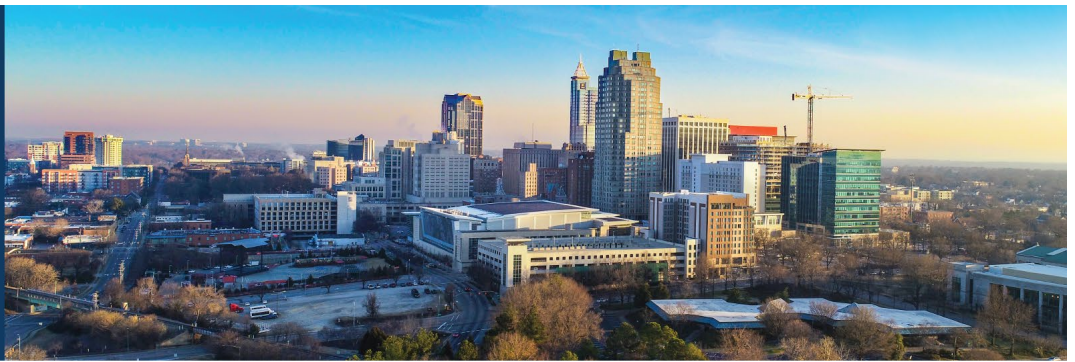


Manager's Update

raleighnc.gov



Issue 2022-13

April 1, 2022

IN THIS ISSUE

City Receives Silver SolSmart Designation
Civic Campus Phase I – Project Update
Weekly Digest of Special Events

Council Follow Up Items

Developer Revenue for Water-Wastewater Capital Projects (Council Member Cox)
Public Transit - Mobility Management Program Implementation Study (Council Member Branch)
Vehicle Miles Traveled Metric Report Update (Council Member Cox)

Regular Council Meeting Tuesday, April 5 - Afternoon and Evening Sessions

Reminder that Council will meet next **Tuesday** in regularly scheduled sessions at **1:00 P.M.** and **7:00 P.M.** The agenda for the meeting was published on Thursday:

<https://go.boarddocs.com/nc/raleigh/Board.nsf>

Please note there will be a **Closed Session** immediately following the afternoon session of the Council meeting.

Reminder: If there is an item you would like to have pulled from the consent agenda for discussion, please send an e-mail mayorstaff@raleighnc.gov by 11 A.M. on the day of the meeting.

INFORMATION:

City Receives Silver SolSmart Designation

*Staff Resource: Patrick Young, Planning and Development, 996-2704, patrick.young@raleighnc.gov
Megan Anderson, Office of Sustainability, 996-4658, megan.anderson@raleighnc.gov*

What is SolSmart?

The SolSmart program recognizes cities, counties, and regional organizations for making it faster and easier to go solar. SolSmart is funded by the US Department of Energy Solar Technologies Office and is offered in collaboration with the Interstate Renewable Energy Council and the International City/County Management

Association (ICMA). Over 400 communities in the US have achieved SolSmart designations. Communities are awarded designations from SolSmart of Gold, Silver, or Bronze status based on the SolSmart Criteria that are met across five categories of policies and programs:

- **Permitting and Inspection:** City provides solar developers and installers with a transparent, efficient, and cost-effective approval process.
- **Planning and Zoning:** Zoning codes provide clear and transparent regulations on the development and use of solar energy within the jurisdiction.
- **Government Operations:** City government is leading the way by installing solar energy on public facilities and land.
- **Community Engagement:** City provides education and engagement opportunities to help residents and businesses interested in solar energy make informed decisions.
- **Market Development:** City collaborates with other organizations to promote solar development in its jurisdiction.

Additional information on the SolSmart Program is available [here](#).

On March 29, the City received notification of having achieved a Silver SolSmart designation. The City is well positioned to be awarded a Gold designation in the coming year, with the adoption of minor Unified Development Ordinance text amendments and other actions that staff believe are achievable within that timeframe.

