MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Prince George's County Planning Department

# Multimodal Transportation and Street Safety

**Session 6**

Prince George's County
Neighborhood Planning Academy

April 8, 2026

# SESSION 5 REFLECTION

# AGENDA

- Ice Breaker
  - Discussion of Pre-Session Homework Assignment
- Lecture
  - County Transportation Facts
  - Transportation Themes and Examples
  - Master Plan of Transportation
  - Safe Street Design
  - Adequacy
- Activity
- Homework

# INTRODUCTIONS

# GUEST SPEAKERS

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# ICE BREAKERS

How could you travel to your workplace, doctors' office, or other location **without the use of a car**.

- Possible from your neighborhood?
- How long would it take?
- What is the walk, bike, and transit score for the location you chose at www.walkscore.com?

# LECTURE

# TRANSPORTATION AND MOBILITY

## IN PRINCE GEORGE'S COUNTY


15
Metro
Stations

11
Purple Line
Stations


7
Marc Stations


Nation's most
important
passenger
rail system
(NE Corridor)

Major east
coast freight
rail line

# BUS SERVICE


**24**

Prince George's County TheBus routes


**>1,400**

TheBus stops


**58**

Metrobus routes

# TRANSPORTATION AND MOBILITY

## IN PRINCE GEORGE'S COUNTY


Nation's most important interstate highway (I-95)


Region's most important highway (Capital Beltway)


Region's primary east-west highway (US 50)


Primary alternates to I-95 (BW Parkway and US 301)

# 4,100 MILES OF ROADWAYS AND STREETS

# 163 MILES OF BIKE LANES

**Capital Bike Share:**
Docking stations - 27

**Other Systems:**
Veo – City of College Park

# 139 MILES OF BIKEABLE SHOULDERS

# 39 MILES OF SHARROWS

# 31 MILES OF SIDE PATHS

# OTHER TRANSPORTATION SERVICES


College Park Airport


Ferry Service proposed


Rideshare


MagLev

# One Integrated System, Many Players

MDOT SHA manages most major roads and main streets in the County.

Two of the three major vehicular routes into DC are National Parks.

MdTA manages the Intercounty Connector

WMATA manages heavy rail and a significant bus network.

DPW&T manages the remainder of the road network and The Bus

M-NCPPC manages most of the trail network.

# One Integrated System, Many Players

Sidewalks are managed by a hodgepodge of property owners.

MTA operates MARC, commuter buses, and the Purple Line.

Amtrak owns the Northeast Corridor/ Penn Line.

CSX owns the Camden Line.

DPIE has final say on what types of roads and streets are constructed as part of new development projects.

DDOT manages Southern Avenue and Eastern Avenue.

A significant portion of our traffic comes from other counties, drives through Prince George's County, en route to other counties.

# HOW WE COMMUTE TO WORK

Workers 16 years and over, 2019

**4%,** Work at home

**2%,** Walked

15%

Public transit

10%

Carpooled

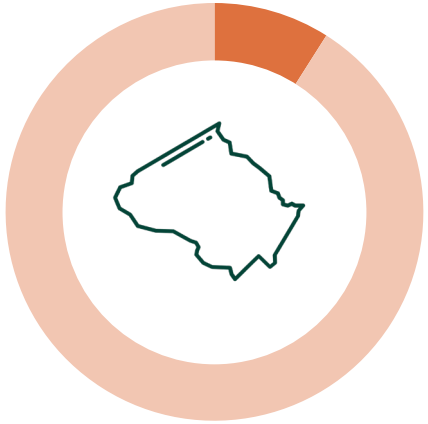
67% Drove Alone

Source: American Community Survey 2019

# WHERE WE COMMUTE TO WORK?

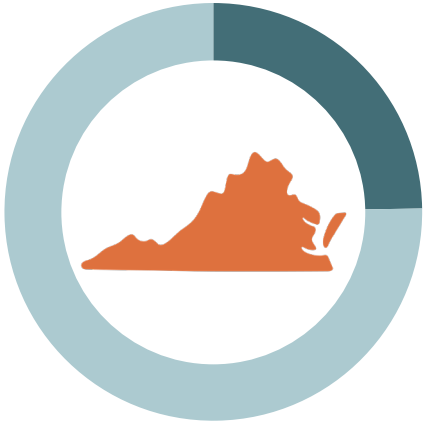
2016-2020

**42%**
Prince George's County

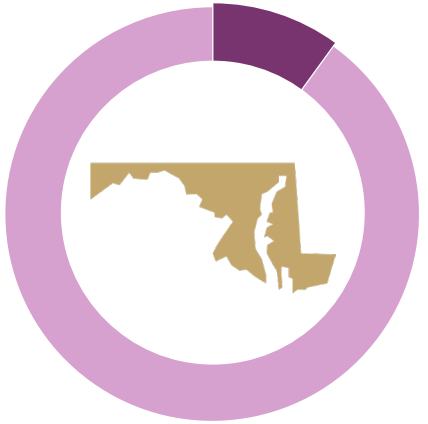


**9%**
Montgomery County

**28%**
Washington, D.C.



**11%**
Virginia



**10%**
Rest of Maryland

Source: American Community Survey 2023

# EQUITY

## Equality

## Equity

# EQUITY

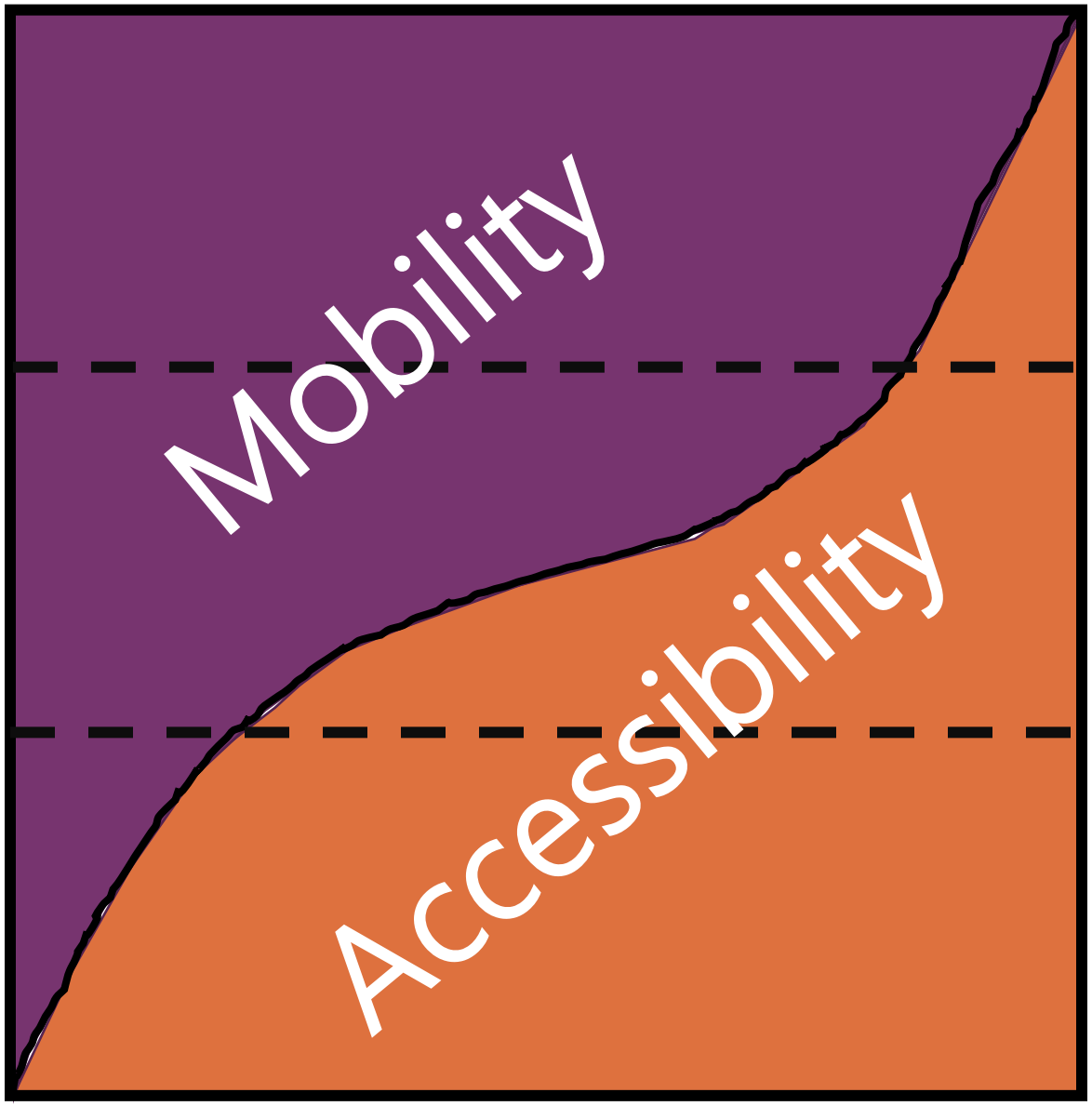
Source: National Association of City Transportation Officials

