Montgomery County Department of Transportation
Division of Traffic Engineering and Operations

COMMUNITY DISCUSSION PAPER

DETERMINATION OF ACCESS RESTRICTION ELIGIBILITY

Leighton Ave

Executive Summary

The community along Leighton Avenue in Montgomery County petitioned for a determination of access restriction eligibility to address a perceived cut-through traffic problem. Executive Regulation 17-94 *"Through Traffic Volume Access Restrictions in Residential Areas"* was authorized to aid in the County's efforts to "enhance neighborhood traffic safety and maintain 'livable' residential environments by providing a procedure for reducing excessive volumes of through traffic." The policy attempts to balance the needs of all impacted parties while maintaining the efficient and appropriate use of County streets and public rights of way. For this policy, the County's Department of Transportation (Department) assists neighborhoods by designing and evaluating the impacts of access restrictions and then reporting findings in a "Community Discussion Paper (CDP)", which will serve as the basis for discussions with residents and other potentially impacted parties. The purpose of this CDP is to determine access restriction eligibility for Leighton Ave and to evaluate traffic impacts on proposed access restrictions. The technical analysis in this CDP show that Westbound AM and PM peak-hour traffic exceeds 100 vehicles on Leighton Ave west of Franklin Ave; and a license plate survey of westbound traffic documented non-local traffic volumes to be 61%. Both of these data along Leighton Avenue meet the County's requirements for access restrictions per Executive Regulation 17-94. The majority of cut-through traffic entering Leighton Ave is assumed to originate as right turning movements from westbound Franklin Ave, the recommend access restriction is:

> Installation of a regulatory sign to restrict right turns from westbound Franklin Avenue to Leighton Avenue from 7:00 – 9:00 AM and 4:00 – 6:00 PM Monday through Friday.

Based on a preliminary analysis of adjacent intersections, implementing this recommendation was found to result in no significant impacts to traffic operations.

1. INTRODUCTION

Executive Regulation 17-94 "Through Traffic Volume Access Restrictions in Residential Areas" was authorized to aid in the County's efforts to "enhance neighborhood traffic safety and maintain 'livable' residential environments by providing a procedure for reducing excessive volumes of through traffic." The policy attempts to balance the needs of all impacted parties while maintaining the efficient and appropriate use of County streets and public rights of way.

The Department of Transportation (Department) assists communities in developing a Through Traffic Volume Management Plan by designing and evaluating the impacts of access restrictions. The Department then reports its preliminary assessment in a "Community Discussion Paper (CDP)", which will serve as the basis for discussions with residents and other potentially impacted parties. The purpose of this CDP is to determine access restriction eligibility for Leighton Ave in Silver Spring, as well as to evaluate traffic impacts on any proposed access restrictions.

2. REGULATORY PROCESS

The development of, criteria for, public comment on, and approval process for installation of access restrictions in residential areas follows seven sequential steps:

1. **Application & Eligibility:** The process begins with an initial request for access restrictions and determination of street eligibility for access restrictions.
   - Application - A request for neighborhood through traffic volume restrictions may be made by a local citizens Association which represents a significant number of residents or by a petition from 15 percent of the households in an area being proposed for traffic restrictions.
   - Eligibility - The Department will assess the area described in the application and adjust boundaries as appropriate to delineate the traffic shed. Eligibility of one or more streets in a residential area for volume restrictions must be based on satisfying criteria for:
     - Functional classification of the study roadways
     - Measured traffic volumes.
     - Estimated non-local traffic.

2. **Project Development:** Once eligible, the Department will move forward to develop a detailed plan and assess the potential traffic impacts of that plan.
   - Preliminary Plan – input from the community will be solicited and considered in developing a detailed plan to manage through traffic volumes on eligible streets within a traffic shed or volume management area. The plan may include traffic controls such as signs and pavement markings or other physical barriers that establish turn or entry restrictions, one-way traffic flows, or mandatory turns. Speed reduction measures such as speed humps, chokers, roundabouts, etc. and pedestrian improvements such as sidewalks are addressed under other processes established by the Department. Under no circumstance may a street be fully closed to traffic.
   - Community Discussion Paper – A formal study typically including 1) technical and quantitative analysis of existing traffic conditions such as traffic volumes, travel times, origin-destination

surveys, 2) the development of a plan for implementing one or more access restriction measures, and 3) the assessment of potential consequences of such actions on:
   - the surrounding residential streets that may receive diverted traffic.
   - the surrounding collector, arterial and highway network that is intended to carry through traffic volumes.
   - potential impacts on access to public facilities such as schools, parks and libraries located within the traffic volume management area.
   - compatibility with Master and Sector Plans

3. **Community Assessment:** Once a Preliminary Plan and Community Discussion Paper have been completed, disclosure and public dialogue and access to information for a minimum of 30 days. Stakeholders for the Plan may include the following groups:
   - Community Associations
   - Business Associations
   - Local Municipalities
   - Schools
   - Hospitals
   - Other County Agencies (e.g., Department of Recreation, M-NCPPC)

   Means of communication the Department may undertake with stakeholders may include any or all of the following:
   - Public Notification
   - Working Groups
   - Advisory Committee

4. **Final Plan:** Based on the feedback received during the Community Assessment phase, the preliminary plan may be revised by the Department to address concerns and a Final Plan will be produced.

