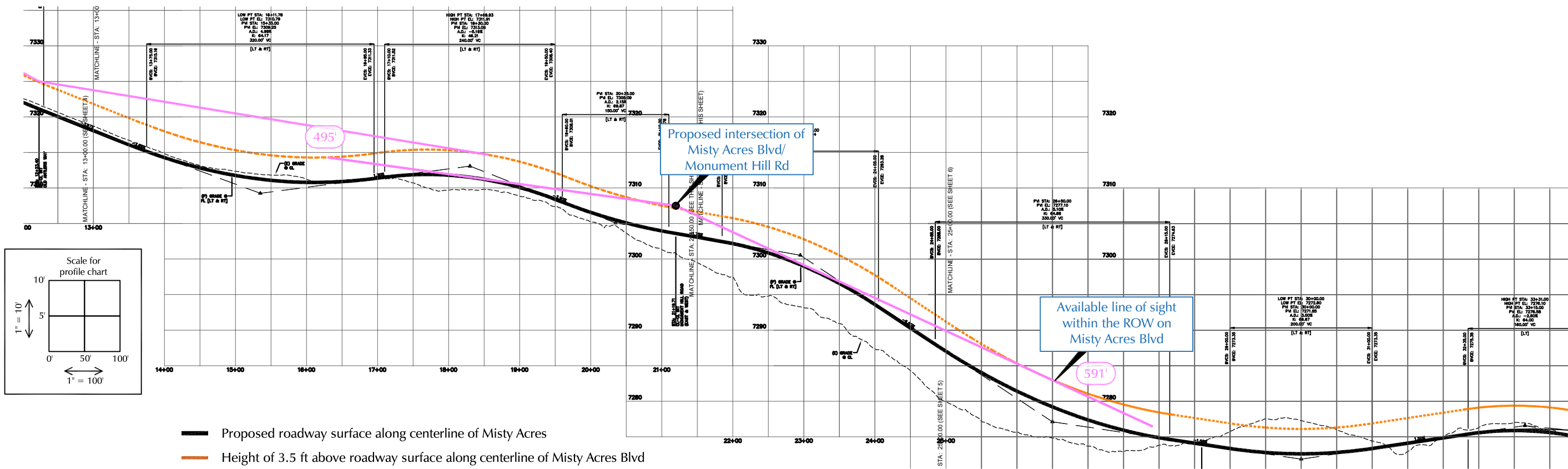
Per AASHTO Table 9-6, a time gap of 7.5 seconds is required for passenger vehicles. However, this metric was adjusted for the proposed Urban Non-Residential Collector lane on Misty Acres Blvd. Due to the presence of a two-way left-turn lane (TWLTL), 0.5 seconds was added. An additional 0.25 seconds was added for a near-side 6-ft paved shoulder. For this case, $t_g = 8.25$ and $V_{major} = 40$ mph.

Left Turn from a Stop Sign Looking to the Left

AASHTO Case B2 has been considered for this condition. Per AASHTO page 9-44, "a sight triangle to the left is also needed for the left-turning vehicle to cross the near lane(s) of the major road on which traffic approaches from the left." For this case, $t_g = 7.5$ seconds.

Required Entering Sight Distances

- 485 ft = AASHTO Case B1 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)
- 382 ft = AASHTO Case B2 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)

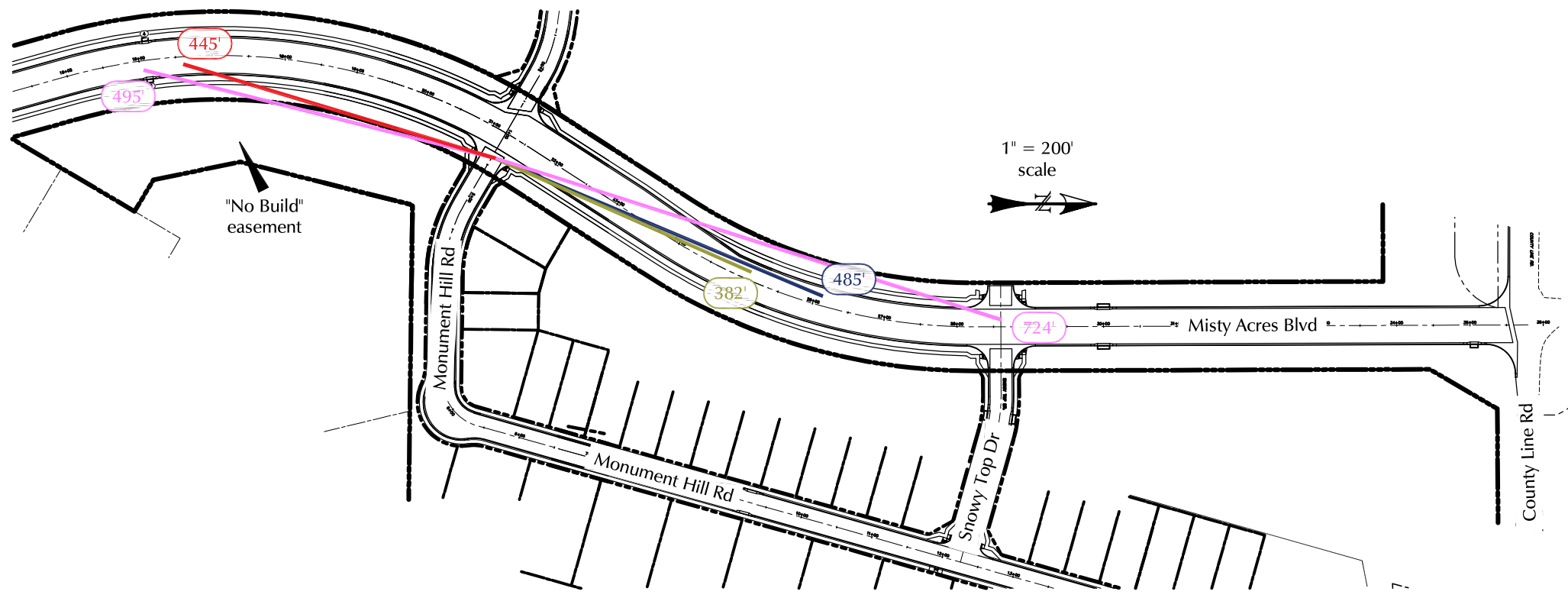


- Proposed roadway surface along centerline of Misty Acres
- - - Height of 3.5 ft above roadway surface along centerline of Misty Acres Blvd
- Proposed intersection location with Misty Acres Blvd
- XXX Available sight distance based on proposed roadway profile (feet) or line of sight limited by ROW line
- 445' Required entering sight distance for intersections along Misty Acres Blvd (ECM Table 2-21)
- 485' Required entering sight distance for AASHTO Case B1
- 382' Required entering sight distance for AASHTO Case B2



Figure 5
Entering Sight Distance Analysis
Misty Acres Blvd/Monument Hill Rd (Eastbound Approach)

Monument Ridge East, Filing 1 (LSC# S234451)



Design Speed

V_{major} is the design speed of the higher functional classification roadway. The proposed design speed of Misty Acres Boulevard is 40 mph.

Time Gap

The time gap variable (t_g) represents the time a stopped driver will accept to accelerate and complete a turning maneuver into traffic. The acceptable time gap is different for a right, left, or crossing maneuver. The acceptable time gap also depends on the design vehicle making the maneuver.

Left Turn from a Stop Sign Looking to the Right

Per AASHTO Table 9-6, a time gap of 7.5 seconds is required for passenger vehicles. However, this metric was adjusted for the proposed Urban Non-Residential Collector lane on Misty Acres Blvd. Due to the presence of a two-way left-turn lane (TWLTL), 0.5 seconds was added. An additional 0.25 seconds was added for a near-side 6-ft paved shoulder. For this case, $t_g = 8.25$ and $V_{major} = 40$ mph.

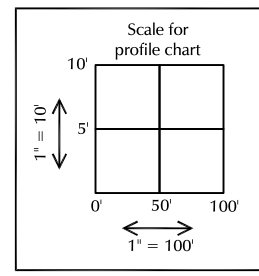
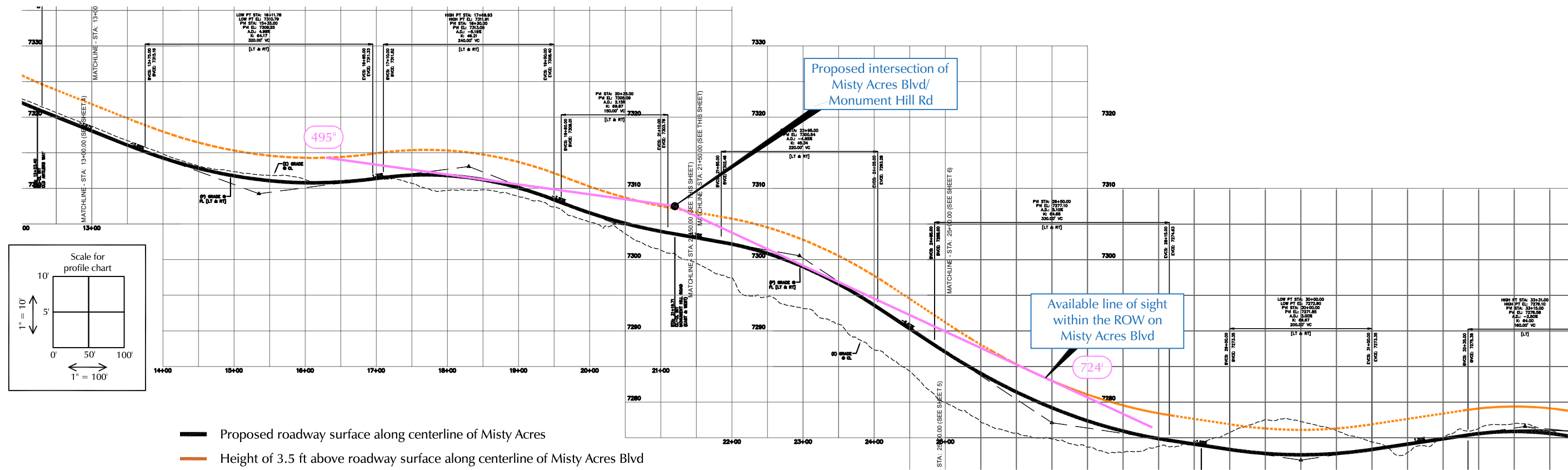
Left Turn from a Stop Sign Looking to the Left

AASHTO Case B2 has been considered for this condition. Per AASHTO page 9-44, "a sight triangle to the left is also needed for the left-turning vehicle to cross the near lane(s) of the major road on which traffic approaches from the left." For this case, $t_g = 7.5$ seconds.

Required Entering Sight Distances

485 ft = AASHTO Case B1 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)

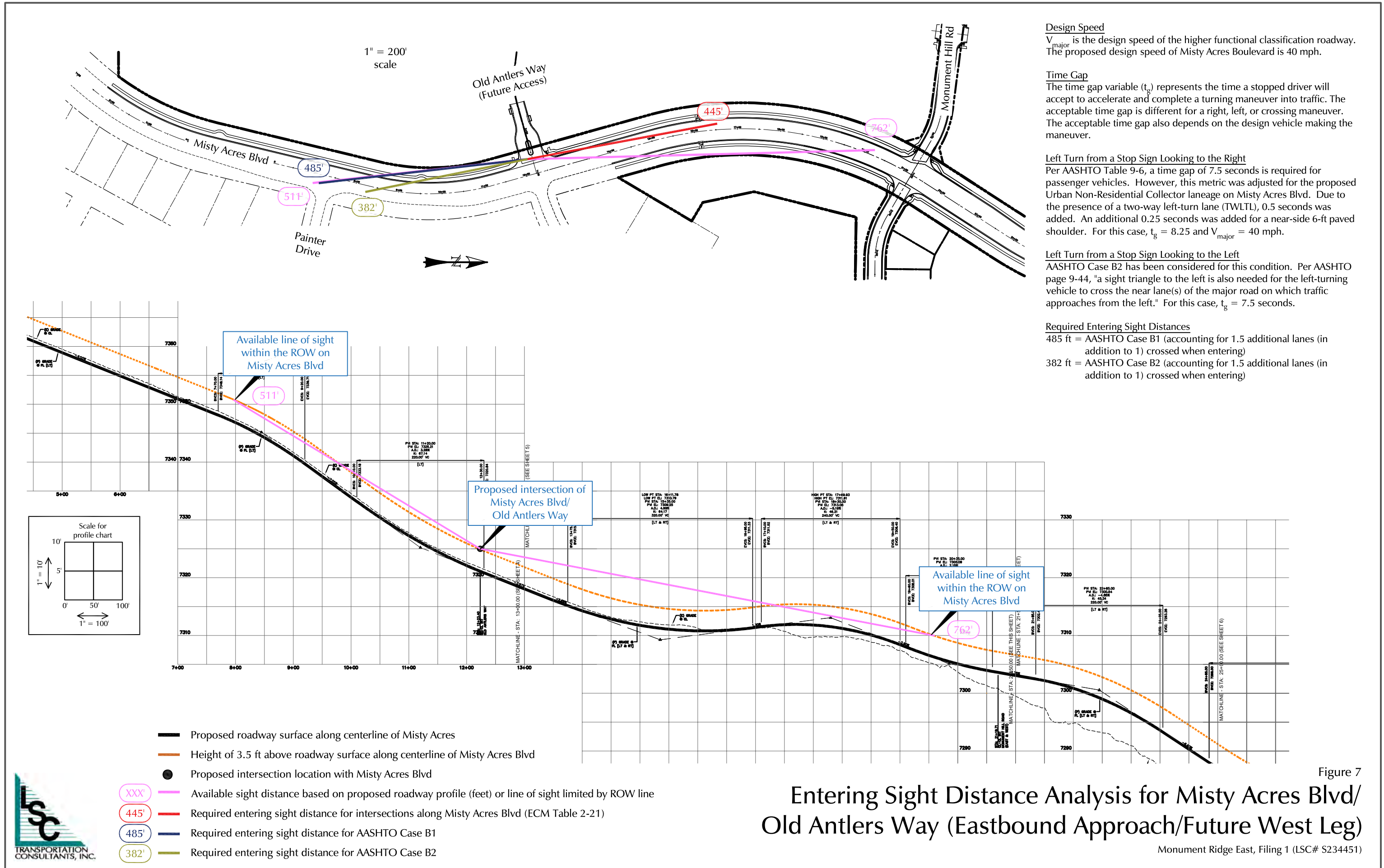
382 ft = AASHTO Case B2 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)



- Proposed roadway surface along centerline of Misty Acres
- - - Height of 3.5 ft above roadway surface along centerline of Misty Acres Blvd
- Proposed intersection location with Misty Acres Blvd
- XXX Available sight distance based on proposed roadway profile (feet) or line of sight limited by ROW line
- 445' Required entering sight distance for intersections along Misty Acres Blvd (ECM Table 2-21)
- 485' Required entering sight distance for AASHTO Case B1
- 382' Required entering sight distance for AASHTO Case B2



Figure 6
Entering Sight Distance Analysis
Misty Acres Blvd/Monument Hill Rd (Westbound Approach)
 Monument Ridge East, Filing 1 (LSC# S234451)



Design Speed
 V_{major} is the design speed of the higher functional classification roadway. The proposed design speed of Misty Acres Boulevard is 40 mph.

