



LSC TRANSPORTATION CONSULTANTS, INC.
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Branding Iron at Sterling Ranch Filing No. 1
Homestead at Sterling Ranch Filing No. 1
Updated Traffic Technical Memorandum
(LSC #184280)
April 19, 2018

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.

signature

Change all
"Stapleton" to
"Briargate" or
"Stapleton/Briargate"
in the report text and
add a note that it's
the same road.

Developer's Statement

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

_____ Date



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April 19, 2018

Mr. Jim Morley
Morley-Bentley Investments, LLC
20 Boulder Crescent, 1st Floor
Colorado Springs, CO 80903

RE: Branding Iron at Sterling Ranch Filing No. 1
Homestead at Sterling Ranch Filing No. 1
El Paso County, CO
Updated Traffic Technical Memorandum
LSC #184280

Dear Mr. Morley:

LSC Transportation Consultants, Inc. has prepared this updated traffic technical memorandum for the first two residential filings proposed within the Sterling Ranch development. As shown on Figure 1, Sterling Ranch is located east of Vollmer Road near Lochwinnoch Lane between the future extensions of Marksheffel Road and Stapleton Drive in El Paso County, Colorado. LSC prepared a traffic impact study (TIS) for the entire Sterling Ranch development dated June 5, 2008. LSC also prepared a traffic impact analysis for the first phase of the Sterling Ranch development dated March 16, 2015. Since completion of that report, several transportation memoranda regarding the Sterling Ranch development have been prepared, the latest of which was dated October 2, 2017. The 2015 report and the 2017 memorandum included the parcels currently proposed as Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1. This report is intended as a site-specific, final plat traffic report for the two currently proposed filings.

REPORT CONTENTS

This report presents:

- Current traffic volume data.
- Estimates of projected intermediate-term (2025) traffic volumes.
- The recommended street classifications for the internal streets within the proposed development.
- Roadway capacity of the proposed Vollmer Road interim cross section.
- An evaluation of the ability of the short-term roadway improvements to accommodate the projected short-term traffic volumes.
- The project's obligation (if any) to the County roadway improvement fee program.

LAND USE AND ACCESS

The Branding Iron at Sterling Ranch Filing No. 1 is planned to include 51 lots for single-family homes. The Homestead at Sterling Ranch Filing No. 1 is planned to include 72 lots for single-family homes. The site plan for these two filings is shown in Figure 2. This land use is consistent with the land use assumed in the October 2017 transportation memorandum.

Figure 3 shows the new street connections planned to be constructed in the spring of 2018. These street connections are part of the Sterling Ranch Filing No. 1 plat. It is our understanding that Filing 1 has been recorded as of the week of April 9th. As shown on Figure 3, a section of Marksheffel Road is planned to be constructed southeast from Vollmer Road to Sterling Ranch Road, Sterling Ranch Road is planned to be constructed northeast from Marksheffel Road to Dines Boulevard, Dines Boulevard is planned to be constructed between Sterling Ranch Road and Vollmer Road, Wheatland Drive is planned to be constructed between Dines Boulevard and Briargate Parkway, and an interim cross section of Briargate Parkway is planned to be constructed between Vollmer Road and Wheatland Drive. Access for the two currently proposed filings is proposed to Dines Boulevard.

EXISTING TRAFFIC VOLUMES

May 2018

Figure 4 shows the existing daily and peak-hour traffic volumes on Vollmer Road adjacent to the site. The traffic volumes are from the attached traffic counts conducted adjacent to the site in September 2017. Figure 4 also shows the average weekday traffic volumes on Vollmer Road based on 24-hour machine (tube) counts conducted in September 2017.

2025 BACKGROUND TRAFFIC

Figure 5 shows the projected 2025 background traffic volumes. Background traffic is the traffic estimated to be on the roadways without the Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filings No. 1 traffic. Background traffic includes the existing traffic volumes (from Figure 4) plus increases in through traffic due to regional growth plus traffic estimated to be generated by buildout of the proposed Retreat at Timber Ridge development to be located generally northeast of the intersection of Vollmer Road and Poco Road.

TRIP GENERATION

The site-generated vehicle-trips were estimated using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 1 shows the current trip generation estimate.

Address second point of access, conditions of approval #16 and #20 on Sterling Ranch Filing No. 1: "16. In accordance with the Subdivision Improvements Agreement, no tract shall be replatted into buildable lots until construction of the road improvements associated with this final plat necessary to serve such tract are complete and preliminarily accepted by the County, or collateral acceptable to the County Attorney's Office has been provided."; "20. The Sterling Ranch Filing No. 1 Final Plat will create Tracts K and BB. Neither Tract K nor BB may be replatted into buildable lots until additional offsite road improvements are constructed so as to provide a second point of access to the development."

SHORT-TERM DIRECTIONAL DISTRIBUTION

Figure 6 shows the short-term directional distribution estimates. This figure has been taken from the July 2, 2014 Sterling Ranch traffic report. Note: It is our understanding that the Marksheffel extension northwest across Sand Creek to Vollmer Road is anticipated to occur in the short term, however this analysis assumes this connection not yet completed.

INTERMEDIATE-TERM (2025) SITE-GENERATED TRAFFIC

Figure 7 shows the projected site-generated traffic volume for the Branding Iron at Sterling Ranch Filing No. 1. Figure 8 shows the projected site-generated traffic volume for the Homestead at Sterling Ranch Filing No. 1. The site-generated traffic volumes were calculated by applying the directional distribution percentages (from Figure 6) to the trip generation estimates (from Table 1). Figure 9 shows the total site-generated traffic volumes. These volumes are the sum of the Branding Iron at Sterling Ranch Filing No. 1 site-generated traffic volumes from Figure 7 plus the Homestead at Sterling Ranch Filing No. 1 site-generated traffic volumes from Figure 8.

INTERMEDIATE-TERM (2025) TOTAL TRAFFIC

Figure 10 shows the projected total traffic volumes for the intermediate term. Total traffic volumes include 2025 background through traffic on Vollmer Road (from Figure 5) plus site-generated traffic volumes from these two proposed subdivision filings (from Figure 9).

LONG-TERM TRAFFIC

Please refer to the master traffic report—the June 5, 2008 Sterling Ranch Updated Traffic Impact Analysis by LSC—for the long-term peak-hour traffic volume projections and level of service analysis. The original report is for the entire Sterling Ranch Sketch Plan.

ESTIMATED VOLLMER ROAD IMPROVEMENTS/CAPACITY

The subdivision improvements agreement (SIA) paragraph 6.d. indicates the following:

THE SIA for this plat does not. Which plat's SIA?

6d. Vollmer Road: With respect to the Vollmer Road improvements described in Exhibit A, the parties agree that the addition of two lanes to the existing two lane cross section shall be required completed no later than three years from the date of recording of Filing No. 1. In the event that any portions of the four-lane cross section of Vollmer Road are not completed within the three-year time period, collateral sufficient in the opinion of the County to assure completion of the improvements must be posted by the Subdivider and a deadline by which such road improvements shall be completed shall be established by written agreement.

In the interim, auxiliary turn lanes will be completed on Vollmer Road as shown in the attached exhibit (Sterling Ranch – Vollmer Road (North) Street Improvement Plans) and as per the attached memo by LSC dated October 2, 2017.

Currently the MTCP indicates a capacity of existing Vollmer Road to be about 6,000 vehicles per day. The El Paso County *Engineering Criteria Manual* (ECM) indicates the average daily traffic (ADT) capacity of an ECM-standard rural minor arterial (two lanes) to be 10,000 vehicles per day. However, the proposed interim cross section is a hybrid between urban and rural cross sections and would include auxiliary turn lanes. With the addition of ECM-standard auxiliary right- and left-turn deceleration lanes, LSC estimates the capacity to be about 14,000 vehicles per day through the area of the improved cross section. This is comparable to the fee study estimate of the capacity of Fontaine Boulevard west of Marksheffel, which has a two-lane cross section and auxiliary turn lanes.

The projected intermediate-term total traffic volume as shown in Figure 9 would be 4,920 vehicles per day—well below the estimated capacity of 14,000 vehicles per day for a roadway of this cross section. The projected volume would also be below the estimated existing capacity of 6,000 vehicles per day.

PROJECTED INTERSECTION LEVELS OF SERVICE

The intersections of Marksheffel Road/Vollmer Road and Dines Boulevard/Vollmer Road, were analyzed to determine the projected levels of service for the intermediate-term total traffic volumes based on the unsignalized intersection analysis procedures from the *Highway Capacity Manual 6th Edition*. Figure 10 shows the level of service analysis results. The level of service reports are attached.

All of the intersections analyzed are projected to operate at a level of service B or better for all movements as stop-sign-controlled intersections.

SUBDIVISION STREET CLASSIFICATIONS

Figure 11 shows the recommended street classifications for Sterling Ranch Road, Dines Boulevard, and the internal streets within Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1.

ROADWAY IMPROVEMENTS

Based on the criteria contained in the El Paso County *Engineering Criteria Manual* and the classification of Vollmer Road as a Minor Arterial, northbound right-turn deceleration lanes and southbound left-turn lanes would **not** will be required on Vollmer Road approaching Marksheffel Road and Dines Boulevard following development of the Branding Iron at Sterling Ranch Filings No. 1 and the Homestead at Sterling Ranch Filing No. 1. **However, the road improvements required as part of the**

18. An escrow agreement, including a financial assurance estimate for the offsite improvements to Vollmer Road, as approved by the Planning and Community Development Department Director and the County Attorney's Office, shall be completed at the time of any subsequent final plat or replat within the Sterling Ranch development. A fair share contribution based on proportional calculated traffic generation shall be deposited for each plat or replat within the Sterling Ranch development.

ssed in our
interim cross

Provide amount per
condition of Fil 1

Should this be in the SIA?

section for Vollmer Road between Marksheffel Road and Stapleton Drive. The interim road improvement would widen the roadway to the east side. There would continue to be one through lane in each direction, but the interim road improvements would allow for southbound left-turn and northbound right-turn lanes at the Briargate Parkway/Vollmer and Dines/Vollmer intersections.

TRANSPORTATION IMPROVEMENT FEE PROGRAM

These two subdivision filings will be required to participate in the Countywide Transportation Improvement Fee Program. This project will annex into the 10 mil PID. Based on a per-lot upfront building permit fee of \$923 per dwelling unit, the total building permit fee amount for the 123 lots (both filings) would be \$113,529.

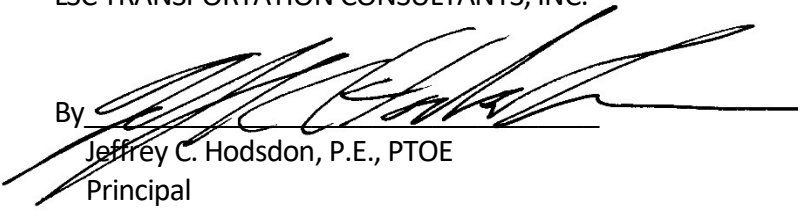
* * * * *

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

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By



Jeffrey C. Hodsdon, P.E., PTOE
Principal

JCH:KDF:bjwb

Enclosures: Table 1
Figures 1-11
Traffic Count Reports
Level of Service Reports
Sterling Ranch – Vollmer Road (North) Street Improvement Plans
Transportation Memo dated October 2, 2017

Table 1
Trip Generation Estimate
Branding Iron at Sterling Ranch Filing No. 1 and
Homestead at Sterling Ranch Filing No. 1

Filing	Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾				Total External Trips Generated					
				Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour		Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour	
					In	Out	In	Out		In	Out	In	Out
Branding Iron at Sterling Ranch Filing No. 1	210	Single-Family Detached Housing	51 DU ⁽²⁾	9.44	0.19	0.56	0.62	0.37	481	9	28	32	19
Homestead at Sterling Ranch Filing No. 1	210	Single-Family Detached Housing	72 DU	9.44	0.19	0.56	0.62	0.37	680	13	40	45	26
			123 DU						1,161	22	68	77	45

Notes:

(1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE)

(2) DU = dwelling unit

Source: LSC Transportation Consultants, Inc.