5. **Public Hearing:** Within 60 days of submitting a Final Plan, a public hearing will be held, with ample (15 days) notice and hearing announcements posted, and a hearing officer will decide on behalf of the Executive whether to support the plan. In deciding whether to create an area and adopt a plan for that area, the Executive must consider:
   - the classification or function of each street in the area and existing street widths;
   - overall traffic volumes and level of use by non-local traffic;
   - pertinent traffic and pedestrian safety factors;
   - the impact of possible traffic flow restrictions on nearby residential areas, businesses, public access and facilities, and the surrounding street network;
   - feasibility of compliance and enforcement;
   - the need of the residents in the proposed area for traffic flow restrictions;
   - approved or pending master or sector plans; and
   - any other factor the Executive finds relevant. The Executive must not reject a proposed plan primarily because it would increase traffic volumes on arterial roads.

In summary, the Executive must decide if the benefits of the Plan outweigh the possible impacts to the surrounding community, higher functioning roadways, or other resources. However, the Executive does have discretion to request specific modification to the Plan to better balance the goals of the plans with the potential consequences of access restrictions.

6. **Adaptation:** Once the plan in recommended by the Executive for implementation, the applicant will be asked to collect a petition from determined eligible properties (one adult signature per property) to move forward. A simple majority (51% or more) will be required to adopt the Plan; a non-response will be considered a no vote.

7. **Implementation and Assessment:** Once adopted, passive measures will be scheduled for installation by Department forces. In cases where physical measures have been recommended, funding for construction may be submitted through the County's Capital Improvement Program.

After a period of a minimum of 90 days, the Department may conduct an 'after' assessment to document actual changes in traffic patterns.

3. GLOSSARY OF TERMS

Definitions for common terminology used in this report are presented below.

Access Restriction – A full or part-time regulatory prohibition or physical barrier preventing full or directional entry into or through a particular street.

Arterial – A roadway that functions primarily to facilitate high volume vehicular traffic connections between, collector streets and major thoroughfares such as expressways and freeways; and secondarily to provide access to abutting land uses.

Average (Weekday) Daily Traffic (AWDT) – The average total number of vehicles in one or more direction of travel in a 24-hour (weekday) period passing a given point on a roadway.

Collector – An intermediary street that funnels vehicular traffic to and from local streets and arterials, providing moderate access to adjacent land uses.

Community Association - Any incorporated or unincorporated common ownership or Civic Association which represents the interests of the subdivision in which the street being considered for access restrictions is located.

Community Discussion Paper – A formal study typically including 1) technical and quantitative analysis of existing traffic conditions such as traffic volumes, 2) the development of a plan for implementing one or more access restriction measures, and 3) the assessment of potential consequences of such actions.

Cut-through or Non-local traffic – Through traffic diverted from arterial and collector streets onto local residential streets to avoid congestion and/or longer trips, with both an origin and destination external to the neighborhood and/ or traffic shed boundaries as documented in a license tag survey sample or other appropriate measure. Note that vehicles which cross a collector or arterial road from an originating local street and continue to another local street in the same destination direction of the collector/arterial road, without a destination on that local street, may be considered part of the non-local traffic in some cases depending on the exact boundaries of the traffic volume management area.

Functional Classification – Is the process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. There are four highway functional classifications: highway, arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic (i.e., local or long distance) and the degree of land access that they allow.

Major Highway – A roadway with limited or controlled access that carries high through traffic volumes between freeways, central business districts and other major traffic generators. Major highways provide a high level of traffic service and a low level of direct access to local development.

Management Plan – That group of traffic controls, which may include signs, pavement markings, and physical devices or barriers, designed to reduce, divert, or discourage non-local traffic in a particular

neighborhood or on a particular neighborhood street.

Neighborhood Traffic Committee – An ad hoc group of residents formed in the absence of an active Community Association which represents the interests of the subdivision in which the street being considered for speed humps is located.

Residential Street – A neighborhood street providing direct access to abutting residential land uses, not intended to service traffic traveling beyond or through a neighborhood. Residential streets can be sub classified as follows:

- Primary Residential Street: A neighborhood street serving as a collector for local traffic from secondary and tertiary residential roadways, designed to feed traffic to arterial and major highways. Primary roadways provide a moderate level of traffic service and a high level of direct residential property access. Can also be defined as a Master Plan primary street so designated in a Master or Sector plan.
- Secondary residential street – A neighborhood street providing a high level of direct residential access and a limited level of traffic service; not intended to provide for traffic traveling through the neighborhood.
- Tertiary residential roadway – A neighborhood street with similar function to a secondary street but having a narrower right-of-way and typically ending in a cul-de-sac.

Study Intersections/ Study Area – A geographic area which includes all critical intersections along arterials or major highways that connect to each other or local collector and residential streets within the traffic shed or traffic volume management area and which may need to be analyzed to determine potential impacts of access restrictions.

Traffic Shed – A geographic area defined by an interconnected network of local primary, secondary and tertiary streets within a neighborhood or portion of a neighborhood that feed into the same arterials or major highways.