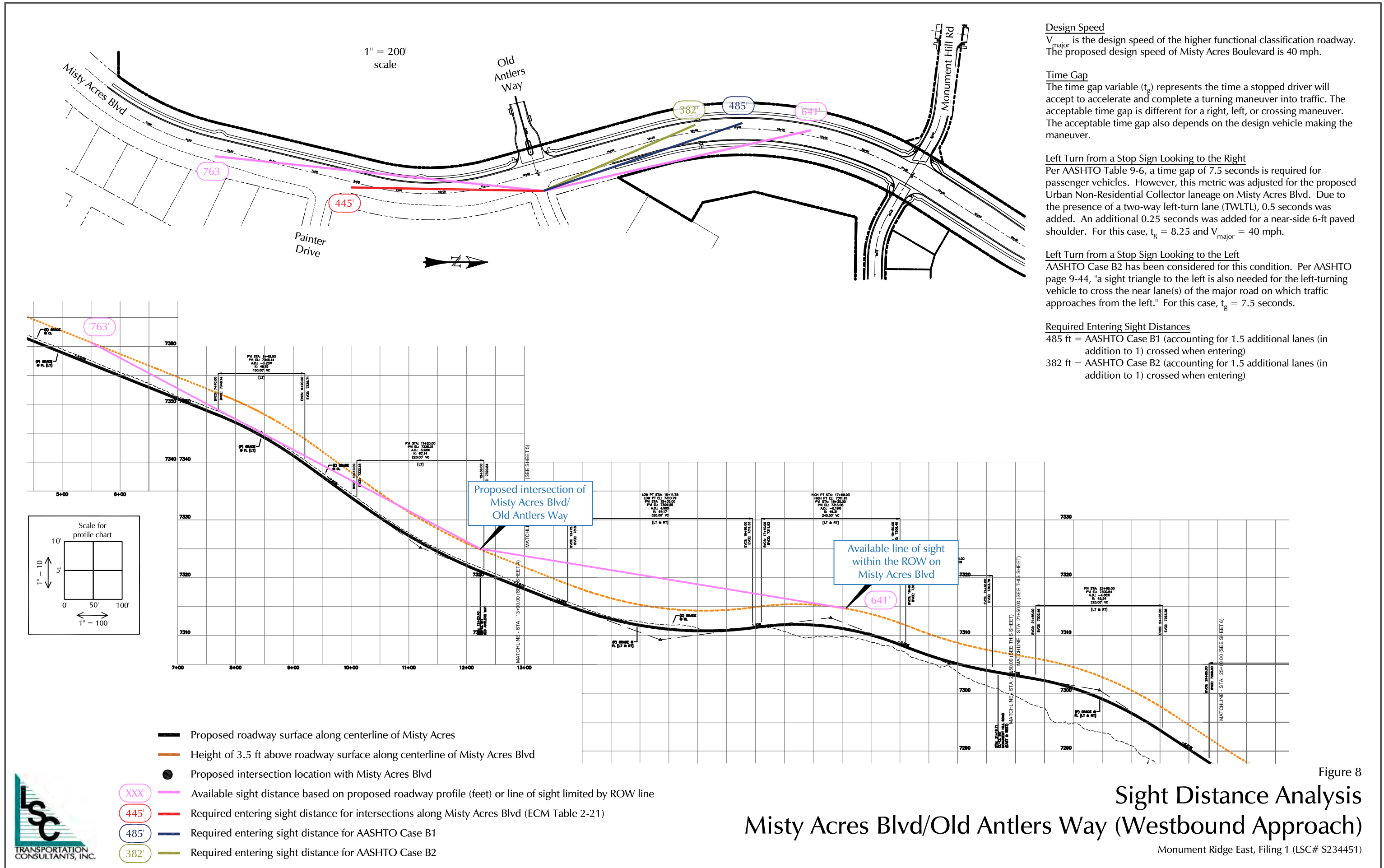
Time Gap
 The time gap variable (t_g) represents the time a stopped driver will accept to accelerate and complete a turning maneuver into traffic. The acceptable time gap is different for a right, left, or crossing maneuver. The acceptable time gap also depends on the design vehicle making the maneuver.

Left Turn from a Stop Sign Looking to the Right
 Per AASHTO Table 9-6, a time gap of 7.5 seconds is required for passenger vehicles. However, this metric was adjusted for the proposed Urban Non-Residential Collector laneage on Misty Acres Blvd. Due to the presence of a two-way left-turn lane (TWLTL), 0.5 seconds was added. An additional 0.25 seconds was added for a near-side 6-ft paved shoulder. For this case, $t_g = 8.25$ and $V_{major} = 40$ mph.

Left Turn from a Stop Sign Looking to the Left
 AASHTO Case B2 has been considered for this condition. Per AASHTO page 9-44, "a sight triangle to the left is also needed for the left-turning vehicle to cross the near lane(s) of the major road on which traffic approaches from the left." For this case, $t_g = 7.5$ seconds.

Required Entering Sight Distances
 485 ft = AASHTO Case B1 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)
 382 ft = AASHTO Case B2 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)

Figure 7
**Entering Sight Distance Analysis for Misty Acres Blvd/
 Old Antlers Way (Eastbound Approach/Future West Leg)**
 Monument Ridge East, Filing 1 (LSC# S234451)



Design Speed
 V_{major} is the design speed of the higher functional classification roadway. The proposed design speed of Misty Acres Boulevard is 40 mph.

Time Gap
 The time gap variable (t_g) represents the time a stopped driver will accept to accelerate and complete a turning maneuver into traffic. The acceptable time gap is different for a right, left, or crossing maneuver. The acceptable time gap also depends on the design vehicle making the maneuver.

Left Turn from a Stop Sign Looking to the Right
 Per AASHTO Table 9-6, a time gap of 7.5 seconds is required for passenger vehicles. However, this metric was adjusted for the proposed Urban Non-Residential Collector laneage on Misty Acres Blvd. Due to the presence of a two-way left-turn lane (TWLTL), 0.5 seconds was added. An additional 0.25 seconds was added for a near-side 6-ft paved shoulder. For this case, $t_g = 8.25$ and $V_{major} = 40$ mph.

Left Turn from a Stop Sign Looking to the Left
 AASHTO Case B2 has been considered for this condition. Per AASHTO page 9-44, "a sight triangle to the left is also needed for the left-turning vehicle to cross the near lane(s) of the major road on which traffic approaches from the left." For this case, $t_g = 7.5$ seconds.

Required Entering Sight Distances
 485 ft = AASHTO Case B1 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)
 382 ft = AASHTO Case B2 (accounting for 1.5 additional lanes (in addition to 1) crossed when entering)

Figure 8

Sight Distance Analysis

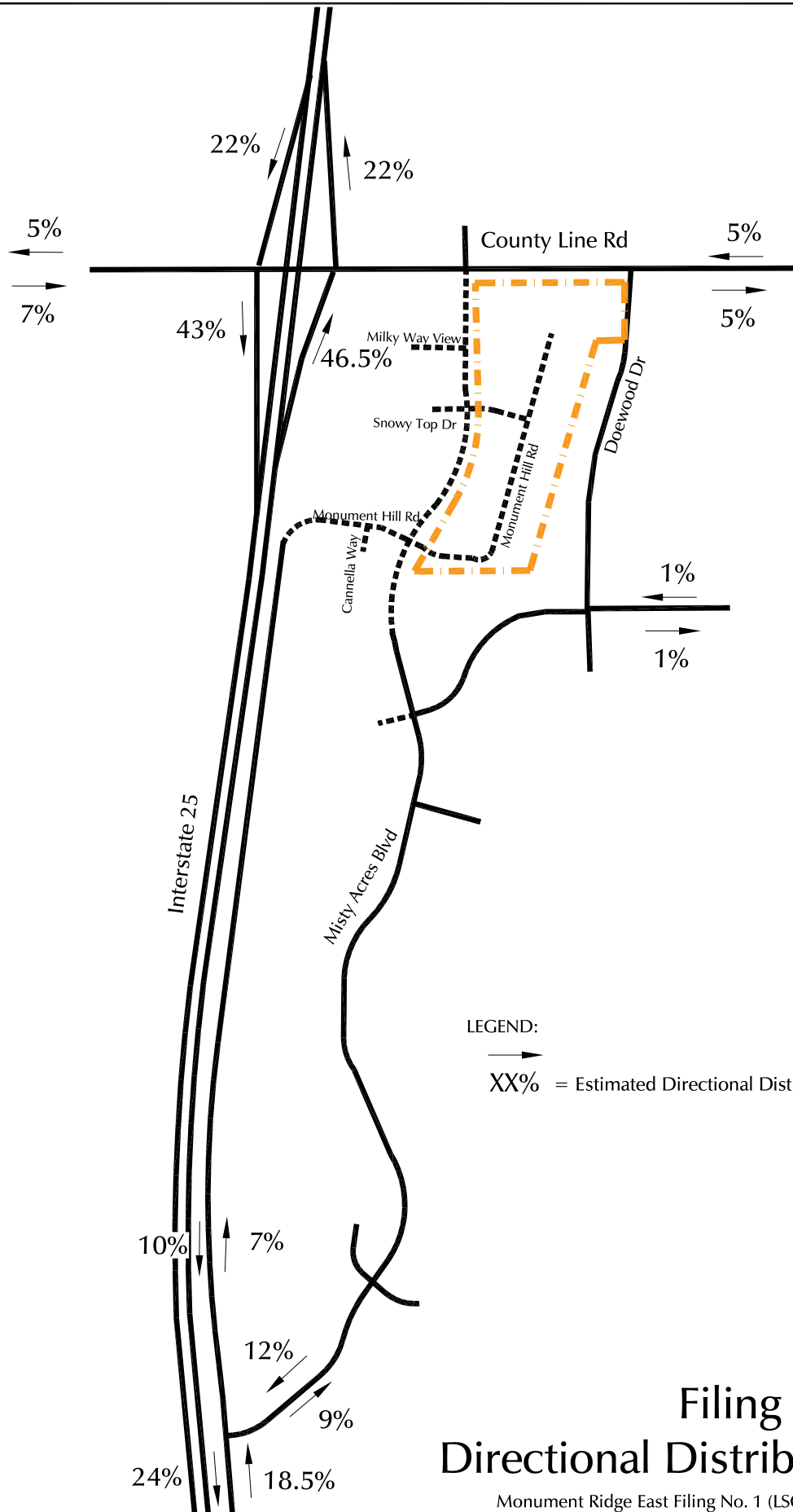
Misty Acres Blvd/Old Antlers Way (Westbound Approach)

Monument Ridge East, Filing 1 (LSC# S234451)





Approximate Scale
1" = 500'



LEGEND:



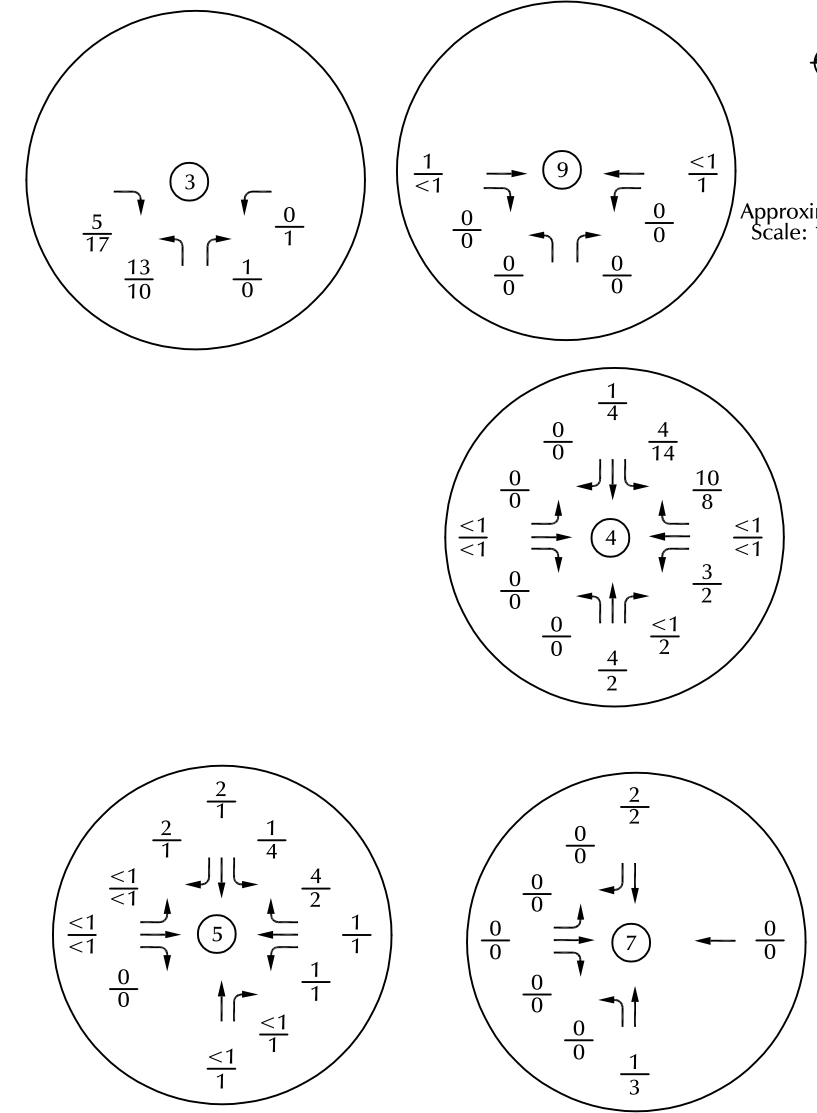
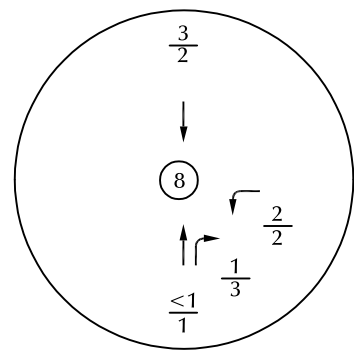
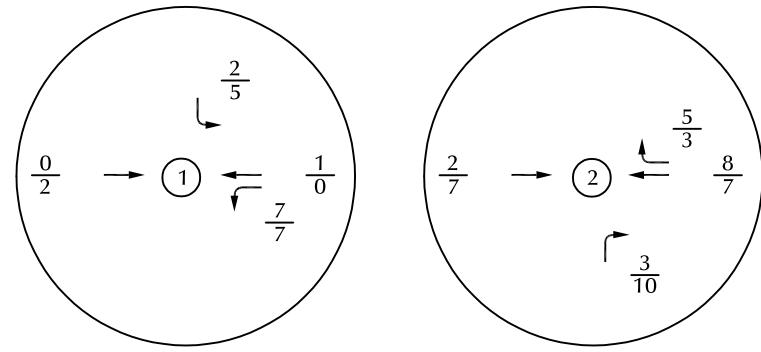
XX% = Estimated Directional Distribution

