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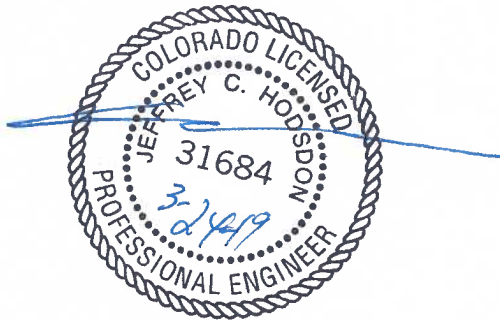
## Ellicott Town Center Filing 2 Traffic Impact Study (LSC #194060) March 25, 2019

Add "PCD File No.'s CS192 & SF1910"

### Traffic Engineer's Statement

1

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.

\_\_\_\_\_


\_\_\_\_\_  
Date

# Summary of Comments on LSC Responses to EPC TIS Redline Comments.pdf

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Page: 1

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 Number: 1 Author: dsdlaforce Subject: Text Box Date: 5/8/2019 2:59:44 PM

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[Add "PCD File No.'s CS192 & SF1910"](#)

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 8:46:58 PM  
LSC Response: Done

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## PROPOSED REZONE LAND USE

The preliminary site plan for the proposed rezone is attached for reference. This rezone is being called Filing 2 and the planned second subdivision filing of residential development (to the south and west of this rezone site), formerly called Filing 2 is being changed to “Filing 3”).

The 9.5-acre site is planned to be developed as a “business park.” This would consist of primarily light industrial and manufacturing land uses, but may also contain some convenience commercial, restaurant and/or retail/shopping-center-type lane uses. LSC has assumed the latter for Lot 9. The first lot to develop is likely to be Lot 1. A small manufacturing facility is planned for this lot. This facility would be for purposes of manufacturing the homes for Filings 1 and 3 [previously called Filing 2] and the remainder of Ellicott Town Center.

Please also indicate the amount of lots in Filing 3

1

## RESIDENTIAL FILINGS NO. 1 AND 3 (NOT A PART OF THIS REZONE APPLICATION)

The initial residential development within Ellicott Town Center is planned to occur within the Phase 1 Preliminary Plan area located to the area west and south of this rezone site. Phase 1 includes residential Filings 1 and 2 [now called Filing 3]. The proposed residential Filing No. 1 site plan/Plat is also attached for reference. Filing No. 1 is planned to contain 98 lots for single-family homes. Two access points to Highway 94 are proposed for Filing No. 1. The New Log Road/SH 94 intersection is proposed to be full-movement and is located about 3,300 feet east of the Highway 94/Antelope Drive intersection. The east access is proposed to be a right-in/right-out access and is located about 2,300 feet west of Log Road. The spacing between the two access points would be about 2,900 feet. Two (replacement) CDOT Access Permit Applications have been submitted for Filing No. 1. These applications are currently under review by CDOT.

## ACCESS FOR THE PROPOSED REZONE

The primary access to the proposed business park would be to Highway 94 at Springs Road – which is also the proposed residential Filing No. 1 east access. This Springs Road access to Highway 94 is proposed to be a right-in/right-out access connection to Highway 94 and is located about 2,300 feet west of Log Road. Secondary access for the business park would be via the planned short-term internal Ellicott Town Center street system via the New Log Road/Highway 94 intersection (Note: This will also ultimately become the main ingress/egress point for the overall Ellicott Town Center PUD development). Village Main Street, which is an east-west-oriented Urban Local street, will likely be the primary connecting street to the west Highway 94 access. The west, full-movement access to Highway 94 will be located about 3,300 feet east of the existing Highway 94/Antelope Drive intersection.

## FUTURE DEVELOPMENT PHASES/OVERALL ELLICOTT TOWN CENTER PUD PLAN (FOR REFERENCE ONLY)


At buildout, the overall Ellicott Town Center PUD development is planned to contain 1,048 residential dwelling units, a school, a county park with a recreational community center, and

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/10/2019 10:23:05 AM

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Please also indicate the amount of lots in Filing 3

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 8:52:39 PM  
LSC Response: Added

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about 239,000 square feet of retail and industrial development. The timing of the development is dependent on many factors including the area market conditions, development of nearby sites, etc. However, the anticipated phasing schedule shows seven phases that are supposed to occur between the years 2019 and 2026. An overall phasing map of the project is shown in Appendix Figure 1 for reference. Land use and trip generation for each phase has been attached for reference.

This report has been prepared for the rezone/business park development, but also includes the traffic to be generated by residential Filings 1 and 3. Phasing of future improvements required for future Ellicott Town Center development phases will be addressed in future traffic reports for development beyond this study.

## EXISTING ROADWAYS & TRAFFIC CONDITIONS

### Study Area Roadways

State Highway 94 is a two-lane, paved rural highway with a posted speed limit of 65 miles per hour (mph) adjacent to the site. The highway extends from US Highway 24 near Peterson Air Force Base about 85 miles to Highway 287 in Cheyenne County. CDOT classifies Highway 94 as an NR-A highway. CDOT has identified the governing document with respect to access management for Highway 94 in the vicinity of the site as the *State Highway 94 Access Management Plan (2012)*. The El Paso County 2040 *Major Transportation Corridors Plan (MTCP)* identifies Highway 94 as a two-lane Principal Arterial adjacent to the site. The MTCP 2060 *Corridor Preservation Plan* identifies Highway 94 as a future four-lane Principal Arterial. However, future right-of-way needs will be identified by CDOT.

MTCP 2040 classification indicates these as minor arterial roads. 1

**Peyton Highway** is classified as a two-lane Collector on the 2040 El Paso County MTCP. Adjacent to the site, the posted speed limit is 55 mph. No auxiliary lanes currently exist at the two-way stop sign-controlled (TWSC) intersection of Peyton Highway/State Highway 94.

**Log Road** is classified as a two-lane Collector on the 2040 El Paso County MTCP. No auxiliary lanes currently exist at the TWSC intersection of Log Road/State Highway 94.

**Ellicott Highway** is classified as a two-lane Collector on the 2040 El Paso County MTCP. Posted speed limits adjacent to the site are 55 mph and 45 mph north and south of State Highway 94, respectively. Auxiliary left-turn lanes currently exist on the eastbound and westbound approaches at the TWSC intersection of Ellicott Highway/State Highway 94.

### Existing Traffic Volumes

Figure 3 shows the current (December 2017 – January 2019) traffic volumes based on data collected by LSC and CDOT data.