Traffic Volume Management Area – An area defined by natural or physical/ transportation boundaries, typically encompassing one or a portion of a neighborhood or traffic shed, within which residents, businesses and other visitors may be required to change their travel patterns to reach a local origin or destination within the traffic volume management area with the implementation of access restrictions on one or more streets.

85th-Percentile Speed – The speed at or below which 85% of the vehicles are moving. 85th-persentile speed is a common measure of the speed at which most motorists consider safe and reasonable based on the prevailing geometric and traffic conditions on a particular roadway. Studies have demonstrated that drivers who travel either slower or faster than the 85th-percentile speed of the traffic stream have a higher rate of crash involvement rate than those drivers whose speed is close to the 85th-percentile speed. The measured 85th-percentile speed indicates that only 15% of drivers exceed it.

4. STUDY AREA LOCATION AND PURPOSE

A. Study Area

Silver Spring Residents in Montgomery County, MD state that non-local drivers are using Leighton Ave via Franklin Ave during commuter rush hours. Residents believe this cut-through traffic is using local neighborhood streets to avoid congestion and delays on Franklin Ave approaching Colesville Rd (US 29).

Definitions of key areas for this study are as follows:

- The Traffic Shed is bounded by Colesville Rd, Indian Spring Dr, University Blvd (MD 193), and Melbourn Ave.
- The Traffic Volume Management Area is defined as Leighton Ave from Colesville Rd to Franklin Ave.
- Study Intersections will include Leighton Ave at Franklin Ave, Leighton Ave at Colesville Rd, and Franklin Ave at Colesville Rd.

A map of the traffic shed and traffic volume management area is shown in **Figure 1**.

FIGURE 1: STUDY AREA MAP

B. History

The neighborhood has noted that the excessive cut-through traffic through the community along Leighton Ave has negatively impacted the quality of life and safety of residents. This is potentially due to increasing regional traffic volumes, as well as recurring congestion along Franklin Ave. Motorists may perceive it is faster to cut through the neighborhood than to remain on Franklin Ave to Colesville Rd.

C. Location

The study area is situated east of Colesville Rd, north and west of Franklin Ave, and south of Brewster Ave. The neighborhood is comprised of county-maintained roads. An area map is shown in **Figure 2**.

FIGURE 2: LOCATION MAP (NOT TO SCALE)

D. Purpose

The purpose of the study is to document the volume of non-local through traffic utilizing the study roadways to avoid congestion on Franklin Ave approaching Colesville Rd, and, if eligible, develop and implement an access restriction plan after evaluating the potential impact of that plan on the roadway network and community. This paper summarizes the results of a technical analysis including existing conditions, traffic volumes, capacity analysis, license plate surveys, travel time, and field observations.

5. EXISTING CONDITIONS ANALYSIS

A. Roadway Network, Land Use, Community Resources and Existing Restrictions

The following section describes the study area roadway network and its characteristics, existing land use mixture, community resources such as public spaces, and vehicular access restrictions that are already in place.

Leighton Ave is a local roadway with width and on-street parking characteristics that allow for one unobstructed lane for travel in both directions meeting the Executive Regulation 17-94 description for a Tertiary Residential Street.

Colesville Rd (US 29) is a principal arterial roadway. Colesville Rd is a six-lane divided roadway connecting the District of Columbia, Montgomery County, and Howard County. The speed limit along Colesville Rd within the study area is 40 miles-per-hour (mph); there is one traffic signal within the study traffic shed area at Colesville Rd and Franklin Ave.

Franklin Ave is a major collector roadway. Franklin Ave is a two-lane undivided roadway providing an east-west connection between Colesville Rd and University Blvd. The speed limit along Franklin Ave within the study area is 30 miles-per-hour (mph).

Land uses along Leighton Ave are exclusively residential. Surrounding land uses are composed of primarily of residential, schools, and parks.

There are no **existing traffic restrictions** and controls for the community.

Existing traffic calming is limited to speed humps along Leighton Ave.

A detailed map of all access restrictions is shown in **Figure 3** on the next page.