Figure 9

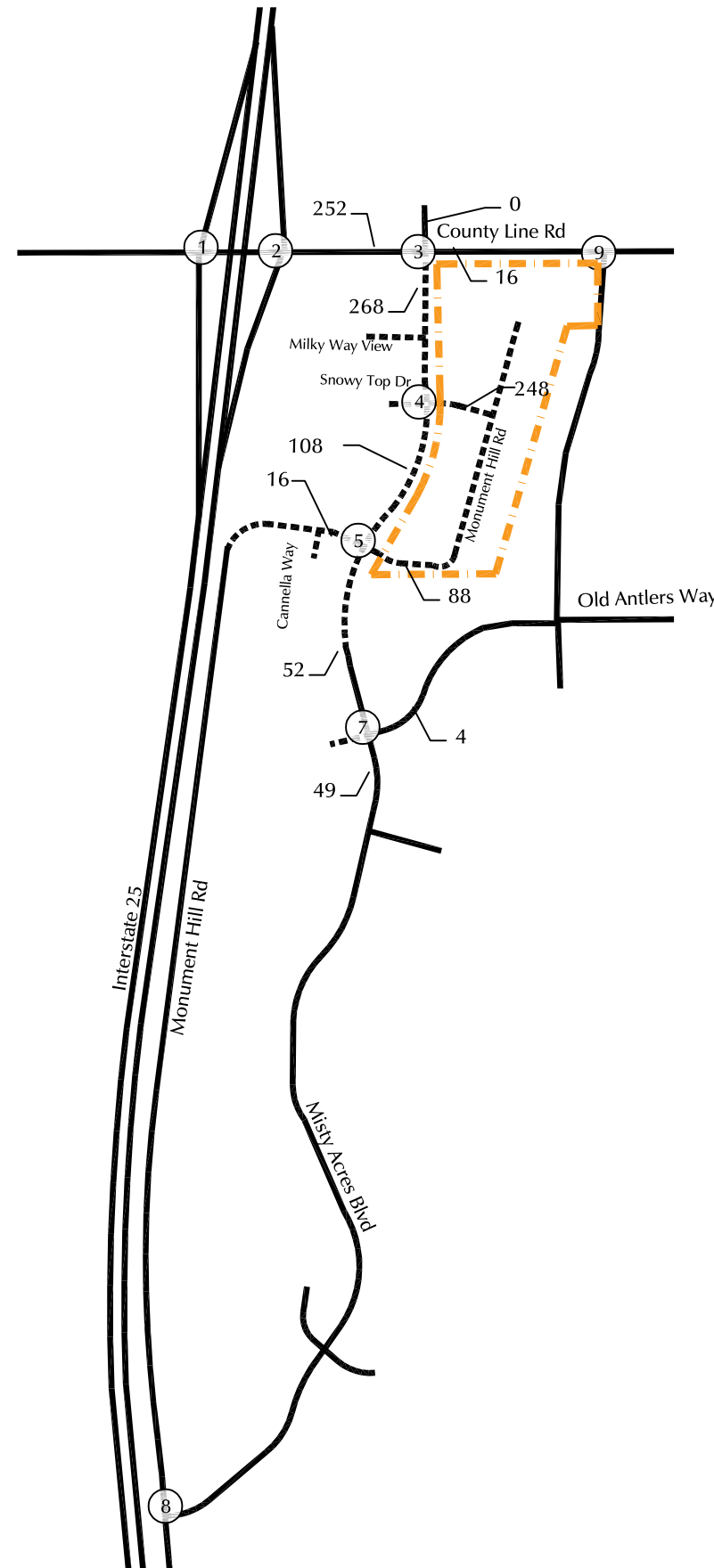
Filing No. 1 Directional Distribution

Monument Ridge East Filing No. 1 (LSC# S234451)





Approximate Scale
Scale: 1" = 3,000'



LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX = Average Daily Traffic (vehicles per day)

Roadways (as shown on Figure 3)

———— Existing Roadway segments (to remain)

----- Proposed New Roadway Segments

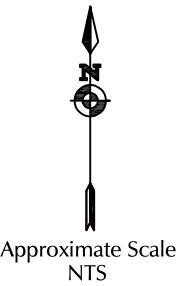
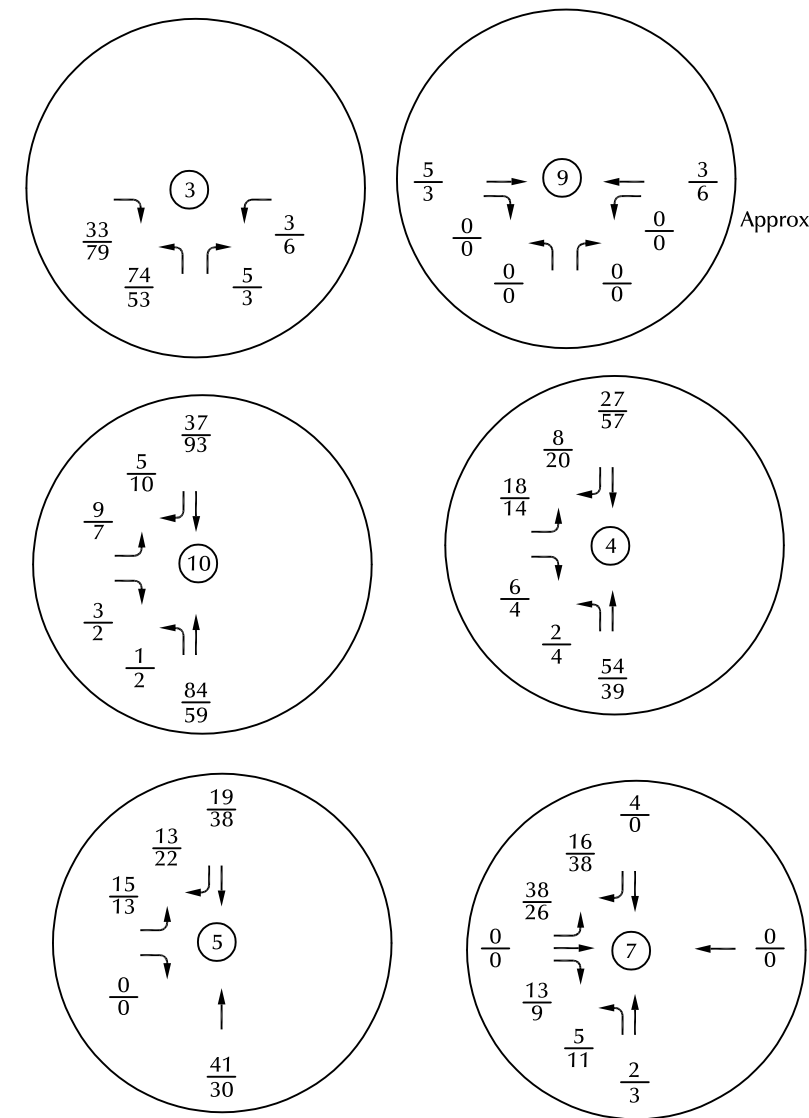
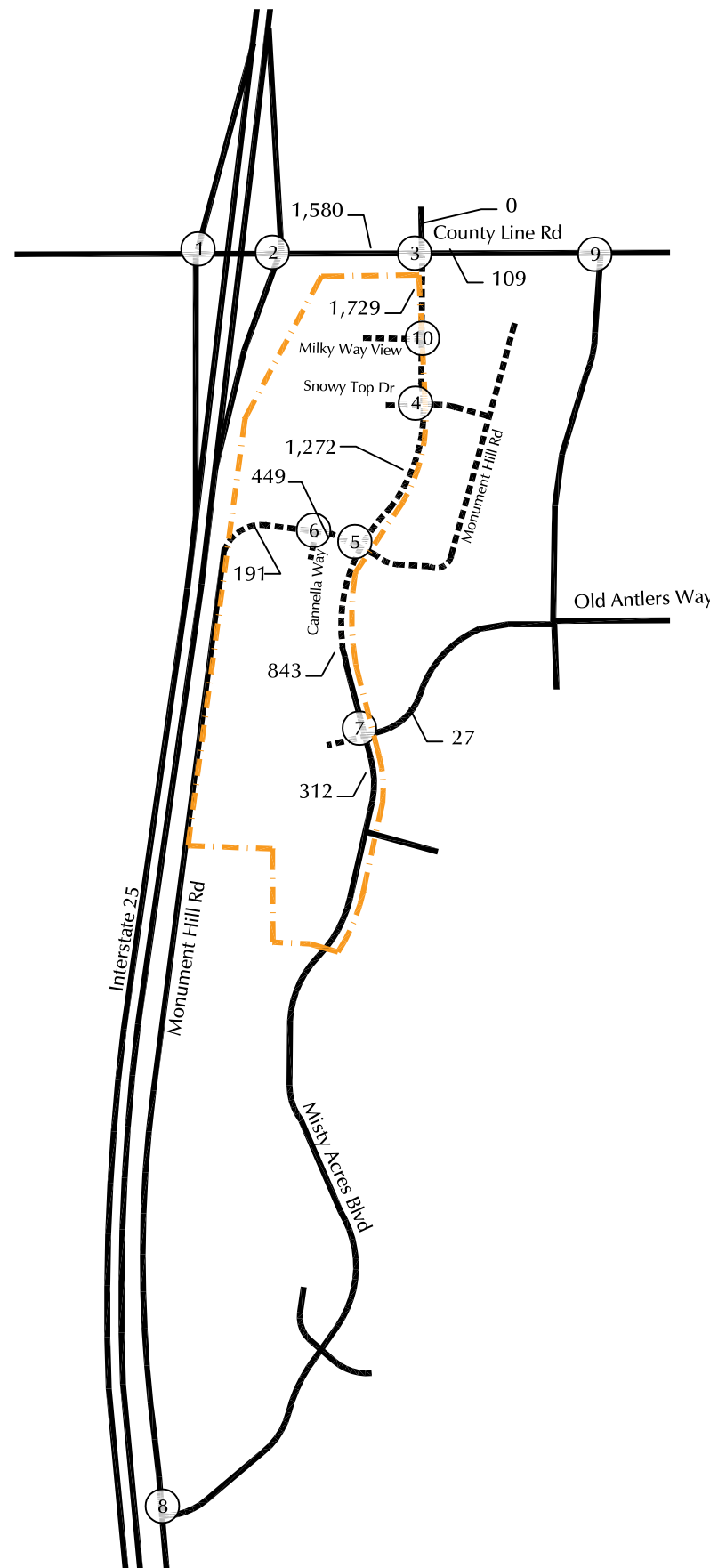
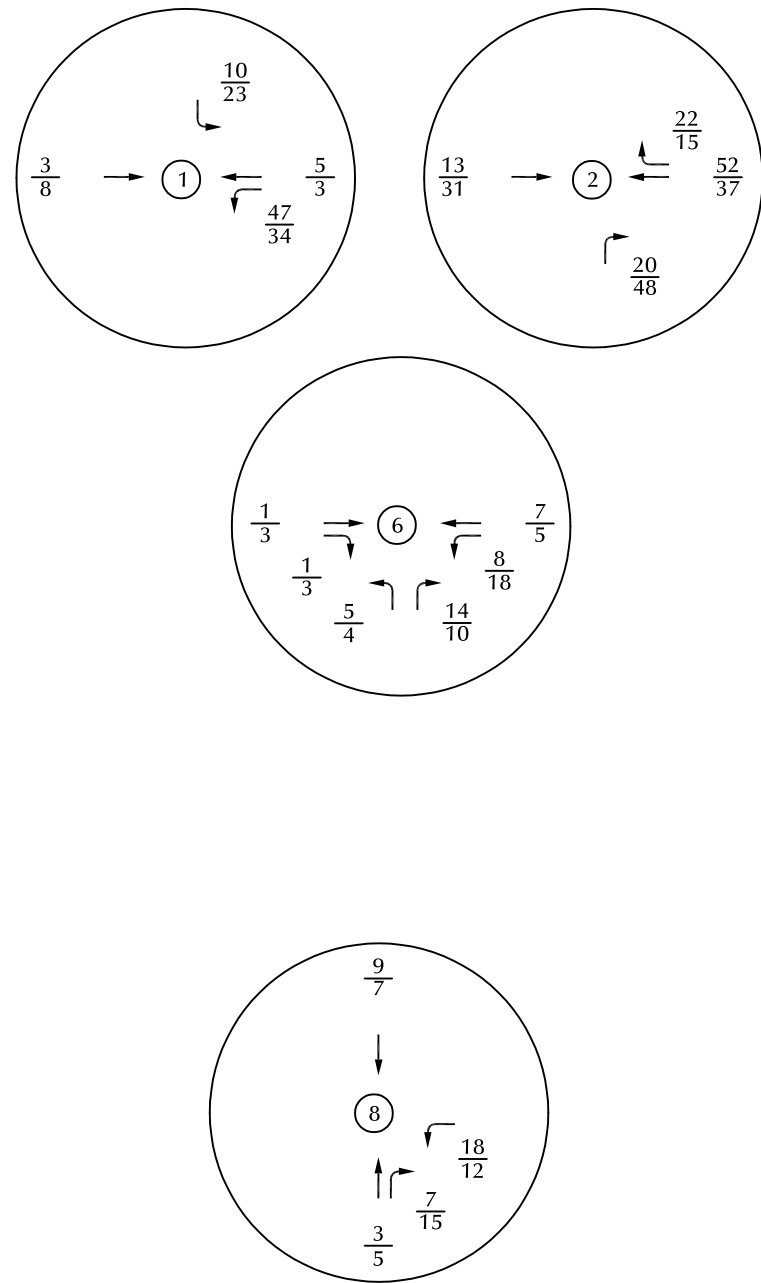


Figure 10
Filing No. 1 Site-Generated Traffic

Monument Ridge East Filing No. 1 (LSC# S234451)