SolSmart Certification Process

Staff with the Office of Sustainability and the Planning & Development department collaborated with the North Carolina Clean Technology Center (NCCTC) to gather and submit data from across multiple departments. NCCTC received grant funding to support its work on behalf of the City. Staff representing the Planning and Development, Engineering Services, Communications, Sustainability, and Budget and Management Services convened at a workshop in November 2021 to review the SolSmart criteria and develop a plan to submit documentation of Raleigh policies and programs.

In seeking the SolSmart designation staff, with the assistance of NCCTC and the Sustainability Office, made a number of improvements to the City website and communications that make the process of rooftop or backyard solar development much clearer and more transparent to residents wishing to install solar systems.

(No attachment)

Civic Campus Phase I – Project Update

Staff Resource: Priscilla Williams, Engineering Services, 996-4147, priscilla.williams@raleighnc.gov

The East Civic Tower continues to advance according to the project schedule. The project scope remains unchanged since the completion of schematic design. The East Civic Tower will be constructed at the location of the former RPD Headquarters Building at the northwest corner of Hargett and McDowell. Twenty stories in height and 420,000 SF in size, the new facility will consolidate the programs, services, and employees currently housed in five downtown locations: Raleigh Municipal Building, Professional Building, One Exchange Plaza, One City Plaza, and the Dillon Building. The East Civic Tower will offer a one-stop

customer service experience through a consolidated customer service delivery strategy. As a “Percent for Art” project, this project will feature art created by artist Susan Narduli.

Overall design of the East Civic Tower project will be completed in July of this year. The project team will then move to development of construction documents to allow the *construction manager at risk* (CMAR) to begin bidding some elements of the project. Building feature details have been finalized, building systems and materials have been selected, and the life cycle cost analysis is complete. During the next phase, cost estimates will continue to be refined in the context of the current construction market, including escalation and inflation, supply chain disruptions, and subcontractor availability. The budget for identified contingencies and escalation will be further validated against previous assumptions and current market conditions. The project schedule is being continually refined to reflect time needed for development reviews and approvals.

Construction will be initiated through a staggered approach with the first activities focusing on site work: demolition of the former police headquarters, mass grading, and utility installation and relocation. During this first phase, technical design work for shoring and building foundations will start, which will inform final designs required for tower construction. Bidding for the early site package is expected in early summer, and staff anticipates seeking City Council approval for those bids in August.

One element of the CMAR’s responsibility throughout the project is the development and execution of a robust MWBE plan, including a workforce development component. The CMAR (Brasfield & Gorrie) in association with Holt Brothers Construction has partnered with Capital Area Workforce Development with a goal of connecting potential subcontractors with an available workforce. While the MWBE participation goal for the project is still being developed, this effort will result in the CMAR exceeding the City’s baseline goal of 15% MWBE participation. The first outreach event is scheduled for April 27 at the John P. Chavis Memorial Park & Community Center from 5:30 pm to 7:30 pm.

In March, the City Council granted delegated authority to the City Manager to execute permit applications and other documents associated with project permitting; staff committed to keeping the Council apprised of the exercise of this authority. The first use of this authority will occur in the coming month on an application to appear before the Appearance Commission to seek approval for one or more design adjustments required to maintain consistency with the overall site master plan and unique characteristics of the phase one site.

Additional updates about this critical project can be found on the [project page](#).

(No attachment)

Weekly Digest of Special Events

Staff Resource: Sarah Heinsohn, Special Events Office, 996-2200, sarah.heinsohn@raleighnc.gov

Included with the *Update* materials is the special events digest for the upcoming week.

(Attachment)

Council Member Follow Up Items

Follow Up from the March 14 Budget Work Session

Developer Revenue for Water-Wastewater Capital Projects (Council Member Cox)

Staff Resource: Whit Wheeler, Raleigh Water, 996-3245, william.wheeler@raleighnc.gov

During the budget work session, Council inquired regarding the amount of revenue collected from developers to pay for growth related projects associated in the Capital Improvement Plan.