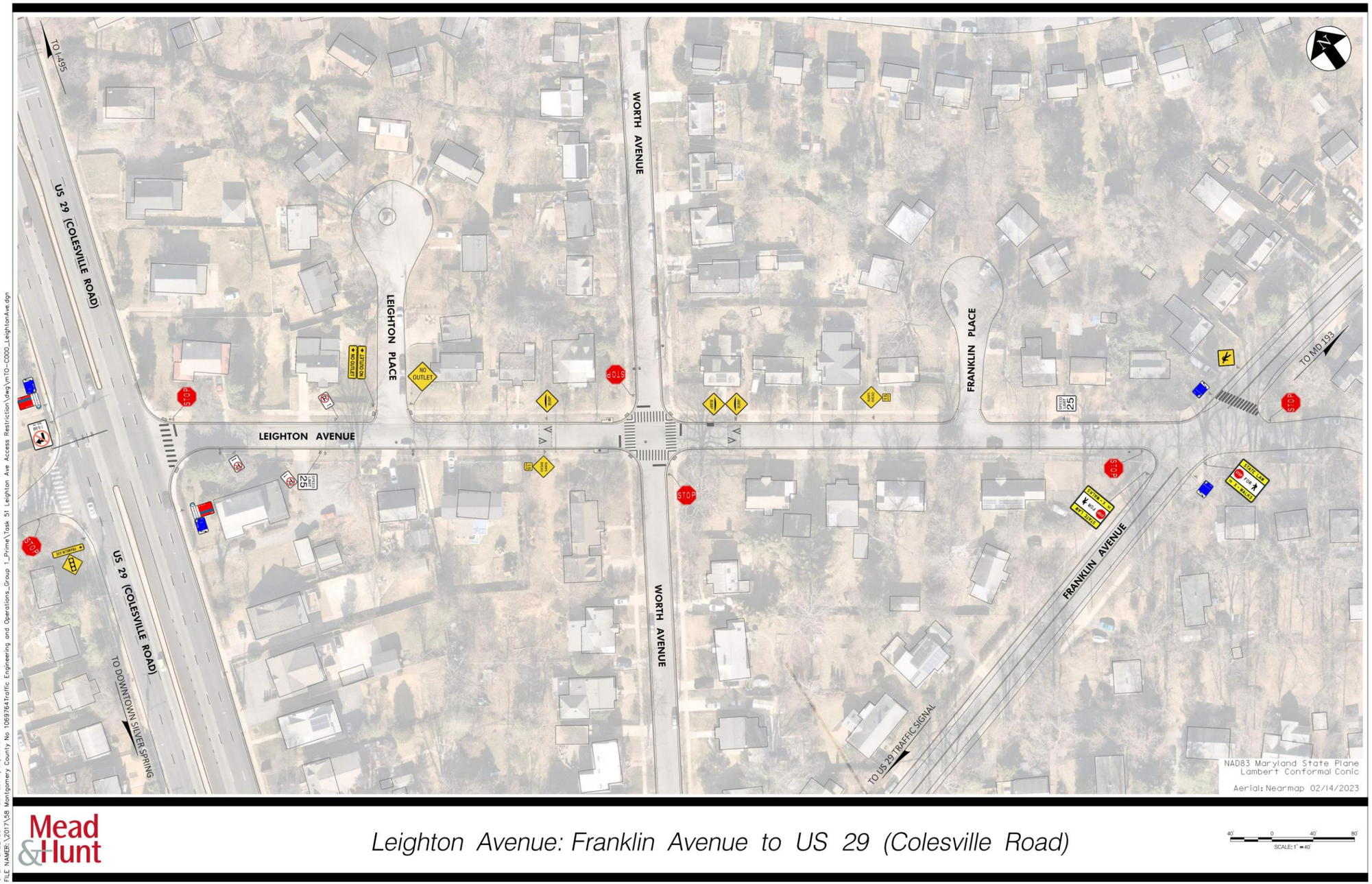

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FIGURE 3: EXISTING ACCESS RESTRICTIONS

B. Traffic Volumes

Peak hour intersection traffic data for the study area intersections was gathered from the Maryland State Highway Administration (MDSHA), Maryland-National Capital Park and Planning Commission (MNCPPC) and supplemented with new data collected as a part of this study. The new volume data was collected at Franklin Ave at Leighton Ave and Franklin Ave at US 29 on January 30, 2024. **Figure 4** illustrates peak hour *balanced* volumes at study intersections. Detailed traffic data is included in Appendix A. **Table 1** summarizes the most conservative volumes for the weekday AM and PM peak hour bi-directional traffic volumes along the study roadway segments

TABLE 1: SEGMENT TRAFFIC VOLUMES - AM (PM)

Roadway	Westbound/ Northbound	Eastbound/ Southbound	Total Peak Hour Volume	Total Daily Volume
Leighton Ave: between US 29 and Franklin Ave	149 (80)	36 (54)	188 (134)	1,361
Franklin Ave: between US 29 and Leighton Ave	202 (163)	108 (230)	310 (393)	4,348
US 29: .15 miles south of I-495	1,927 (3,193)	2,440 (1,928)	4,367 (5,121)	64,384

FIGURE 4: EXISTING VOLUMES DIAGRAM

C. Capacity Analysis

The Critical Lane Volume Analysis (CLV) methodology was used to evaluate capacity and level of service for the selected intersections during the AM and PM peak hours. Performance measures of effectiveness include critical lane volume, volume-to-capacity ratio, and level of service.

The critical lane volume for each peak period is found by combining the critical lane volumes for the NB/SB movements and EB/WB movements. The critical lane volumes indicate the highest volume for a given approach lane configuration in each direction. The volume-to-capacity ratio (v/c ratio) is the ratio of current flow rate to the capacity of the facility. This ratio is often used to determine how sufficient capacity is on a given roadway. Generally, a ratio of 1.00 indicates that the roadway is operating at capacity. A ratio of greater than 1.00 indicates that the facility is failing as the demand of vehicles exceed the intersection's available capacity.

The level of service (LOS) is a letter designation that corresponds to a certain range of roadway operating conditions. The levels of service range from A to F, with A indicating the best operating conditions and F indicating the worst, or a failing, operating condition. Level of service thresholds are summarized in **Table 2**, the results of the capacity analyses are summarized in **Table 3**. Detailed capacity worksheets for existing conditions are included in Appendix B.