# MOBILITY VS. ACCESSIBILITY

# MOBILITY vs ACCESSIBILITY

- Mobility – Ability to move
- Access – Ability to enter/exit

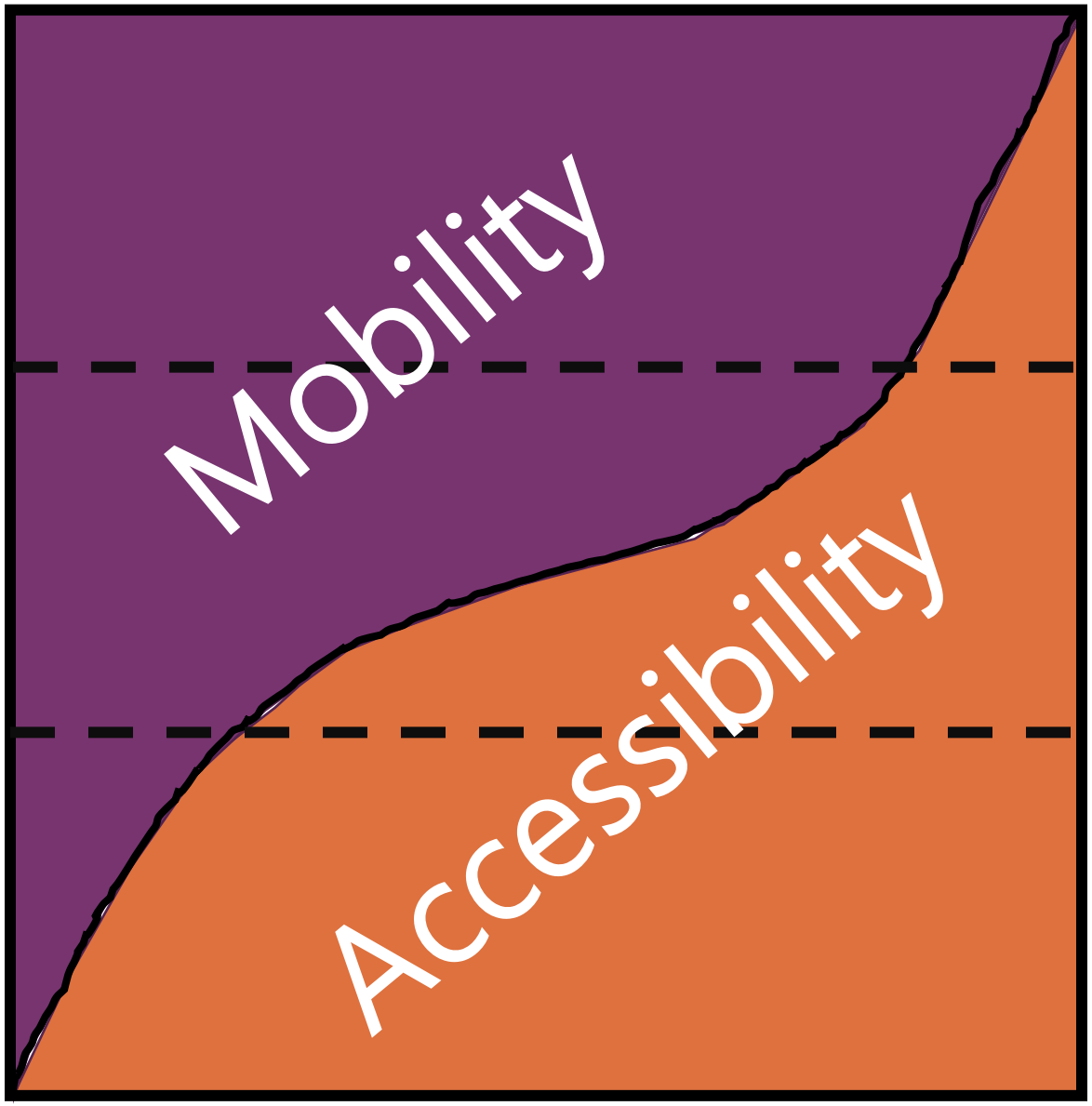
No right answer




Arterial / Highway / Freeway

Collector / Major Collector

Urban Center / Local / Residential




Automobile / Some Transit

Automobile / Transit

Automobile / Pedestrian / Bicycle / Some Transit

Safety
Access
Multimodal

Throughput
Mobility
Separate Modes

People ← → Cars


Street –
Platform for building Place and economic activity; low speeds; prioritize pedestrian movements


Road –
Attempt to balance adequate vehicle capacity, high speeds, and access;


Highway –
Efficient connections between productive places; high speeds; prioritize vehicle movements

# QUESTIONS?

# TRADEOFFS

# TRANSPORTATION TRADE-OFFS

As the economic success and opportunity of a place increases

- Demand for access increases
- More people walk
- More people bike
- More people take transit
- More people want to travel to that place
- Many people still must travel through that place.

# TRANSPORTATION TRADE-OFFS

Prince George's County is dominated by people who drive single-occupant vehicles

Prince George's County has developed in ways that require people to drive.

Employers do not locate in areas without strong walking, biking, and transit infrastructure.

Most young people and many empty nesters do not want to live or work in locations without strong walking, biking, and transit infrastructure

# MASTER PLAN OF TRANSPORTATION

# go PRINCE GEORGE'S

- Articulates the County's vision for transportation and mobility.
- Establishes the County's policies for the movement of people and goods.
- Recommends new or improved streets, services, and bike/ped facilities.


## PRIORITIZING PEOPLE

Successful communities are built at the human scale

## PRINCE GEORGIANS COME FIRST

Decisions are made to the benefit of Prince Georgians

## CREATING GREAT PLACES

The County's success depends on a high-quality public realm

## EQUITY MEANS SAFE ACCESS FOR ALL

An equitable network provides safe and equitable access to the most opportunities

## SUSTAINABILITY IS PARAMOUNT

Climate-smart travel options sustain the County and the planet

# Challenges to Tackle

Achieving the vision of Plan 2035 requires a fresh look at how Prince George's County approaches mobility and accessibility.

# SAFE STREET DESIGN

VISIONZERO prince george's

www.visionzeroprincegeorges.com


Eliminate roadway fatalities and serious injuries by 2040.

Addressing the 6 E's:

- Engineering
- Enforcement
- Education
- Emergency Response
- Equity
- Evaluation


Data helps us identify dangerous roadways and
implement roadway safety improvements.

# GREEN AND COMPLETE STREETS

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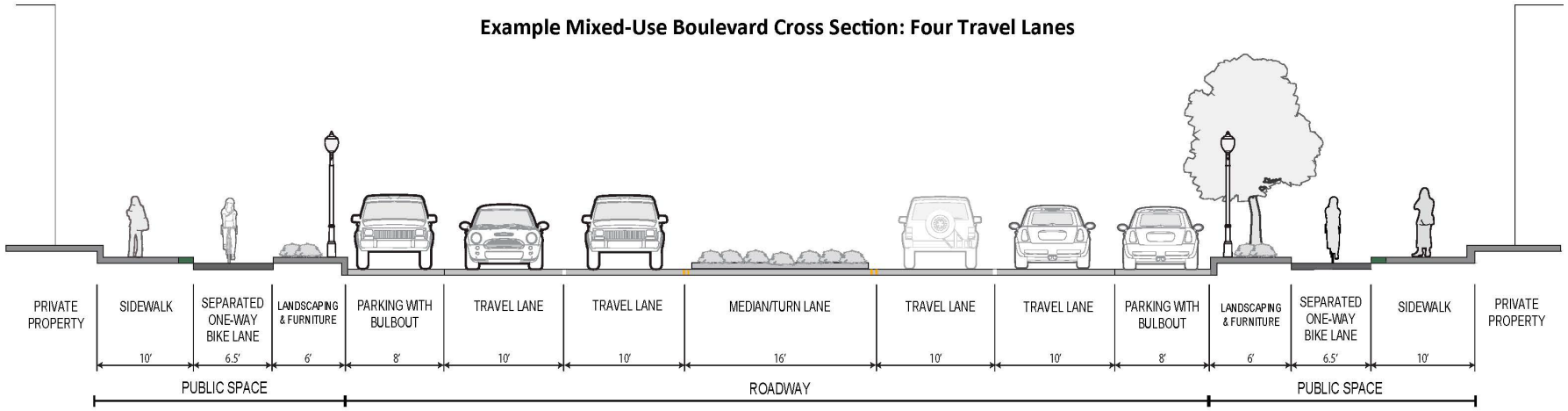


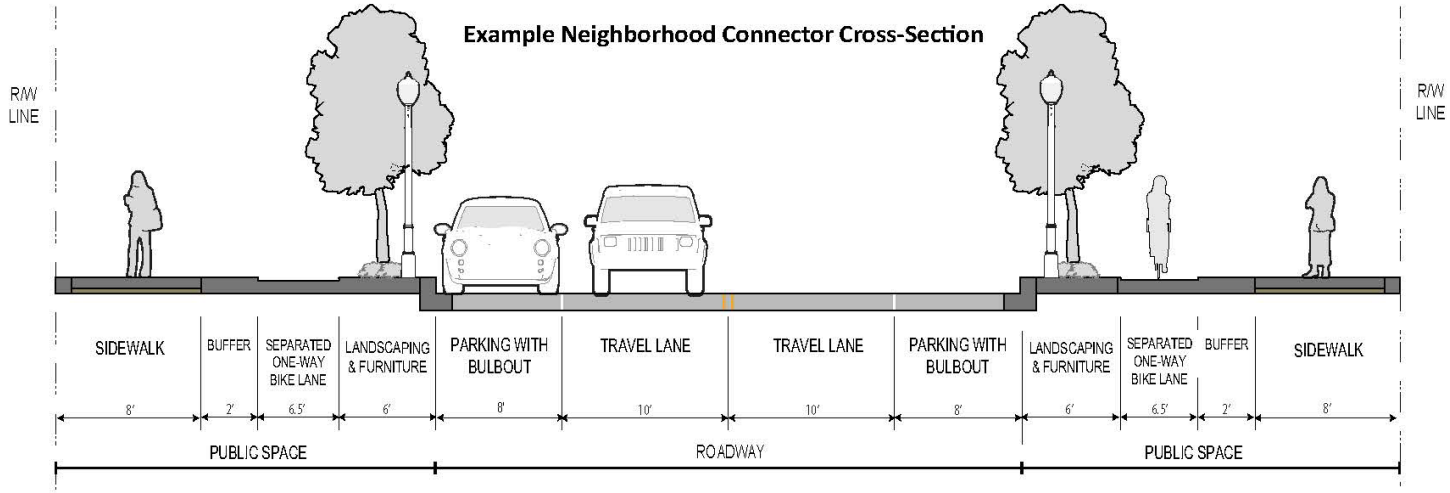

# ADEQUACY


# **Adequate Public Facilities Ordinance** (APFO)

- APFO ensures the adequacy and concurrency of public facilities.
- APFO identifies ways a development application can contribute to achieving adequacy.

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*Concurrency* means that adequate public facilities are in place when the impact of a development occurs.

Usually, the standards that define *adequacy* are expressed in measures that are appropriate to the facilities.

# APFO REGULATIONS

- **APFO** regulations are contained within the Subdivision Ordinance, Section 24-4500.
- **APFO** applies to all preliminary plan of subdivision and plat applications.