The chart below summarizes development-related revenue over the past five fiscal years. The 5-year average for these fees is \$18.3M, with a large up-tick recognized in FY21. The majority of this revenue comes from Capital Facilities Fees; recent changes to state legislation restricts the ability to increase these fees.

	Raleigh Water Developer Fees Last 5 Fiscal Years					
	2017	2018	2019	2020	2021	5-Year Avg
Capital Facilities Fees	10,435,395	15,147,130	17,825,700	16,279,404	21,207,106	16,178,947
Other Development Fees	3,379,154	1,908,001	1,132,703	1,485,899	2,875,607	2,156,273
Total	13,814,548	17,055,132	18,958,403	17,765,303	24,082,713	18,335,220

Capital Facilities Fees (referred to as System Development fees by the North Carolina General Assembly) are one-time fees charged to new development connecting to a utility system for the first time. The fees are designed to help recover the cost of the capacity and infrastructure necessary to provide utility service to new customers.

In 2017 new requirements for system development fees were enacted the North Carolina General Assembly. The law is very prescriptive about how this calculation should be performed and limits the allowable charges. The City timely adopted new fees conforming to these standards effective July 1, 2018.

The law requires readoption of these fees at least every five years, and as such the fees are due to be recalculated for the FY23 budget. Raleigh Water has engaged Raftelis, an industry leader, to produce an updated analysis calculating appropriate Water and Sewer Capital Facilities Fees. This draft report is currently on the City website for the required 45-day public comment period; the comment period will expire at the end of the month. The recalculated fees are scheduled to be presented during the April 11 budget work session.

Also included in the fee schedule to be brought forth at the April 11 budget work session, Raleigh Water will be proposing five new development plan review fees. Similar to fees charged by the Planning & Development Department, these fees will be due from developers during the plan review process. It is expected that these fees will generate approximately \$630,000 in revenue, which would cover approximately 50-60% of the costs of the program.

It is worth noting that approximately 43% of the utility Capital Improvement Program relates to growth. Below is a chart that breaks out the proposed FY23-32 CIP by primary driver. Many projects serve more than one purpose; for instance, expansion of the EM Johnson Water Treatment Plant sedimentation basins is a growth project in the sense that increased treatment capacity is being achieved in the same footprint. The

basins, however, are original to the plant and are thus more than 50 years old. A project would have been necessary without the expansion to keep them in proper working order.

Raleigh Water Proposed FY23-32 CIP			
% By Category	Ph I	Ph II	Total CIP
Growth	44.16%	41.35%	43.30%
Rehab	29.21%	46.35%	34.43%
Compliance	16.46%	5.77%	13.20%
Operations	8.09%	1.70%	6.14%
Reliability	1.13%	2.57%	1.57%
Other	0.95%	2.27%	1.35%

(No attachment)

Follow Up from the March 15 City Council Meeting

Public Transit - Mobility Management Program Implementation Study (Council Member Branch)

Staff Resources: David Eatman, Transportation-Transit, 996-4040, david.eatman@raleighnc.gov

Crystal Odum, Transportation-CAMPO, 996-4390, crystal.odum@campo-nc.us

During the meeting staff presented information about the Mobility Management Program Implementation Study, and was asked to provide further information on outreach and to define the stakeholders related to this study.

The Capital Area Metropolitan Planning Organization (CAMPO) has partnered with Wake County, the town of Cary, and the City of Raleigh to study the potential benefits of mobility management. Included with the *Update* materials is a memorandum prepared in response to the request for additional information.

(Attachment)

Follow Up from the February 15 City Council Meeting and the March 18 Manager's Update Follow Up Report

Vehicle Miles Traveled Metric Report Update (Council Member Cox)

Staff Resource: Anne Conlon, RDOT, 996-2160, anne.conlon@raleighnc.gov

During the February 15 City Council meeting Mayor Pro Tem Stewart requested a report from staff describing how the City could transition away from the 'level of service' metric currently used to assess infrastructure sufficiency for new development and instead move towards the 'vehicle miles traveled' metric. Transportation and Planning and Development staff coordinated to develop a staff memorandum on the next steps that would be appropriate for such a transition.