TABLE 2: CRITICAL LANE VOLUME LEVEL OF SERVICE PARAMETERS

LOS	Volume (CLV)	Expected Problems at Intersection
A	≤ 1000	Very low delay
B	> 1000 and ≤ 1150	Short delay
C	> 1150 and ≤ 1300	Number of vehicles stopping is significant
D	> 1300 and ≤ 1450	Influence of congestion becomes noticeable
E	> 1450 and ≤ 1600	Limits of capacity, moderate to excessive delay
F	> 1600	Oversaturated traffic conditions, excessive delay

(Source: MD State Highway Administration.)

TABLE 3: CAPACITY ANALYSIS SUMMARY TABLE

Intersection	Critical Lane Volume	Volume-to-Capacity Ratio	Level of Service
Leighton Ave at Colesville Rd	940 (1,038)	0.59 (0.65)	A (B)
Franklin Ave at Colesville Rd	1,036 (1,186)	0.65 (0.74)	B (C)
Leighton Ave at Frankin Ave	561 (292)	0.35 (0.18)	A (A)

D. Non-Local Traffic

A license plate survey was performed in February 2024 to determine the percentage of cut-through traffic along Leighton Ave between Franklin Ave and Colesville Rd. The purpose of the license plate study is to determine the percentage of non-local traffic currently utilizing the neighborhood streets, i.e., those vehicles without either an origin or destination within the defined traffic shed. The evaluation was conducted by recording license plate data in the field and then entering them into a database to perform a record search of the vehicle's registered address.

In the morning hours of 8:00 AM to 10:00 AM, it was observed that of 118 vehicles entering Leighton Ave from Franklin Ave, 46 were local and 72 were non-local (61%).

Table 4 below illustrates the license plate study vehicles survey and the resultant percentage of traffic determined to be cut-through. A map showing the anonymized address blocks of the vehicles surveyed is provided in **Figure 5**.

TABLE 4: LICENSE PLATE SURVEY

Location	Date	Time	Within 3/4-mile Boundary	Outside 3/4-mile Boundary	Total Vehicle with Available Lic. Plate Info.	Remarks
Franklin Ave between US 29 and Leighton Ave	2/20/2024	8-10 AM	46	72	118	= 61% >50% Cut Through Traffic, Meets Criteria