### TRIP GENERATION

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/10/2019 10:23:36 AM

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[MTCP 2040 classification indicates these as minor arterial roads.](#)

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 8:57:35 PM  
LSC Response: Corrected in the updated report.

The trip generation estimate for the proposed Ellicott Town Center rezone has prepared based on nationally published trip generation rates from *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE). The updated estimate is shown in Table 1. The standard ITE rates for “Land Use 770 – Business Park” have been adjusted by LSC to allow for contain some convenience commercial, restaurant and/or retail/shopping-center-type lane uses.

LSC anticipates some combination of these uses would occupy lots 9. The total trip generation is shown in Table 1 below. The convenience commercial/restaurant portion of the above total trip generation was estimated at 52 IN/52 OUT in the AM peak and 49 IN/49 OUT during the PM Peak. Of these trips, about 50 percent have been assumed to be passby trips. The estimated daily trip generation for these commercial uses is estimated to be 1,186 trips of the total 1,459 daily trips.

**Table 1: Rezone (Filing No. 2) Trip Generation Estimate**

ITE		Quantity	Units <sup>1</sup>	Trip Generation Rates <sup>2</sup>				Total Trips Generated					
				Average	A.M.		P.M.		Average	A.M.		P.M.	
Code	Description			Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
770	Business Park	70.000	KSF	20.84	1.22	0.80	0.77	1.13	1459	86	56	54	79

<sup>1</sup> KSF = 1,000 square feet

<sup>2</sup> Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE); Standard rates have been adjusted by LSC to account for potential convenience retail/restaurant on one or two of the lots southeast of Springs East Road and SH 94; The commercial portion of the above total trip generation was estimated at 52 IN/52 OUT in the AM peak and 49 IN/49 OUT during the PM Peak. Of these trips, about 50% have been assumed to be passby trips. The estimated daily trip generation for these commercial uses is estimated to be 1,186 trips of the total 1,459 daily trips.

Figure 4

**1 DIRECTIONAL DISTRIBUTION AND SITE-GENERATED TRAFFIC**

The estimated directional distribution for the land uses within the proposed rezone is shown in Figure 5. This distribution is based on the original distribution estimate from **the April 4, 2006 study for the overall PUD**. Adjustments have been made to reflect anticipated conditions and the current planned MTCP roadways in the study area.

Figure 6

Figure 5 shows the projected site-generated traffic volumes for the rezone at the study area intersections.

Figure 5

**3 SHORT-TERM BASELINE TRAFFIC**

The projected short-term baseline traffic volumes at the study area intersections are shown in Figure 4. These include the existing traffic volumes plus the projected traffic to be generated by the adjacent residential Filings 1 and 3 of Ellicott Town Center.

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☰ Number: 1      Author: Daniel Torres      Subject: Callout      Date: 5/9/2019 5:38:18 PM

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[Figure 4](#)

☰ Number: 2      Author: Daniel Torres      Subject: Callout      Date: 5/9/2019 5:38:35 PM

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[Figure 6](#)

☰ Number: 3      Author: Daniel Torres      Subject: Callout      Date: 5/9/2019 5:38:48 PM

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[Figure 5](#)



Figure 7

1

**SHORT-TERM BASELINE PLUS SITE-GENERATED TRAFFIC**

Projected short-term-baseline-plus-site traffic volumes at the study area intersections are shown in Figure 6. These represent the sum of the short-term baseline traffic volumes from Figure 4 plus projected site-generated traffic volumes for the proposed rezone (from Figure 6).

Figure 5

2

**20-YEAR FUTURE BACKGROUND TRAFFIC**

Projections of future background through traffic volumes on Highway 94 have been made using the CDOT 20-year factor of 1.26. Background traffic volumes also include the buildout of Ellicott Town Center.

**20-YEAR FUTURE BACKGROUND PLUS SITE GENERATED TRAFFIC**

The projected 20-year background-plus-site traffic volumes at the study area intersections are shown in Figure 9. These represent the sum of the 20-year future background traffic volumes from Figure 8 plus the projected site-generated traffic volumes for the proposed rezone (from Figure 6).

**PROJECTED LEVELS OF SERVICE**

Level of service (LOS) is a quantitative measure of the level of delay at an intersection. Level of service is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay, while LOS F indicates a high level of congestion or delay. Level of service delay ranges are summarized in Table 2.

**Table 2: Intersection Levels of Service Delay Ranges**

Level of Service	Signalized Intersections		Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	V/C <sup>(1)</sup>	Average Control Delay (seconds per vehicle) <sup>(2)</sup>
A	10.0 sec or less	Less than 0.60	10.0 sec or less
B	10.1-20.0 sec	0.60-0.69	10.1-15.0 sec
C	20.1-35.0 sec	0.70-0.79	15.1-25.0 sec
D	35.1-55.0 sec	0.80-0.89	25.1-35.0 sec
E	55.1-80.0 sec	0.90-0.99	35.1-50.0 sec
F	80.1 sec or more	1.00 and greater	50.1 sec or more

(1) Source: Transportation Research Circular 212

(2) For unsignalized intersections if V/C ratio is greater than 1.00, the level of service is LOS F regardless of the projected average control delay per vehicle.

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☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 5/10/2019 9:59:29 AM

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[Figure 7](#)

↩ Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 8:58:20 PM  
LSC Response: Corrected in the updated report.

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☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 5/10/2019 9:59:34 AM

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[Figure 5](#)

↩ Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 8:58:26 PM  
LSC Response: Corrected in the updated report.

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**Table 4: LOS Analysis Results (State Highway 94/Springs Road)**

Analysis Scenario	SH 94 + Springs East Rd		
	Traffic Control	Overall	NBR
			↶
<b>A.M. Peak Hour</b>			
Short-Term Baseline	TWSC RI/RO	-	A
Short-Term Baseline + Site			B
2040 Background			B
2040 Background + Site			B
<b>P.M. Peak Hour</b>			
Short-Term Baseline	TWSC RI/RO	-	A
Short-Term Baseline + Site			B
2040 Background			B
2040 Background + Site			C

should this be a stop sign control as opposed to a two-way stop sign? 1

**State Highway 94/Ellicott Hwy**

During the short-term, all individual turning movements at the intersection of State Highway 94/Ellicott Highway will operate at LOS D or better if it were to remain a TWSC intersection. Auxiliary left- and right-turn lanes would be required for all approaches based on projected future volumes at this intersection.