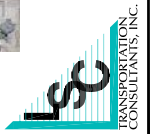


Approximate Scale
Scale: 1" = 3,000'



Figure 1
Vicinity
Map

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)



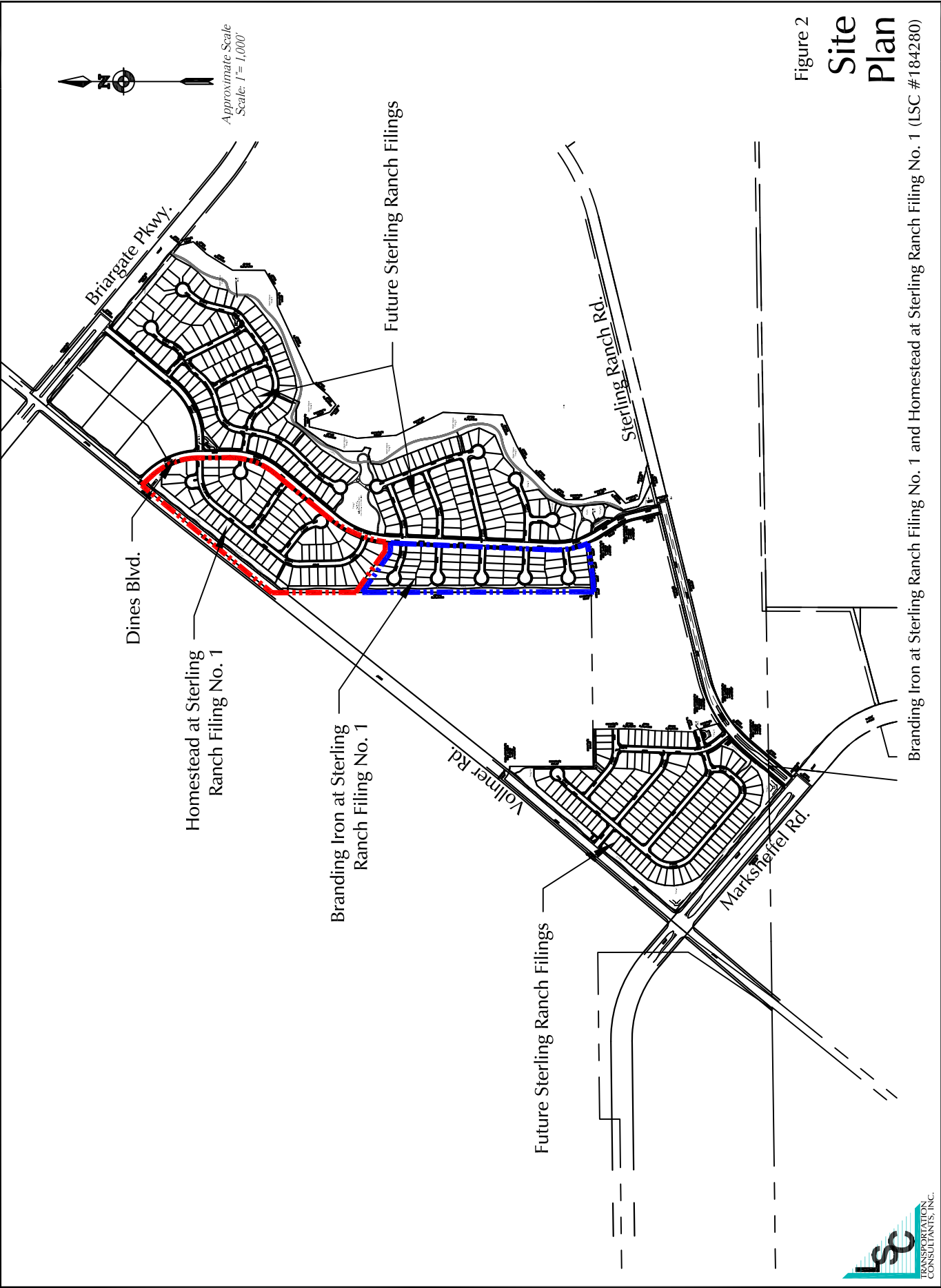


Figure 2
Site Plan

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)





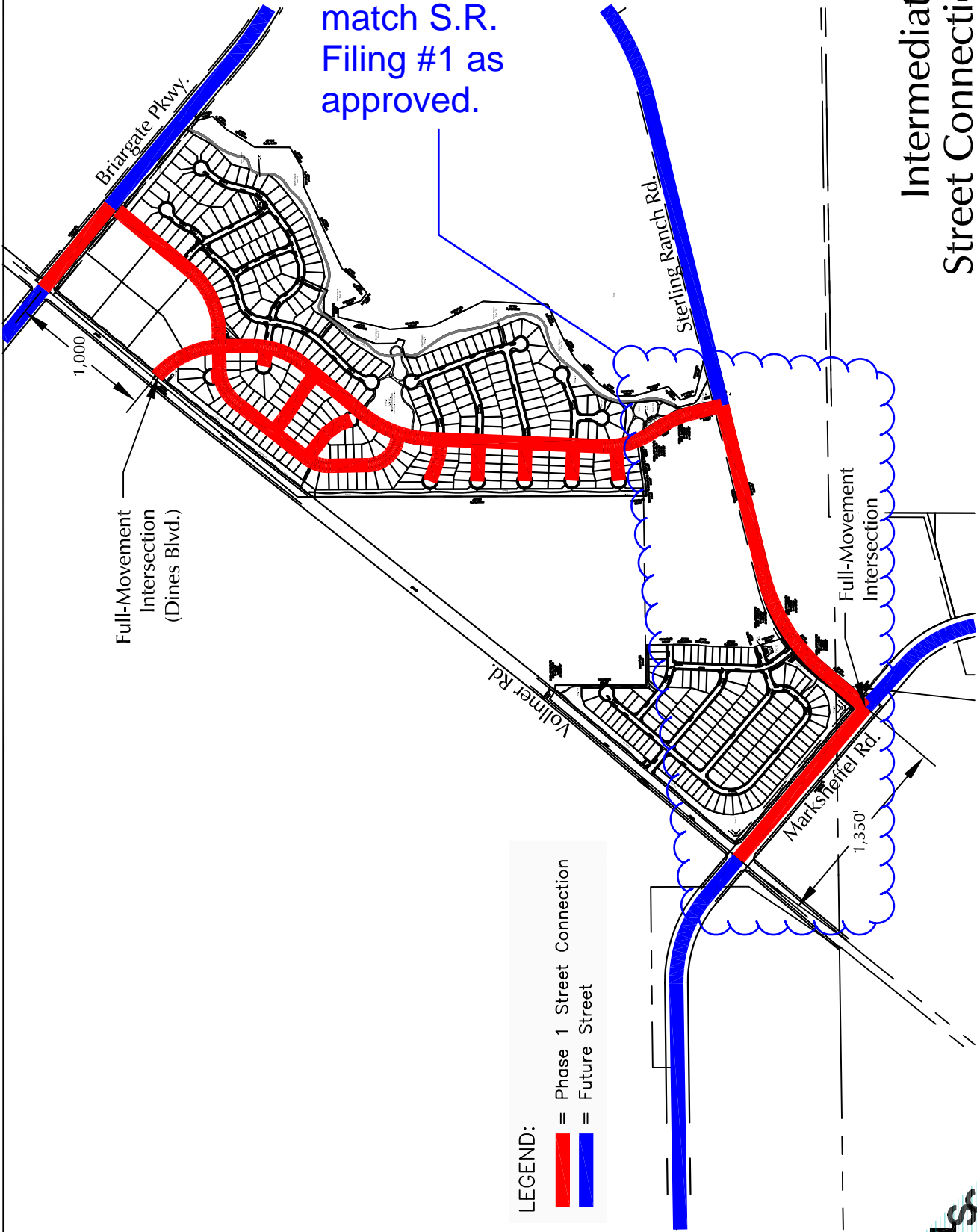
Approximate Scale
Scale: 1" = 1,000'

This Phase 1
does not
match S.R.
Filing #1 as
approved.

Figure 3

Intermediate Term Street Connection Plan

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)

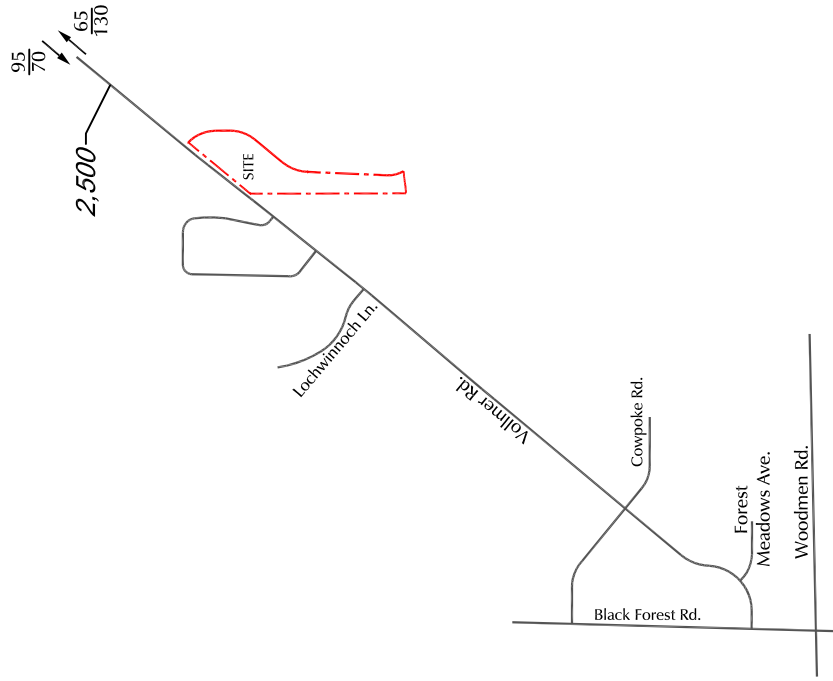


- LEGEND:
- █ = Phase 1 Street Connection
 - █ = Future Street





Approximate Scale
Scale: 1" = 3,000'



LEGEND:

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

XXX = Average Weekday Traffic (vehicles per day) September 2017

Figure 4

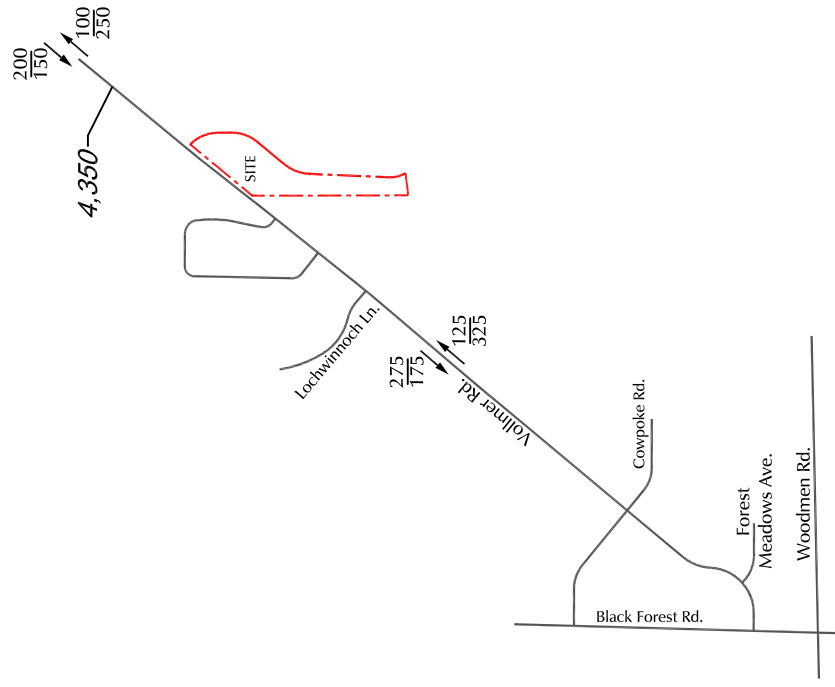
Existing Traffic Volumes

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)





Approximate Scale
Scale: 1" = 3,000'



LEGEND:

XX = AM Weekday Peak-Hour Traffic (vehicles per hour)
XX = PM Weekday Peak-Hour Traffic (vehicles per hour)

XXX = Average Weekday Traffic (vehicles per day)

Figure 5

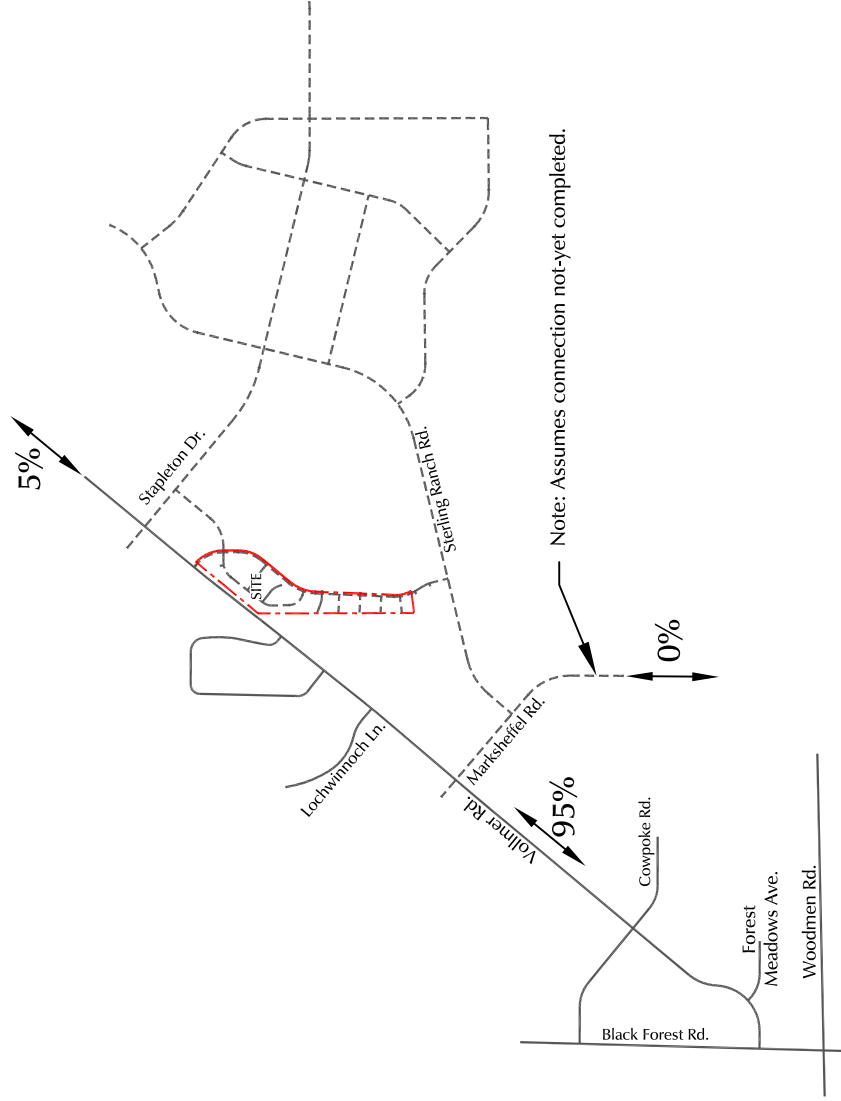
Year 2025 Background Traffic

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)





Approximate Scale
Scale: 1" = 3,000'



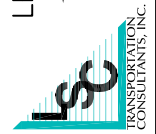
LEGEND:
↔ 35% = Percent Directional Distribution Residential

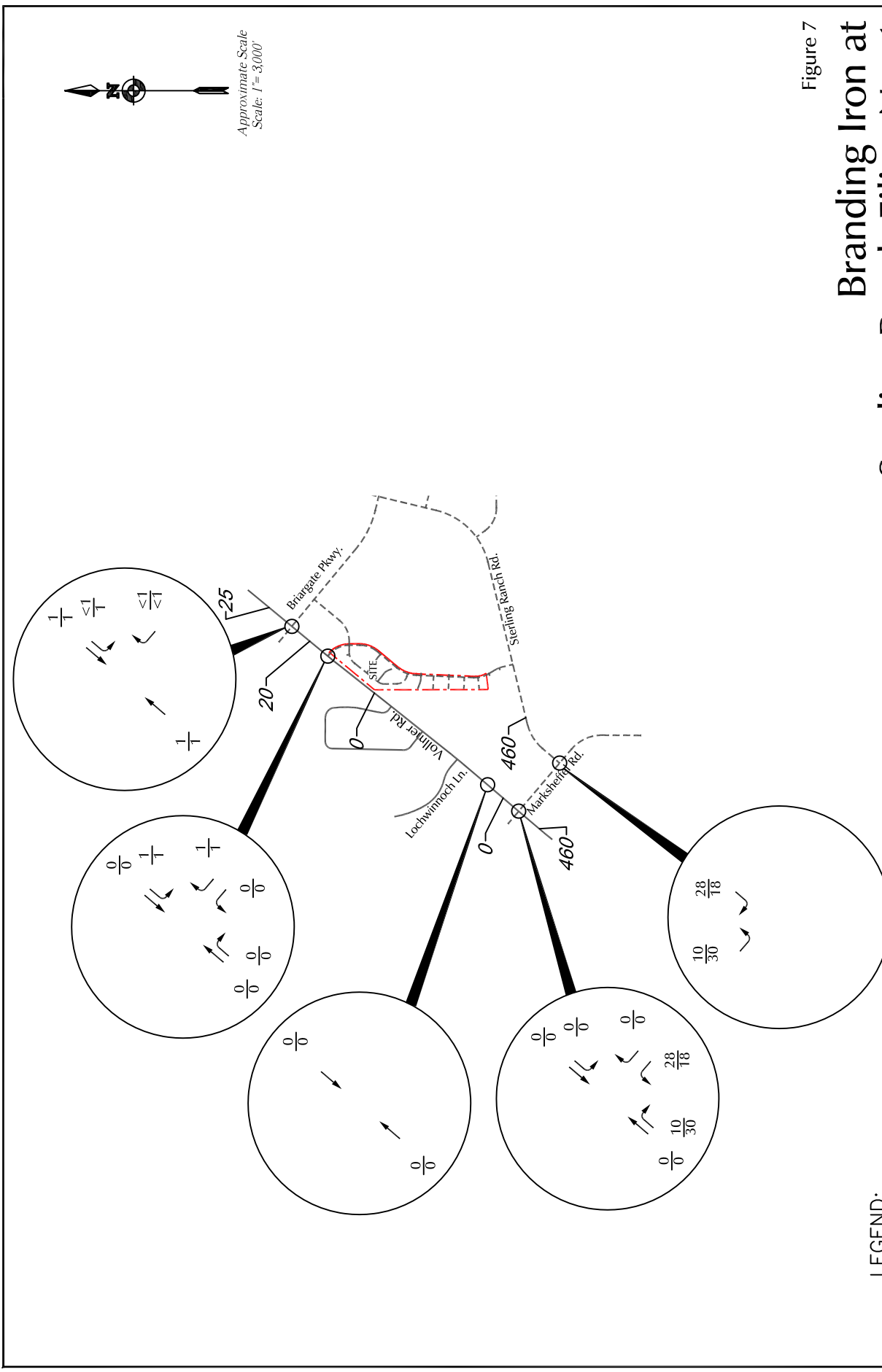
↔ 35% = Percent Directional Distribution Residential

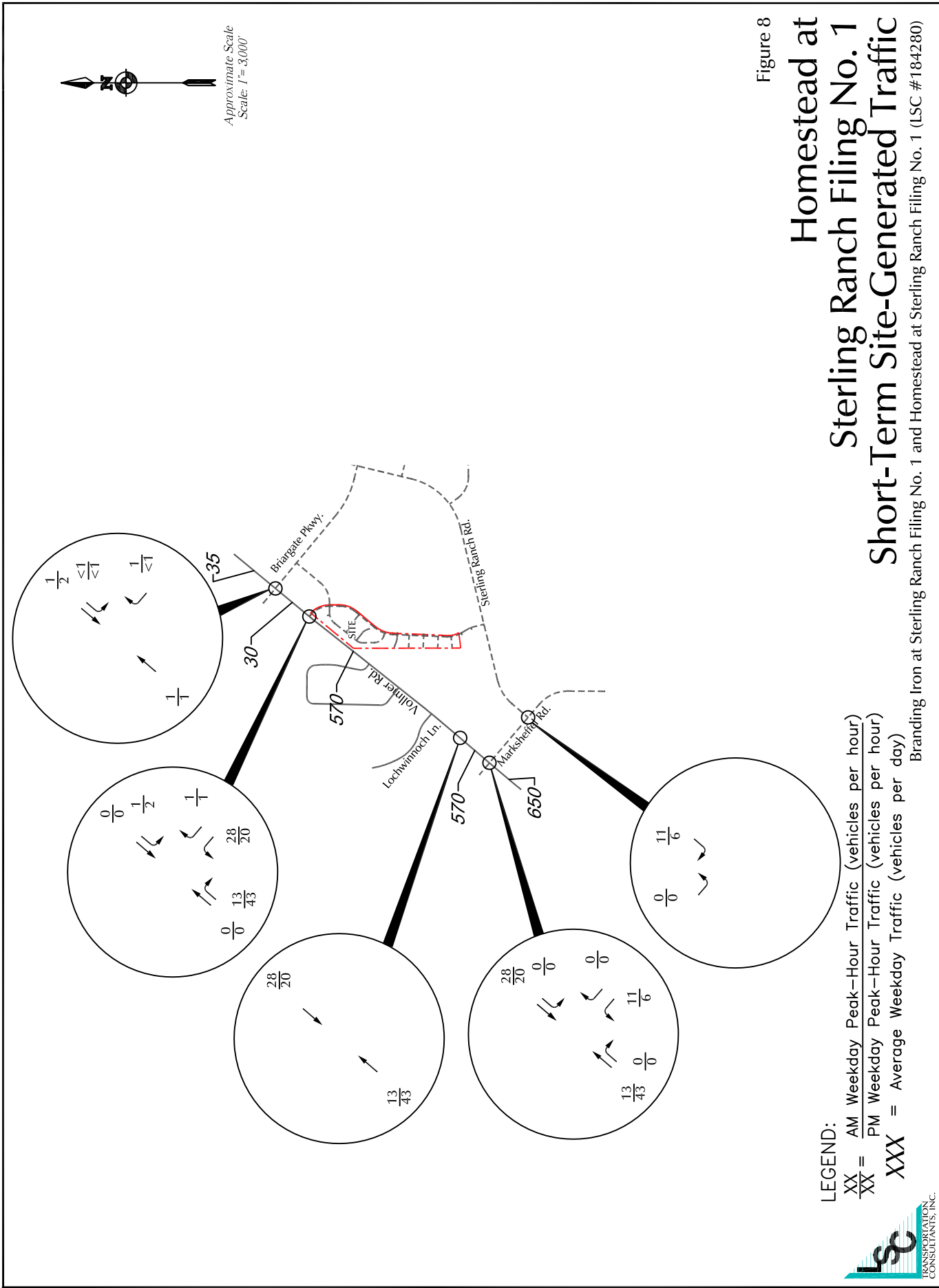
Short-Term Directional Distribution of Site-Generated Traffic