**Subtitle 24-4500(b)(2):** An application listed in Section 24-4502(a) shall not be approved until a certificate of adequacy or conditional certificate of adequacy is approved in accordance with the procedures and standards of this Section. No certificate of adequacy or conditional certificate of adequacy shall be approved unless and until it is reviewed and approved in conjunction with one of the applications or subdivision reviews identified in Section 24-4502(a) above and Section 24-4503(a).

# APFO REGULATIONS

The current Ordinance requires adequacy to be approved prior to the approval of a Preliminary Plan of Subdivision through the review and issuance of a Certificate of Adequacy

**APFO applies to:**

- Police
- Fire/EMS
- Schools
- Transportation (traffic, bicycle, pedestrian)
- Parks and Recreation

# TRANSPORTATION ADEQUACY

- Traffic impacts
  - Traffic Impact Study (TIS)
    - Data Collection
    - Proposed Trips
    - De Minimis
    - Mitigation

# TRANSPORTATION ADEQUACY

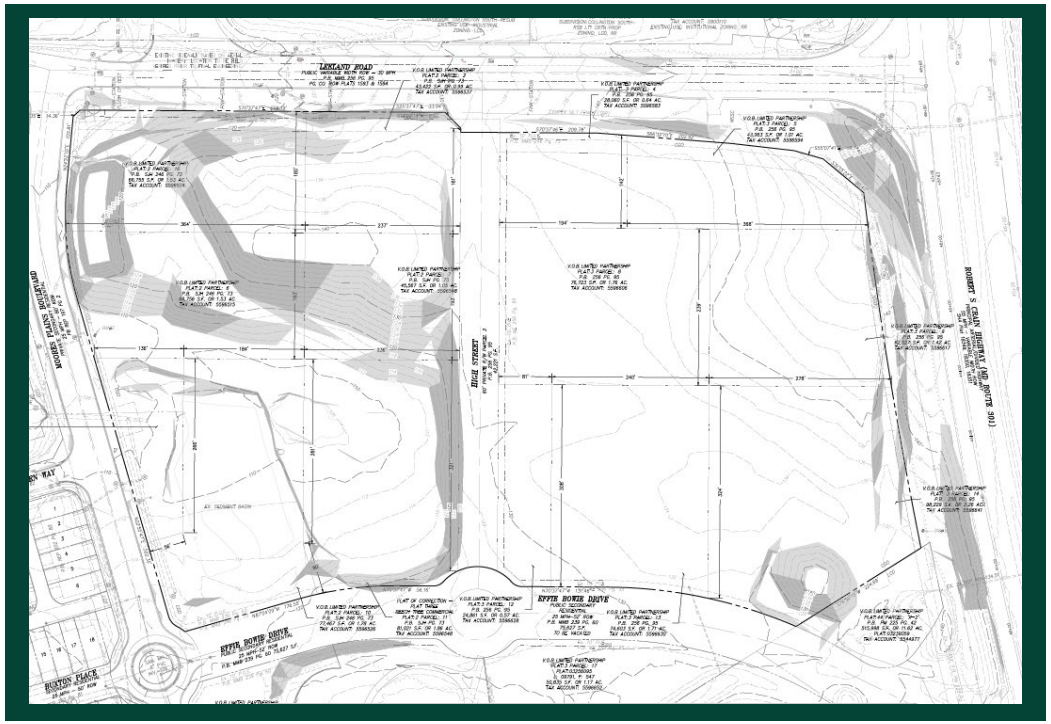
**24-4505 (a)(2)** At the time of Preliminary Plan of Subdivision (PPS), the proposed development shall demonstrate compliance with the Level of Service (LOS) standards of Section 24-4505(b), provides mitigation if applicable, and complies with the other relevant requirements.

**24-4505 (b)** Adequate transportation facilities shall be available to accommodate or offset (through alternative trip capture) the vehicular trips within the Transportation Impact Area surrounding the development subject to the requirements of this Section, as defined by the *Transportation Review Guidelines*

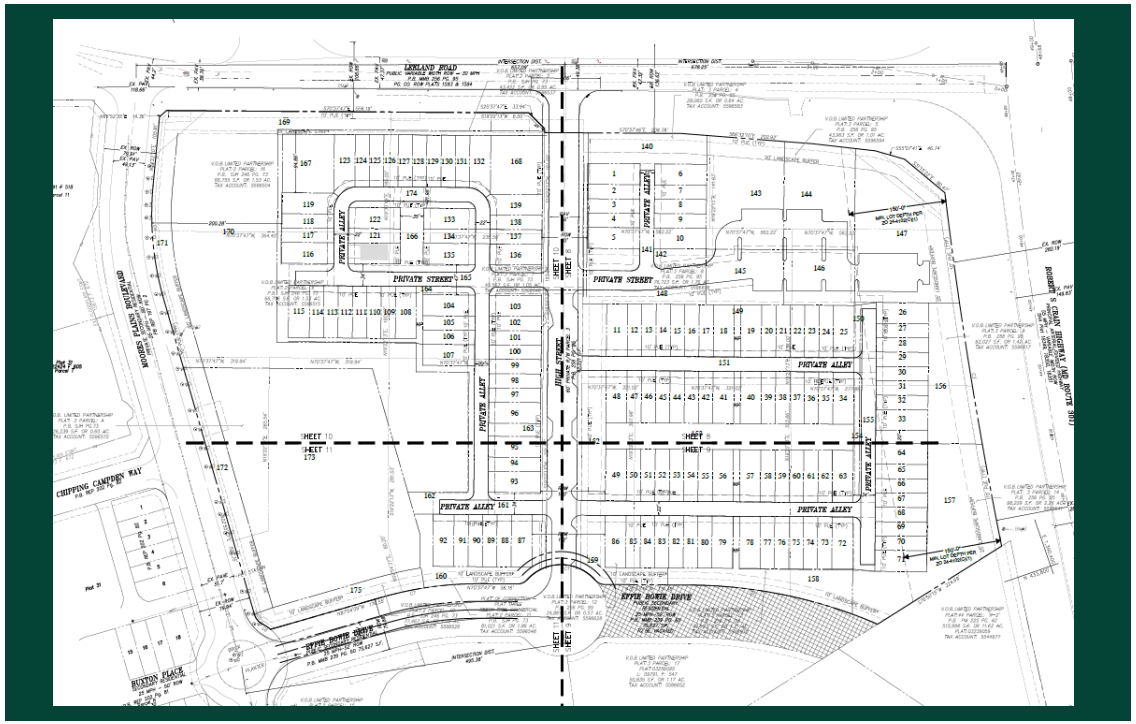
- ***Preliminary Plan of Subdivision:*** *The preliminary detailed drawing (to scale) of a tract of land, depicting its proposed division into lots, blocks, streets, or other designated areas within a proposed subdivision*
- ***Transportation Level of Service:*** *A qualitative measure applied that uses a sequence of letters from A through F to describe the quality of operational conditions within an intersection or a roadway link.*
- ***Transportation Review Guidelines:*** *The guidelines for the analysis of the traffic, pedestrian, or bicycle impact of development proposals.*

# TRANSPORTATION ADEQUACY

Existing Subdivision



Proposed Subdivision



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- ***Transportation Review Guidelines:*** *The guidelines for the analysis of the traffic, pedestrian, or bicycle impact of development proposals.*

# TRANSPORTATION ADEQUACY - Traffic

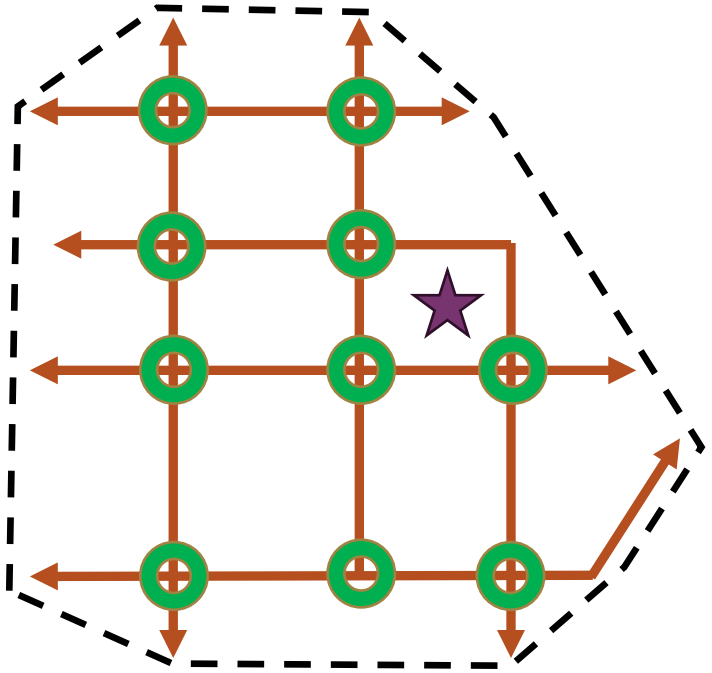
**Traffic Assessment** Each intersection within a defined study area must be evaluated to determine if the intersection operates at an acceptable Level of Service (LOS) standard.