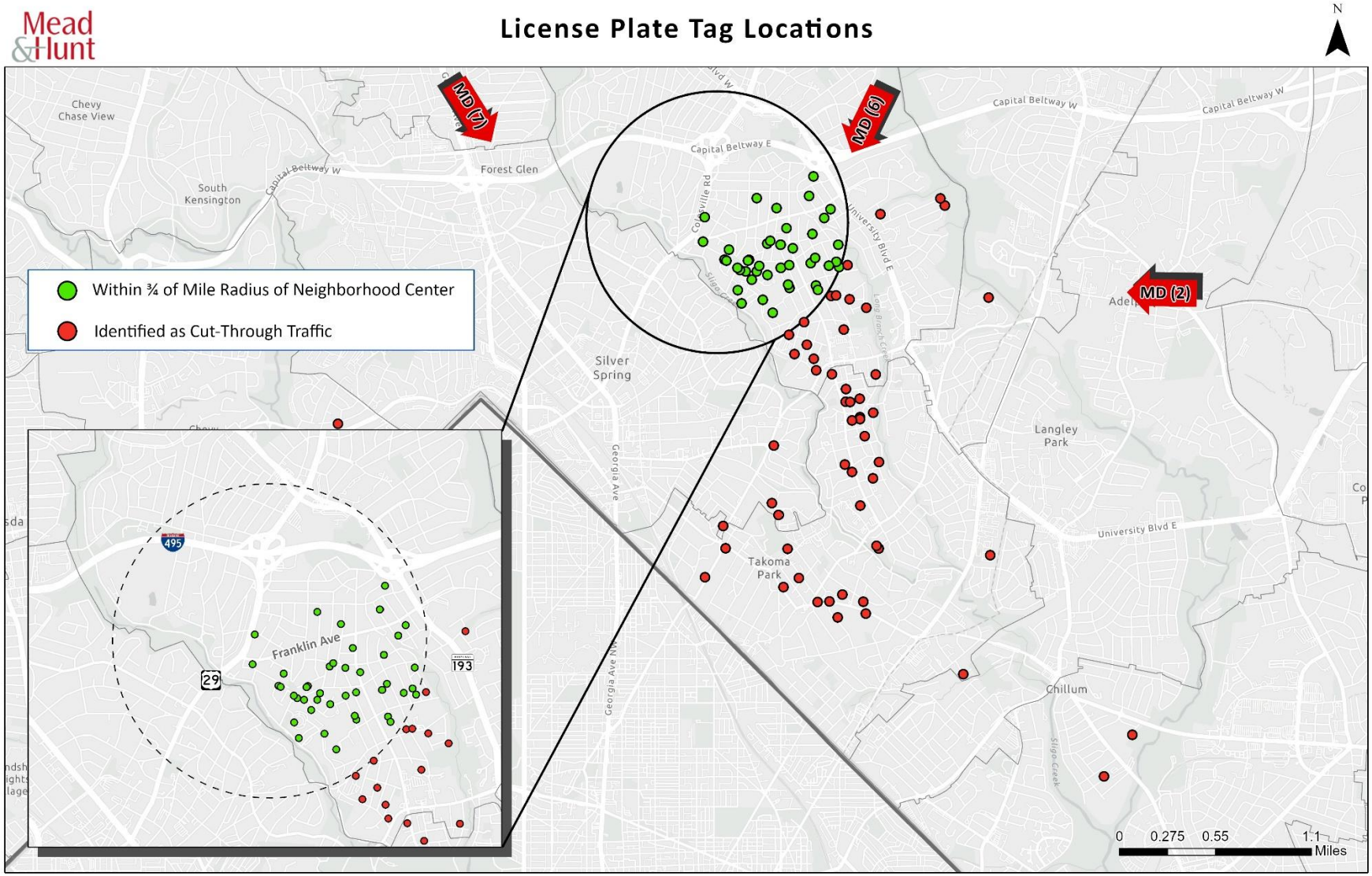

FIGURE 5: LICENSE PLATE SURVEY MAP

E. Travel Time Analysis

Detailed field investigations of travel times along Leighton Ave, and adjacent primary roadways were performed during a typical midweek day (January 30, 2024) during the AM (8:00 – 10:00) and PM (4:00 – 6:00) peak hours, while school was in session. The purpose of this analysis is to document relative travel times, including delay at signalized intersections, over routes that diverted traffic may experience if access restrictions were implemented along Franklin Ave to Leighton Ave. Five (5) travel time runs were conducted for Routes 1 and 2 listed below (**Figure 6** shows the travel time run paths for routes 1 and 2). The starting and ending points were the same for each route and compare the Leighton Ave cut-through route with the same trip using the primary route of Frankline Ave to Colesville Rd. **.**

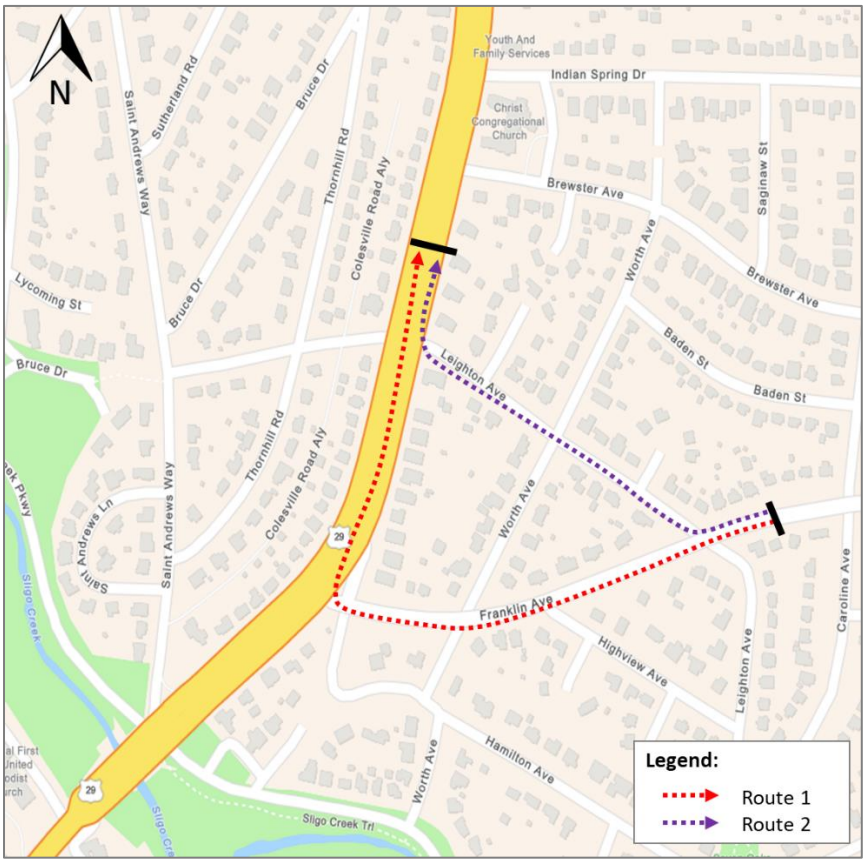

FIGURE 6: TRAVEL TIME ROUTES

TABLE 5: TRAVEL TIME SUMMARY TABLE

Route Number	Direction	Route Description	AM	PM
1	Westbound	Franklin Ave	2:43	2:45
2	Westbound	Leighton Ave	1:45	2:11

Table 5 shows a summary of the average travel times recorded during the AM peak hours. Detailed travel time information for each route can be found in Appendix C.

- **Route 1 (Westbound Baseline):** From Franklin Ave westbound to the intersection of Franklin Ave and US 29; right to northbound US 29. The average duration of the Baseline route in the AM and PM peak hours is 2 minute and 43 seconds and 2 minutes and 45 seconds, respectively.
- **Route 2 (Westbound Leighton Ave):** From Franklin Ave westbound to the intersection of Franklin Ave at Leighton Ave; right to Leighton Ave the right to northbound US 29. The average duration of the Leighton route in the AM and PM peak hours is 1 minutes and 45 seconds and 2 minutes and 11 seconds, respectively.