Appendix Figure 1





LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX = Average Daily Traffic (vehicles per day)

Roadways (as shown on Figure 3)

———— Existing Roadway segments (to remain)

■■■■■ Proposed New Roadway Segments



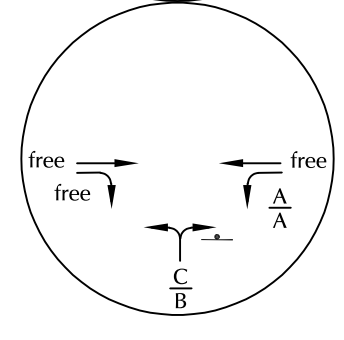
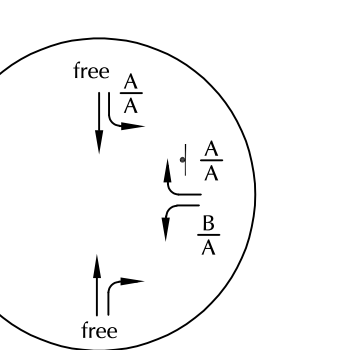
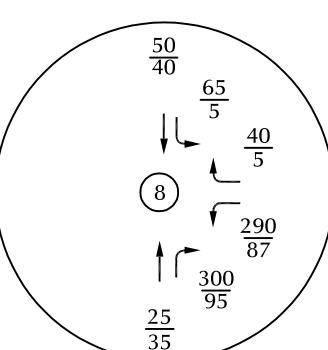
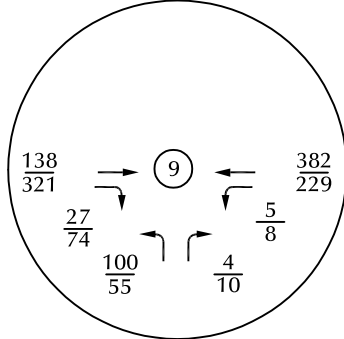
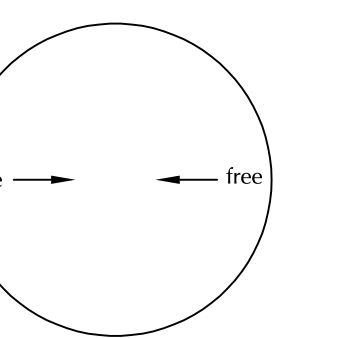
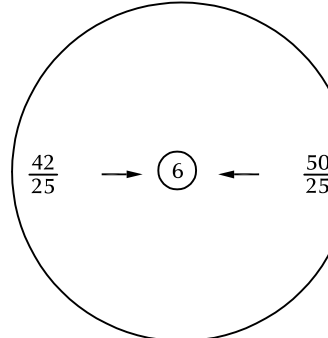
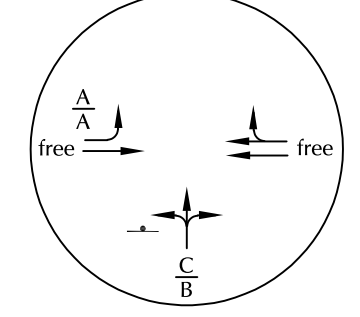
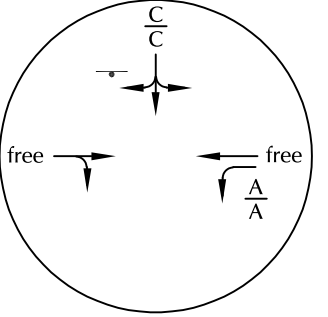
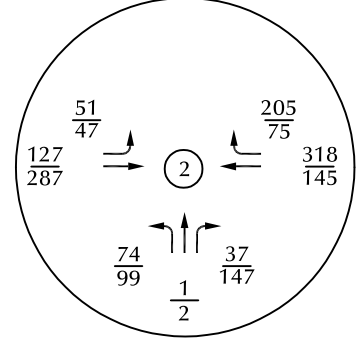
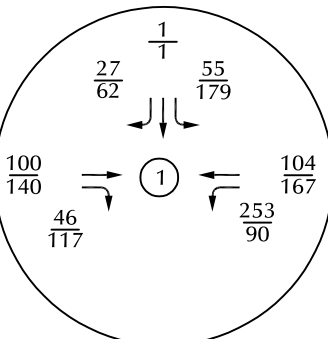
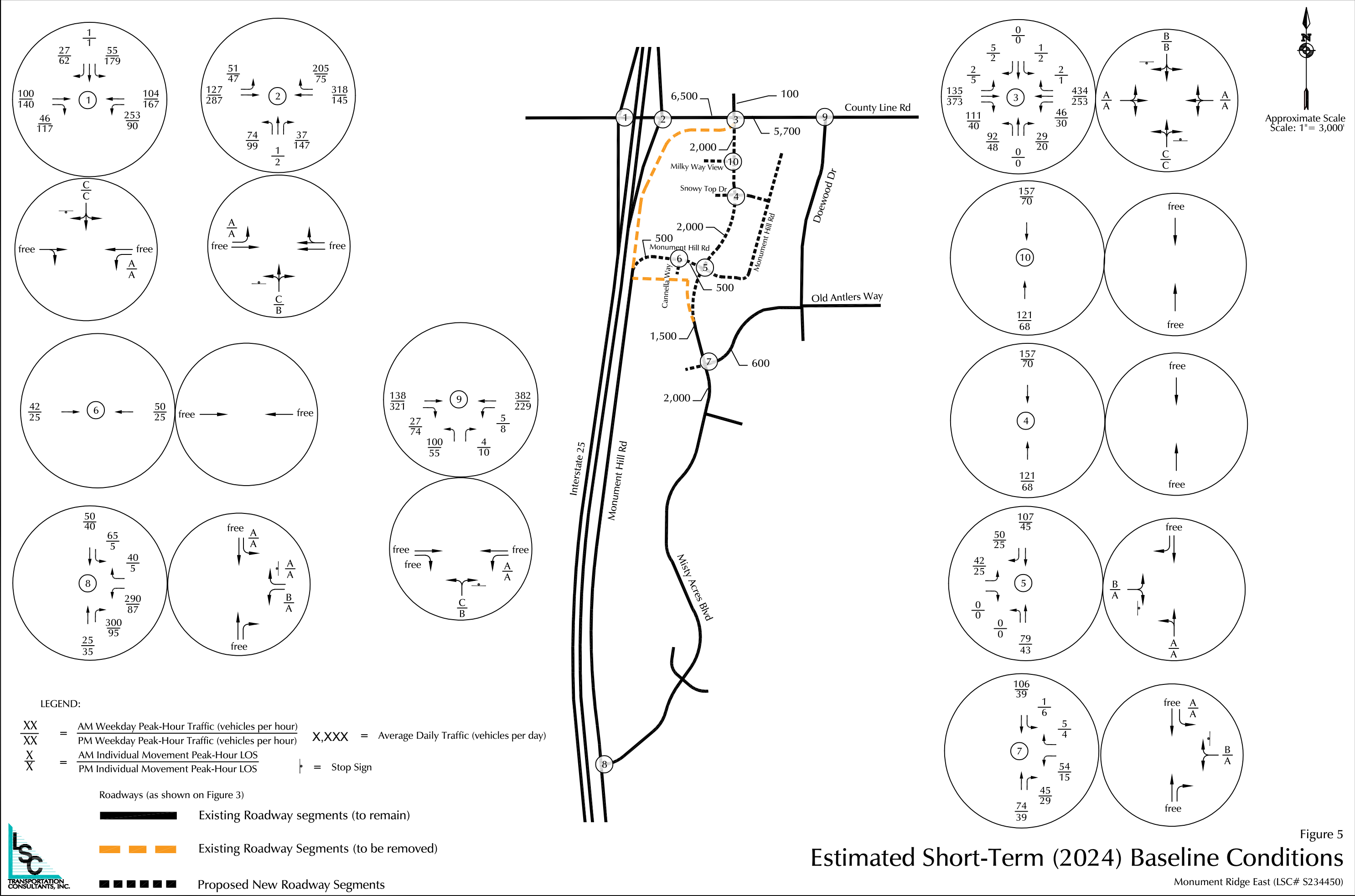
Appendix Figure 1
 Future Filing Nos. 2 and 3 (Combined)
 Site-Generated Traffic

Monument Ridge East Filing No. 1 (LSC# S234451)

Attachments from Master TIS (dated: November 8, 2024)*

* With LSC notes added (June 2025)





LEGEND:
 XX/XX = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour)
 X/X = AM Individual Movement Peak-Hour LOS / PM Individual Movement Peak-Hour LOS
 X,XXX = Average Daily Traffic (vehicles per day)
 Stop Sign symbol = Stop Sign

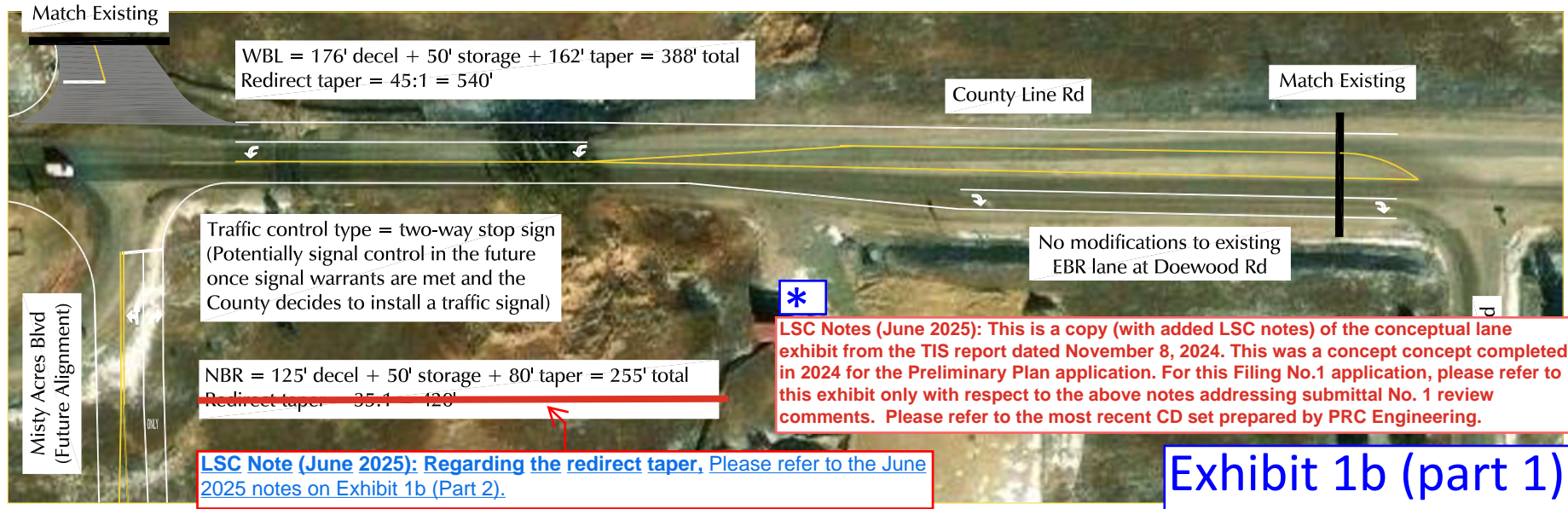
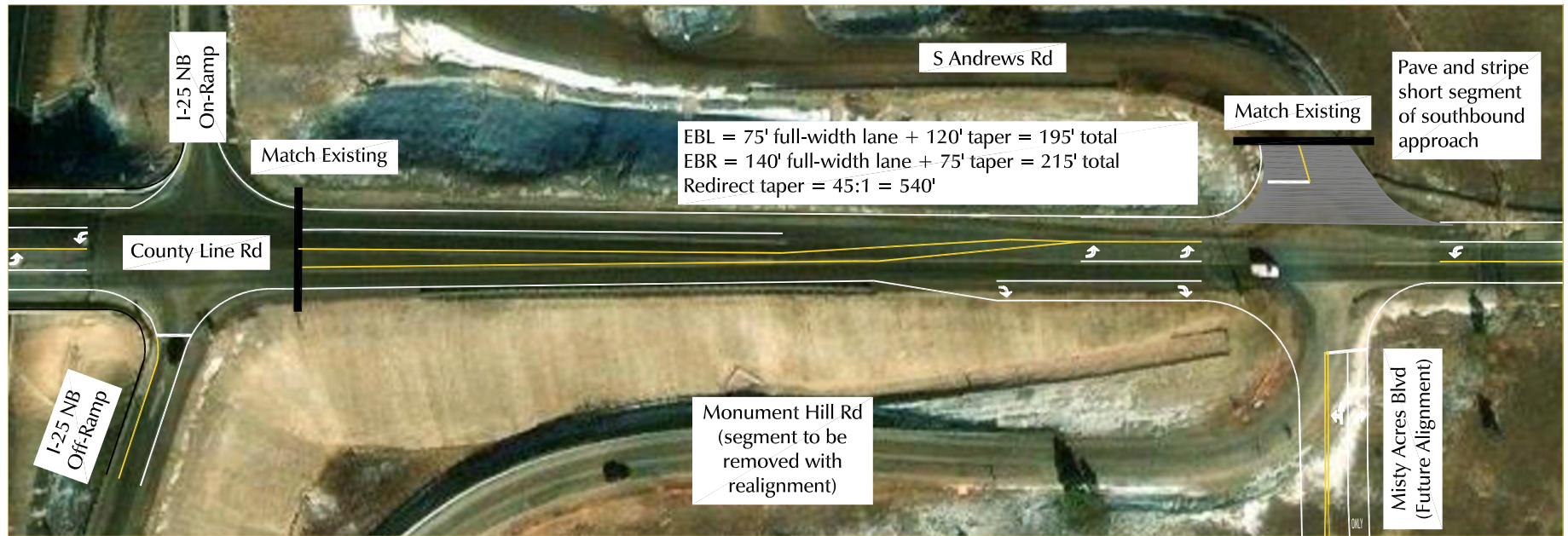
Roadways (as shown on Figure 3)
 Existing Roadway segments (to remain)
 Existing Roadway Segments (to be removed)
 Proposed New Roadway Segments



Estimated Short-Term (2024) Baseline Conditions

Monument Ridge East (LSC# S234450)

Figure 5



LSC Note (June 2025): Regarding the redirect taper, Please refer to the June 2025 notes on Exhibit 1b (Part 2).

Exhibit 1b (part 1)

1" = 100' scale

Note: All turn lane lengths have been adjusted for roadway grade per ECM Table 2-25

Proposed Laneage on County Line Rd

Monument Ridge East (LSC# S234450)

Figure 12



Northbound Right Turn Lane
 125' decel + 50' storage
 + 80' taper = 255' total
 Redirect taper = 35:1 = 420'

LSC Note (June 2025): 40:1 redirect taper ratio provided for northbound (5' lateral shift to the left over 200' distance).
 This exceeds the ECM-required 20:1 ratio.