**Site** Proposed Site Location

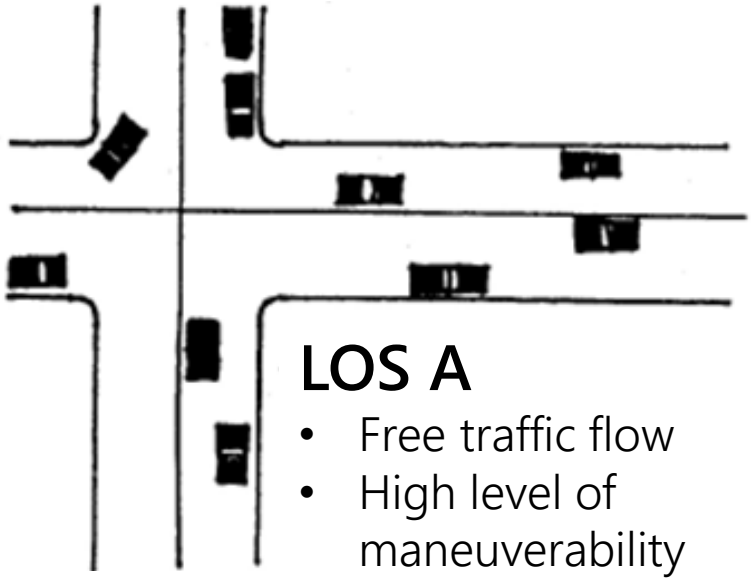
**Nodes** Intersection Operations Evaluated

**Links** Roadways

**Study Area** Agreed area to study intersections

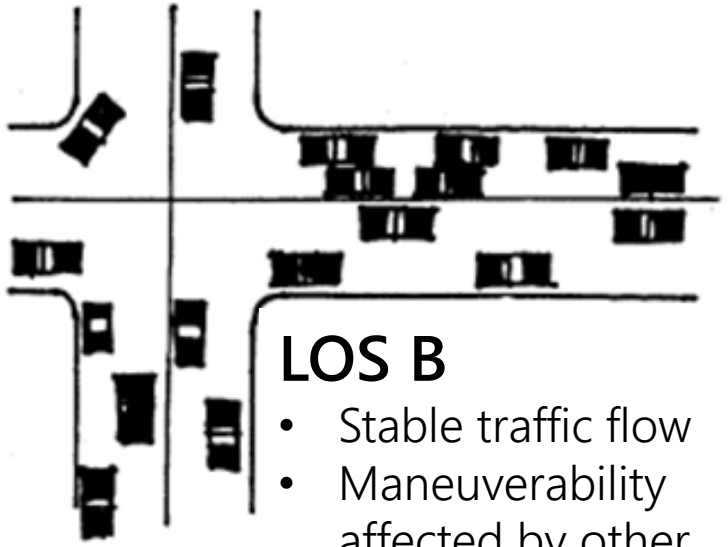


# VEHICLE LEVEL OF SERVICE



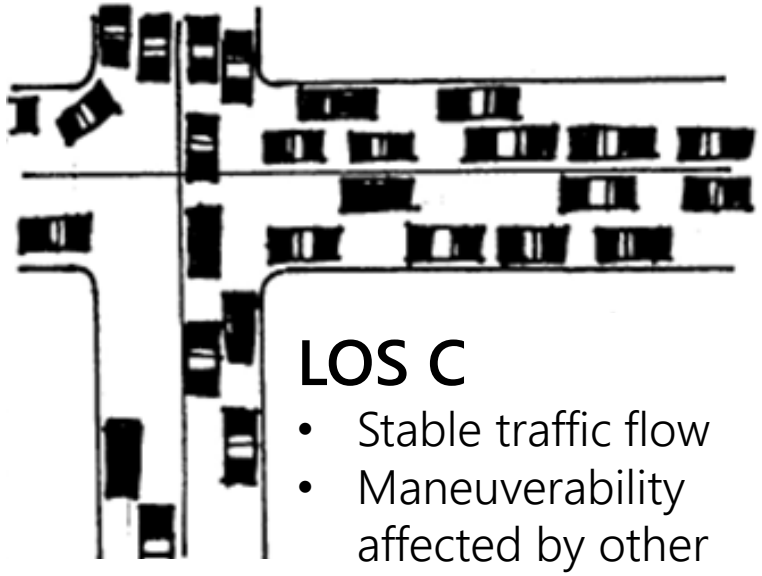
## LOS A

- Free traffic flow
- High level of maneuverability
- Average delay at intersections less than five seconds



## LOS B

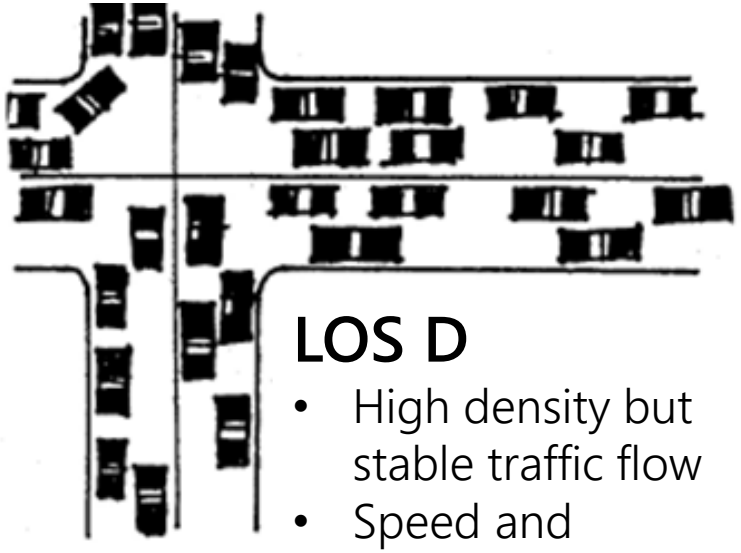
- Stable traffic flow
- Maneuverability affected by other uses within traffic stream
- Average delay at intersections less than 15 seconds



## LOS C

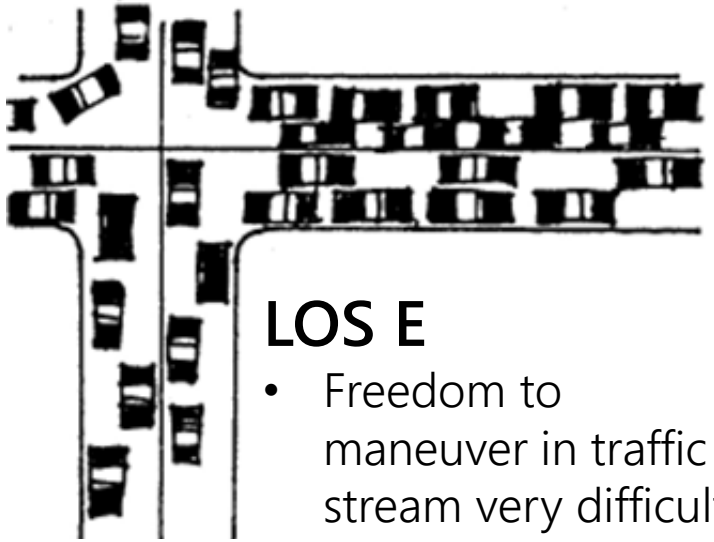
- Stable traffic flow
- Maneuverability affected by other uses within traffic stream
- Average delay at intersections less than 25 seconds

# VEHICLE LEVEL OF SERVICE



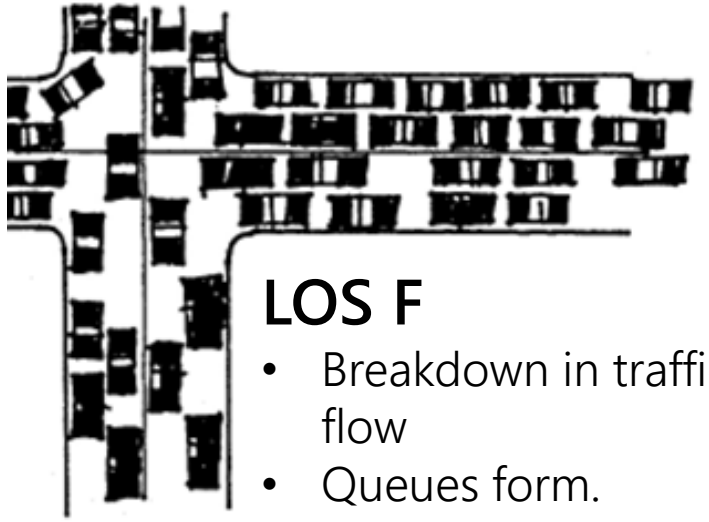
## LOS D

- High density but stable traffic flow
- Speed and freedom to maneuver in traffic stream severely restricted
- Average delay at intersections less than 40 seconds



## LOS E

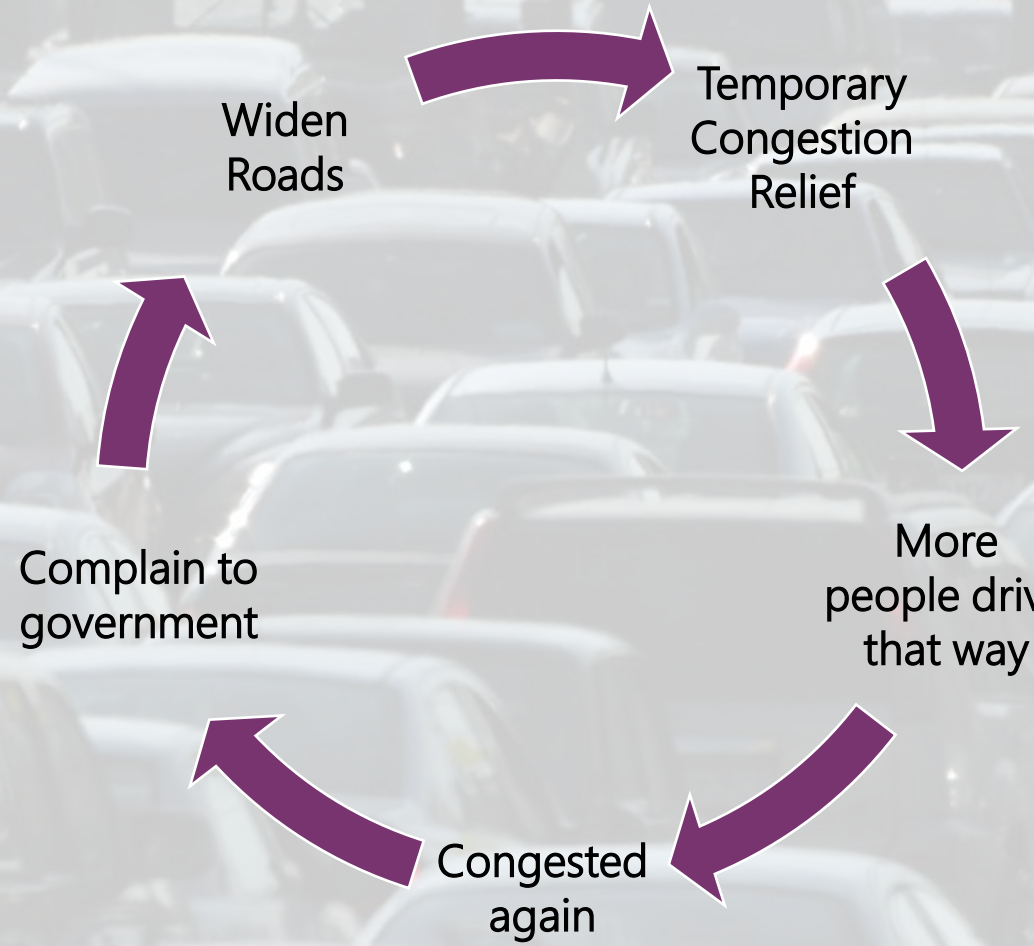
- Freedom to maneuver in traffic stream very difficult
- Average delay at intersections less than one minute