Figure 6

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)

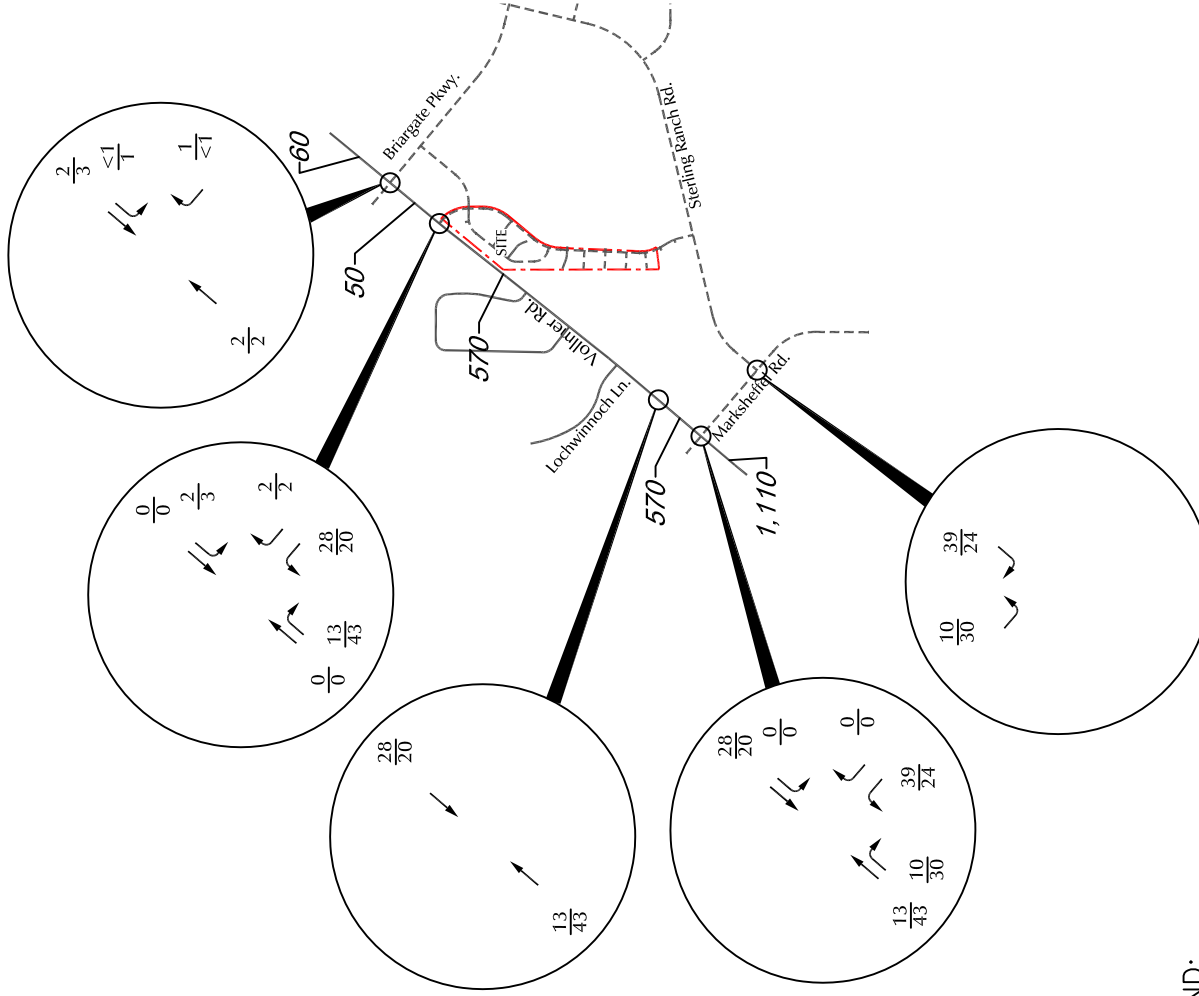








Approximate Scale
Scale: 1" = 3,000'



* Includes Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1

Figure 9

Short-Term* Site-Generated Traffic

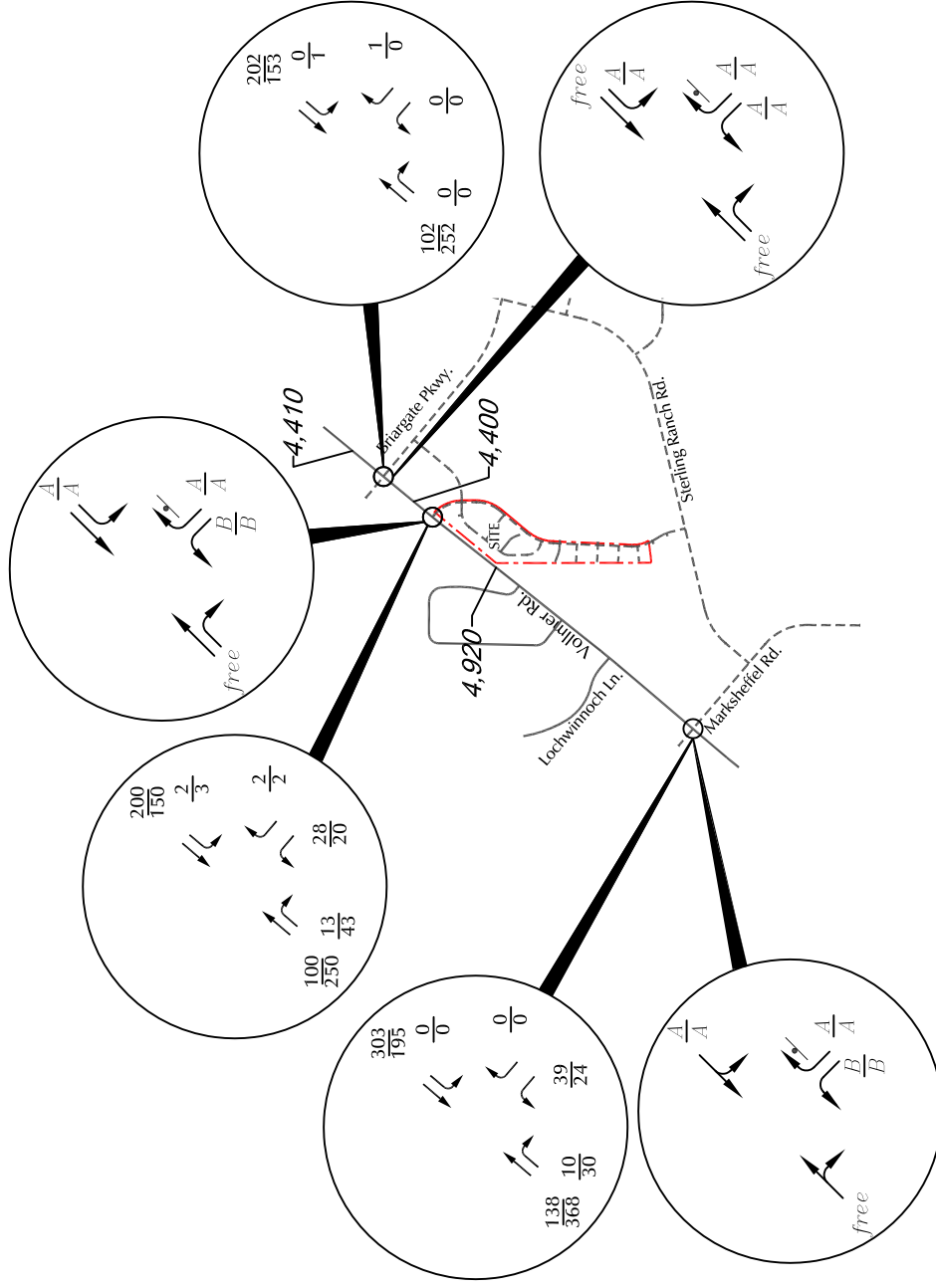
LEGEND:
 XX = AM Weekday Peak-Hour Traffic (vehicles per hour)
 XX = PM Weekday Peak-Hour Traffic (vehicles per hour)
 XXX = Average Weekday Traffic (vehicles per day)

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)





Approximate Scale
Scale: 1" = 3,000'



LEGEND:

↑ = Stop Sign

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

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

$\frac{A}{B}$ = AM Individual Movement Peak-Hour Level of Service

$\frac{A}{B}$ = PM Individual Movement Peak-Hour Level of Service

LSC-XXX = Average Weekday Traffic (vehicles per day)



Figure 10

Year 2025 Background plus Site Traffic

Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)