Council Member Cox requested additional details in the report on VMT analysis. An additional report is included with the *Update* materials. Previous information regarding this issue may be found in the *Manager's Update, Issue 2022-11* (March 18).

(Attachment)

Weekly Events Digest

Friday, April 1 – Thursday, April 7

City of Raleigh Office of Emergency Management and Special Events
specialevents@raleighnc.gov | 919-996-2200 | raleighnc.gov/special-events-office

Permitted Special Events

Morning Times First Friday Market

Hargett Street

Friday, April 1

Event Time: 7:00pm - 11:00pm

Associated Road Closures: E. Hargett Street between Fayetteville Street and S. Wilmington Street will be closed from 6:00pm until 11:59pm.

Walk MS: Raleigh

PNC Arena & Blue Ridge Road

Saturday, April 2

Event Time: 7:30am - 12:00pm

Associated Road Closures: Roads and lanes along the route will be closed from 9:20am until 11:30am.

Note that Trinity Road and Blue Ridge Road will remain accessible to traffic during the event, and see below for turn-by-turn directions:

Start on PNC Arena property; Head east on Westchase Boulevard; Right onto Blue Ridge Road; Right onto Trinity Road; Right at Gate B to enter PNC Arena property to finish

Dreamville Festival

Dorothea Dix Park

Saturday, April 2 & Sunday, April 3

Event Time: 12:00pm - 11:00pm on 4-2-22 & 4-3-22

Associated Road Closures: Construction will be taking place on the Big Field only, however, increased traffic accompanied by large equipment throughout Dix Park is to be expected in advance of and following the event. Please see details below for more information:

- March 27 – April 7: The Big Field is closed to the public; Biggs Drive will be closed from Blair Drive to Goode Street
- April 1 at 10:00pm – April 4 at 6:00am: All of Dix Park property is closed to the public

For all festival-related information, including tickets, parking, accessibility, entry rules, and safety guidelines, visit the [Dreamville Festival website FAQs](#).

Other Events This Weekend

First Friday Raleigh

Friday, April 1

Downtown Raleigh

First Friday Feature Film – Disney's Cool Runnings

Friday, April 1

Moore Square

No Remorse Comedy Tour

Friday, April 1

PNC Arena

Fairy Tales & Dragons – North Carolina Symphony

Saturday, April 2
Meymandi Concert Hall

Hurricanes vs. Wild

Saturday, April 2
PNC Arena

Black Flea Market

Sunday, April 3
Moore Square

CrankGameplays Presents: I Have To Do This Show

Sunday, April 3
Fletcher Opera Theater

Public Resources

Pilot Text Alert Program: Sometimes spontaneous events happen downtown and in other areas that could affect local businesses. If you'd like to receive notifications when those events happen, including unpermitted ones, sign up for text alerts.

Event Feedback Form: Tell us what you think about Raleigh events! We welcome citizen and participant feedback and encourage you to provide comments or concerns about any events regulated by the Office of Emergency Management and Special Events. We will use this helpful information in future planning.

Road Closure and Road Race Map: A resource providing current information on street closures in Raleigh.

Online Events Calendar: View all currently scheduled events that impact City streets, public plazas, and Dorothea Dix Park.

Council Member Follow Up

To	Marchell Adams-David, City Manager
From	David Eatman, Assistant Director Crystal L. Odum, Transportation Planner
Departments	Department of Transportation CAMPO
Date	April 1, 2022
Subject	Council Follow-up Item: March 15, 2022 Meeting Mobility Management Program Implementation Study

The Capital Area Metropolitan Planning Organization (CAMPO) has partnered with Wake County, the town of Cary and the City of Raleigh to study the potential benefits of mobility management. These four project sponsors have provided funding for the Mobility Management Program Implementation Study. As defined by the National Center for Mobility Management, mobility management is, “an approach to designing and delivering transportation services that starts and ends with the customer. It begins with a community vision in which the entire transportation network including public transit, private operators, cycling and walking, volunteer drivers and others work together with customers, planners, and stakeholders to deliver the transportation options that best meet the community's needs.