With or without site buildout, the northbound left-turning movement would operate at LOS F during both 2040 peak hours, while the southbound left-turning movement would operate at LOS E during the evening peak hour if the intersection were to remain TWSC. The northbound approach would operate at LOS E during the evening peak hour if the intersection were to operate as all-way stop sign-controlled (AWSC). However, all individual turning movements would improve to LOS B or better if the intersection were to be signalized in the long term, as summarized in Table 5.

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/13/2019 8:08:40 AM

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[should this be a stop sign control as opposed to a two-way stop sign?](#)





 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:03:49 PM

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LSC Response: Corrected in the updated report.

all individual turning movements would improve to LOS C or better if the intersection were to be signalized in the long term, as summarized in Table 6.

**Table 6: LOS Analysis Results (State Highway 94/Peyton Highway)**

Analysis Scenario	SH 94 + Peyton Hwy					
	Traffic Control	Overall	NBL	EBL	WBL	SBL
						
<b>A.M. Peak Hour</b>						
Short-Term Baseline	Stop Sign	-	C	A	A	C
Short-Term Baseline + Site						
2040 Background	Stop Sign	-	F	B	A	F
2040 Background + Site						
2040 Background	Signal	B	B	A	A	C
2040 Background + Site						
<b>P.M. Peak Hour</b>						
Short-Term Baseline	Stop Sign	-	C	A	A	C
Short-Term Baseline + Site						
2040 Background	Stop Sign	-	F	A	B	F
2040 Background + Site						
2040 Background	Signal	B	B	B	A	C
2040 Background + Site						
NBL = northbound left, EBL = eastbound left, WBL = westbound left, SBL = southbound left						

**PHASING OF NEW LOG ROAD/SH 94 INTERSECTION TYPE/TRAFFIC CONTROL**

There is the potential to phase the intersection traffic control/intersection type at the main/west Ellicott Town Center Access. Potentially the intersection could be phased from 1) a conventional Stop-sign-controlled intersection to 2) an unsignalized channelized T intersection, 3) a signalized channelized T intersection to ultimately 4) a conventional signalized intersection which would allow for northbound dual left turn lanes.

Please clarify. Provide a figure or exhibit showing the movements of each of the 4 phases listed.

Although this report presents the framework for potential future phasing of the intersection type/traffic control (with the projected 20-year buildout LOS analysis) at the New Log Road/SH 94 intersection, this report has been prepared for the proposed rezone development. The future phasing of the intersection type/traffic control would be to provide sufficient capacity for overall future Ellicott Town Center PUD development phases. This phasing can be addressed in future traffic reports for development beyond this rezone (Filing 2) and residential Filings No. 1 and 3.

**TRAFFIC SIGNAL WARRANTS**


A traffic signal would not likely be warranted at the SH 94/west site access intersection based on the projected short-term background-plus-site-generated traffic volumes. However, warrants

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/13/2019 8:44:26 AM

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Please clarify. Provide a figure or exhibit showing the movements of each of the 4 phases listed.

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:04:11 PM

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LSC Response: Added in the updated report.

have been used to identify anticipated long term auxiliary turn lane needs. Please refer to the conceptual future intersection lane geometry depicted in Figures 8 and 9.

**SH 94/New Log Road**

Short Term

*Left-Turn Deceleration Lane*

Per criteria in Section 3.11(7) of the *Colorado State Highway Access Code*, a left-turn deceleration lane with taper is required for any access with a projected peak-hour ingress turning volume greater than 10 vehicles per hour (vph). Projected short-term westbound left-turn peak-hour volume at this access would exceed that threshold. LSC recommends the westbound left-turn deceleration lane consist of 500 feet of deceleration length, 40 feet of storage (short term)/potentially 400 feet of storage (long term), and 300 feet of transition taper length (25:1 ratio).

*Right-Turn Deceleration Lane*

Per criteria in Section 3.11(7) of the *Colorado State Highway Access Code*, a right-turn deceleration lane with taper is required for any access with a projected peak-hour ingress turning volume greater than 25 vehicles per hour (vph). Given the analysis in Table 7, LSC recommends that an 800-foot westbound right-turn deceleration lane be constructed, consisting of 500 feet of deceleration length and 300 feet of transition taper length (25:1 ratio).

*Left-Turn Acceleration Lane*

Per CDOT *State Highway Access Code* criteria, "A left-turn acceleration lane may be required if it would be a benefit to the safety and operation of the roadway or as determined by subsection 3.5. If necessary, for specifically identified and documented safety and operation reasons, a left turn acceleration lane may be required when unique location factors such as; highway speed and traffic density, access volume, the volume of commercial trucks, the influence of nearby access, existing highway auxiliary lanes close to the access, nearby traffic control devices, available stopping sight distance, and where other topographic and highway design factors exist that determine the need."

The current CDOT comments (for the Filing No. 1 permit submittal) indicate "The New Log Road intersection with Hwy 94 will require a westbound-left-turn acceleration lane in Filing 2 [now called Filing 3] (2020) which can later be utilized as the westbound merge lane when signalized." These will likely be included in the replacement permit and could potentially include updates/revisions to the language. CDOT may require this lane for the Filing 1 plus Filing 2 (this proposed rezone)- although the applicant would prefer this requirement not be imposed with Filing 1 plus 2 (Filing 2, or at least a portion thereof, is likely to be developed prior to the Filing 3 residential development. The northbound left turn intersection level of service is projected to be

Also provide long term requirements as done with the other intersections. <sup>1</sup>

Table 7 indicates 50' of storage. Revise accordingly. <sup>2</sup>

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☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 5/10/2019 2:07:27 PM

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[Also provide long term requirements as done with the other intersections.](#)

↶ Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:07:23 PM

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LSC Response: Added as requested.

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☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 5/10/2019 11:18:39 AM

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[Table 7 indicates 50' of storage. Revise accordingly.](#)

↶ Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:08:34 PM

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LSC Response: Corrected in the updated report.



Based on projected short-term baseline traffic volumes (including Filings 1 and 3) plus Filing 2 site traffic, eastbound and westbound auxiliary left-turn volumes would both exceed the 10 vph threshold. The prescribed length for both the eastbound and westbound left-turn deceleration lanes is 825 feet (Consisting of 500 feet of deceleration length, 25 feet of storage length, and 300 feet of transition taper length (25:1 ratio)). Redirect tapers (65:1 ratio) would add additional length. A westbound right turn deceleration lane is also shown to be prescribed by the access code (500 feet of deceleration length plus 300 feet of transition taper length).

Long-Term

Please refer to Figure 8 and Figure 9 for potential future additional auxiliary turn lanes at this intersection. Conceptual-level future laneage is shown with lane-geometry arrows.