## LOS F

- Breakdown in traffic flow
- Queues form. Operations within traffic stream characterized by stop and go
- Average delay at intersections in excess of one minute

# VEHICLE LEVEL OF SERVICE: HOW IT WORKS



# TRANSPORTATION ADEQUACY

**Policy Level of Service**
Prince George's 2035 Approved General Plan (Plan 2035)

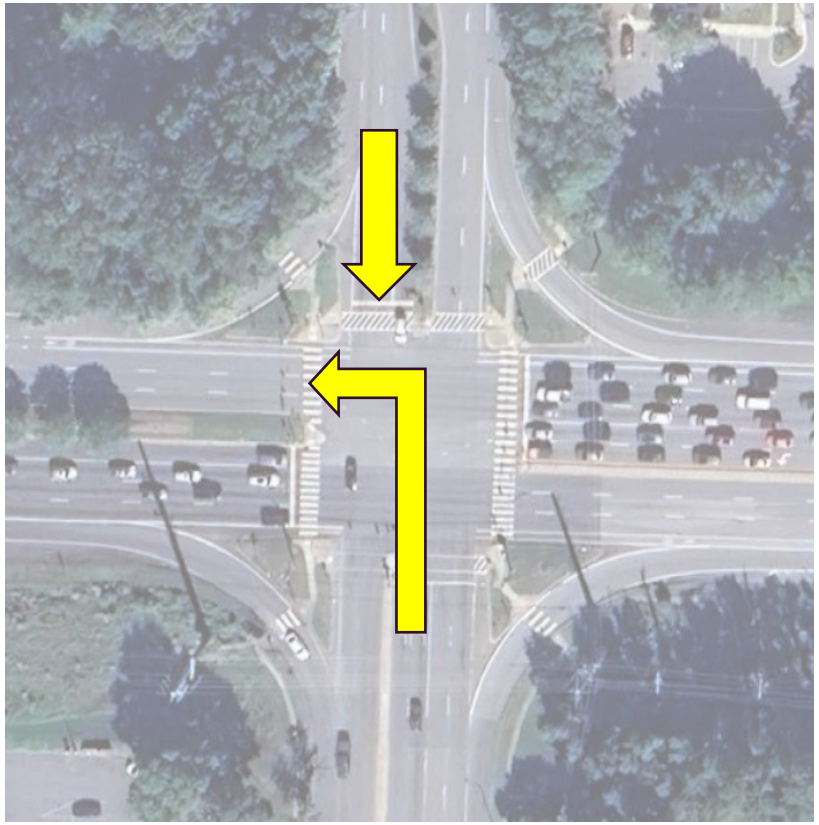
**Regulatory LOS standards:**
Subdivision Regulations

LOS standards vary geographically by:

- Transportation Service Area (TSA)
- Regional Transit Districts
- Local Centers

# TRANSPORTATION LEVEL OF SERVICE (LOS)

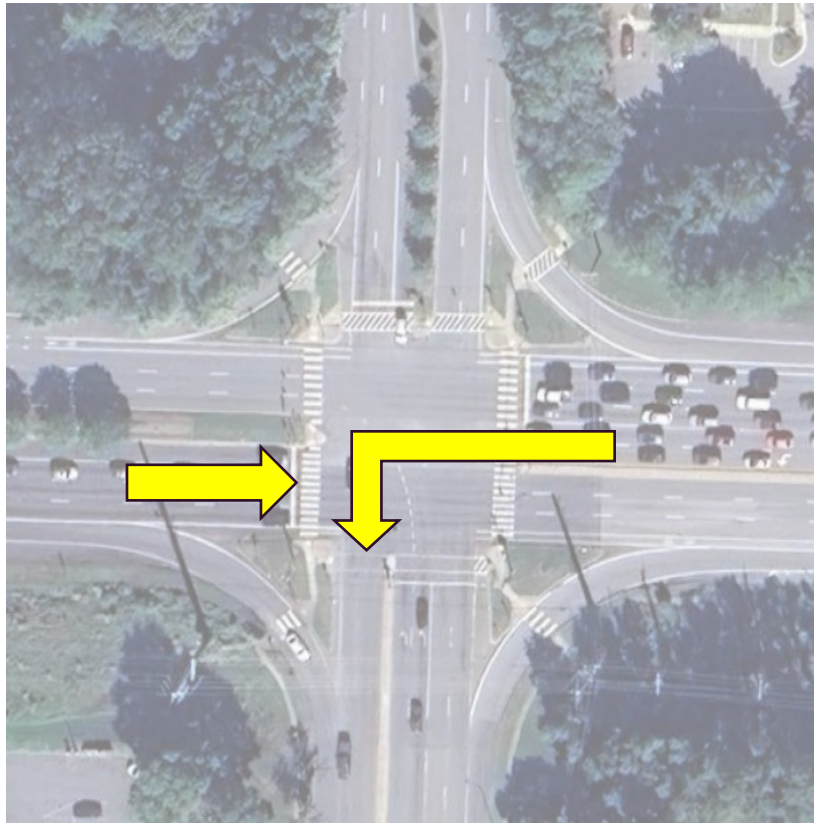
**Critical Lane Volume** Planning-level process developed by the Transportation Research Board to determine the LOS



Adjusted for Number of Lanes

North-South

East-West

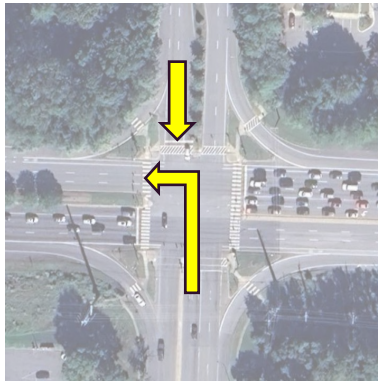


Adjusted for Number of Lanes

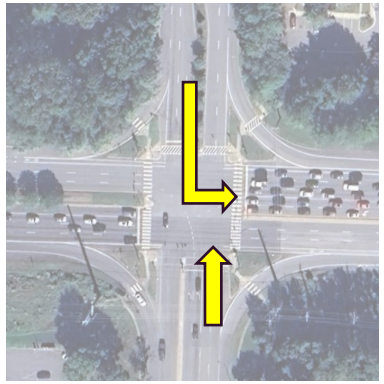
# TRANSPORTATION LEVEL OF SERVICE (LOS)

**Critical Lane Volume** Planning-level process developed by the Transportation Research Board to determine signalized intersection LOS.

Choose Highest Volume



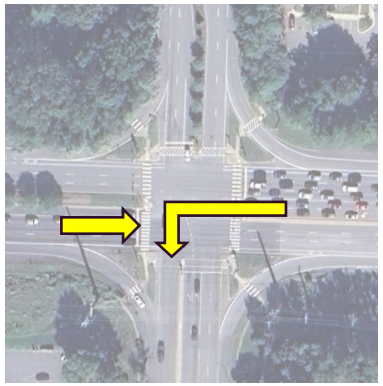
OR



Adjusted for Number of Lanes

PLUS

Choose Highest Volume



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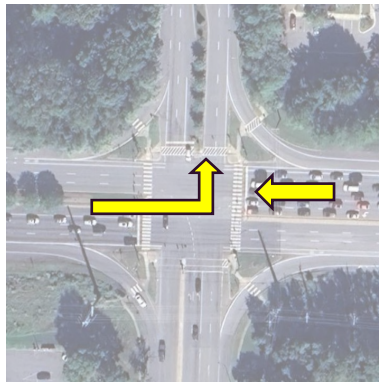
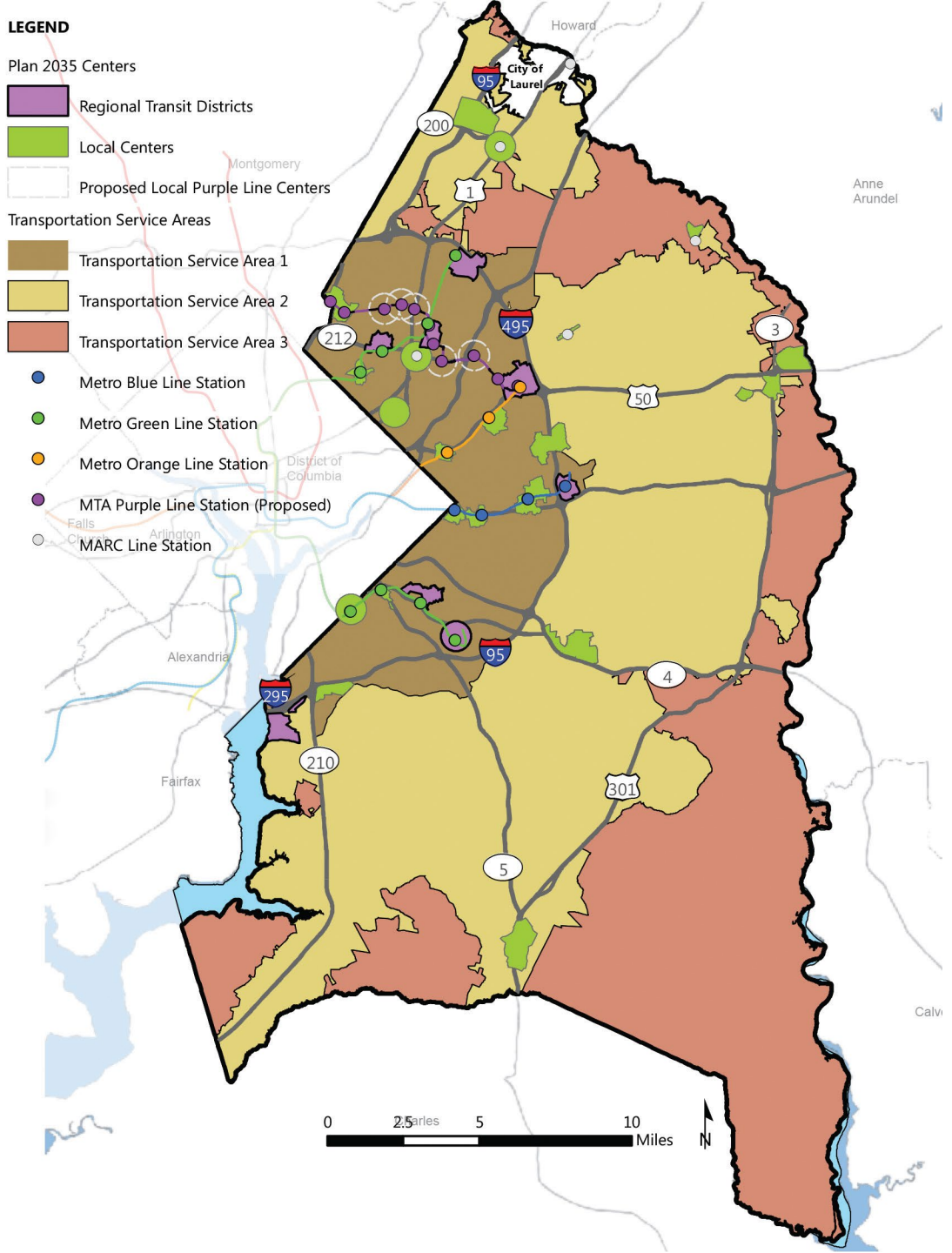