Mobility management:

1. Encourages innovation and flexibility to reach the "right fit" solution for customers,
2. Plans for sustainability,
3. Strives for easy information and referral to assist customers in learning about and using services and
4. Continually incorporates customer feedback as services are evaluated and adjusted."

The overall engagement strategy for this study consists of stakeholder agencies/local governments/transit and human services partners developing the initial framework for regional mobility management, based on, but not limited to, reviews of existing transportation services and plans and peer reviews and analysis, stakeholder interviews and input from the various decision-makers followed by a broader, more public-facing outreach effort with additional stakeholder presentations and information sharing.

A presentation was provided by CAMPO staff on May 15 that provided an overview of mobility management introducing the study and mobility management's potential impact to the region. The presentation marked the first phase of public engagement with stakeholders and decision makers.

After the presentation, Council asked staff to provide information on public outreach for the first phase of the process. A summary of initial efforts is below.

The Mobility Management Program Implementation Study Technical Steering Committee includes staff from the following organizations: CAMPO, GoWake Access, Wake County, Live Well Wake, GoRaleigh, North Carolina Department of Transportation (NCDOT), Harnett Area Rural Transit (HART), Harnett County, Johnston County Area Transit System (JCATS), Kerr Area Transportation Authority (KARTS), GoTriangle, Town of Apex, Transformation Exchange/Community Partnership Network, Town of Wendell, Wake County Southern Regional Center, Wake County Eastern Regional Center, Wake County Northern Regional Center, Housing Authority of Wake County, Wake County Veterans Administration and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC-MPO-invited).

The following organizations were interviewed directly for their input:

GoCary, GoRaleigh, GoTriangle, HARTS, JCATS, KARTS, Transformation Exchange/Community Partnership Network, Live Well Wake, GoWake Access, Wake County Southern Regional Center, Wake County Eastern Regional Center, Wake County Northern Regional Center, Wake County Veterans Administration and Triangle J Council of Governments (TJCOG).

Several organizations have also received presentations regarding the ongoing study and have had the opportunity to provide initial feedback. They include but are not limited to:

Raleigh City Council, CAMPO Technical Coordinating Committee & Executive Board, Raleigh Transit Authority, Raleigh Mayor's Committee for Persons with Disabilities, Town of Cary, GoWake Access Transit Advisory Board, Johnston County Transit Advisory Board, Eastern Regional Community Advocacy Committee, the Transportation Planning Advisory Committee (TPAC) and the KARTS Executive Board.

The next phase in engagement consists of convening focus groups made up of potential users of the mobility management program who will provide input on and vet the mobility management concepts being proposed. Potential users include those currently riding the various public transportation services in the CAMPO planning area, representatives of client organizations such as groups advocating for individuals with disabilities, older adults, veterans, faith-based organizations, and social workers. The project team will work through the TSC, the Mobility Coordination Committee which consists of regional transit providers and human service agencies, and the various stakeholder boards to identify possible focus group participants.

The study team will present task findings to the decision-makers in late Spring.

To	Marchell Adams-David, City Manager
Thru	Michael Moore, Director
From	Anne Conlon, PE – Senior Transportation Engineer
Department	Transportation
Date	March 31, 2022
Subject	City Council Follow Up – Vehicle Miles Traveled Metric

During the February 15, 2022 Council meeting, Mayor Pro Tem Stewart requested a report from staff describing how the City could transition away from the ‘level-of-service’ (LOS) metric currently used to assess infrastructure sufficiency for new development and instead move towards the ‘vehicle miles traveled’ (VMT) metric. This memorandum provides background and the latest research on LOS and VMT and describes several steps the City could take to move toward the use of VMT. The initial memorandum was provided on 3/18/22 and then expanded following an email from Council Member Cox requesting more detail on the specifics of VMT analysis.