1  
Is this for the left turn lanes or the right turn lane or both? Please clarify.

**SH 94/Ellicott Highway (Off-Site Intersection)**

2  
Please state the existing lane lengths and whether they meet criteria.

Short-Term

Left turn lanes currently exist on the eastbound and westbound approaches to this intersection. The turning volume threshold for auxiliary **right-turn** lanes is **currently exceeded** for the eastbound approach. *State Highway Access Code* criteria prescribes a lane length of 273 feet plus a 162 foot-long transition taper. This lane way not have been added with previous CDOT projects as there appears to be no available ROW and existing property improvements relatively close to the highway.

3  
typo?

Long Term

Please refer to Figure 8 and Figure 9 for potential future additional auxiliary turn lanes at this intersection. Conceptual-level future laneage is shown with lane-geometry arrows.

**RIGHT-OF-WAY DEDICATION**

The previous access permits (for Filing No. 1) indicated the requirement for *“A dedication of 40’ of right-of-way of SH 94 along the Permittee property frontage on the south side east and west of New Log Road as necessary to accommodate widening needed for dual left turning movements.*

**CDOT ACCESS PERMITTING**

CDOT previously issued access permits for access to Highway 94 at the two access point locations (New Log Road and Springs Road) for the first 98 single-family residential dwelling units (Filing No. 1). The previous permit numbers are 212012 and 212011. These have since expired. Copies are attached for reference. New/replacement access permits for Filing No. 1 are under review at

4  
Copies have not been attached as stated.

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/10/2019 12:41:19 PM

Is this for the left turn lanes or the right turn lane or both? Please clarify.

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Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:13:34 PM

LSC Response: Right turn lane. This has been clarified in the updated report.

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Number: 2 Author: Daniel Torres Subject: Callout Date: 5/10/2019 12:43:25 PM

Please state the existing lane lengths and whether they meet criteria.

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Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:10:45 PM

LSC Response: Added as requested.

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Number: 3 Author: Daniel Torres Subject: Callout Date: 5/10/2019 12:41:56 PM

typo?

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Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:15:29 PM

LSC Response: Yes. Corrected in the updated report.

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Number: 4 Author: Daniel Torres Subject: Callout Date: 5/10/2019 1:18:16 PM

Copies have not been attached as stated.

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Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:16:45 PM

LSC Response: Copies have been attached as indicated.

CDOT. Development within this proposed rezone will require the submittal of subsequent access permit applications.

**FILING NO. 1 STREET CLASSIFICATIONS**

Provide exhibit. <sup>1</sup>

Roadway classifications within Ellicott Town Center were established with the overall PUD and are reflected on the approved Preliminary Plan for Filings 1 and the 2<sup>nd</sup> residential subdivision (now called Filing 3). The ECM classification nomenclature has changed since approval of the Preliminary Plan. All Filing 1, Filing 3, and business park rezone roadways are classified as Urban Local except Ellicott Town Center Boulevard, which is classified as an Urban Collector.

**COUNTY ROAD IMPACT FEE PROGRAM**

This Filing 2 business park rezone development will be required to participate in the Countywide Road Impact Fee program. The specific PID option (or opt-out option) as well as the specific calculated fee amount will be provided with the plat. The fee per residential dwelling unit will be payable at the time of the building permit.

\* \* \* \* \*

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

Please include the synchro analysis and traffic counts sheets <sup>2</sup>

Respectfully Submitted,  
LSC TRANSPORTATION CONSULTANTS, INC.

By \_\_\_\_\_  
Jeffrey C. Hodsdon, P.E., PTOE  
Principal

JCH/JAB:bjwb

Enclosures: Figures 1 - 7  
Level of Service Reports  
Traffic Count Reports  
Appendix Overall PUD Phasing Exhibit  
Appendix Table – Overall PUD Trip Generation Estimate

9 figures have been provided. Please update enclosures section accordingly and attach reports, appendices listed. <sup>3</sup>

-Please state definitively what improvements the developer will be constructing with the project and/or provide a table with trigger points(phase/filing) for each improvement.-List any deviations that the applicant will be making for this project. If none then state as such.-State whether or not any improvements affected by the project are reimbursable under the current MTCP <sup>4</sup>

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Number: 1 Author: dsdlaforce Subject: Callout Date: 5/8/2019 3:20:34 PM

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Provide exhibit.

Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:17:54 PM

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LSC Response: Provided in the updated report.

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Number: 2 Author: Daniel Torres Subject: Text Box Date: 5/13/2019 8:12:09 AM

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Please include the synchro analysis and traffic counts sheets

Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:18:12 PM

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LSC Response: Included in the updated report.

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Number: 3 Author: Daniel Torres Subject: Callout Date: 5/10/2019 1:35:15 PM

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9 figures have been provided. Please update enclosures section accordingly and attach reports, appendices listed.

Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:19:04 PM

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LSC Response: Updated as requested.

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Number: 4 Author: Daniel Torres Subject: Text Box Date: 5/13/2019 8:41:50 AM

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-Please state definitively what improvements the developer will be constructing with the project and/or provide a table with trigger points(phase/filing) for each improvement.-List any deviations that the applicant will be making for this project. If none then state as such.-State whether or not any improvements affected by the project are reimbursable under the current MTCP

Table 7?

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**Table 7**  
**Short-Term Auxiliary Turn Lane Analysis**  
 Elliott Town Center Rezone