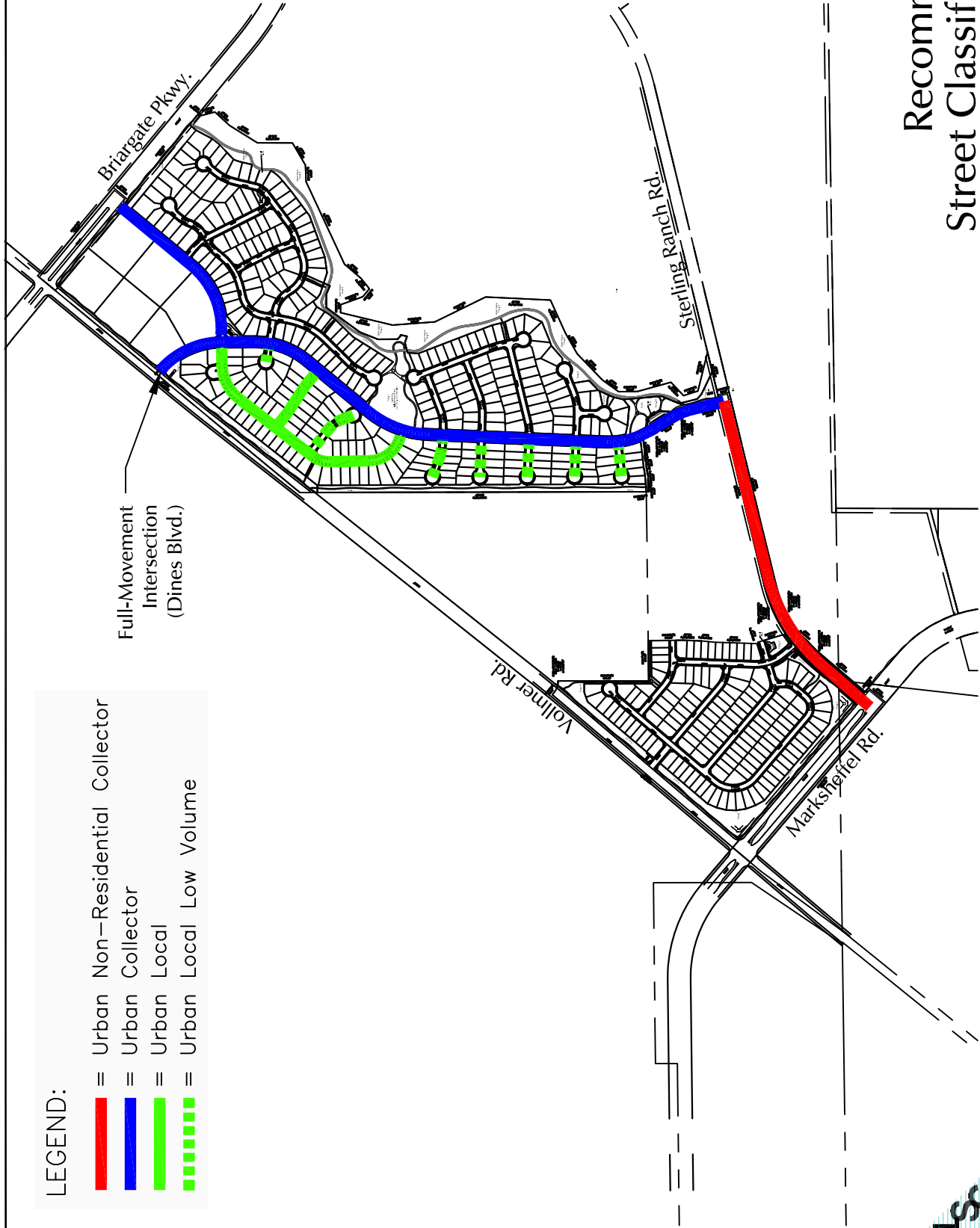
LEGEND:

- █ = Urban Non-Residential Collector
- █ = Urban Collector
- █ = Urban Local
- █ = Urban Local Low Volume

Full-Movement Intersection (Dines Blvd.)



Approximate Scale
Scale: 1" = 1,000'



Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 (LSC #184280)

Figure 11
Recommended
Street Classifications



Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	0	138	10	0	303
Future Vol, veh/h	39	0	138	10	0	303
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	0	150	11	0	374

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	530	156	0	0	161
Stage 1	156	-	-	-	-
Stage 2	374	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	510	890	-	-	1418
Stage 1	872	-	-	-	-
Stage 2	696	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	510	890	-	-	1418
Mov Cap-2 Maneuver	510	-	-	-	-
Stage 1	872	-	-	-	-
Stage 2	696	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	510	-	1418
HCM Lane V/C Ratio	-	-	0.083	-	-
HCM Control Delay (s)	-	-	12.7	0	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	-	0

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	28	2	100	13	2	200
Future Vol, veh/h	28	2	100	13	2	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	2	109	14	2	247

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	360	109	0	0	123	0
Stage 1	109	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	639	945	-	-	1464	-
Stage 1	916	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	638	945	-	-	1464	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	791	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	638	945	1464
HCM Lane V/C Ratio	-	-	0.048	0.002	0.002
HCM Control Delay (s)	-	-	10.9	8.8	7.5
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	0	1	102	0	0	202
Future Vol, veh/h	0	1	102	0	0	202
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	111	0	0	249

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	360	111	0	0	111	0
Stage 1	111	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	639	942	-	-	1479	-
Stage 1	914	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	639	942	-	-	1479	-
Mov Cap-2 Maneuver	639	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	792	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	942	1479
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	-	-	0	8.8	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0	0

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	0	368	30	0	195
Future Vol, veh/h	24	0	368	30	0	195
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	0	396	32	0	203

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	615	412	0	0	428
Stage 1	412	-	-	-	-
Stage 2	203	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	455	640	-	-	1131
Stage 1	669	-	-	-	-
Stage 2	831	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	455	640	-	-	1131
Mov Cap-2 Maneuver	455	-	-	-	-
Stage 1	669	-	-	-	-
Stage 2	831	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	455	-	1131
HCM Lane V/C Ratio	-	-	0.057	-	-
HCM Control Delay (s)	-	-	13.4	0	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	-	0

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	20	2	250	43	3	150
Future Vol, veh/h	20	2	250	43	3	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	2	269	46	3	156

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	431	269	0	0	315
Stage 1	269	-	-	-	-
Stage 2	162	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	581	770	-	-	1245
Stage 1	776	-	-	-	-
Stage 2	867	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	580	770	-	-	1245
Mov Cap-2 Maneuver	580	-	-	-	-
Stage 1	774	-	-	-	-
Stage 2	867	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	580	770	1245
HCM Lane V/C Ratio	-	-	0.037	0.003	0.003
HCM Control Delay (s)	-	-	11.4	9.7	7.9
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	0	0	252	0	1	153
Future Vol, veh/h	0	0	252	0	1	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	271	0	1	159

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	432	271	0	0	271
Stage 1	271	-	-	-	-
Stage 2	161	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	581	768	-	-	1292
Stage 1	775	-	-	-	-
Stage 2	868	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	580	768	-	-	1292
Mov Cap-2 Maneuver	580	-	-	-	-
Stage 1	774	-	-	-	-
Stage 2	868	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1292
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	0	7.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0



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October 2, 2017

Mr. Jim Morley
Morley-Bentley Investments, LLC
20 Boulder Crescent, 1st Floor
Colorado Springs, CO 80903

RE: Sterling Ranch Phases 1-3
El Paso County, CO
Traffic Technical Memorandum
LSC #144010

Dear Mr. Morley:

LSC Transportation Consultants, Inc. has prepared this traffic technical memorandum for Phases 1-3 of the Sterling Ranch development. As shown on Figure 1, the site is located east of Vollmer Road near Lochwinnoch Lane between the future extensions of Marksheffel Road and Stapleton Drive in El Paso County, Colorado.

This memorandum has been prepared to address the proposed interim cross section of Vollmer Road (please refer to attached exhibits). Due to current constraints on the west side of Vollmer Road, the applicant is proposing an interim cross section along the frontage of Sterling Ranch Phase 1. This interim cross section and proposed laneage is attached. The proposed interim road improvement would widen the roadway to the east side. There would continue to be one through lane in each direction but the interim road improvements would allow for southbound left-turn and northbound right-turn lanes at the Briargate Parkway/Vollmer and Dines/Vollmer intersections (both access points to Sterling Ranch Phase 1).

REPORT CONTENTS

This report presents:

- Current traffic volume data
- Estimates of projected “intermediate-term” (2025) traffic volumes
- Roadway capacity of this interim cross section
- An evaluation of the ability of the short-term roadway improvements to accommodate the projected short-term traffic volumes.

LAND USE AND ACCESS

The site plan figure from the July 2, 2014 traffic report for Sterling Ranch is attached for reference. That traffic report assumed 672 lots in the area shown but no commercial development in the short term at the southeast corner of Vollmer/Briargate Parkway. The analysis in this memo assumes buildout of 719 lots, reflecting a minor increase over the previously anticipated 672-lot count.

EXISTING TRAFFIC VOLUMES

Figure 2 shows the existing daily and peak-hour traffic volumes on Vollmer Road adjacent to the site. The traffic volumes are from the attached traffic counts conducted adjacent to the site in September 2017. Figure 2 also shows the average weekday traffic volumes on Vollmer Road based on 24-hour machine (tube) counts conducted in September 2017.

2025 BACKGROUND TRAFFIC

Volumes in Figure 3 represent eight years of growth in current Vollmer Road traffic volumes (out to 2025) at 5.4 percent per year. This is the growth rate of volumes projected in the 2016 *Major Transportation Corridors Plan (MTCP) Update*. Note: It is our understanding that the Marksheffel extension southeast across Sand Creek will occur in the short term, however no timing is available from the City of Colorado Springs.

TRIP GENERATION

The site-generated vehicle-trips were estimated using the nationally published trip generation rates from *Trip Generation, 9th Edition, 2012* by the Institute of Transportation Engineers (ITE). Table 1 shows the current trip generation estimate.

SHORT-TERM DIRECTIONAL DISTRIBUTION

Figure 4 shows the short-term directional distribution estimates. This figure has been taken from the July 2, 2014 Sterling Ranch traffic report. Note: It is our understanding that the Marksheffel extension northwest across Sand Creek to Vollmer Road is anticipated to occur in the short term, however no timing of this connection is available from the City of Colorado Springs.

INTERMEDIATE-TERM (2025) SITE-GENERATED TRAFFIC

Figure 5 shows the projected site-generated traffic volume for 719 lots. The site-generated traffic volumes were calculated by applying the directional distribution percentages (from Figure 4) to the trip generation estimates (from Table 1).

INTERMEDIATE-TERM (2025) TOTAL TRAFFIC

Figure 6 shows the projected total traffic volumes for the intermediate term. Total traffic volumes include 2025 background through traffic on Vollmer Road (from Figure 3) plus Phase 1 site-generated traffic volumes (from Figure 5).

ESTIMATED VOLLMER ROAD CAPACITY

Currently the MTCP indicates a capacity of existing Vollmer Road to be about 6,000 vehicles per day. The ECM indicates the ADT capacity of an ECM-standard rural minor arterial (two lanes) to be 10,000 vehicles per day. However, the proposed interim cross section is a hybrid between urban and rural cross sections and would include auxiliary turn lanes. With the addition of ECM-standard auxiliary right- and left-turn deceleration lanes, LSC estimates the capacity to be about 14,000 vehicles per day through the area of the improved cross section. This is comparable to the fee study estimate of the capacity of Fontaine Boulevard west of Marksheffel, which has a two-lane cross section and auxiliary turn lanes.

The projected intermediate-term total traffic volume as shown in Figure 6 would be 5,300 vehicles per day—well below the estimated capacity of 14,000 vehicles per day for a roadway of this cross section. The projected volume would also be below the estimated existing capacity of 6,000 vehicles per day.

PROJECTED INTERSECTION LEVELS OF SERVICE

The intersections of Marksheffel Road/Vollmer Road and Stapleton Drive/Vollmer Road, and the two full-movement site access intersections to Vollmer Road were analyzed to determine the projected levels of service for the intermediate-term total traffic volumes based on the unsignalized intersection analysis procedures from the *Highway Capacity Manual*. Figure 6 shows the level of service analysis results. The level of service reports are attached.

As shown on the figures, all the intersections analyzed are projected to operate at a level of service B as stop-sign-controlled intersections.