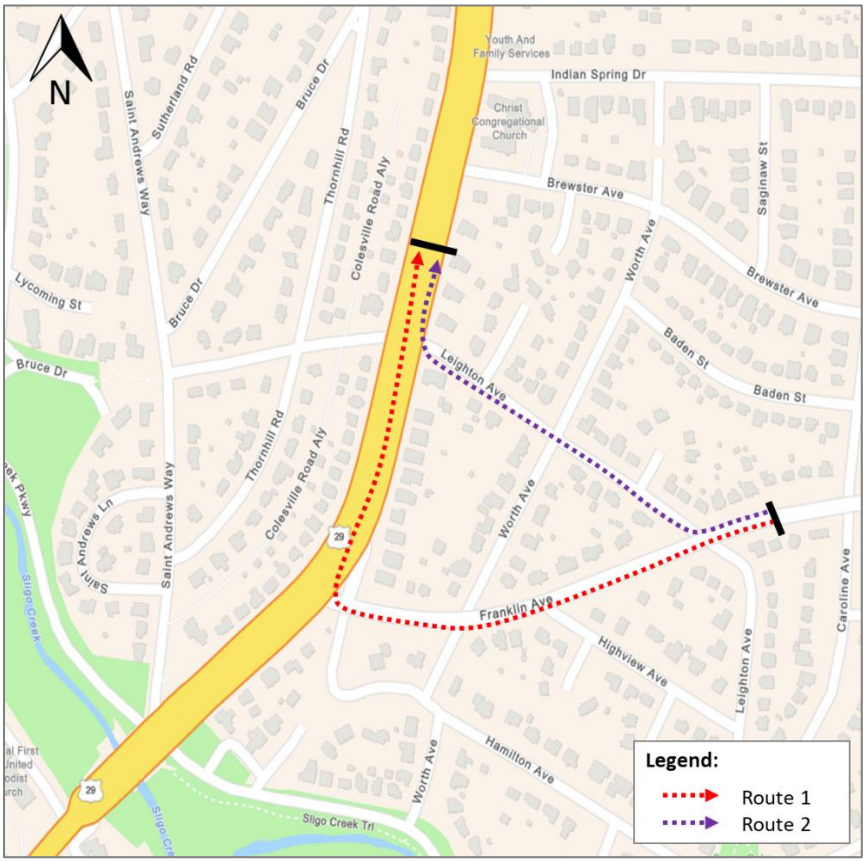

FIGURE 6: TRAVEL TIME ROUTES

TABLE 5: TRAVEL TIME SUMMARY TABLE

Route Number	Direction	Route Description	AM	PM
1	Westbound	Franklin Ave	2:43	2:45
2	Westbound	Leighton Ave	1:45	2:11

Findings indicate that typically the baseline route, Franklin Ave, has 0.5 to 1-minute slower travel times to that of the Leighton Route in both the AM and PM peak hour thus affirming the desire to cut-through using Leighton Ave.

F. Field Observations

A Professional Traffic Engineer observed the study area in January 2024, specifically focusing on driver

behavior, traffic patterns and queues, geometry, and overall traffic operations. The following summarizes the observations:

- Moderate congestion along Franklin Ave particularly in the morning peak hours from Colesville Rd to Leighton Ave.
- Cut-through traffic able to bypass signal delays and queuing by using Leighton Ave.

6. ACCESS RESTRICTION ELIGIBILITY ANALYSIS

According to Executive Regulation 17-94AM, the eligibility requirements and satisfaction thereof are summarized below in **Table 6**. The evaluation focuses on Leighton Ave.

TABLE 6: SUMMARY OF LEIGHTON AVENUE ACCESS RESTRICTION ELIGIBILITY ANALYSIS

Criteria	Description	Existing Condition	Satisfied?
Street Classification	Access volume restrictions limited to tertiary, secondary, and primary residential streets.	Leighton Avene is a residential street.	**Yes**
Measured Traffic Volumes	A minimum two-directional volume: > 400 vehicles per hour for at least one hour of a weekday peak or off-peak time period on a **primary street** with one unobstructed travel lane in each direction. > 250 vehicles per hour on a **non-primary residential street** with one unobstructed travel lane in each direction. > 100 vehicles per hour on any **residential street** with one unobstructed travel lane serving both directions.	Based on the residential roadway classification, the measured traffic volumes exceed the 100 total two-way volume per hour on Leighton Avenue in both the AM and PM peak hours.	**Yes**
Estimated Non-Local Traffic	Non-local traffic must exceed 50 percent of the highest hourly volume, as documented by a license plate survey.	Non-local traffic is above 50% for the highest hourly volume.	**Yes**

Per Section III-C of Executive Regulation 17-94, the Department must prioritize all access restriction applications that are determined eligible for further consideration, with prioritization based on a point-scores assigned to a given street. Factors into point scores include: traffic volume, speeds, accidents, pedestrian activity, driveway concentration, and sight visibility. Since only a single road was requested for review, a scoring assessment was not prepared for this CDP.