What does the double asterisk mean?  
 2

Intersection	Auxiliary Lane	Threshold/Warrant (vph)	Current Turning Volumes				Filing No. 1 Volumes (Part of Baseline Traffic)				Site-Generated Turning Volumes				Existing Plus Filing 1 Plus Site Volumes				Short-Term Baseline Traffic - Including Filings 1 and 3				Short-Term Baseline (Including Filings 1 and 3) plus site volumes				Would Elliott Town Center** Add Volume to Turning Movement?	Prescribed Length (ft)		Existing (ft)	
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	Lane	Taper		Lane	Taper		
			Would Volumes Exceed Access Code Threshold?												Would Volumes Exceed Access Code Threshold?				Would Volumes Exceed Access Code Threshold?				Lane	Taper	Lane	Taper					
Peyton Highway/Highway 94	Westbound Left-Turn Decel.	10	6	9	2	1	2	3	10	13	YES	10	12	12	15	YES	YES	500 + (storage)	25	300											
	Westbound Right-Turn Decel.	25	18	15	4	3	6	8	28	26	YES	27	21	33	29	YES	YES	500		300											
	SB to Westbound Right-Turn Accel.	50	20	11					20	11	No	20	11	20	11	No	No	---	---												
	Eastbound Left-Turn Decel.	10	5	17					5	17	YES	5	17	5	17	YES	No	500 + (storage)	25	300											
	Eastbound Right-Turn Decel.	25	5	20					5	20	No	5	20	5	20	No	No	---	---												
WB to Eastbound Right-Turn Accel.	50	5	4	1	2	3	1	9	7	No	6	9	9	10	No	No	---	---													
Elliott Highway/Highway 94	Westbound Left-Turn Decel.	Exists	25	7				25	7	Exists	25	7	25	7	Exists	No	273 + (storage)	25	162	Exists-285'	Exists-100'										
	Westbound Right-Turn Decel.	25	12	13				12	13	No	12	13	12	13	No	No	---	---													
	SB to Westbound Right-Turn Accel.	50	38	34	0	1	4	3	42	38	No	39	37	43	40	No	YES	---	---												
	Eastbound Left-Turn Decel.	Exists	14	39	1	1	3	4	18	44	Exists	17	41	20	45	Exists	YES	273 + (storage)	162	Exists-130**	Exists-90**										
	Eastbound Right-Turn Decel.	25	106	66	3	2	7	10	116	78	YES	114	71	121	81	YES	YES	273	162												
WB to Eastbound Right-Turn Accel.	50	11	23					11	23	No	11	23	11	23	No	No	---	---													
New Log Road/ Highway 94	Eastbound Right-Turn	25	0	0	16	54	0	0	16	54	YES	21	70	21	70	YES	YES	500	300												
	WB to Eastbound Right-Turn (Accel.)	50	0	0	0	0	0	0	0	0	No	0	0	0	0	No	YES	---	---												
	Westbound Left-Turn	10			2	6	32	21	34	27	YES	5	15	37	36	YES	YES	500 + (storage)	50	300											
	WB to Westbound Left-Turn (Accel.)	Case-by-Case Basis	0	0	48	32	32	46	80	78	Case-by-Case Basis	116	77	148	123	Case-by-Case Basis	YES	1080	300												
Springs Road/Highway 94	Eastbound Right-Turn	25	0	0	0	0	48	30	48	30	YES	18	62	66	92	YES	YES	500	300												
	WB to Eastbound Right-Turn Accel.	50	0	0	6	4	21	31	14	9	No	14	9	35	40	No	---	---													

\* Left turn lane extends west as TWL.


\*\* Including Filings 1 and 3 (baseline) plus site (Filing 2)

---

Number: 1 Author: Daniel Torres Subject: Callout Date: 5/10/2019 10:38:52 AM

---

[Table 7?](#)

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:36:00 PM

---


LSC Response: Corrected in the updated report.

---

Number: 2 Author: Daniel Torres Subject: Callout Date: 5/10/2019 10:52:57 AM

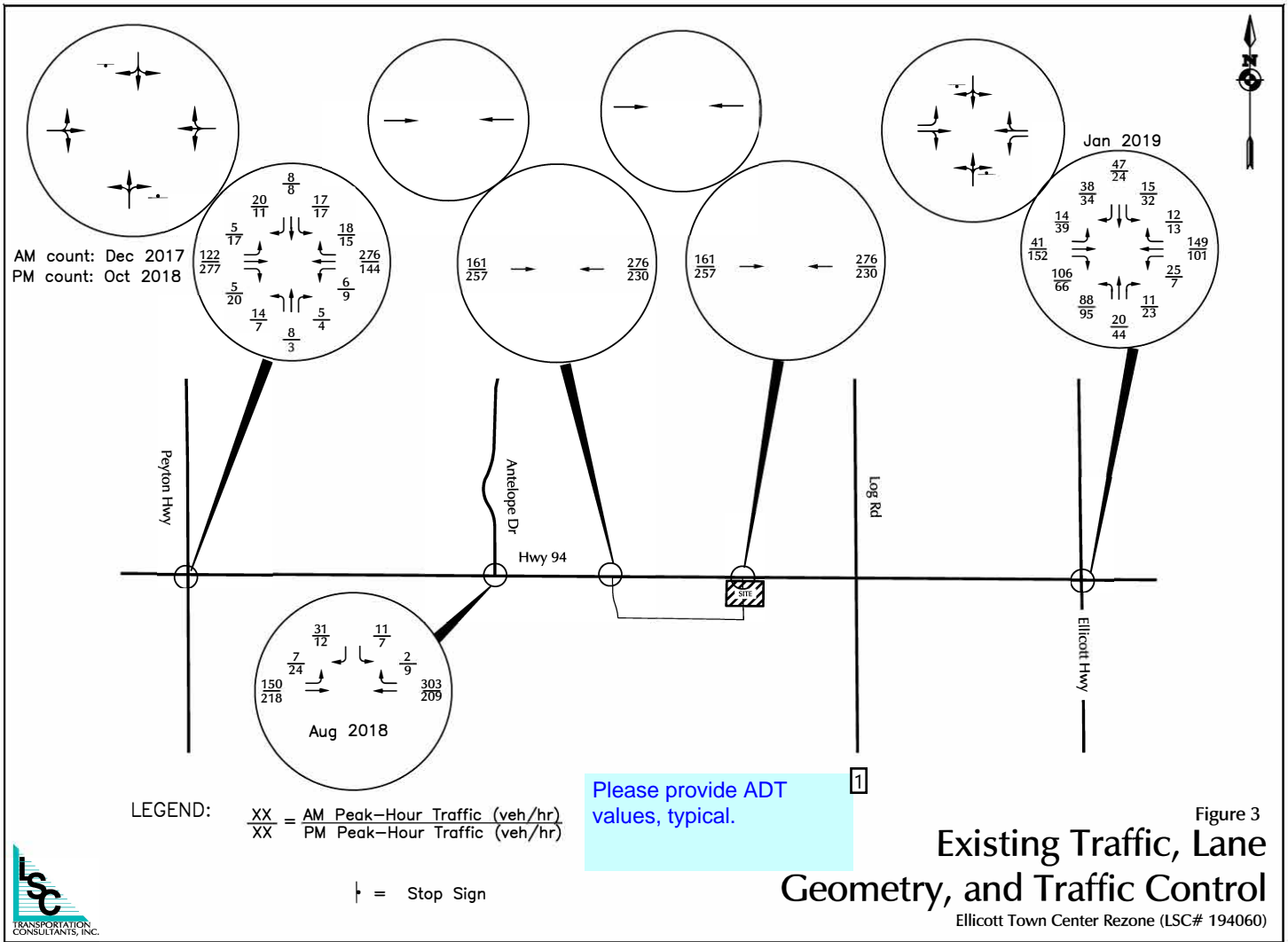
---

[What does the double asterisk mean?](#)

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:36:58 PM

---

LSC Response: This has been corrected in the updated report- the bottom note in the table is \*\*.