* * * * *

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

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By _____
Jeffrey C. Hodsdon, P.E., PTOE
Principal



JCH:bjwb

Enclosures: Table 1
Figures 1-6
Cross Section and Laneage Exhibits
Site Plan Exhibit from July 2, 2014 Report
Traffic Count Reports
Level of Service Reports

**Table 1
Trip Generation Estimate
Sterling Ranch Phases 1-3**

TAZ ⁽²⁾	Parcel	Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾				Total External Trips Generated						
					Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour		Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour		
						In	Out	In	Out		In	Out	In	Out	
October 2017 Currently Anticipated Sterling Ranch Phases 1-3 (Residential Trip Generation Only)															
2, 4, 5, 6, & 7	A1-A4; B1-B3	210	Single-Family Detached Housing	719 DU ⁽³⁾	9.52	0.19	0.56	0.63	0.37	6,845	135	404	453	266	
Sterling Ranch Phases 1-3 Traffic Impact Analysis July 2, 2014															
Phase 1															
7	A1	210	Single-Family Detached Housing	100 DU	9.52	0.19	0.56	0.63	0.37	952	19	56	63	37	
2	A2	210	Single-Family Detached Housing	100 DU	9.52	0.19	0.56	0.63	0.37	952	19	56	63	37	
4	A3	---	Sanitary Lift Station	-----	---	---	---	---	---	---	---	---	---	---	
				Total Phase 2	200 DU					1,904	38	112	126	74	
Phase 2															
7	A1	210	Single-Family Detached Housing	60 DU	9.52	0.19	0.56	0.63	0.37	571	11	34	38	22	
2	A2	210	Single-Family Detached Housing	92 DU	9.52	0.19	0.56	0.63	0.37	876	17	52	58	34	
6	A4	210	Single-Family Detached Housing	7 DU	9.52	0.19	0.56	0.63	0.37	67	1	4	4	3	
				Total Phase 2	159 DU					1,514	29	90	100	59	
2, 4, 5, 6, & 7	Total Phases 1 & 2			359 DU						3,418	67	202	226	133	
Phase 3															
7	B1	210	Single-Family Detached Housing	34 DU	9.52	0.19	0.56	0.63	0.37	324	6	19	21	13	
	B2	210	Single-Family Detached Housing	133 DU	9.52	0.19	0.56	0.63	0.37	1,266	25	75	84	49	
5 & 6	B3	210	Single-Family Detached Housing	146 DU	9.52	0.19	0.56	0.63	0.37	1,390	27	82	92	54	
				Total Phase 3	313 DU					2,980	58	176	197	116	
2, 4, 5, 6, & 7	Total Phases 1, 2, & 3			672 DU						6,398	125	378	423	249	
Sterling Ranch Updated Traffic Impact Analysis June 5, 2008															
4	---	220	Apartment	89 DU	6.72	0.10	0.41	0.40	0.22	598	9	36	36	19	
2	---	210	Single-Family Detached Housing	234 DU	9.57	0.19	0.56	0.64	0.37	2,239	44	132	149	87	
5	---	210	Single-Family Detached Housing	82 DU	9.52	0.19	0.56	0.63	0.37	781	15	46	52	30	
6	---	210	Single-Family Detached Housing	103 DU	9.52	0.19	0.56	0.63	0.37	981	19	58	65	38	
7	---	210	Single-Family Detached Housing	611 DU	9.52	0.19	0.56	0.63	0.37	5,817	115	344	385	226	
				Total TAZs 2, 5, 6, & 7	1,030 DU					9,818	193	580	651	381	
Difference in Estimated Trip Generation TAZs 2, 5, 6 & 7				-311 DU						-2,973	-58	-176	-198	-115	

Notes:

- (1) Source: "Trip Generation, 9th Edition, 2012" by the Institute of Transportation Engineers (ITE)
- (2) TAZ = Traffic Analysis Zone from Sterling Ranch Updated Traffic Impact Analysis by LSC June 5, 2008
- (3) DU = dwelling unit

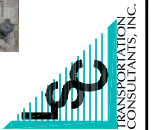


Approximate Scale
Scale: 1" = 3,000'



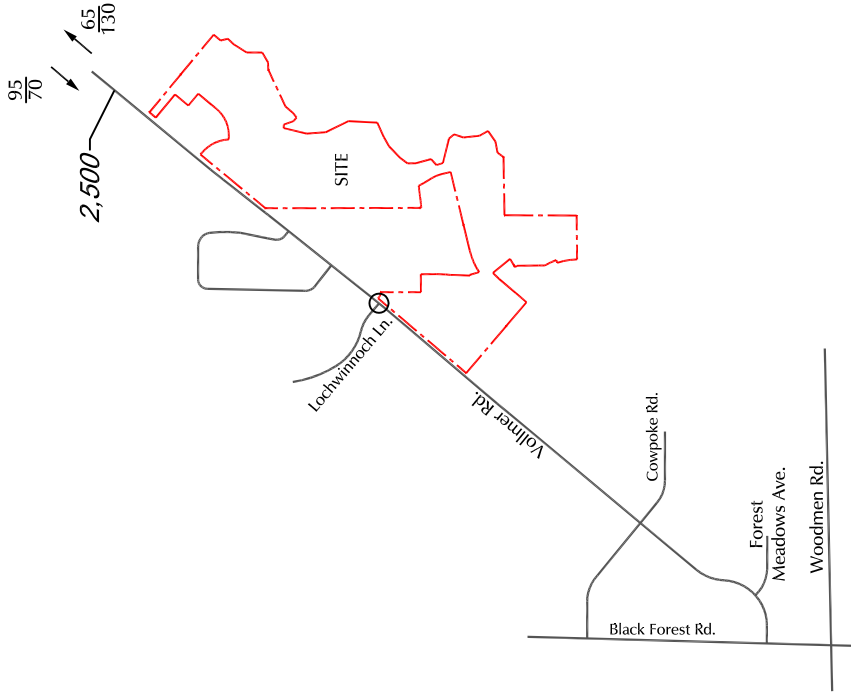
Figure 1
Vicinity
Map

Sterling Ranch (LSC #144010)





Approximate Scale
Scale: 1" = 3,000'



LEGEND:

⊥ = Stop Sign

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

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

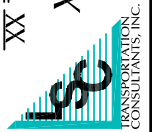
X,XXX = Average Weekday Traffic (vehicles per day) September 2017

*Based on counts conducted September 2017

Figure 2

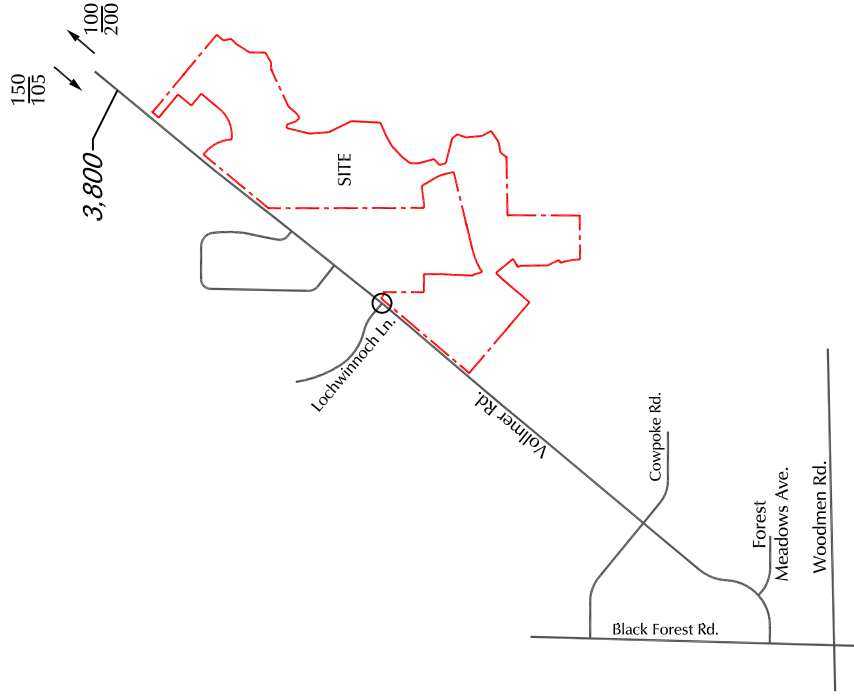
Existing Traffic Volumes

Sterling Ranch (LSC #144010)





Approximate Scale
Scale: 1" = 3,000'



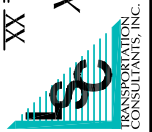
LEGEND:

- $\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
- X,XXX = Average Weekday Traffic (vehicles per day)

Figure 3

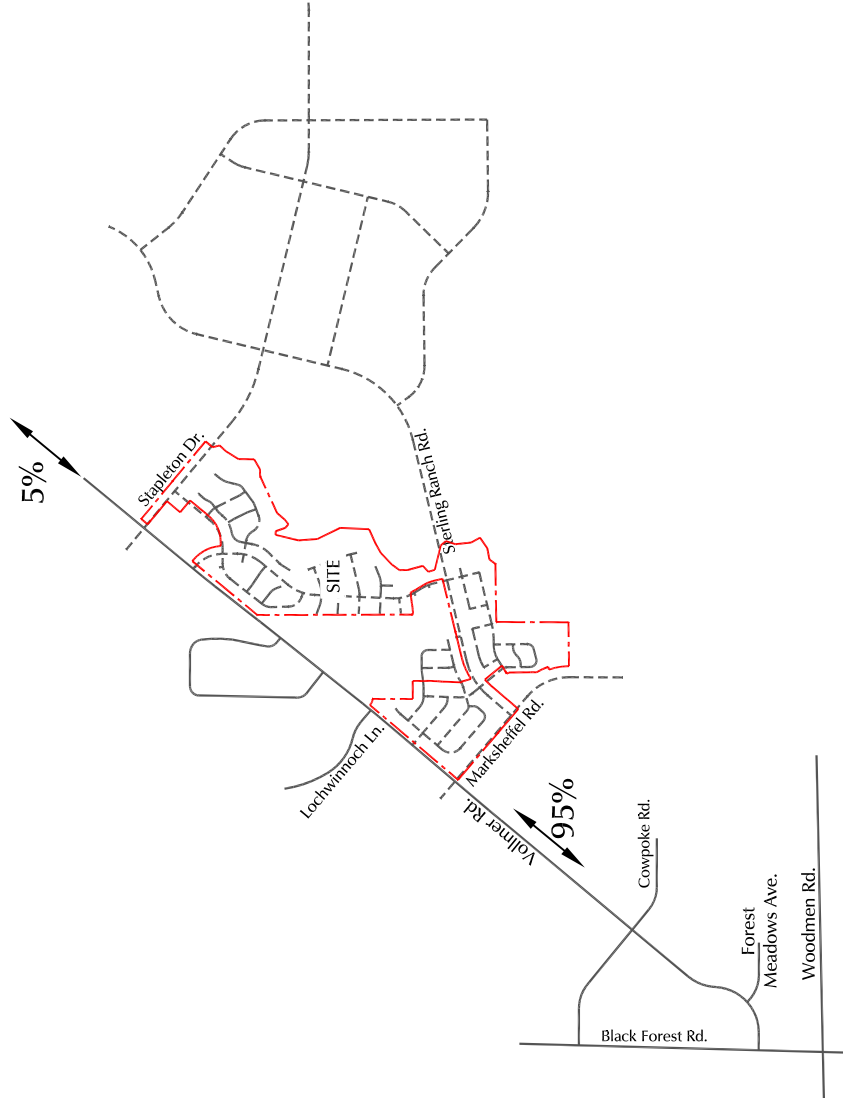
2025 Background Traffic

Sterling Ranch (LSC #144010)





Approximate Scale
Scale: 1" = 3,000'



LEGEND:

↔ 35%

= Percent Directional Distribution

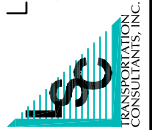


Figure 4

Short-Term Directional Distribution of Site-Generated Traffic

Sterling Ranch (LSC #144010)