Existing Use of Level-of-Service Metric

The Transportation department currently uses the LOS metric as part of Traffic Studies, whose purpose as defined in the *Raleigh Street Design Manual* is:

- To provide reliable guidance on short- and long- range planning of site access and off-site improvements;
- To assist developers and property owners in making critical land use decisions regarding traffic and other modal needs;
- To provide government review agencies with recommendations for achieving responsive and consistent transportation and access policies.

The *Raleigh Street Design Manual* further specifies that “the standard to provide mitigation is when overall intersection or approach level-of-service degrades from LOS-E to LOS-F. Another standard to provide mitigation is when arterial level-of-service degrades from LOS-E to LOS-F.”

LOS is defined in the *Highway Capacity Manual*, a standard practice traffic engineering resource, as a “qualitative measure describing operation conditions within a traffic stream, and their perception by motorists and/or passengers”. LOS varies from A, which is described as “free flow”, to LOS F, which is described as “forced flow (congested and queues fail to clear)”.

Traffic studies are typically used by staff in the following three contexts:

- To estimate the transportation impacts of rezoning cases and forecast whether programmed or planned infrastructure will be sufficient to serve the entitlement requested;

- To identify the impacts of site plan and subdivision submittals on the transportation system and determine whether developers should provide mitigations to address impacts; and
- To project future intersection and corridor performance of public street and road projects and to select appropriate laneage and traffic control to be implemented.

There are two typical responses to address the localized traffic impacts identified in LOS analysis. Capacity can be added to intersections in the form of additional lanes or traffic control devices. Capacity improvements tend to increase the width of roadways and intersections and therefore lengthen crossing distances. Alternatively, the development can be downsized to reduce vehicular trip projections.

The use of traffic studies based on LOS as described above is standard practice across North Carolina and much of the United States and is also used by the North Carolina Department of Transportation as a requirement for obtaining a Driveway Permit to gain new or modified access to the state transportation system.

Shortcomings of the LOS Metric

There is increasing awareness and discussion across the transportation and planning professions of the shortcomings of this analysis framework, especially in urban contexts such as Raleigh's. Recent decades have shown that congestion-focused mitigations tend not to decrease congestion but rather to maintain or increase it through the mechanisms of induced demand and other unintended consequences. Critiques of the LOS analysis framework include the following:

- LOS analysis in TIA's incentivizes development on the outskirts of cities where existing traffic is low and excess roadway capacity is available. This leads to low-density development that is spread out around City edges, which tends to increase the distances between destinations. Regional VMT is correspondingly increased.
- LOS analysis does not consider the alternative to any particular development. If the development is not placed on a constrained congested corridor due to capacity concerns, where will that development locate? The longer trips that result from alternative placement may increase travel demand on the corridor rather than reducing it. Will the development replace existing longer trips with shorter trips, rather than generating new trips? The result is that LOS analysis tends to overpredict the impacts of infill development. A 2015 study found that the *Trip Generation Manual*, which is the industry standard resource for traffic studies, overestimates trips by 55 percent¹. This is consistent with local experience, where subsequent traffic counts taken by NCDOT show lower (or no) growth in volumes compared with model predictions.
- The mitigations typically identified by LOS analysis tend to improve conditions for driving in the right-of-way during the peak hour while degrading conditions for all other users. These responses also tend to reduce the viability of all land uses and architecture types outside of the right-of-way except those explicitly built around the automobile,

¹ Millard-Ball, A. (2015). Phantom trips: Overestimating the traffic impacts of new development. *Journal of Transport and Land Use*, 8(1), 31-49.