---

 Number: 1 Author: Daniel Torres Subject: Text Box Date: 5/10/2019 2:11:17 PM

---

Please provide ADT values, typical.

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:20:24 PM

---

LSC Response: Provided as requested.



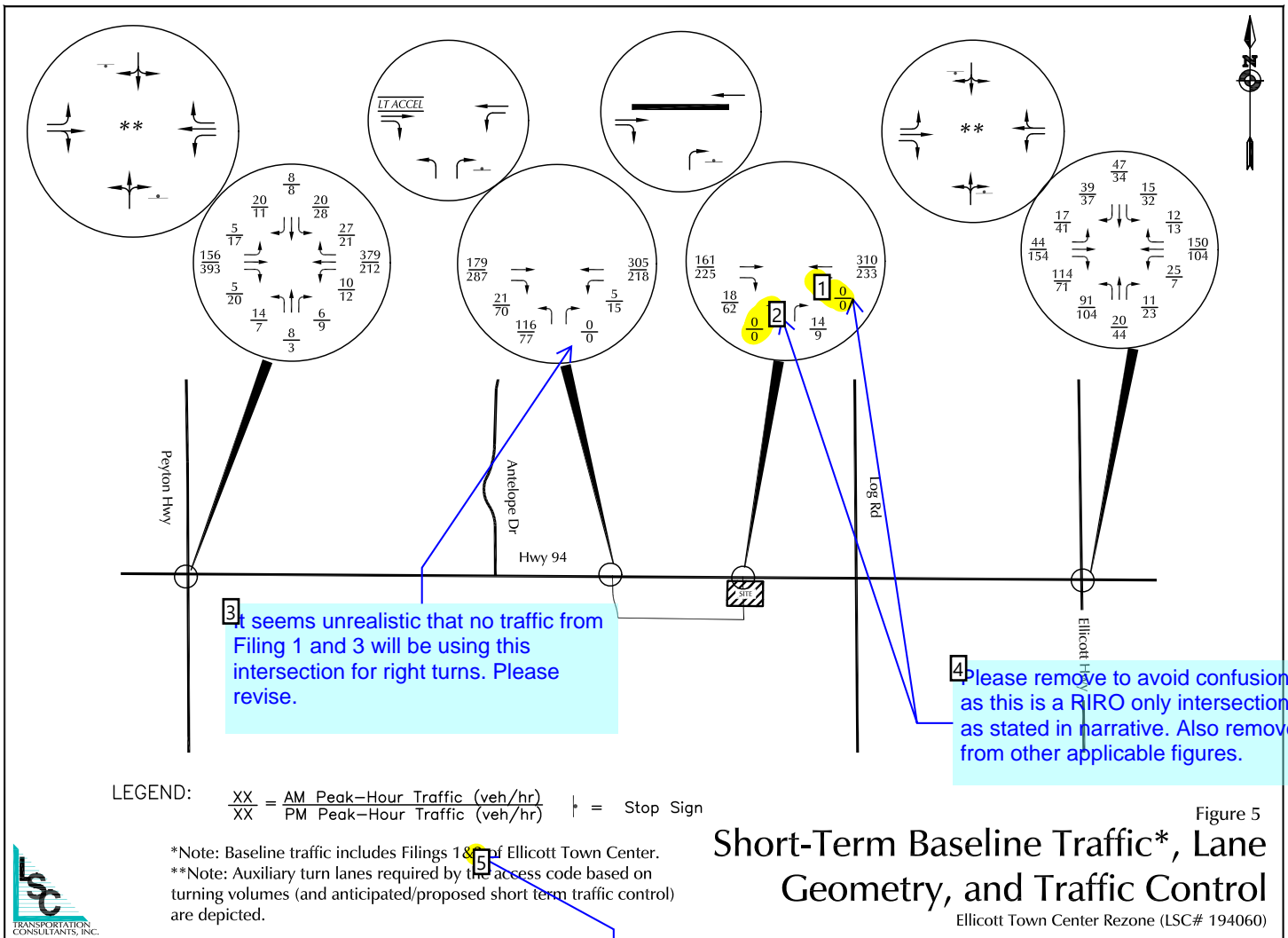


Figure 5  
**Short-Term Baseline Traffic\*, Lane Geometry, and Traffic Control**  
 Ellicott Town Center Rezone (LSC# 194060)




---

 Number: 1 Author: Daniel Torres Subject: Highlight Date: 5/10/2019 11:31:19 AM

---


 Number: 2 Author: Daniel Torres Subject: Highlight Date: 5/10/2019 11:31:22 AM

---

 Number: 3 Author: Daniel Torres Subject: Callout Date: 5/13/2019 8:30:46 AM

---

It seems unrealistic that no traffic from Filing 1 and 3 will be using this intersection for right turns. Please revise.

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:20:56 PM


---

LSC Response: Revised as requested.

 Number: 4 Author: Daniel Torres Subject: Callout Date: 5/10/2019 11:35:24 AM


---

Please remove to avoid confusion as this is a RIRO only intersection as stated in narrative. Also remove from other applicable figures.

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:38:49 PM

---

LSC Response: Removed as requested.