Adjusted for Number of Lanes

| Critical Lane Volume (CLV) | Level of Service (LOS) |
|---|---|
| 0–1,000 | A |
| 1,001–1,150 | B |
| 1,151–1,300 | C |
| 1,301–1,450 | D |
| 1,451–1,600 | E |
| 1,600 and over | F[1] |

# ADOPTED LOS STANDARDS

| Policy Area | LOS | CLV |
|---|---|---|
| TSA 1 | E | 1451-1600 |
| TSA 1 Centers | E | 1451-1600 |
| TSA 2 | D | 1301-1450 |
| TSA 2 Centers | E | 1451-1600 |
| TSA 3 | C | 1151-1300 |
| TSA 3 Centers | E | 1451-1600 |
| RTO edge zones<br>LTO edge zones<br>PD zones | Transit Edge (F) | 1601-1800 |
| RTO core zones<br>LTO core zones<br>PD zones | Transit Core (F) | 1801-2000 |



# PROJECT SCOPING

Approved scoping agreement required for COA application

Meeting to discuss scoping

- Applicant
- County agencies
- Municipalities
- MDOT State Highway Administration

Elements Agreed:

- Study Area
- Intersections Analyzed
- Background Developments
- Growth Rate
- Future Conditions

The Planning Department has final approval of which elements are included in the scope


# TRAFFIC IMPACT STUDY

- A specialized engineering study, prepared by the applicant, that determines the potential traffic impacts of the proposed development on the existing traffic network.
- Assess existing and future traffic scenarios both with and without the development.
- Forecasts vehicle trip generation and distribution based on buildout conditions
- Recommends mitigation measures.

# TRAFFIC IMPACT STUDY (TIS)

Follows Transportation Review Guidelines

Data Collection:
- Traffic Counts
- Pedestrian Counts
- Bicycle Counts
- Truck Counts
- Observe Queues
- Collect intersection lane geometry and traffic signal operations

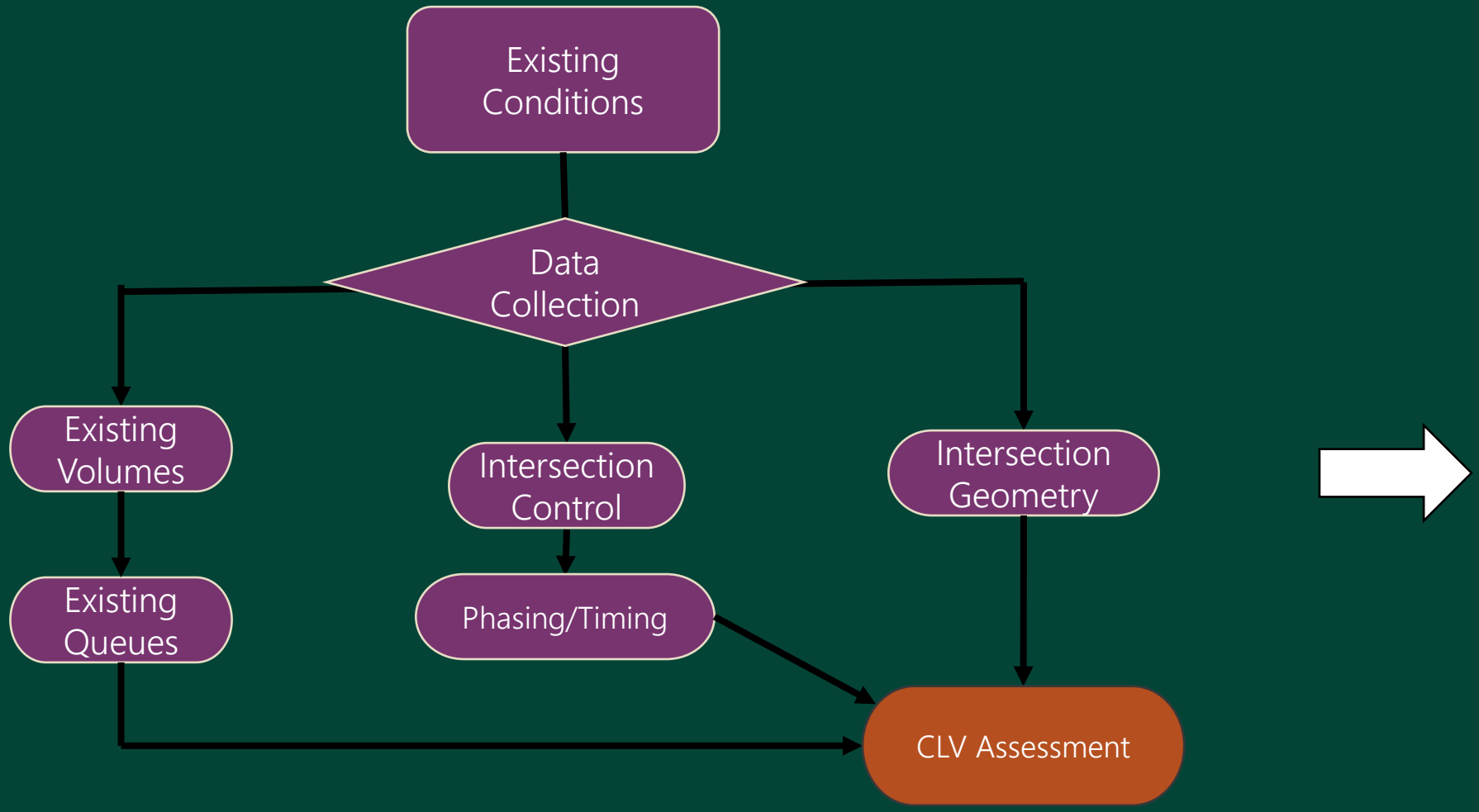
Develop Existing Conditions:
- Identify Peak Hour
- Prepare existing traffic volume network and lane geometry for study area intersections
- Assess CLV based on volumes, lane geometry and traffic signal operations

Develop Future Background Condition:
- Prepare future proposed project volume maps
- Prepare future background growth volume maps
- Update lane geometry with future roadway projects
- Create Total Background volume
- Assess CLV

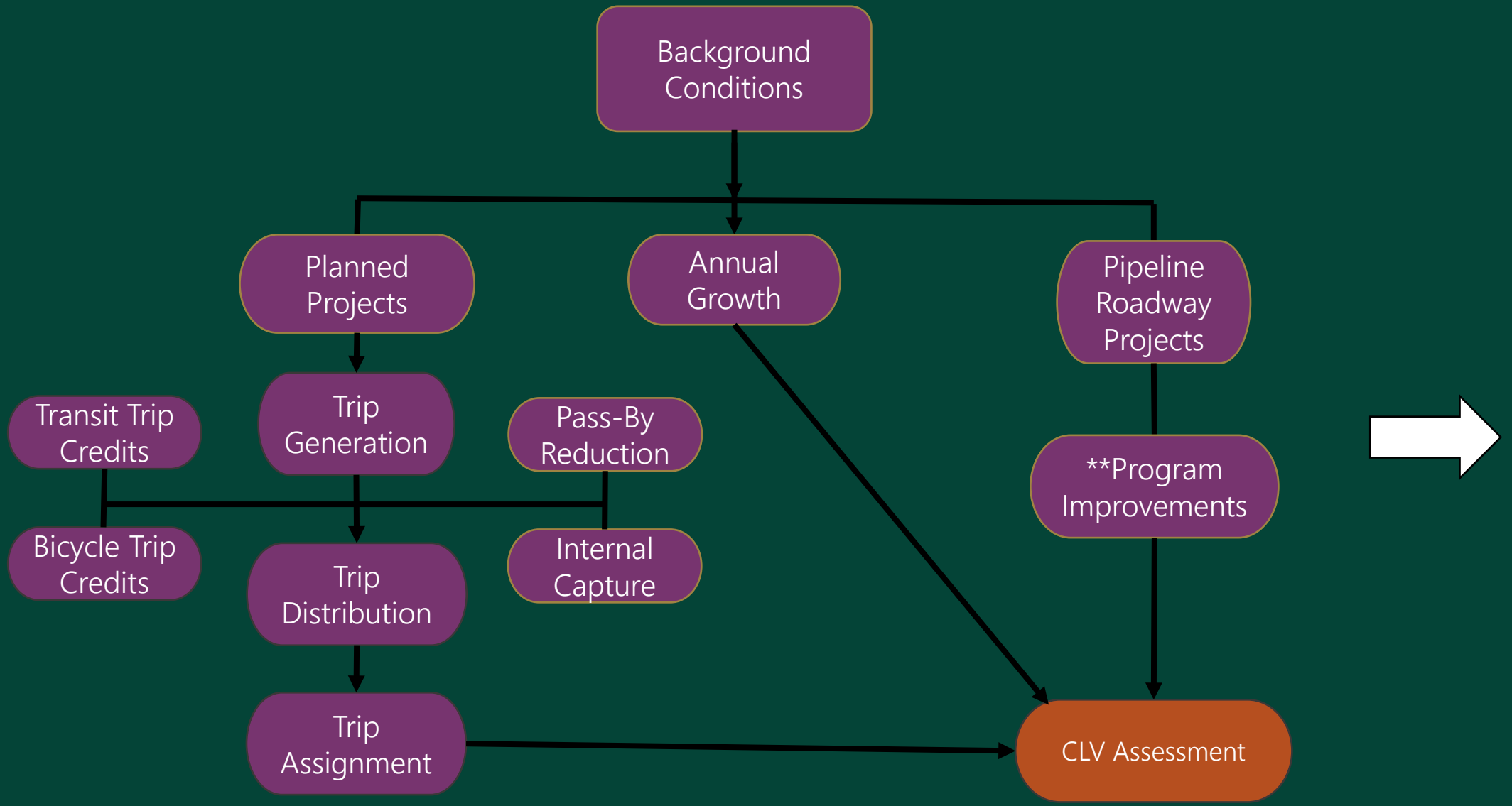
Develop Future Total Condition:
- Use scoping agreed trip generation, trip distribution, and trip assignment to prepare future proposed volume maps
- Assess CLV