Findings

The community along Leighton Avenue in Montgomery County petitioned for a determination of access restriction eligibility to address a perceived cut-through traffic problem. The results of a technical analysis confirm the following findings:

- The land use is primarily single family residential.
- Based on the capacity analysis results under the existing conditions, the three study intersections operate at LOS C or better during the AM and PM peak hours.
- The two-way traffic volumes on Leighton Avenue satisfy the minimum requirements of 100 vehicles

per hour during the AM and PM peak hours.

- A license tag survey documented 61% (72 vehicles) were non-local traffic on Leighton Avenue.
- Based on the above findings, Leighton Avenue is eligible for access restrictions.

7. ACCESS RESTRICTION PLAN IMPACT ANALYSIS

An access restriction plan must balance the needs of both the neighborhood and the prevailing traffic conditions. An access restriction plan may not include traffic calming measures such as speed humps or small traffic circles, nor does it permit a complete roadway closure. The plan may include signs and/ or physical barriers that "establish turn or entry restrictions, one-way residential streets, or mandatory turns".

The evaluation of access plans should include the consideration of impact of diverted traffic on other roadways such as residential and arterial streets, impact on access to public facilities and community resources such as schools, parks, libraries, religious institutions, or shopping centers, and lastly compatibility with area Master Plans. Regulation 17-94AM specifically states that any access restriction imposed affects residents as well as cut-thru traffic and makes no provision to allow use by residents.

Proposal

Based on the origin of cut-through traffic from the license plate survey and findings from the travel time analysis, Leighton Ave is being used as a cut-through to bypass signal delays along Franklin Ave westbound to Colesville Rd. To discourage the use of Leighton Ave as a cut-through, a no right turn restriction is recommended westbound on Franklin Ave at the approach to Leighton Ave during the AM and PM peak periods from 7:00 – 9:00 AM and 4:00 – 6:00 PM, respectively.

The restriction will require the installation of a regulatory sign to communicate the restriction and targeted police enforcement may be necessary for compliance.

A. Preliminary Restriction Plan Impacts

The proposed plans ultimately aim to provide access restrictions without further limiting through access for commuter and non-local cut-through traffic on roadways in the study area that serve local residences and businesses in the community. The proposed recommendations were weighted for advantages and disadvantages prior to traffic analysis.

B. Impact to Other Roadways

It is assumed that all traffic making the westbound right turn movement from Franklin Ave to Leighton Ave will utilize the arterial streets and access Colesville Rd via Franklin Ave.

This additional diverted volume was added to the existing CLV volume for each affected intersection during the peak hours when the restriction is in place and the results are summarized below in **Table 7**. The results indicate that the additional diverted traffic volumes would result in minor changes in Critical Lane Volumes with no intersections experiencing any changes to AM or PM LOS. CLV worksheets with the diverted traffic

volumes can be found in Appendix D.

TABLE 7: FUTURE INTERSECTION CAPACITY ANALYSIS - AM (PM)

Intersection	Critical Lane Volume	Volume-to-Capacity Ratio	Level of Service
Leighton Ave at Colesville Rd	846 (1,003)	0.53 (0.63)	A (B)
Franklin Ave at Colesville Rd	1,036 (1,252)	0.65 (0.78)	B (C)
Leighton Ave at Frankin Ave	561 (292)	0.35 (0.18)	A (A)

C. Impact to Public and Community Facilities

The proposed access and turn restrictions are limited to the morning and evening peak hours, 7:00 – 9:00 AM and 4:00 – 6:00 PM to discourage through commuter traffic along westbound Leighton Ave. Local residents returning home may continue along Franklin Ave westbound and access their neighborhood via Worth Ave or Colesville Rd. Traffic patterns should be monitored to ensure that commuters do not divert to Worth Ave as a new cut-through.

8. SUMMARY AND RECOMMENDATION

The community along Leighton Avenue in Montgomery County petitioned for a determination of access restriction eligibility to address a perceived cut-through traffic problem. The results of a technical analysis confirm the following findings:

- Westbound AM and PM peak-hour traffic exceeds 100 vehicles on Leighton Ave west of Franklin Ave.
- A comparison of field-measured travel times in the study area during morning and evening peak hours indicate a travel time savings of 30-seconds to 1-minute for non-local traffic by using Leighton Ave in lieu of Franklin Ave.
- A license plate survey of westbound traffic documented non-local traffic volumes on Leighton Ave, of 61% which were found to be more than 50% requirement of evening peak hour traffic.
- Based on the overall AM and PM peak hours' volumes in the westbound direction, the percentage of non-local traffic, Leighton Avenue meets the County's requirements for access restrictions per Executive Regulation 17-94.
- The majority of cut-through traffic entering Leighton Ave is assumed to originate from right turns from westbound Franklin Ave.
- The recommended access restriction is:

  Installation of a regulatory sign to restrict right turns from westbound Franklin Avenue to Leighton Avenue from 7:00 – 9:00 AM and 4:00 – 6:00 PM Monday through Friday.
- Based on CLV analysis of study area intersections that would see modified traffic patterns, this regulation was found to result in no significant impacts to traffic operations.