 Number: 5 Author: Daniel Torres Subject: Highlight Date: 5/10/2019 11:34:02 AM

---

 Number: 6 Author: Daniel Torres Subject: Callout Date: 5/10/2019 11:34:47 AM

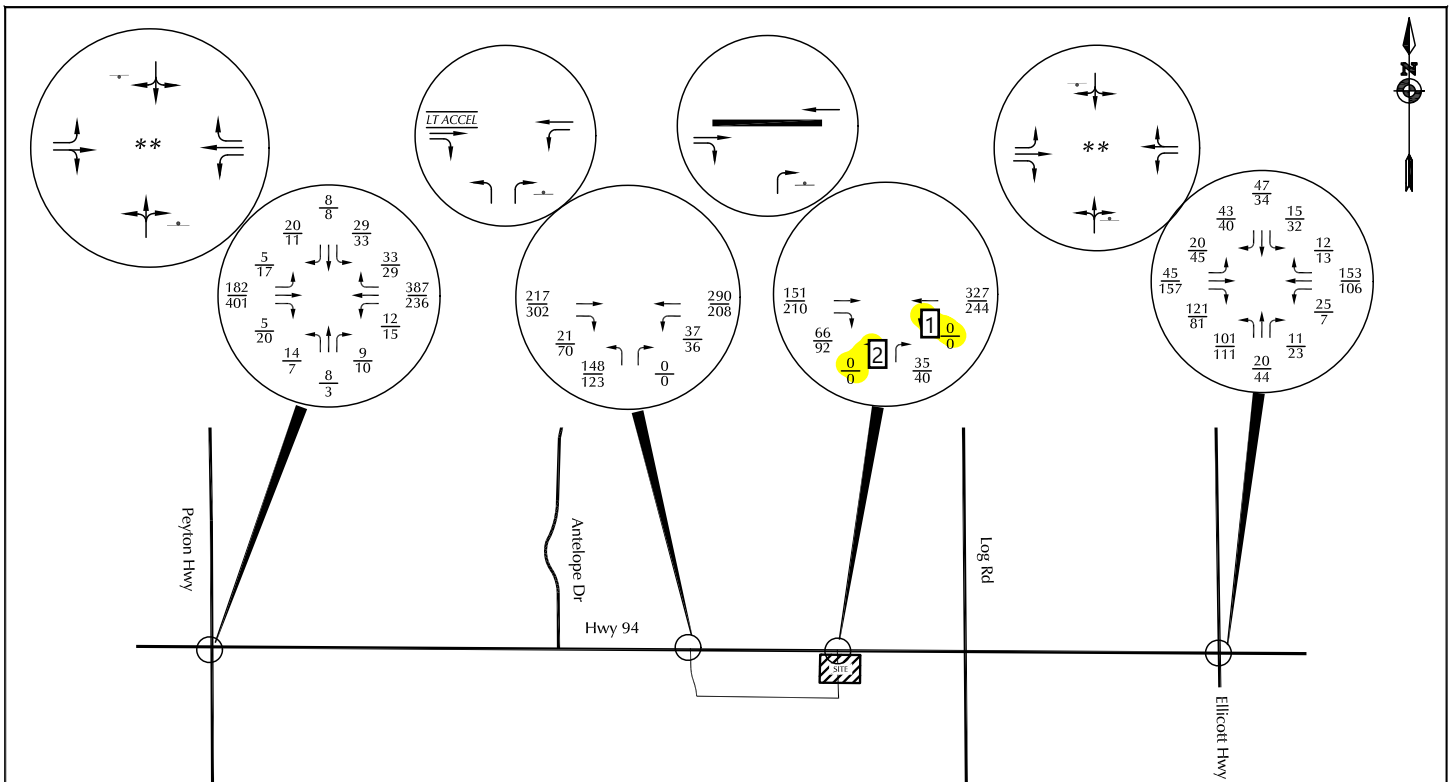
---

Please add :(now Filing 3) for clarity. Typical at other figures.

 Author: jchodsdon Subject: Sticky Note Date: 8/25/2019 9:38:11 PM

---

LSC Response: Added as requested.




LEGEND:  $\frac{XX}{XX}$  = AM Peak-Hour Traffic (veh/hr) / PM Peak-Hour Traffic (veh/hr) | = Stop Sign

\*Note: Baseline traffic includes Filings 1&2 of Ellicott Town Center.  
 \*\*Note: Auxiliary turn lanes required by the access code based on turning volumes (and anticipated/proposed short term traffic control) are depicted.

Figure 7  
**Short-Term Baseline\* plus Site Traffic, Lane Geometry, and Traffic Control**  
 Ellicott Town Center Rezone (LSC# 194060)