LSC Note (June 2025): The ECM-required redirect taper ratio is 20:1 for a 40 mph design speed.
 This exhibit showed a lateral shift of 5' to the left for the thru/left lane. Over 200' this translates to a ratio of 40:1 (exceeding the standard).
 This figure has been corrected in the revised traffic memo. However, this was the conceptual lane exhibit from the TIS report. CD's have since been submitted showing the design of the laneage. Please refer to those plan sets for redirect taper design.

Southbound Right Turn Lane
 155' decel + 160' taper =
 315' total

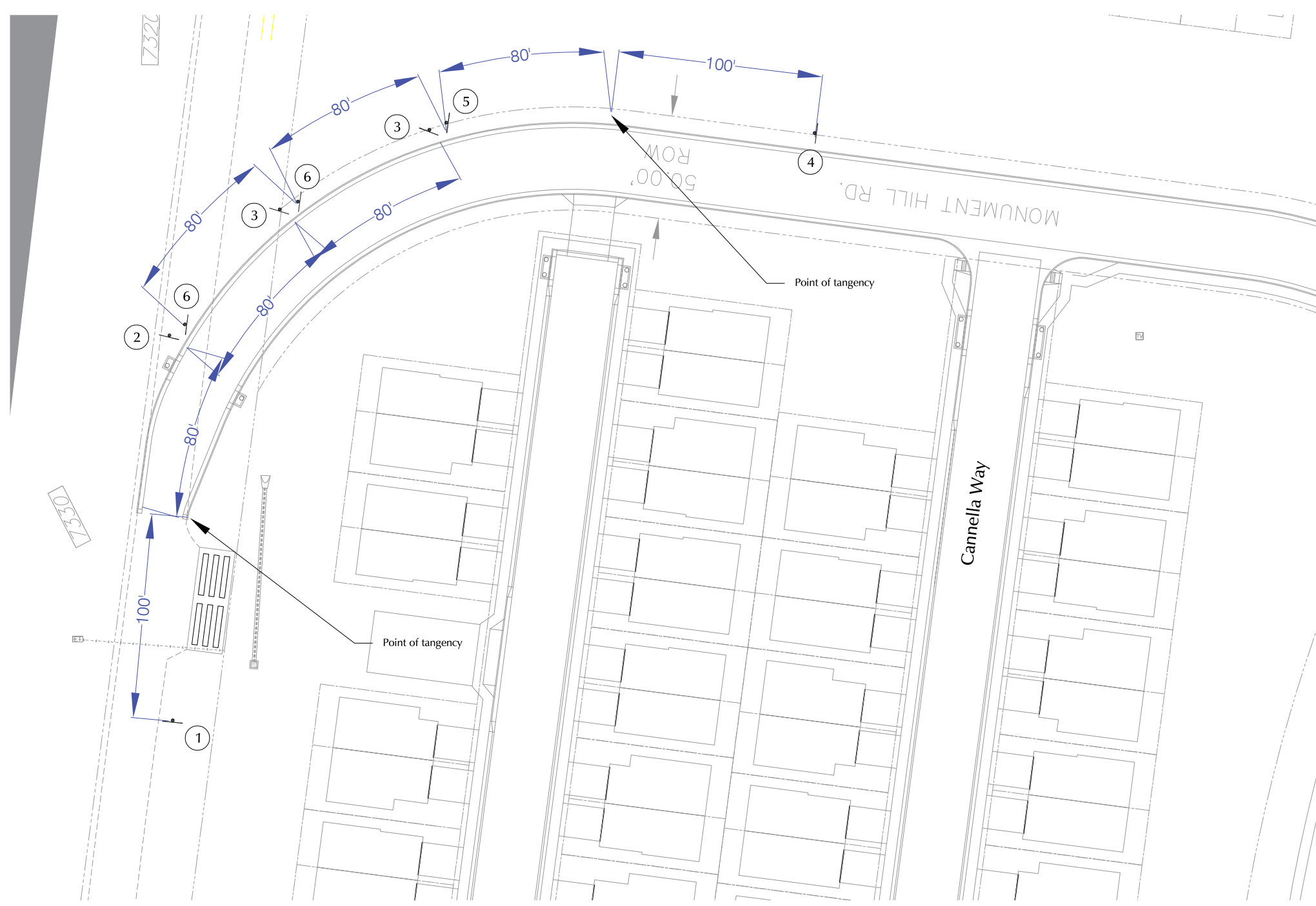
*** LSC Notes (June 2025):** This is a copy (with added LSC notes) of the conceptual lane exhibit from the TIS report dated November 8, 2024. This was a concept concept completed in 2024 for the Preliminary Plan application. For this Filing No.1 application, please refer to this exhibit only with respect to the above notes addressing submittal No. 1 review comments. Please refer to the most recent CD set prepared by PRC Engineering.

Exhibit 1b (part 2)

*** Proposed Laneage on Misty Acres Boulevard**

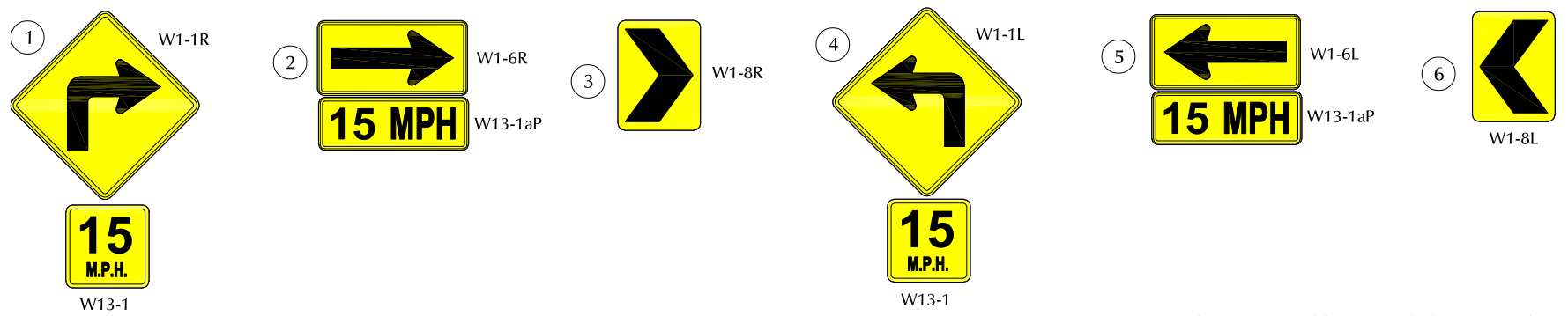
Figure 13

Monument Ridge East (LSC# S234450)



LSC Notes (June 2025): This is a copy (with added LSC notes) of the conceptual sign recommendation exhibit from the TIS report dated November 8, 2024. This was a concept completed in 2024 for the Preliminary Plan application.

For this Filing No.1 application, please refer to the most recent CD set prepared by PRC Engineering.



Placement and horizontal alignment of warning signs per MUTCD Sections 2C.04-2C.08

Exhibit 1c

Figure 14
**Recommended Signs
Along Monument Hill Rd**
Monument Ridge East (LSC# S234450)



Approved Deviations



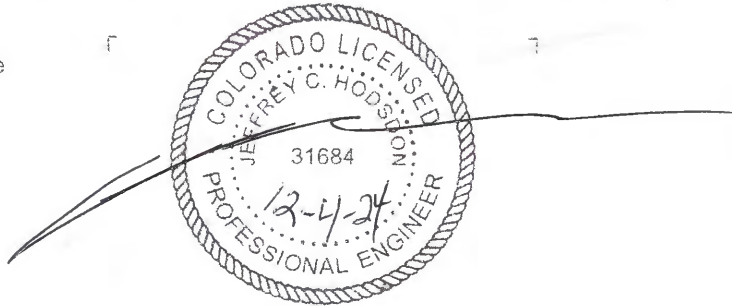
OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Nava Larsen
Signature of owner (or authorized representative)

11/11/2024
Date

Engineer's Seal, Signature
And Date of Signature



DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

Deviation No. 3 (Rev. 10/4/2024) A deviation from the standards of or in Sections 2.2.5.B, 2.3.2 and 2.3.7.B,C. of the Engineering Criteria Manual (ECM) is requested.

The deviation request is to allow the proposed intersection of County Line Road and the planned north extension of Misty Acres Boulevard at the proposed location shown in the attached Deviation Exhibit 1. This proposed location is at the location of the existing County Line Road/Monument Hill Road intersection. There are constraints to locating the intersection farther to the east, notably the existing jurisdictional wetlands. Also, for many years, the north terminus of Misty Acres Boulevard has been envisioned at the currently-proposed location. The developer has been working under the assumption of this intersection location and associated alignment of the extension of Misty Acres Boulevard to complete the connection to County Line Road. This deviation involves 1) the intersection spacing west to the Interstate 25 northbound ramp intersection and east to Doewood Drive; 2) the request is to allow anticipated intersection approach grades over four percent. In conjunction with the above, the deviation addresses a CDOT review comment/request for an evaluation of a potential alternative to the proposed intersection and associated alignment of the final/north segment of Misty Acres Boulevard.

Please refer to the attached Deviation Exhibit 1.

Identify the specific ECM standard which a deviation is requested:

2.2.5.B. Rural and Urban Principal Arterial and Rural Minor Arterial Access Criteria.

2.3.2 (Design Standards by Function Classification)

Table 2-4 Roadway Design Standards for Rural Minor Arterials.

Table 2-4 Intersection Grades (Max). 4%.

2.3.7. Intersections:

B. Intersection Spacing and General Access Standards

C.4 Vertical Alignment.

State the reason for the requested deviation:

The deviation is being required for the proposed location of the County Line Road/Misty Acres Boulevard intersection.

- 1) This intersection spacing along County Line Road would result in less than the ECM-prescribed one-quarter mile spacing and the existing intersection spacing is less than 660 feet to the north along the future alignment of Misty Acres Boulevard.
- 2) The intersection approach grades exceed the ECM standard.
- 3) The CDOT review comments require an evaluation of the potential for a roundabout intersection located about 1,250 feet to the east (about three hundred feet west of the existing Doewood intersection). Additionally, an intersection at this location

State the reason for the requested deviation:

would require a revised alignment to the east of the north segment of Misty Acres Boulevard/connection to County Line Road.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

The standard requires intersection centerline spacing of one-quarter mile. The proposed centerline spacing on County Line Road is about 860 feet to the west and 825 feet to the east (as shown in Deviation Exhibit No. 1).

2.2.5.B. Rural and Urban Principal Arterial and Rural Minor Arterial Access Criteria.

1.Spacing. Spacing of roads accessing a principal arterial or rural minor arterial that will result in a full movement intersection shall be planned at one-half mile (**one-quarter mile for rural minor arterials**). Should the one-half mile spacing not be "viable or practical" for providing access to the adjacent land, a deviation may be considered and approved by the ECM Administrator. If a deviation is granted, only one additional full movement intersection will be permitted by the ECM Administrator. The Applicant shall have the burden of proof that no other "viable or practical" access is available. A deviation request should be supported by a traffic study or memorandum that provides information to assist the ECM Administrator in determining the proposed deviation minimizes negative safety and other operational impacts. If the development is at the intersection of two major corridors, the full movement access should be located on the lower functional classification roadway. The intersection shall only be approved if the intersection and roadway are shown to operate safely and efficiently with buildout design hour/peak hour projected traffic volumes. The intersection must also show a public benefit. An arterial progression through bandwidth percentage of 35 percent or greater must be achieved or the inclusion of a signal at the access must not degrade the existing signal progression. The intersection must not create any queuing or blocking of lane entries or access points. The intersection must be in a location such that any necessary turn, acceleration and deceleration lanes can be accommodated to maintain safe operations and capacity. The analysis should consider all potential future additional requirements for left turn or other exclusive phasing at a signal for which the need is created by traffic generated by land uses on both sides of the roadway.

2.Topographic and Other Limitations. Where topography or other existing conditions make the required spacing inappropriate or unfeasible, location of the access shall be determined with consideration given to topography, established property ownerships, unique physical limitations, pre-existing historical land use patterns, and physical design constraints, with every attempt to achieve an access spacing of one-half mile. The final location shall serve as many properties as possible to reduce the need for additional direct access to the principal arterial or rural minor arterial. In selecting locations for full movement intersections, preference shall be given to roads that meet, or may be reasonably expected to meet, signal warrants in the future.

2.3.7.B. Intersection Spacing and General Access Standards. Full movement intersections and major accesses spacing shall meet the requirements in Section 2.2.5. While access to a major roadway should be avoided, right-in/right-out and three-quarter movement accesses may be permitted as a deviation if they meet the criteria for sight distances, turn lane requirements, grades and do not negatively impact traffic operations or safety. The applicant shall have the burden of proof that no other "viable or practical" property access is available. A deviation request should be supported by a traffic study or memorandum that provides information to assist the ECM Administrator in determining the proposed deviation minimizes negative safety and other operational impacts along upstream and downstream roadway segments. The addition of such an access shall minimize impacts to queuing or blocking of lane entries or access points and minimize impacts to progression. The access must be in a location such that any necessary turn lanes and acceleration/deceleration lanes can be accommodated to maintain safe operations and capacity. The analysis should consider all potential future additional requirements to accommodate traffic generated by adjacent land uses. Buildout design hour/peak hour projected traffic volumes should be used.

2.3.7.C.4. Vertical Alignment. The roadway profile grade shall not exceed the value presented in Table 2-22 on the approach to the intersection, as measured along the centerline of the roadway for a minimum distance equal to the grade lengths presented in Table 2-23 for each of the roadway functional classifications.

The grade of the roadway with the higher functional classification shall prevail at intersections. Grading of lower functional classifications, adjacent property, private access shall adapt to the higher functional classification roadway grade.

In cases where the natural grade for which a roadway is to be constructed is steeper than 4 percent (hillside areas). A deviation from the presented standards may be requested to accommodate these conditions up to a maximum of 8 percent.

Where crosswalks are provided at intersections, roadway grades shall be set to provide compliant crosswalk cross slopes. On approaches with stop or yield control, roadway grades shall be 2% maximum. On uncontrolled approaches or at traffic signals designed to permit arrival during the green phase, roadway grades shall be the maximum permitted for that functional classification, but in no case greater than 5%. See Section 6.3.2.

Intersection approach grades at the proposed location (existing intersection of County Line Road/Monument Hill Road) are about seven percent.

LIMITS OF CONSIDERATION

(At least one of the conditions listed below must be met for this deviation request to be considered.)