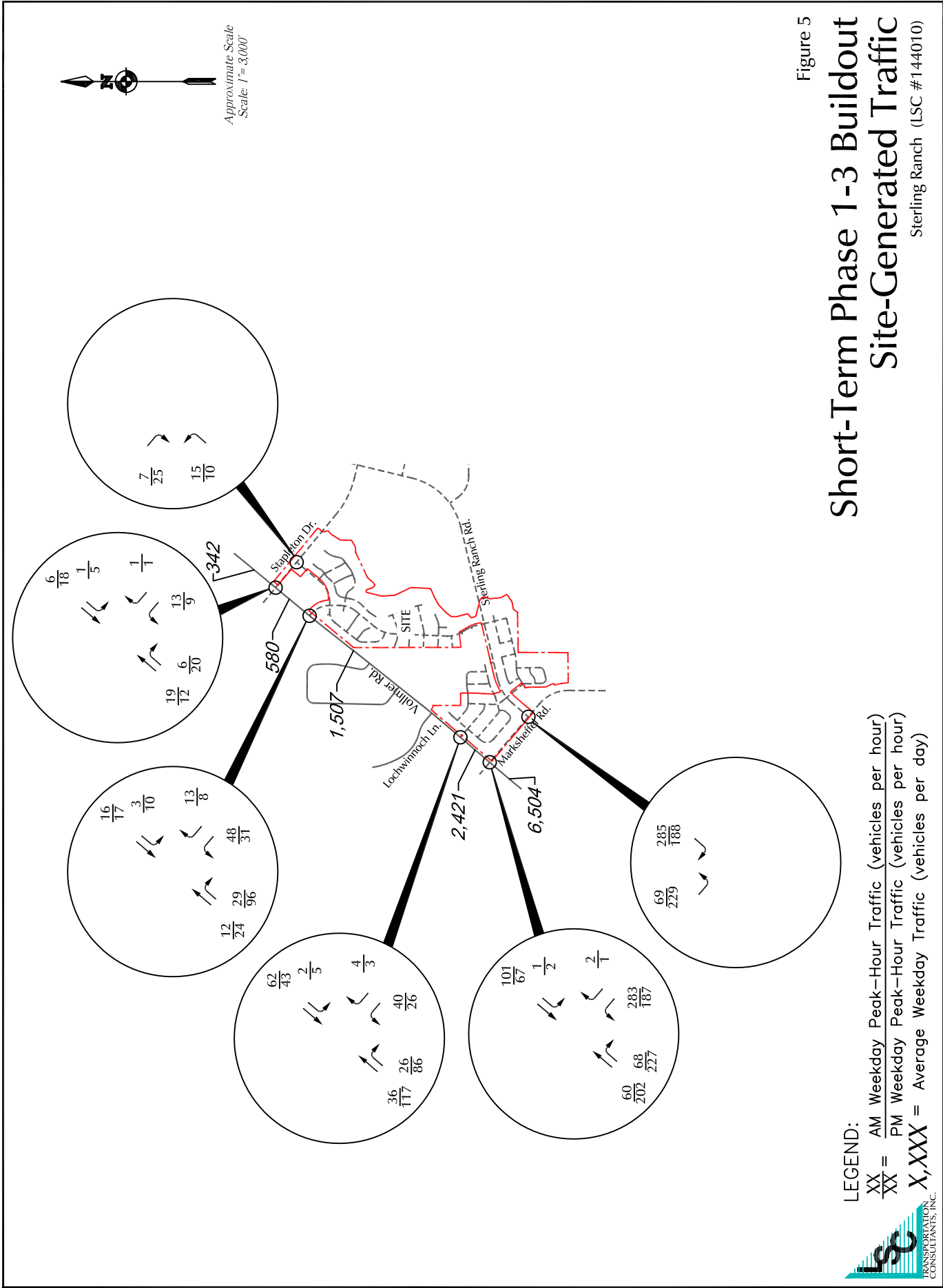
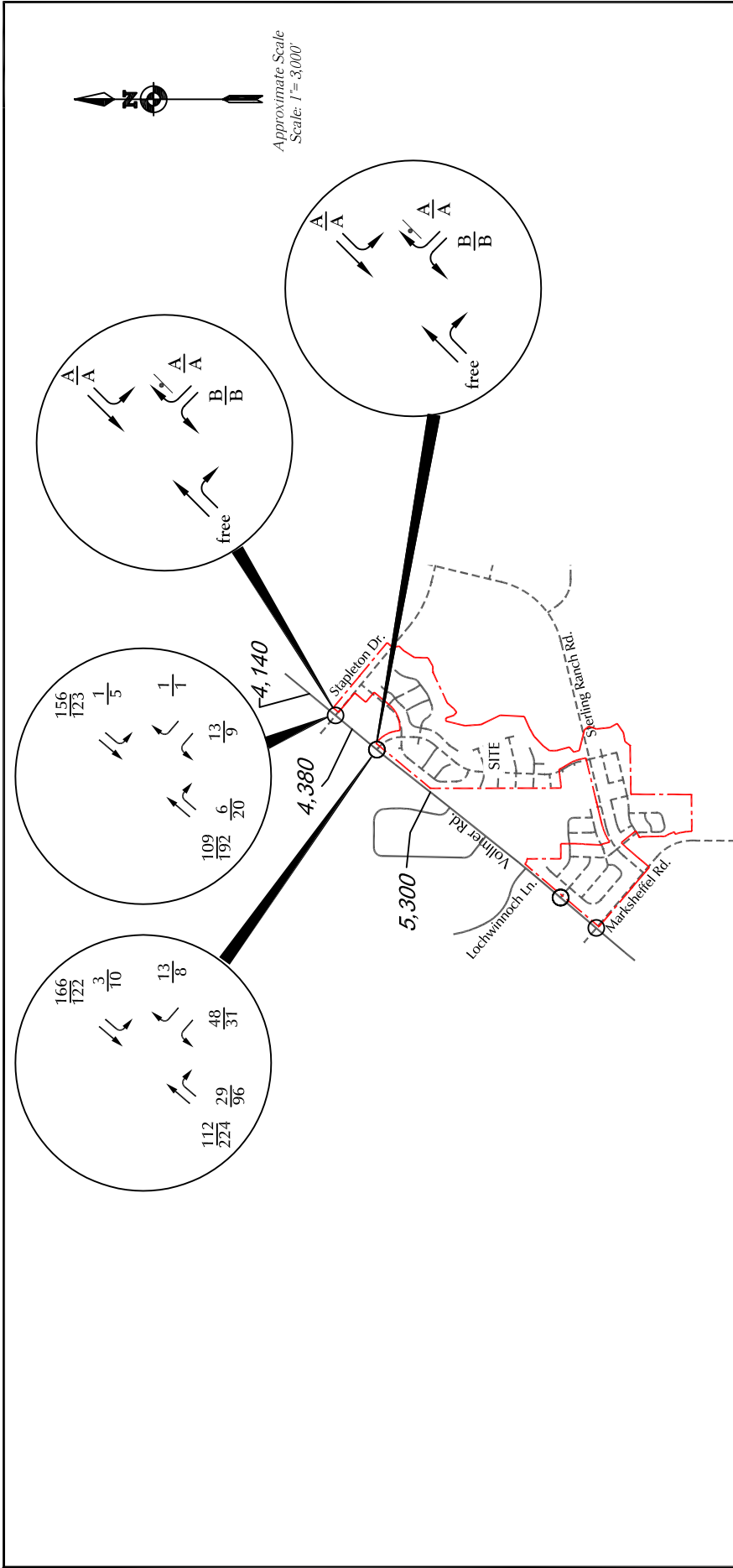


Figure 5
Short-Term Phase 1-3 Buildout
Site-Generated Traffic
 Sterling Ranch (LSC #144010)



LEGEND:

⊥ = Stop Sign

$\frac{26}{31}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)

$\frac{26}{31}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)

$\frac{A}{B}$ = AM Individual Movement Peak-Hour Level of Service

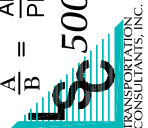
$\frac{A}{B}$ = PM Individual Movement Peak-Hour Level of Service

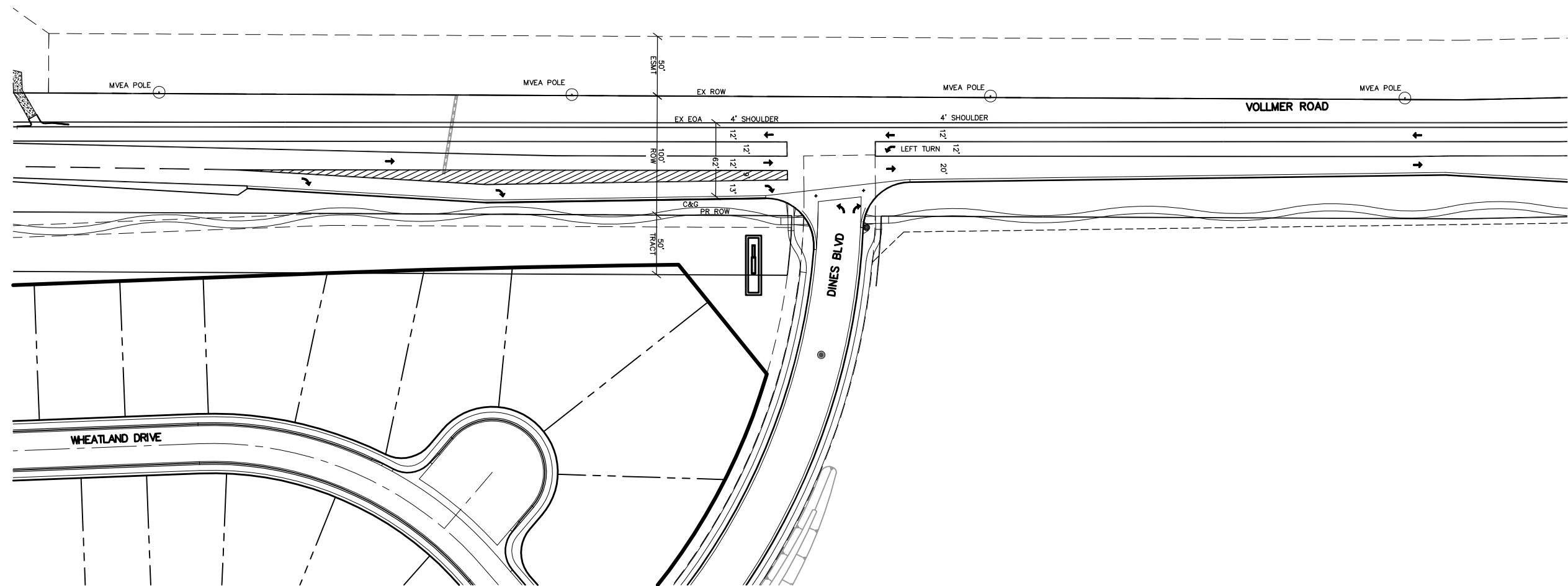
LSC 500 = Average Weekday Traffic (vehicles per day)