---

 Number: 1 Author: Daniel Torres Subject: Highlight Date: 5/10/2019 11:32:23 AM

---

 Number: 2 Author: Daniel Torres Subject: Highlight Date: 5/10/2019 11:32:25 AM

---

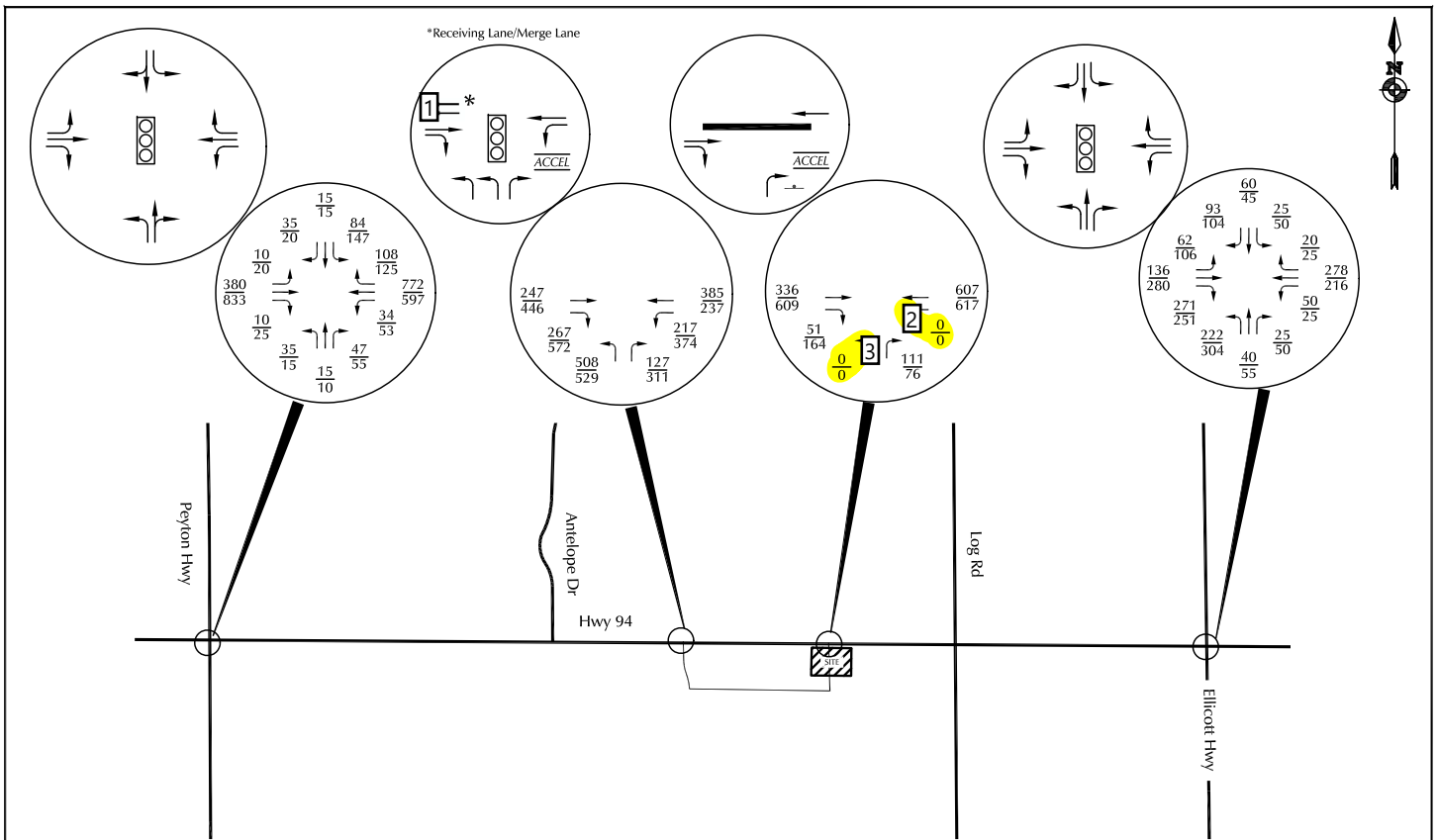



Figure 8

## 2040 Background Traffic, Lane Geometry, and Traffic Control


Ellicott Town Center Rezone (LSC# 194060)




---

 Number: 1      Author: jchodsdon    Subject: Stamp      Date: 3/12/2019 7:28:54 PM

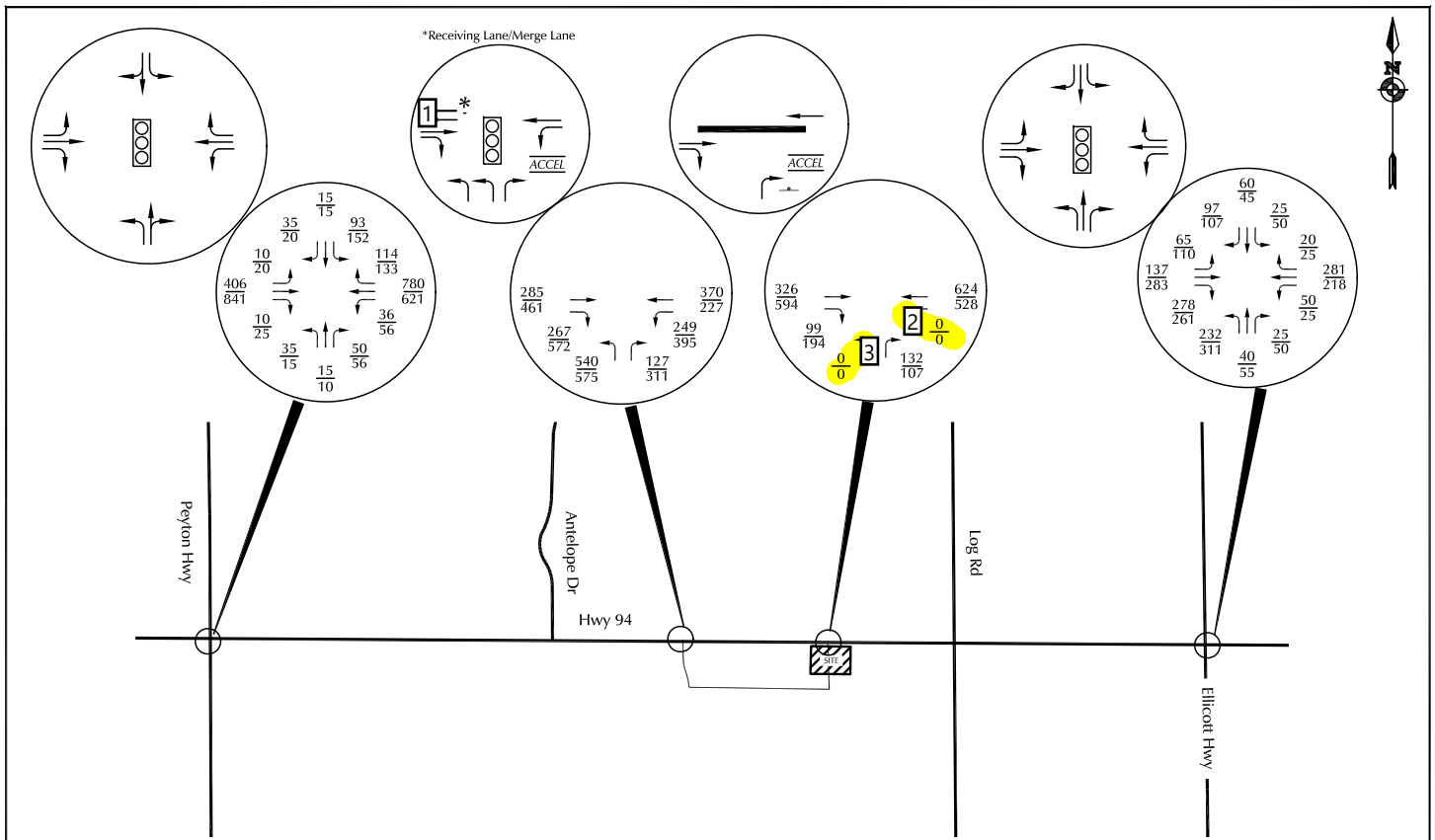
---

 Number: 2      Author: Daniel Torres      Subject: Highlight    Date: 5/10/2019 11:32:32 AM

---

 Number: 3      Author: Daniel Torres      Subject: Highlight    Date: 5/10/2019 11:32:36 AM

---




LEGEND:  $\frac{XX}{XX}$  = AM Peak-Hour Traffic (veh/hr)  
 $\frac{XX}{XX}$  = PM Peak-Hour Traffic (veh/hr)

= Traffic Signal    = Stop Sign


Figure 9  
**2040 Background plus Site Traffic,  
 Lane Geometry, and Traffic Control**  
 Ellicott Town Center Rezone (LSC# 194060)




---

 Number: 1 Author: jchodsdon Subject: Stamp Date: 3/12/2019 7:29:38 PM

---

 Number: 2 Author: Daniel Torres Subject: Highlight Date: 5/10/2019 11:32:40 AM

---

 Number: 3 Author: Daniel Torres Subject: Highlight Date: 5/10/2019 11:32:42 AM

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