- The ECM standard is inapplicable to the particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

An existing jurisdictional wetland is located just to the east of the proposed alignment of Misty Acres Boulevard.

There is an established conservation easement along the north side of County Line Road.

There is a fixed distance (1,550 feet) between the existing northbound I-25 ramp intersection and the existing Doewood Drive intersection.

The use of Doewood Drive is not an option, as this is a local road with residential homes fronting it.

The "equivalent alternative" would be to utilize the same intersection location, and this would be improved with the addition of auxiliary turn lanes (proposed). The Misty Acres Boulevard/County Line Road intersection (as with the current Monument Hill Road/County Line intersection) would meet the CDOT minimum 550-foot spacing of an intersection/access along the crossroad, from ramp radius.

This location is an existing intersection which has been the north terminus of Monument Hill Road (I-25 east-side frontage road) – which is currently classified as a major collector. The north terminus would be rerouted as shown in Deviation Exhibit No. 1. Misty Acres Boulevard extended north to the same intersection location would also be a Major Collector.

Additionally, with respect to the CDOT suggested alternative:

- There is significant utility infrastructure in place that would need to be reconstructed/realigned. For the proposed cross section, significant grading would be required including the crossing of a drainage way.
- This alternative would result in a significant loss of lots/developable area.
- The alignment would be routed behind and close to existing homes along Doewood Drive
- The resulting Misty Acres/County Line Road intersection would be too close to the existing Doewood intersection, and existing Doewood would likely need to be rerouted as shown in the exhibit.
- A roundabout intersection is not likely to fit within the constraints of the existing water district property, the floodplain, and the conservation easement to the north.
- It may be difficult to meet *ECM* horizontal alignment criteria.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

The "equivalent alternative" would be to utilize the same intersection location, and this would be improved with the addition of auxiliary turn lanes (proposed). The Misty Acres Boulevard/County Line Road intersection (as with the current Monument Hill Road/County Line intersection) would meet the CDOT minimum 550-foot spacing of an intersection/access along the crossroad, from ramp radius. Also, auxiliary left- and right-turn lanes are proposed to be added on County Line Road, as presented in the TIS. The laneage will align better with the new through lanes at the interchange ramp terminal located to the west.

The deviation will not adversely affect safety or operations.

The intersection is proposed as a TWSC intersection, as currently exists today, which will likely meet signal warrants in the future.

The level of service is shown in the TIS to be acceptable as a signalized intersection.

This intersection spacing is about equidistant between the NB-ramp intersection and Doewood Drive.

Also, auxiliary left- and right-turn lanes are proposed to be added on County Line Road, as presented in the TIS. The laneage will align better with the new through lanes at the interchange ramp terminal located to the west. The turn lanes could be constructed to meet CDOT Access Code and *ECM* criteria, including adjustments for grade. The eastbound left-turn bay would not be required

The deviation will not adversely affect safety or operations.

based on turning volume (please refer to TIS for additional information). These turn lanes are shown in the laneage figures included in the TIS report.

The Misty Acres Boulevard/County Line Road intersection (as with the current Monument Hill Road/County Line intersection) would meet the CDOT minimum 550-foot spacing of an intersection/access along the crossroad, from ramp radius. Additional distance would not be necessary as the eastbound left-turn movement is light and below the threshold requiring a left-turn lane.

With respect to the grades on County Line Road on the intersection approaches, mitigation such as special pavements and potentially an advance warning sign (with "be prepared to stop) with flashing yellow beacon system could be implemented if these become necessary.

The deviation will not adversely affect maintenance and its associated cost.

The spacing will not affect the maintenance cost as the spacing will not negatively affect the ability for snowplow and maintenance vehicles to enter and exit the side street with adequate sight distances provided at the proposed intersection location.

The deviation will not adversely affect aesthetic appearance.

Spacing will not affect the aesthetics, as it is not short to the extent that affects the general appearance of the road corridor. The spacing will be consistent with the existing intersection.

The deviation meets the design intent and purpose of the ECM standards.

The proposed Misty Acres Boulevard intersection location is the best solution despite the existing constraints, matches the current Monument Hill Road/Misty Acres Boulevard intersection location, and would include auxiliary turn lanes. This deviation also includes mitigation for the intersection grades. An intersection at this approximate location has been envisioned for many years.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Water quality will be provided. Construction of the roadways and development of the site will be required to meet the above sections of the MS4 permit. The spacing deviation requested in itself does not involve any disturbance.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section 2.2.5.B, 2.3.2, 2.3.7.B, C. of the ECM is hereby granted based on the justification provided.

Γ Γ

L J

Denied by the ECM Administrator

This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

Γ Γ

L J

ECM ADMINISTRATOR COMMENTS/CONDITIONS:



Approximate Scale
1" = 500'

Roundabout intersection
requested by CDOT

300'
(approx. spacing)

1,250'
(approximate spacing)

560'
(approx. spacing)

County Line Rd

Associated existing
Doewood intersection
closure with new
connection to
CDOT-proposed
alignment of Misty Acres
Blvd.

Milky Way View

Snowy Top Dr

Doewood Dr

Monument Hill Rd

Monument Hill Rd

Cannella Way






Limiting property corner

Interstate 25

Monument Hill Rd

Old Antlers Way

Misty Acres Blvd

-  Existing roadway segment - to be removed
-  Proposed roadway extension
-  Proposed roadway realignment
-  Existing roadway/roadway segment (to remain)
-  Alternate Alignment (CDOT)*

Deviation No. 3 - Exhibit 1

Alternate Realignment for the North Segment/Extension of Misty Acres Blvd.

(Consideration of which
is Requested by CDOT*)

Monument Ridge East (LSC# S234450)

*LSC approximate interpretation of
alternate Misty Acres Blvd alignment
and County Line Road intersection
location (consideration of which is
requested by CDOT)





Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910
Phone: 719.520.6300
Fax: 719.520.6695
Website: www.elpasoco.com

**DEVIATION REQUEST
AND DECISION FORM**
(Judge Orr Deviation)
Updated: 6/26/2019

PROJECT INFORMATION

Project Name : Monument Ridge East
Schedule No.(s) : 7102200013, 7102200006, 7102200010
Legal Description : TRACT OF LAND IN N2 SEC 02-11-67 DESC AS FOLS, COM AT NE COR OF SD SEC, TH S 89<06'54"
W 1320.00 FT, S 00<53'12" W 30.00 FT FOR POB, TH S 89<06'54" W 1834.51 FT TO PT ON ELY R/W LN
OF I25, TH ALG SD R/W S 29<33'00" W 180.19 FT, S 89<05'00" W 500.00 FT, S 29<16'30" W 675.30 FT,
S 06<43'00" W 36.92 FT, S 89<57'36" E 251.71 FT, S 06<43'00" W 337.98 FT, S 89<57'36" E 732.00 FT,
TH N 14<12'38" E 887.45 FT, N 89<06'34" E 500.0 FT M/L, N 00<02'24" W 270.0 FT, S 89<06'54" W 650.0
FT M/L TO POB, EX PT DES AS FOLS: TR OF LAND IN NW4 SEC 2-11-67 DES AS FOLS: COM AT NE
COR OF SD SEC 2, TH S 89<06'54" W ALG N LN OF SEC 2 A DIST OF 2879.42 FT, TH ON A
DEFLECTION ANGLE TO THE L OF 90<00'00" 50.00 FT TO A PT 20.00 FT S OF EXISTING SLY R/W LN
OF COUNTY LINE RD FOR POB, TH N 89<06'54" E 105.00 FT, S 13<48'06" W 130.00 FT, S 89<06'54" W
175.76 FT SLY OF S R/W LN OF SD RD A DIST OF 105.00 FT, N 13<48'06" E 130.00 FT TO POB, EX
THAT PT CONV BY REC #210120918, EX THAT PT TO COUNTY CONV BY REC #214002145.
TRACT OF LAND IN N2 SEC 02-11-67 DESC AS FOLS, COM AT NE COR OF SD SEC, TH S 89<06'54"
W 1320.00 FT, S 00<53'12" W 30.00 FT, S 00<53'12" E 270.01 FT, S 89<06'34" W 1599.97 FT, S
14<12'38" W 887.45 FT FOR POB, TH CONT S 14<12'38" W 102.63 FT, S 86<45'14" W 350.00 FT, S
00<24'09" W 236.98 FT, N 89<57'36" W 649.40 FT TO A PT ON ELY R/W LN OF I25, TH N 06<43'00" E
696.96 FT, S 89<57'36" E 251.71 FT, S 06<43'00" W 337.98 FT, S 89<57'36" E 732.00 FT TO POB.
THAT PART OF S2N2 LY ELY OF INTERSTATE 25 + WLY OF WOODCREST, NLY 15.00 AC M/L OF
E2SW4 SEC 2-11-67, EX THAT PT CONV TO PLAT 12181 MISTY ACRES SUB FIL NO 1, EX THAT PT
CONV TO PLAT 12182 MISTY ACRES SUB FIL NO 2

APPLICANT INFORMATION

Company : Monument Ridge East, LLC
Name : Maria Larsen
 Owner Consultant Contractor
Mailing Address : 5050 List Drive
Colorado Springs, CO 80919
Phone Number : 719-633-5430
Fax Number : N/A
Email Address : nbt.nml@gmail.com

ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon
Colorado P.E. Number : 31684
Mailing Address : 2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : jeff@LSCtrans.com

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Nona Larsen

Signature of owner (or authorized representative)

11/11/2024

Date

Engineer's Seal, Signature
And Date of Signature



DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

Deviation No. 2 (Rev 10-4-2024) A deviation from the standards of or in Sections 2.2.4.A.4 and 2.3.2 of the Engineering Criteria Manual (ECM) is requested.

The proposed new north terminus of Monument Hill Road, as shown on the preliminary plan and in Figure 11 of the TIS, would have the same roadway classification as the remainder of Monument Hill Road to the south (Rural Major Collector). To facilitate the relocated/realigned north terminus of Monument Hill Road farther to the south, several deviations to the roadway design elements are requested for the generally east-west segment proposed for the realigned north terminus. Generally, the request is for design elements more consistent with an Urban Local street, but with some elements consistent with an Urban Collector (such as no parking and no direct lot access driveways).

Identify the specific ECM standard which a deviation is requested:

2.2.4.A.4 (Rural Major Collector Access Criteria)

2.3.2 (Design Standards by Function Classification)

Table 2-5: Roadway Design Standards for Rural Collectors and Locals
Table 2-7: Roadway Design Standards for Urban Collectors and Locals

State the reason for the requested deviation:

The north terminus of Monument Hill Road, as shown on the preliminary plan and in Figure 11 of the TIS, would have the same roadway classification (as required by El Paso County staff) as the remainder of Monument Hill Road to the south (Rural Major Collector) as required by El Paso County staff. As it is not feasible for this new north segment to meet many of the Rural Major Collector criteria, a deviation is requested for this segment of roadway.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

A new east-to-west segment of Monument Hill Road is proposed to connect with Misty Acres Boulevard. South of the point of curvature on this segment, Monument Hill Road would be classified as a Rural Major Collector. However, this proposed 787-foot east-to-west segment would contain design elements typically found on Urban Local roadways, primarily, but with some consistent with Urban Residential Collector roadways (notably Collector - such as no parking and no direct lot access driveways).

Criteria	Rural Major Collector	Proposed Design
Design speed	50 mph	25 mph
Posted speed	45 mph	25 mph
Clear zone	20'	12'
Minimum centerline radius	930'	200'
Number of through lanes	2	2
Lane width	12'	12'
Right-of-way	90'	50'
Paved width	32'	30'

(continued from previous page)

Criteria	Rural Major Collector	Proposed Design
Median width	N/A	N/A
Outside shoulder width	8'	3'
Inside shoulder width	N/A	N/A
Curb/gutter type	N/A	6" vertical
Sidewalk width	N/A	5' attached
Design ADT	3,000	3,000
Design vehicle	WB-67	WB-67
Bike lanes permitted	No	No
Access permitted	No	Yes, but a private local street only, not individual lot driveways
Access spacing	N/A	N/A
Intersection spacing	1/4 mile	285' (200' required, per <i>ECM 2.2.5.E</i>)
Parking permitted	No	No

LIMITS OF CONSIDERATION

(At least one of the conditions listed below must be met for this deviation request to be considered.)

- The ECM standard is inapplicable to the particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

As shown in Figure 11 of the TIS, the subject section of Monument Hill Road shown on the Preliminary Plan will not work if designed to *ECM* criteria for Rural Major Collector roadways. The east-west separation distance between Monument Hill Road and Misty Acres Boulevard will not allow for a 50-mph horizontal curve radius. Also, a 50-mph design speed would not work with the land use and circulation/access plan, which is an urban-type development. Modifying this segment through the site for slower-speed, Urban Local/Urban Collector characteristics is reasonable and more appropriate.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

A deviation from Major Rural Collector design element standards is proposed on the north terminus of Monument Hill Road between its future intersection with Misty Acres Boulevard and just south of its curve into the site. Like the rest of Monument Hill Road to the south, this segment of street will be classified as a Rural Major Collector. However, a deviation is requested to allow a street with the following design elements on this 787-foot east-to-west segment:

Similar design elements for an Urban Collector

Curb and gutter type instead of ditch sections
Street width
"No on-street parking and no individual lot driveway access" cross-section
Design ADT
Right-of-way
Sidewalk included (plus width, separation from street)
Auxiliary turn-lane lengths (potentially)

Similar design elements for an Urban Local

Centerline radii
Design speed
Posted speed
Sight distance
Access spacing to the site access point
No paved shoulders
Access permitted (for private street/private access points)

The deviation will not adversely affect safety or operations.

With a 25-mph posted speed limit on the future east-west segment of Monument Hill Road (design speed of 25 mph), the field-measured sight distances for both approaches from Cannella Way access location would exceed the required 250-foot requirement for passenger cars per *ECM* Table 2-21. The sight distance looking to the west from the proposed south site access exceeds 250 feet, while there is available sight distance to the east to the intersection with Misty Acres Boulevard.

Sight distance lines of sight will need to be kept clear of any sight-distance obstructions, including landscaping, signage, structures, fencing, parking areas, etc.

Based on projected total volumes, auxiliary turn lanes would not be required on any approach at the intersection of Monument Hill Road/Cannella Way. Based on the recommended classification of this new segment/new north terminus of Monument Hill Road, the design speed will be 25 mph.

LSC recommends *MUTCD* horizontal-curve warning signage be installed on Monument Hill Road for traffic on the northbound approach to the proposed curve adjacent to the site. Specific signs and sign placement can be included for review as part of the construction plans.

Additionally, long-term background traffic volumes assume that existing traffic patterns would change, following the realignment of Monument Hill Boulevard and extension of Misty Acres Boulevard.