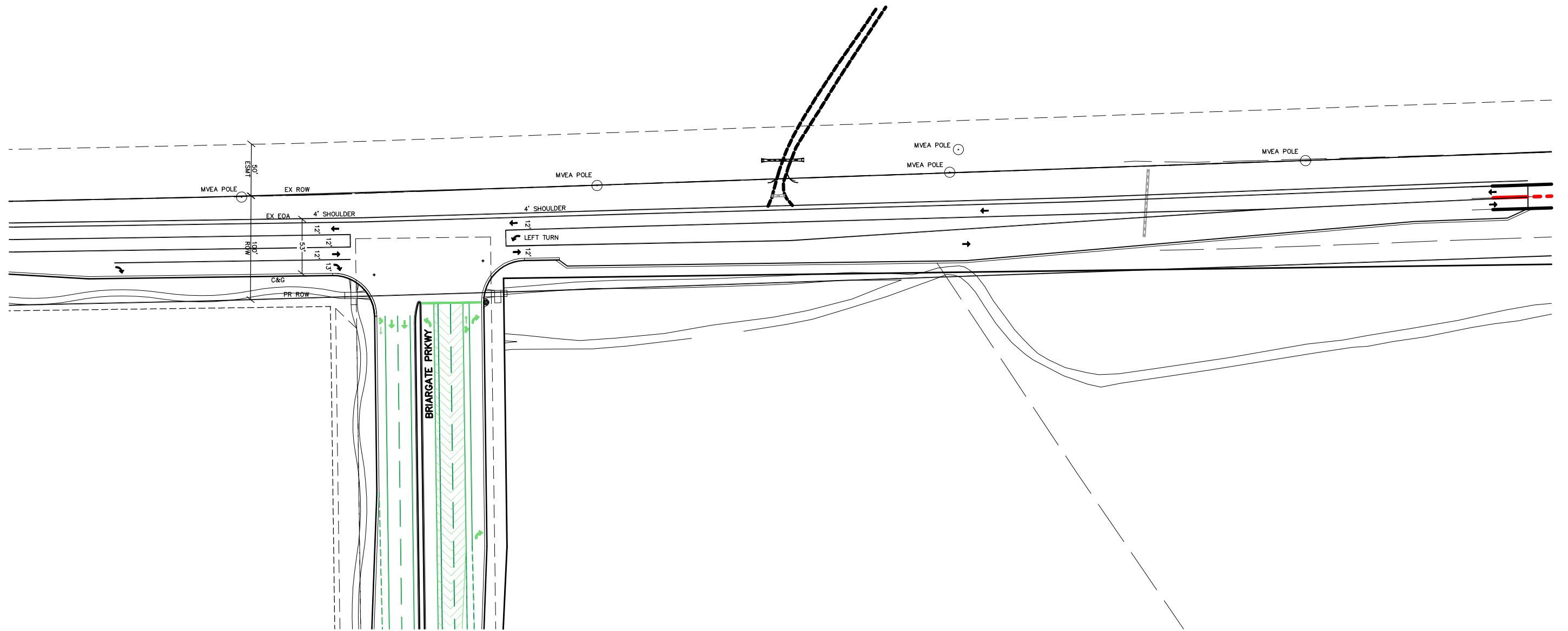
Figure 6

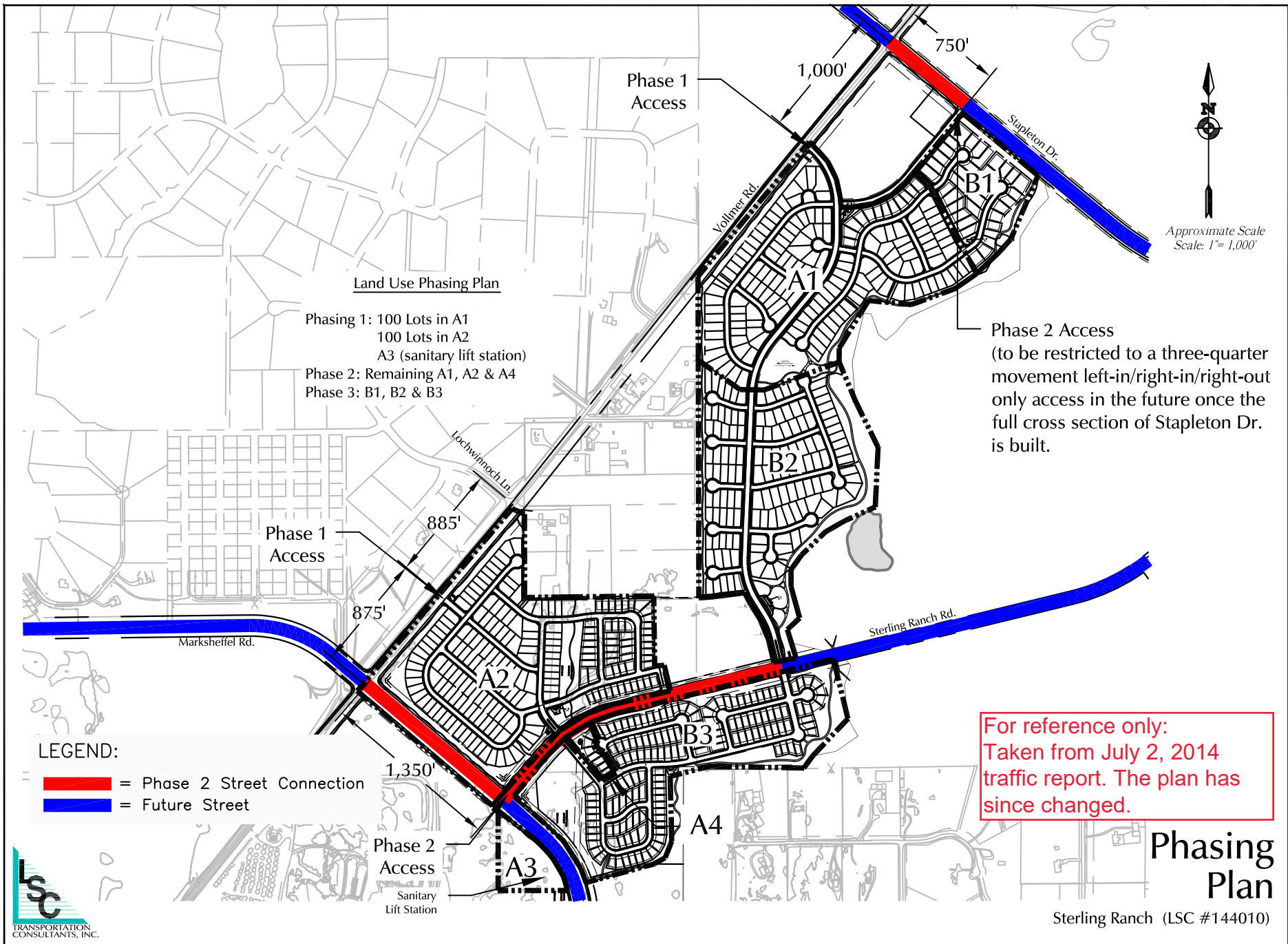
Year 2025 Total Traffic & Intersection Analysis

Sterling Ranch (LSC #144010)









Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	48	13	112	29	3	166
Future Vol, veh/h	48	13	112	29	3	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	14	122	32	4	205

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	335	122	0	0	154
Stage 1	122	-	-	-	-
Stage 2	213	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	660	929	-	-	1426
Stage 1	903	-	-	-	-
Stage 2	823	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	658	929	-	-	1426
Mov Cap-2 Maneuver	658	-	-	-	-
Stage 1	900	-	-	-	-
Stage 2	823	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	658	929	1426
HCM Lane V/C Ratio	-	-	0.079	0.015	0.003
HCM Control Delay (s)	-	-	10.9	8.9	7.5
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	0

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	13	1	119	6	1	156
Future Vol, veh/h	13	1	119	6	1	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	1	129	7	1	193

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	324	129	0	0	136	0
Stage 1	129	-	-	-	-	-
Stage 2	195	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	670	921	-	-	1448	-
Stage 1	897	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	669	921	-	-	1448	-
Mov Cap-2 Maneuver	669	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	838	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	669	921	1448
HCM Lane V/C Ratio	-	-	0.021	0.001	0.001
HCM Control Delay (s)	-	-	10.5	8.9	7.5
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	31	8	224	96	10	122
Future Vol, veh/h	31	8	224	96	10	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	9	241	103	10	127

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	388	241	0	0	344	0
Stage 1	241	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	616	798	-	-	1215	-
Stage 1	799	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	611	798	-	-	1215	-
Mov Cap-2 Maneuver	611	-	-	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	880	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	611	798	1215
HCM Lane V/C Ratio	-	-	0.055	0.011	0.009
HCM Control Delay (s)	-	-	11.2	9.6	8
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	0

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	9	1	212	20	5	123
Future Vol, veh/h	9	1	212	20	5	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	1	228	22	5	128

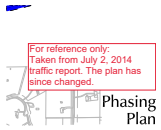
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	366	228	0	0	250	0
Stage 1	228	-	-	-	-	-
Stage 2	138	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	634	811	-	-	1316	-
Stage 1	810	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	631	811	-	-	1316	-
Mov Cap-2 Maneuver	631	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	889	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	631	811	1316
HCM Lane V/C Ratio	-	-	0.016	0.001	0.004
HCM Control Delay (s)	-	-	10.8	9.4	7.7
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	0

Markup Summary

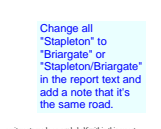
jchodsdon (1)



Subject: Text Box
Page Label: 38
Author: jchodsdon
Date: 10/2/2017 6:50:53 AM
Color: ■

For reference only:
Taken from July 2, 2014 traffic report. The plan has since changed.

dsdrice (3)



Subject: Text Box
Page Label: 1
Author: dsdrice
Date: 7/24/2018 1:13:42 PM
Color: ■

Change all "Stapleton" to "Briargate" or "Stapleton/Briargate" in the report text and add a note that it's the same road.



Subject: Callout
Page Label: 3
Author: dsdrice
Date: 7/24/2018 11:32:04 AM
Color: ■

Address second point of access, conditions of approval #16 and #20 on Sterling Ranch Filing No. 1: "16. In accordance with the Subdivision Improvements Agreement, no tract shall be replatted into buildable lots until construction of the road improvements associated with this final plat necessary to serve such tract are complete and preliminarily accepted by the County, or collateral acceptable to the County Attorney's Office has been provided."; "20. The Sterling Ranch Filing No. 1 Final Plat will create Tracts K and BB. Neither Tract K nor BB may be replatted into buildable lots until additional offsite road improvements are constructed so as to provide a second point of access to the development."



Subject: Cloud+
Page Label: 10
Author: dsdrice
Date: 7/24/2018 11:44:38 AM
Color: ■

This Phase 1 does not match S.R. Filing #1 as approved.

dsdparsons (6)



Subject: Callout
Page Label: 1
Author: dsdparsons
Date: 7/23/2018 1:57:55 PM
Color: ■

signature



Subject: Callout
Page Label: 3
Author: dsdparsons
Date: 7/23/2018 1:59:50 PM
Color: ■

May 2018



Subject: Callout
Page Label: 4
Author: dsdparsons
Date: 7/23/2018 2:08:04 PM
Color: ■

THE SIA for this plat does not. Which plat's SIA?

Page 1
April 12, 2018
Subject: Callout
Author: dsdparsons
Date: 7/23/2018 2:25:13 PM
Color: ■

Should this be in the SIA?

Subject: Image
Page Label: 5
Author: dsdparsons
Date: 7/24/2018 12:07:08 PM
Color: ■

Subject: Image
Page Label: 5
Author: dsdparsons
Date: 7/24/2018 12:07:08 PM
Color: ■

Subject: Callout
Page Label: 5
Author: dsdparsons
Date: 7/24/2018 12:07:38 PM
Color: ■

Provide amount per condition of Fil 1

Provide amount per condition of Fil 1

Subject: Callout
Page Label: 5
Author: dsdparsons
Date: 7/24/2018 12:07:38 PM
Color: ■