Mitigation (if necessary):
- Apply these methods
  - Revise lane geometry
  - Revise signal operations
  - Fund CIP
  - Reduce development size
  - Add bicycle or pedestrian facilities
  - Access CLV

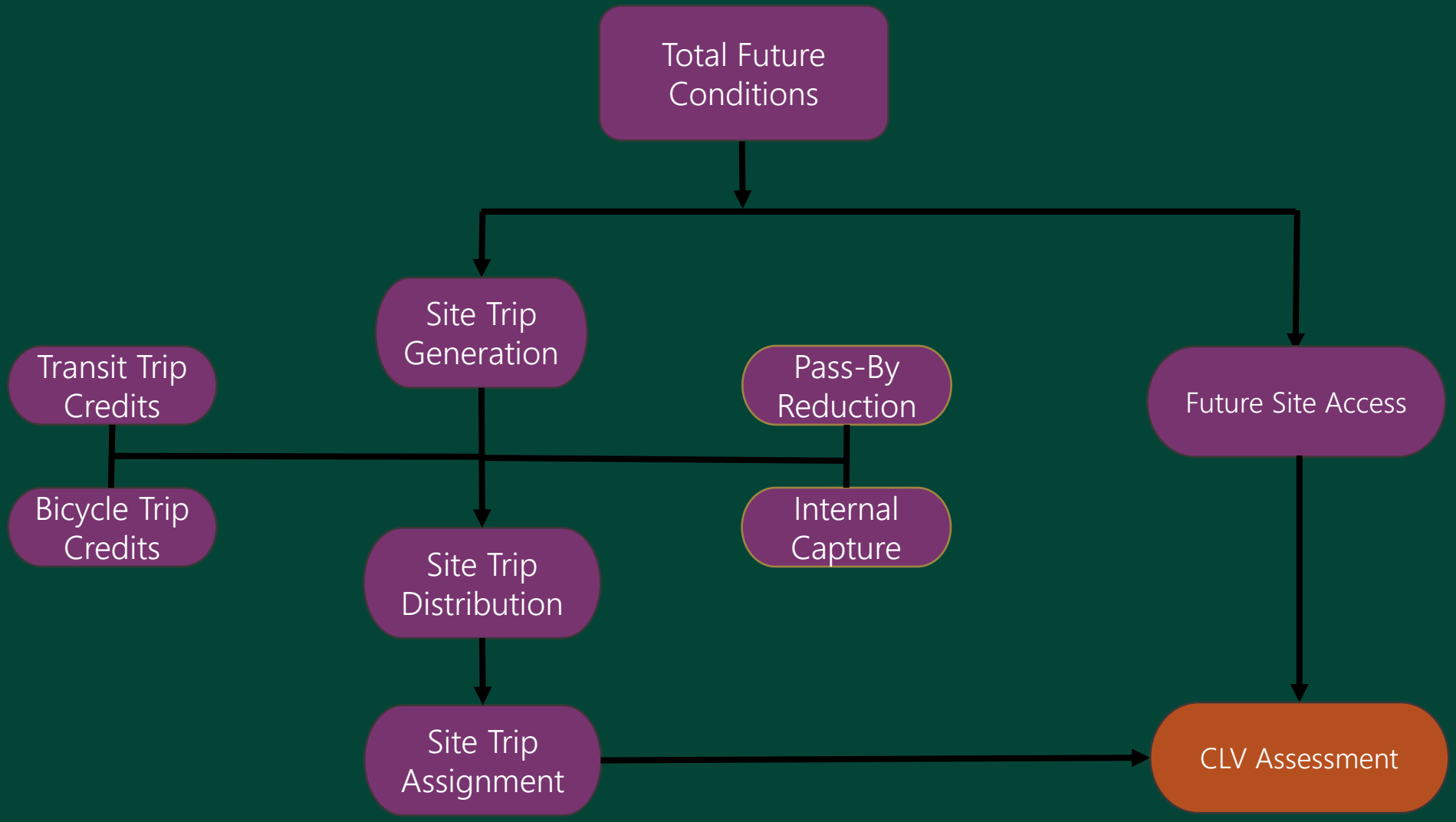
# Traffic Impact Study



# Traffic Impact Study



# Traffic Impact Study

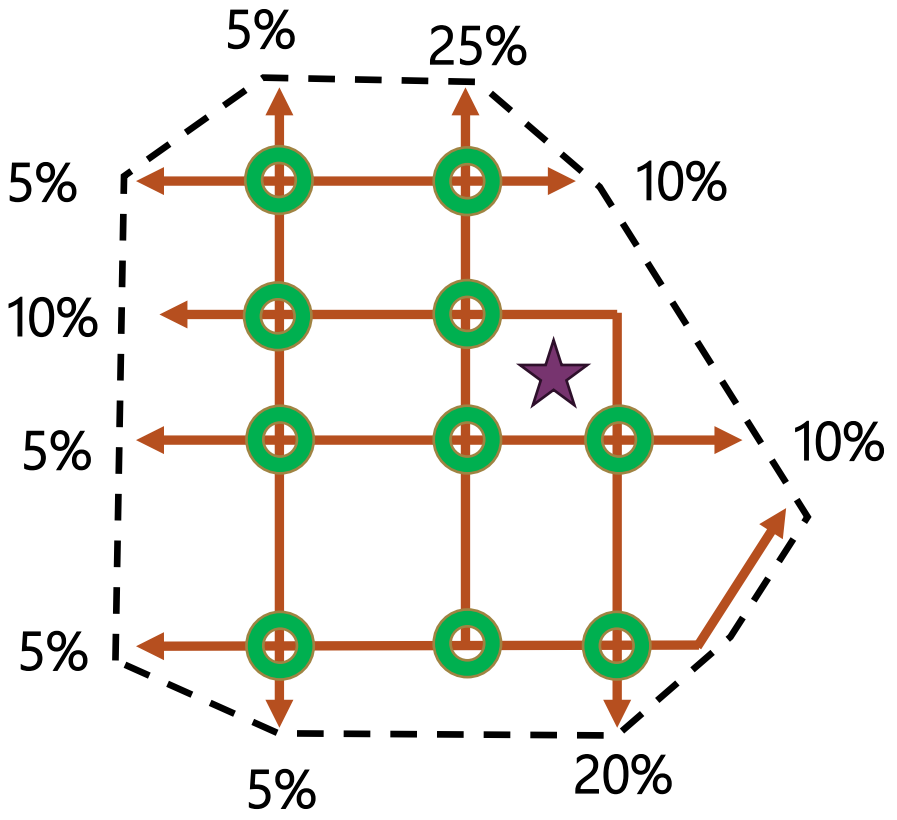


# TRAFFIC IMPACT STUDY

| Trip Generation Summary | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Land Use | Use Quantity | Metric | AM Peak Hour | | | PM Peak Hour | | |
| | | | In | Out | Total | In | Out | Total |
| Warehousing (0.3 FAR) (Previously Approved (4-19036) | 324,480 | Sq ft | 104 | 26 | 130 | 26 | 104 | 130 |
| General Office (0.4 FAR) (Previously Approved (4-19036) | 38,400 | Sq ft | 69 | 8 | 77 | 13 | 58 | 71 |
| Warehousing (0.3 FAR) | 162,240 | Sq ft | 52 | 13 | 65 | 13 | 52 | 65 |
| Total Trip Cap Recommendation | | | | 272 | | | 266 | |

# TRAFFIC IMPACT STUDY

## Trip Distribution




**Site** Proposed Site Location

**Nodes** Intersection Operations Evaluated

**Links** Roadways

**Study Area** Agreed area to study intersections

# TRAFFIC IMPACT STUDY

| TOTAL TRAFFIC CONDITIONS | | | | |
|---|---|---|---|---|
| Intersection | Critical Lane Volume (AM & PM) | | LOS/Pass/Fail (AM & PM) | |
| MD 4 and Westphalia Road / Old Marlboro Pike (no-build condition) | 2260 | 2169 | F | F |
| MD 4 SB Ramps and Old Marlboro Pike (build condition) | 712 | 790 | A | A |
| MD 4 NB Ramps and Westphalia Road (build condition) | 752 | 811 | A | A |
| Westphalia Road and Site Access | 54.1 s* | 433.9 s* | Fail | Fail |
| | >100 veh** | >100 veh** | Fail | Fail |
| | 1080 | 1177 | Pass | Fail |
| Westphalia Road and D'Arcy Road / Rock Spring Drive | >500 s* | >500 s* | Fail | Fail |
| | >100 veh** | >100 veh** | Fail | Fail |
| | 1231 | 1214 | Fail | Fail |
| MD 4 and Suitland Parkway / Presidential Parkway (no-build condition) | 1830 | 2276 | F | F |
| MD 4 SB Ramps and Suitland Parkway (build condition) | 705 | 560 | A | A |
| MD 4 NB Ramps and Presidential Parkway (build condition) | 588 | 420 | A | A |