Along with these warning devices for emphasis, the 200-foot radius will force vehicles to reduce speed prior to passing along this segment of roadway. This is why A LOWER SPEED LIMIT (25 MPH) will be appropriate for this segment.

The deviation will not adversely affect maintenance and its associated cost.

The design elements will not affect the maintenance cost, as the roadway will not negatively affect the ability for snowplow and maintenance vehicles to complete their functions.

The deviation will not adversely affect aesthetic appearance.

The design of this segment of roadway will be more aesthetically consistent with the proposed adjacent development.

The deviation meets the design intent and purpose of the ECM standards.

The proposed design elements for this segment will be consistent with a lower-speed urban street through an urban-type development. The street width would be consistent with the Rural Major Collector street (32'). The paved width would be 30', but two-foot gutter pans on each side would result in a 34' (flowline to flowline) street width. No on-street parking is proposed.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Water quality will be provided. Construction of the roadways and development of the site will be required to meet the above sections of the MS4 permit. The deviation requested in itself does not involve any disturbance.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section 2.2.4.A.4, 2.3.2 of the ECM is hereby granted based on the justification provided.

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Denied by the ECM Administrator

This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

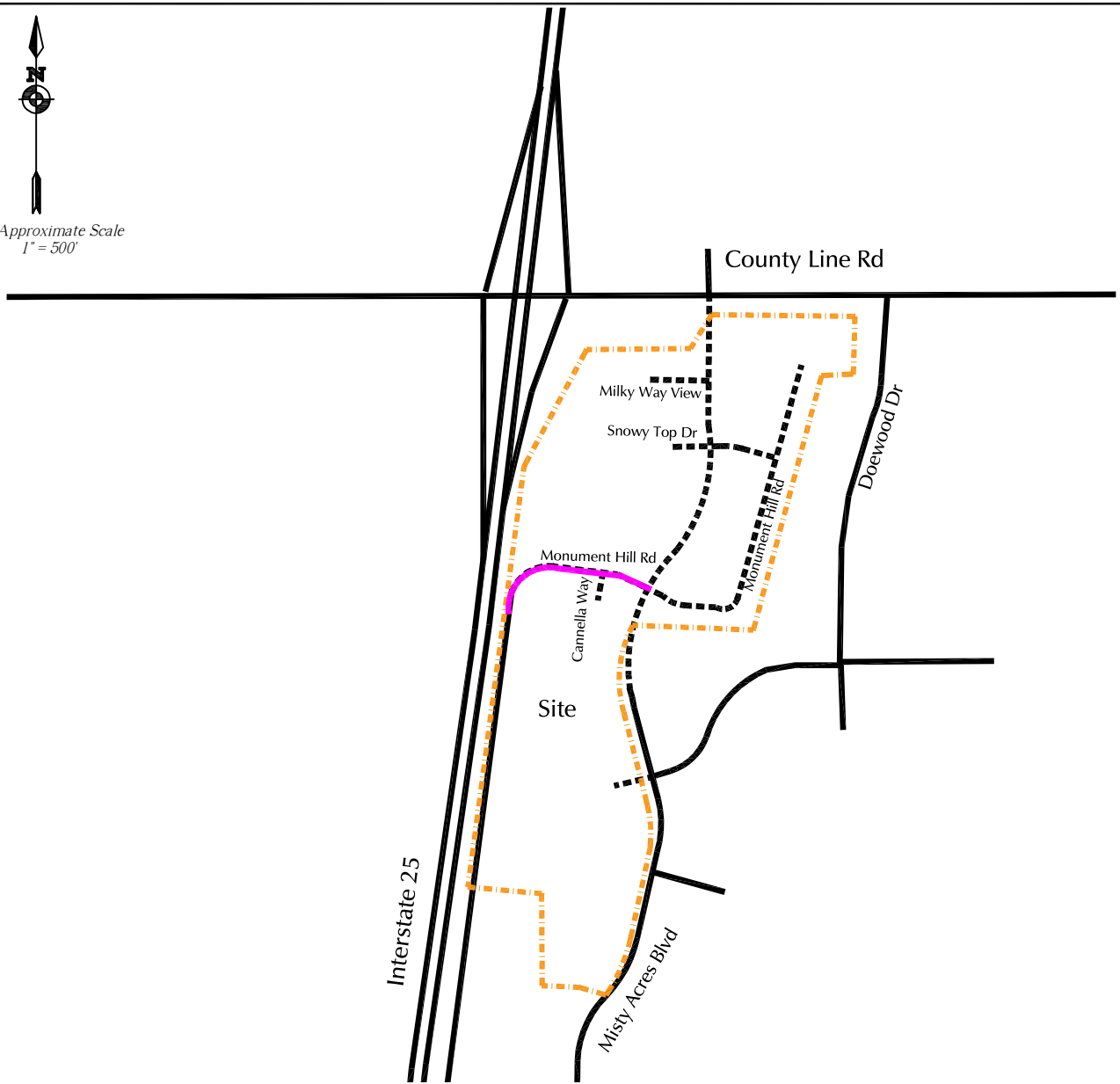
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ECM ADMINISTRATOR COMMENTS/CONDITIONS:



Approximate Scale
1" = 500'



Deviation Request from ECM 2.2.4.A.4 and 2.3.2 --
Design Standards by Function Classification

- Existing roadway
- Proposed roadway
- Portion of roadway (proposed) for which deviation is requested (please refer to table to the right)
- Site property boundary

Criteria	ECM Standard for a Rural Major Collector	Proposed Design	Meets Standard for:
Design Speed	50 mph	25 mph	Urban Local
Posted Speed	45 mph	25 mph	Urban Local
Clear Zone	20'	12'	Urban Local
Minimum Centerline Radius	930'	200'	Urban Local
Number of Through Lanes	2	2	Urban Collector
Lane Width	12'	12'	Urban Collector
Right-of-way	90'	50'	Urban Local*
Paved Width	32'	30'	Urban Local
Median Width	N/A	N/A	Urban Collector
Outside Shoulder Width	8'	3'	Urban Local (N/A)
Inside Shoulder Width	N/A	N/A	Urban Local
Curb/Gutter Type	N/A	6" vertical	Urban Collector
Sidewalk Width	N/A	5' attached	Urban Local
Design ADT	3,000	3,000	Urban Local
Design Vehicle	WB-67	WB-67	Urban Collector
Bike Lanes Permitted	No	No	Urban Local
Access Permitted	No	Yes, but a private local street only, not individual lot driveways	Urban Local
Access Spacing	N/A	N/A	N/A
Intersection Spacing	1/4 mile	285' (200' required per ECM 2.2.5.E)	Urban Local
Parking Permitted	No	No	Urban Collector

*5' public improvement easements on each side are also required for an Urban Local street

Deviation No. 2 - Exhibit 1

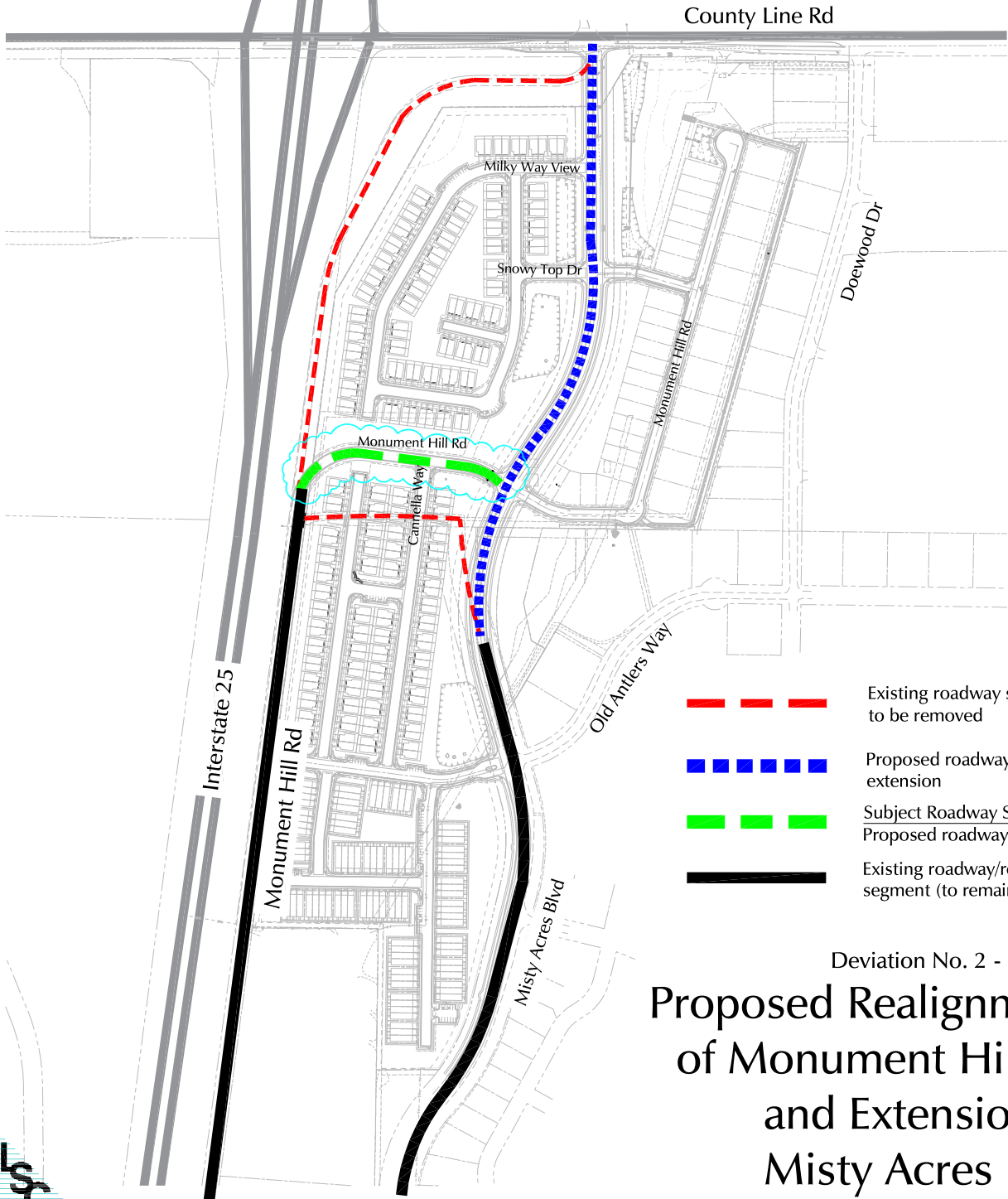
Proposed Roadway Segment Design Elements Compared to Rural Major Collector Design Criteria





Monument Ridge East (LSC# S234450)





Approximate Scale
1" = 500'



-  Existing roadway segment - to be removed
-  Proposed roadway extension
-  Subject Roadway Segment: Proposed roadway realignment
-  Existing roadway/roadway segment (to remain)

Deviation No. 2 - Exhibit 2
**Proposed Realignment
of Monument Hill Rd
and Extension of
Misty Acres Blvd**

Monument Ridge East (LSC# S234450)





Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910
Phone: 719.520.6300
Fax: 719.520.6695
Website: www.elpasoco.com

**DEVIATION REQUEST
AND DECISION FORM**
(Judge Orr Deviation)
Updated: 6/26/2019

PROJECT INFORMATION

Project Name : Monument Ridge East
Schedule No.(s) : 7102200013, 7102200006, 7102200010
Legal Description : TRACT OF LAND IN N2 SEC 02-11-67 DESC AS FOLS, COM AT NE COR OF SD SEC, TH S 89<06'54"
W 1320.00 FT, S 00<53'12" W 30.00 FT FOR POB, TH S 89<06'54" W 1834.51 FT TO PT ON ELY R/W LN
OF I25, TH ALG SD R/W S 29<33'00" W 180.19 FT, S 89<05'00" W 500.00 FT, S 29<16'30" W 675.30 FT,
S 06<43'00" W 36.92 FT, S 89<57'36" E 251.71 FT, S 06<43'00" W 337.98 FT, S 89<57'36" E 732.00 FT,
TH N 14<12'38" E 887.45 FT, N 89<06'34" E 500.0 FT M/L, N 00<02'24" W 270.0 FT, S 89<06'54" W 650.0
FT M/L TO POB, EX PT DES AS FOLS: TR OF LAND IN NW4 SEC 2-11-67 DES AS FOLS: COM AT NE
COR OF SD SEC 2, TH S 89<06'54" W ALG N LN OF SEC 2 A DIST OF 2879.42 FT, TH ON A
DEFLECTION ANGLE TO THE L OF 90<00'00" 50.00 FT TO A PT 20.00 FT S OF EXISTING SLY R/W LN
OF COUNTY LINE RD FOR POB, TH N 89<06'54" E 105.00 FT, S 13<48'06" W 130.00 FT, S 89<06'54" W
175.76 FT SLY OF S R/W LN OF SD RD A DIST OF 105.00 FT, N 13<48'06" E 130.00 FT TO POB, EX
THAT PT CONV BY REC #210120918, EX THAT PT TO COUNTY CONV BY REC #214002145.
TRACT OF LAND IN N2 SEC 02-11-67 DESC AS FOLS, COM AT NE COR OF SD SEC, TH S 89<06'54"
W 1320.00 FT, S 00<53'12" W 30.00 FT, S 00<53'12" E 270.01 FT, S 89<06'34" W 1599.97 FT, S
14<12'38" W 887.45 FT FOR POB, TH CONT S 14<12'38" W 102.63 FT, S 86<45'14" W 350.00 FT, S
00<24'09" W 236.98 FT, N 89<57'36" W 649.40 FT TO A PT ON ELY R/W LN OF I25, TH N 06<43'00" E
696.96 FT, S 89<57'36" E 251.71 FT, S 06<43'00" W 337.98 FT, S 89<57'36" E 732.00 FT TO POB.
THAT PART OF S2N2 LY ELY OF INTERSTATE 25 + WLY OF WOODCREST, NLY 15.00 AC M/L OF
E2SW4 SEC 2-11-67, EX THAT PT CONV TO PLAT 12181 MISTY ACRES SUB FIL NO 1, EX THAT PT
CONV TO PLAT 12182 MISTY ACRES SUB FIL NO 2

APPLICANT INFORMATION

Company : Monument Ridge East, LLC
Name : Maria Larsen
 Owner Consultant Contractor
Mailing Address : 5050 List Drive
Colorado Springs, CO 80919
Phone Number : 719-291-2472
Fax Number : N/A
Email Address : nbt.nml@gmail.com

ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon
Colorado P.E. Number : 31684
Mailing Address : 2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : jeff@LSCtrans.com

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Maana Larsen
Signature of owner (or authorized representative)

11/11/2024
Date

Engineer's Seal, Signature
And Date of Signature



DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

Deviation No. 1 (Rev. 10-4-2024) A deviation from the standards of or in Sections 2.2.5.D, 2.3.2 and 2.3.7.B. **Collector Access Standards** of the Engineering Criteria Manual (ECM) is requested.