# MEETING LEVEL OF SERVICE (MITIGATION)

24-4505 (b) 1-5 – Summary

Revise project to reduce impacts, such as:

- Reducing number of dwelling units
- Reducing floor area ratio
- Incorporate other uses or alternative trip

Transportation Improvements (funded by applicant), such as:

- Additional lane
- Turn lane
- Right-in and/or Right-out

Trip reduction program (funded by applicant)

Allows developments in certain parts of the county to provide roadway improvements that would improve traffic operations at nearby intersections

LTO or RTO – financial contribution for a Transportation Demand Management program (Section 20A) i.e. Geometric improvements

Other available capacity in lieu of improvements

- PFFIP (fee required)
- Brandywine Road Club (fee required)
- Capital Improvement Project (fully funded) ie Carrilon

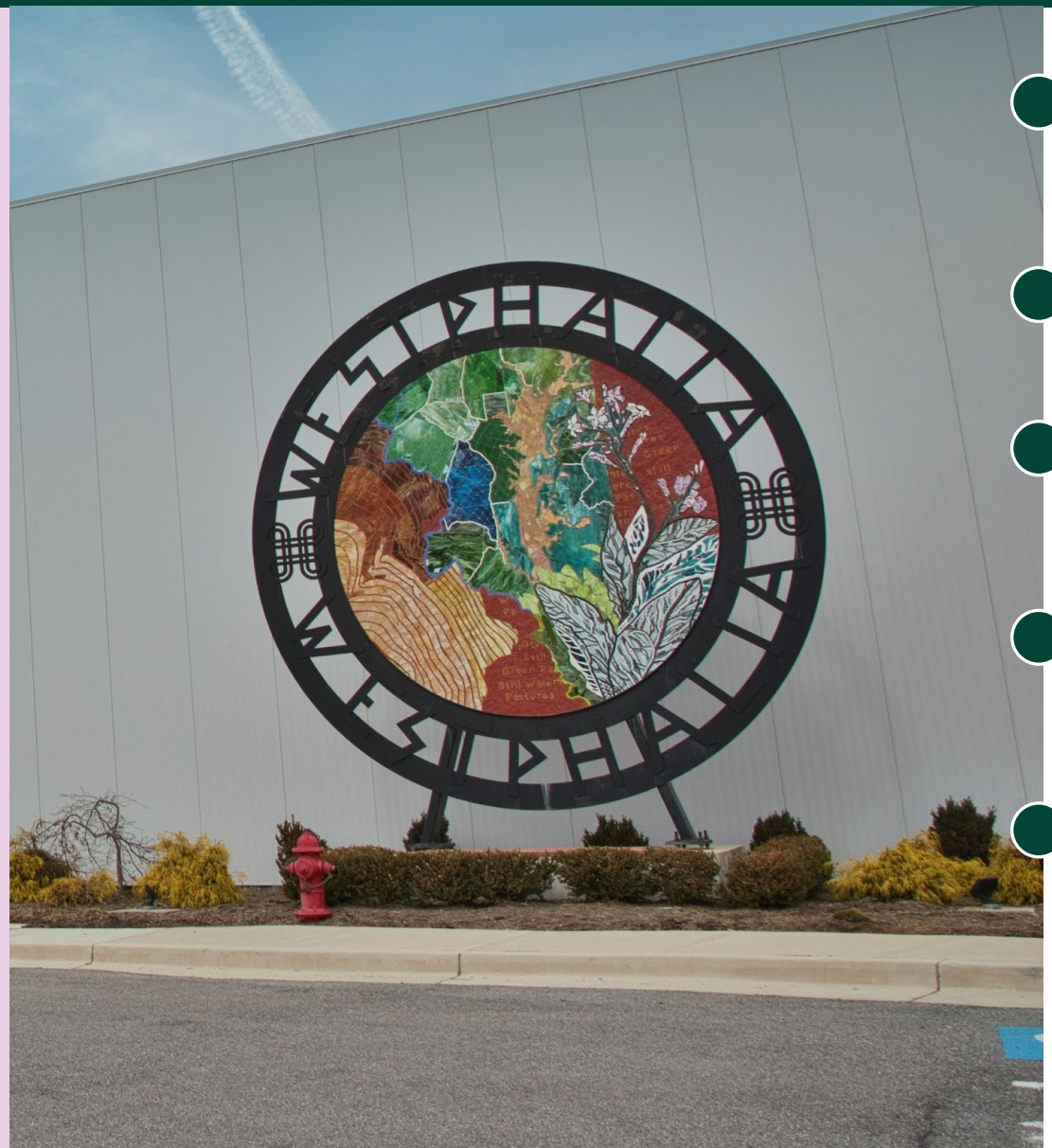
# PFFIP: WESTPHALIA

**Public Facilities Financing and Implementation Program (PFFIP)**

Program established by the County Council

To implement/facilitate construction and maintenance of public facilities

Can include financing strategies such as pro-rata contributions, sale leasebacks, and funding "clubs"




- CR-66-2010 – Establishes PFFIP for the Westphalia PFFIP District (Sector Plan area).
- Created in 2010 and is the only PFFIP in the County.
- Funding for financing and construction of MD 4 and Westphalia Road Interchange
- Based on the percentage of average daily trips generated by each development
- Fee satisfies adequacy only for MD 4 and Westphalia Road Interchange applicant must address adequacy for all other roadways

# BRANDYWINE ROAD CLUB


- CR-60-1993 created the Brandywine Road Club to **establish alternative mechanism consistent with the Subdivision Ordinance to alleviate traffic concerns**
- Allows payment into Brandywine Road Club to alleviate inadequacy of impacted intersections
- The applicant must enter into a Developer Participation Agreement with the County to share costs of improvements.
- The payment/fee fully satisfies the adequacy requirement

# OTHER ADEQUACY

- Adequacy provisions updated through a Master Plan Amendment will supersede the Subdivision Regulations for transportation adequacy

- Central US 1 Corridor Area
  - Limits study area to three road segments
  - Other segments analyzed but not subject to adequacy (informational)


# TRANSPORTATION ADEQUACY

- **Pedestrian and Bikeway impacts**
  - Bicycle Pedestrian Impact Statement (BPIS); or
  - Exempt; or
  - Not applicable

# TRANSPORTATION ADEQUACY – Bicycle/Ped.

**Bicycle and Pedestrian Assessment** Section 24-4506 (c)(1)(B) Within one-half mile of the subdivision if the Board finds that there is a demonstrated nexus to require the applicant to connect a pedestrian or bikeway facility to a nearby destination, including but not limited to a public school, park, shopping center, multifamily residence, mixed-use activity centers, or line of transit within available public rights of way.

**Cost Cap for Pedestrian/Bicycle Projects** Section 24-4506 (c) (1) (B) The cost of the off-site pedestrian or bikeway facilities shall not exceed thirty-five cents ($0.35) per gross square foot of proposed nonresidential development in the application and three hundred dollars ($300.00) per unit of proposed residential development in the application, indexed for inflation annually from calendar year 2013.

# PEDESTRIAN AND BIKEWAY ADEQUACY

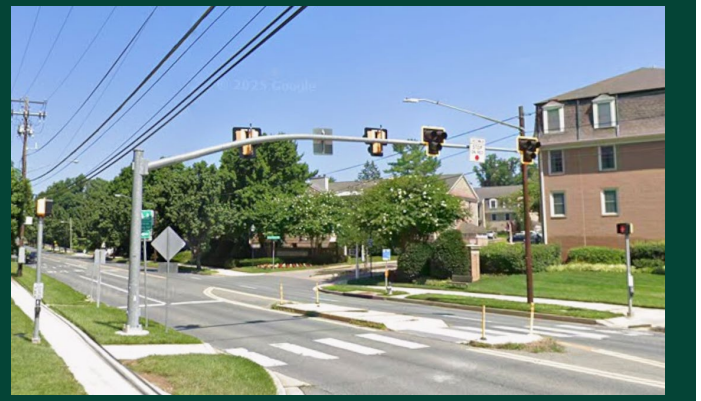
**24-4506 (a)** Pedestrian and bikeway features include integrated sidewalk, trail, and bikeway facilities to divert automobile trips and increase the multimodal accessibility and attractiveness of trips to transit stops, schools, parks, libraries, stores, services, residences, and other destinations for all users. Pedestrian and bikeway facilities should be designed to increase safety for people walking, bicycling, and using transit, and offer the most direct routes to destinations for persons of all abilities.

Potential Projects Ordered by Priority (24-4506 (c))

- Installing and Improving Sidewalks
- Installing and Improving Bicycle facilities
- Streetlights
- Multiuse Trails
- Bulb-outs/ Refuge Medians, and HAWK signals
- Bikeshare Stations
- Covered Bicycle Parking
- Street Furniture
- Street Trees

# PEDESTRIAN AND BIKEWAY ADEQUACY

## HAWK Signal



## Bulb Out

## Refuge Median

## Sidewalks

## Multiuse Trails

## Bicycle Facility

# PROJECT SCOPING

Approved scoping agreement required for COA application

Meeting to discuss scoping:

- Applicant
- County agencies
- Municipalities
- MDOT State Highway Administration

Evaluate existing facilities and amenities:

- Review boundary
- Identify trip generators

The applicant provides improvements for approval by the operating agencies

# QUESTIONS?

# YOUR ROLE IN PLANNING

# HOW CAN I GET INVOLVED?

- Attend meetings
- Online notification
  - Mailing lists
  - Social media
  - PGAtlas notification
- Contact elected representatives
- Submit comments
- Share information!

# HOMEWORK

# PROJECT MILESTONES

- **Week 1:** Pick an issue, challenge, or concern (topic) in your community.
- **Week 2:** Research and analyze Plan 2035, Master or Sector Plan.
- **Week 3:** Consider how, when, and who you might engage to implement a solution.
- **Week 4:** Consider possible solutions, tradeoffs, and other perspectives.
- **Week 5:** Complete a rough draft of the project.
- **Week 6:** Finalize presentation and email project to PGCNPA@ppd.mncppc.org

# Spring 2026 webpage

- academy.pgplanning.com/spring2026
- Password: **NPAspring2026**
- Email us at **PGNPA@ppd.mncppc.org**

# END OF SESSION

If you need assistance before our next meeting, email us at PGCNPA@ppd.mncppc.org