Deviation request is to allow the proposed north access point location: Milky Way View to the planned extension of Misty Acres Boulevard. This deviation involves the intersection spacing of Milky Way View 395 feet to the north to the future County Line Road/Misty Acres Boulevard intersection.

Please refer to the attached Deviation Exhibits 1 and 2.

Identify the specific ECM standard which a deviation is requested:

2.2.5.D. Collector Access Standards. Collector roadways shall intersect another roadway (centerline to centerline) in accordance with the standards in Section 2.3.7. **On major collector roadways, the closest local roadway intersection to an arterial roadway shall be 660 feet (right-of-way line of arterial to centerline of local roadway).**

2.3.2 (Design Standards by Function Classification),
Table 2-7. Roadway Design Standards for Urban Collectors and Locals
Table 2-21. Entering Sight Distance

2.3.7. Intersections:
B. Intersection Spacing and General Access Standards

Spacing of roads accessing an Urban Non-Residential Collector that will result in a full-movement intersection shall be 330 feet. The 330-foot standard is reflected in ECM Table 2-7, which bases the required access spacing on stopping sight distance on the major roadway with a design speed of 40 mph (ECM Table 2-17).

State the reason for the requested deviation:

The deviation is requested as the proposed intersection spacing between County Line Road and the proposed Milky Way View is less than the prescribed 660 feet along the future alignment of Misty Acres Boulevard.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

As the adjacent intersection to the north is an Arterial (County Line Road), the standard requires an intersection centerline spacing of 660 feet. Centerline spacing on Misty Acres Boulevard between County Line Road and the Milky Way View would be 395 feet (see Deviation Exhibit 1).

LIMITS OF CONSIDERATION

(At least one of the conditions listed below must be met for this deviation request to be considered.)

- The ECM standard is inapplicable to the particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

- The proposed development west of the proposed Misty Acres Boulevard would offer limited access opportunity, and two access points are required for the area north and west of Misty Acres Boulevard and Monument Hill Road (realigned). The access opportunity is limited as 1) there would be no access to County Line Road to the north, 2) existing Monument Hill Road on the east side of the site will be removed with the creation of a new north terminus of Monument Hill Road to the south.
- The proposed alternative can accomplish the same design objective and would not compromise public safety or accessibility. The next section explains/justifies this.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

- The proposed access alternative would result in a better design to provide better site circulation and private local streets with provide better traffic distribution. Two access points are required for this residential project with greater than 25 lots and will result in better traffic operations because multiple access points will provide motorists with options for ingress/egress.
- The intersection of Milky Way View has been placed 330 feet north the proposed Snowy Top Drive intersection to the south (meets the *ECM* standard).
- The proposed intersection would meet sight-distance criteria, considering site-specific conditions rather than only general criteria for the roadway classification (see Deviation Exhibit 2).
- This access would be a T intersection (to the west) with no street connection on the east side of Misty Acres Boulevard. As there would be no east leg of this intersection, a southbound left-turn lane on the north side of the Misty Acres Boulevard/Milky Way View intersection would not be needed. Therefore, the full distance between this intersection and County Line Road can be utilized for the northbound approach to the Misty Acres/County Line Road intersection – notably for queuing of northbound-to-westbound left turns. Also, since Misty Acres Boulevard will end at County Line Road, all but negligible northbound traffic will turn left or right at County Line Road.

The deviation will not adversely affect safety or operations.

Entering Sight Distance

With a proposed design speed of 40 mph (35-mph posted speed limit) on Misty Acres Boulevard, the sight distance to the south at the proposed Milky Way View site-access location would be 665 feet. This exceeds the required 445-foot requirement for entering sight distance per *ECM* Table 2-21. The sight distance looking to the north from Milky Way View would have a sight distance of 345 feet. Although the general *ECM* standard by classification for a 40-mph design speed is 445 feet. Basically, all approaching southbound vehicles on Misty Acres Boulevard would be turning either left or right from County Line Road. Based on an approaching vehicle speed of about 25 mph, which is the estimated vehicle speed at the completion of a vehicle turn from County Line Road onto southbound Misty Acres Boulevard, the necessary/**required** (based on site-specific conditions) entering sight distance is 280 feet (also from Table 2-21, but for 25 mph). The plan-measured 345-foot distance would exceed this 280-foot distance. Please refer to Deviation Exhibit 2.

Stopping Sight Distance Approaching an Intersection

The stopping sight distance to an access/intersection along Misty Acres Boulevard (to Milky Way View) from the north and south would meet the *ECM*-prescribed 305-foot stopping sight distance requirement (grade adjustment may apply, depending on the roadway grades shown on the plan & profile drawings for Misty Acres Boulevard).

Vehicle Queuing

This access would be a T intersection (to the west) with no street connection on the east side of Misty Acres Boulevard. As there would be no east leg of this intersection, a southbound left-turn lane on the north side of the Misty Acres Boulevard/Milky Way View intersection would not be needed. Therefore, the full distance between this intersection and County Line Road can be utilized for the northbound approach to the Misty Acres/County Line Road intersection – notably for queuing of northbound-to-westbound left turns. The 2044 analysis indicates a 95th-percentile queue length of 128 feet, which can be accommodated with the proposed intersection spacing.

The deviation will not adversely affect safety or operations.

Intersection Level of Service

The proposed intersection would meet *ECM* criteria for level of service. Level of service is projected to be “B” for the eastbound approach for 2044.

T-Intersection

This access is proposed as a T-intersection rather than a four-leg intersection, which will have far fewer intersection conflict points than a four-leg, TWSC intersection.

The deviation will not adversely affect maintenance and its associated cost.

The spacing will not affect the maintenance cost as the spacing will not negatively affect the ability for snowplow and maintenance vehicles to perform roadway maintenance.

The deviation will not adversely affect aesthetic appearance.

Spacing will not affect the aesthetics, as the proposed intersection spacing meets the standard for local street intersection spacing along this classification of roadway (even though 660' is required to the north to an arterial roadway (County Line Road). Plus, the T-intersection configuration will be aesthetically more pleasing than a four-leg intersection.

The deviation meets the design intent and purpose of the *ECM* standards.

The proposed Milky Way View intersection site-access location, would meet the intent of *ECM* criteria, taking into account site-specific and plan-specific conditions and considering traffic-operations analysis results

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County’s MS4 permit, as applicable.

Water quality will be provided. Construction of the roadways and development of the site will be required to meet the above sections of the MS4 permit. The spacing deviation requested in itself does not involve any disturbance.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section 2.2.5.D, 2.3.2, 2.3.7.B of the ECM is hereby granted based on the justification provided.

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Denied by the ECM Administrator

This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

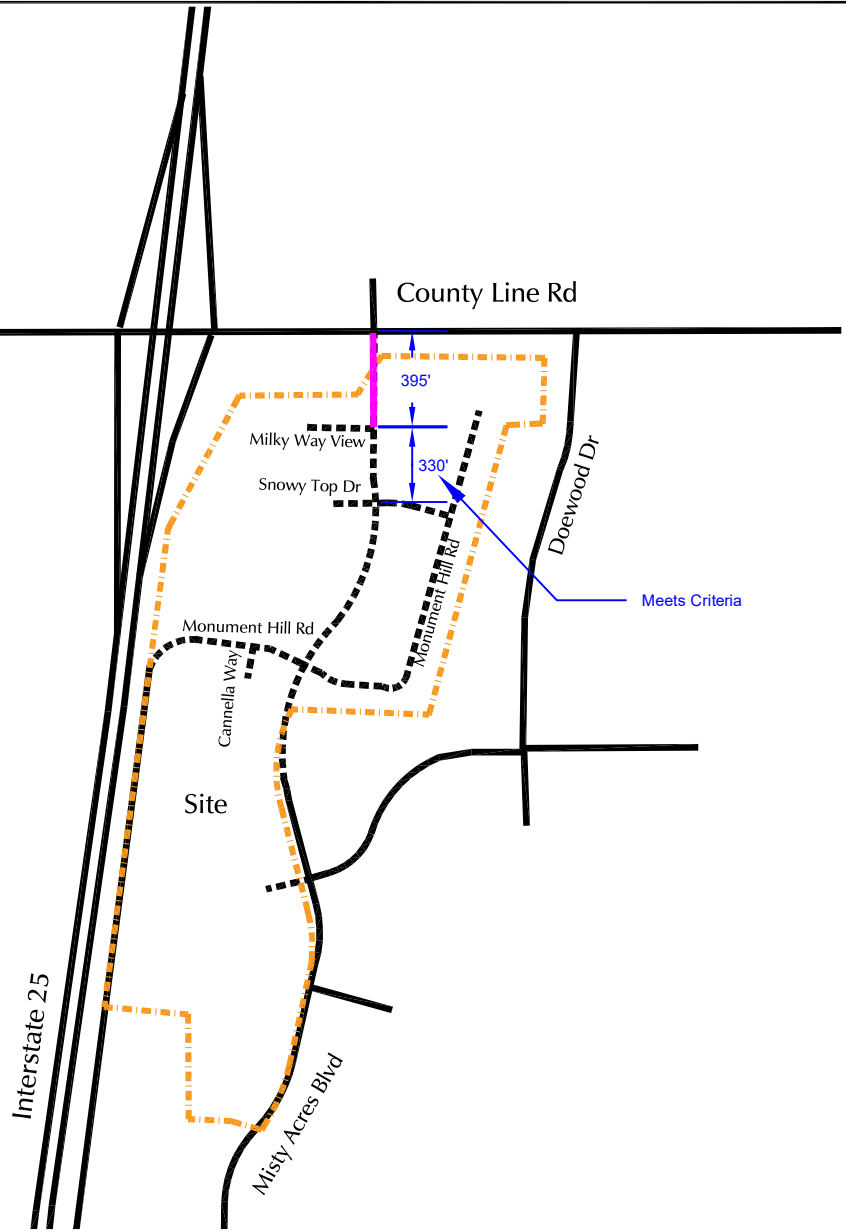
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
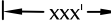

ECM ADMINISTRATOR COMMENTS/CONDITIONS:



Approximate Scale
1" = 800'



Deviation Request from ECM 2.3.2 -- Design Standards by Function Classification

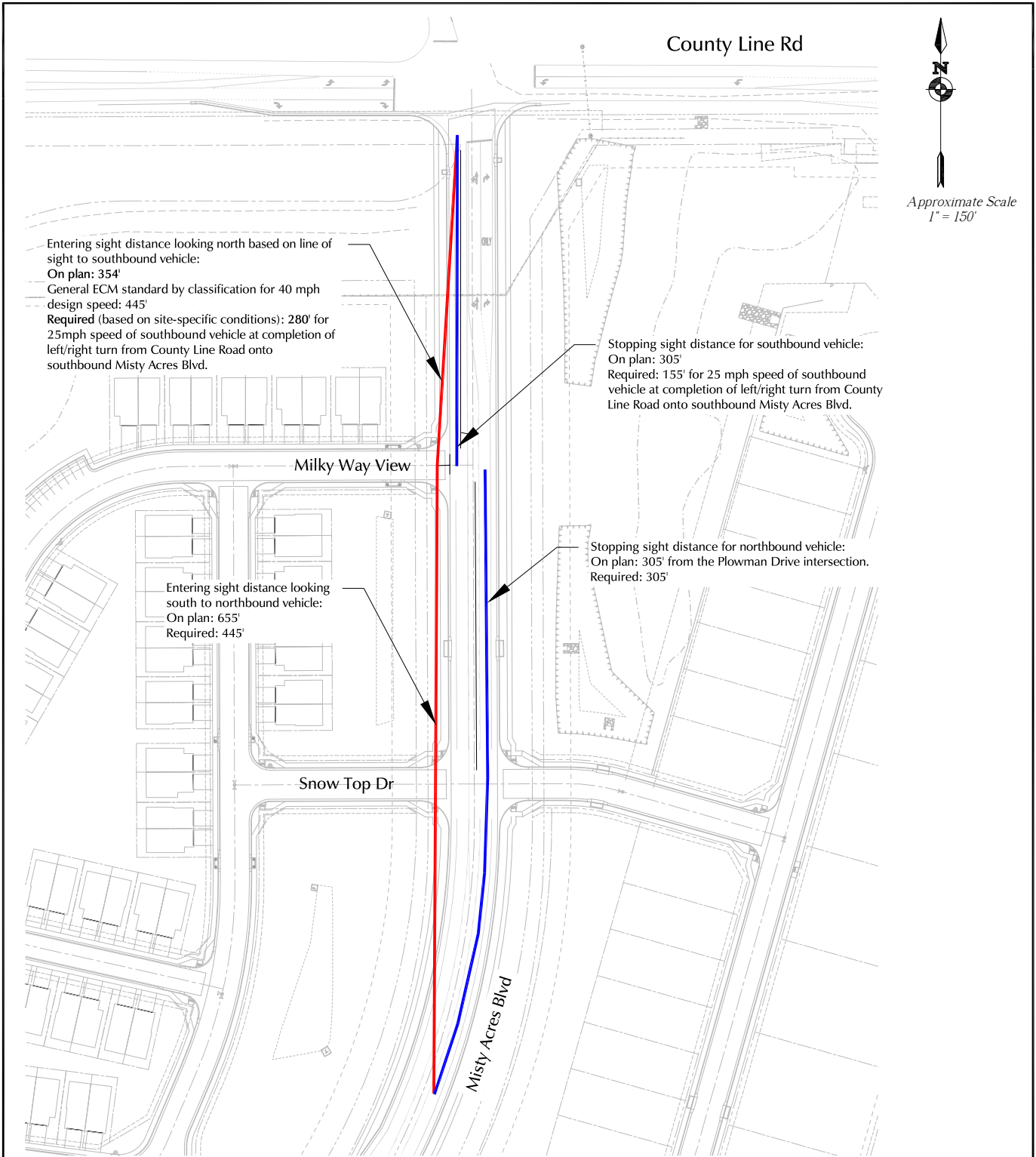
-  Existing roadway
-  Proposed roadway
-  Portion of proposed roadway for which deviation is requested
-  Intersection centerline spacing - 395' proposed, 660' required (Table 2-7)
(660' to the first street intersection from an arterial intersection)
-  Site property boundary

Deviation No. 1 - Exhibit 1

Intersection Spacing Along an Urban Major Collector

Monument Ridge East (LSC# S234450)





Deviation Exhibit No 2

copy of Exhibit 1a

Sight Distance - Milky Way View (North Access Intersection)

Monument Ridge East (LSC# S234450)