- such as big box stores supported by large parking lots. These development patterns further degrade the comfort and practicality of alternative modes in a reinforcing cycle that reduces mode choice and locks in the automobile as the only viable way to travel.
- LOS analysis fails to incorporate how changes in capacity and ease of travel affect travel behavior. These analyses assume previous trends in traffic growth and mode share will continue whether or not capacity is provided, land use patterns change, or street design changes. The research shows that travel behavior is responsive in the short- and long-term to the local built environment and congestion².
 - The increase in vehicular miles travelled resulting from each of the points above generates a variety of environmental and public health impacts.
 - Finally, it is worth asking whether a singular focus on mitigating peak hour delays is appropriate if doing so undermines other policy goals of the City, such as encouraging transit and active transportation modes and building vibrant mixed-use places. Some localized congestion may be a worthwhile trade-off if the result is greater vitality and the availability of mode choices that aren't affected by congestion.

In summary, traffic studies based on LOS analysis tend to assume a future where all travel is completed by single occupancy vehicles and then produce actions (e.g.: adding lanes) that ensure that future by requiring the transformation of both the right-of-way and surrounding developments into environments hostile to all other modes. This increases the VMT generated by each city resident and visitor, which requires more transportation infrastructure to maintain per person in an era of over-stretched City and NCDOT budgets.

Alternatives to LOS

Some industry groups and organizations have sought to reform LOS analysis to address the concerns noted above. The Transportation Research Board, for example, updated the *Highway Capacity Manual* in 2010 to include service standards for bicyclist and pedestrians. The collection of metrics that resulted are termed 'multimodal level of service' or MMLOS. While this metric considers impacts to other modes, it doesn't address the underlying assumptions built into LOS analysis described above or get to the root of the shortcomings identified.

California has led the way in a larger shift in practice with the 2013 adoption of Senate Bill 743 (Steinberg, Chapter 386, Statutes of 2013). Senate Bill 743 mandated the update of state environmental review of transportation impacts to "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses"³. State agencies responded by identifying VMT as the most appropriate metric to evaluate transportation impacts and changing the rules to remove LOS as a relevant metric. That change went into effect on July 1, 2020.

California's Governor's Office of Planning and Research (OPR) summarizes the benefits and use of VMT analysis on their FAQ page⁴, which includes links to key resources and technical

² Noland, R. B., & Lem, L. L. (2002). A review of the evidence for induced travel and changes in transportation and environmental policy in the US and the UK. *Transportation Research Part D: Transport and Environment*, 7(1), 1-26.

³ Cal. Pub. Res. Code § 21099(b)(1).

⁴ <https://opr.ca.gov/ceqa/sb-743/faq.html>

advisories. In a key consideration of the shift in practice, this webpage notes “decades ago, it was believed that increased driving was necessary for economic growth. However, we now know that economic growth does not require an increase in driving. Further, recent research has shown that the old system based on LOS actually slowed economic growth by creating development patterns that limited residents’ ability to get to their daily destinations.”

The Benefits of VMT

The OPR summarizes VMT in the context of a transportation impact analysis as “the amount and distance of automobile travel attributable to a project”.⁵ Many of the shortcomings of LOS listed previously are a result of LOS mitigations’ tendency to increase overall VMT. VMT is directly correlated to roadway lane-miles that must be maintained by the City. A VMT analysis measures the average amount of travel per unit of new development (e.g. resident or employee) to the average amount of a travel per unit of existing development across the City. This correlates to the roadway maintenance burden per unit and allows the City to better understand the impact of new development on maintenance and avoid maintenance cost increases that outpace increased tax base. This kind of analysis is especially useful to support policy decisions, such as rezoning determinations. LOS analysis may continue to be a useful tool in conjunction with VMT as part of site plan review to support the design of new access points and manage congestion locally, especially where other modal options are limited.

VMT is also more directly relevant to the City’s greenhouse gas reduction goals. Over 40 percent of emissions in Raleigh’s greenhouse gas inventory were found to be due to transportation, and the quantity of emissions from transportation is directly related to miles travelled. The only proven ways to reduce transportation GHGs are to improve vehicle efficiency, increase the share of vehicles that can be powered by renewable energy, and to lower total miles travelled. Of these, the last is the area in which local governments can have the most impact through coordinated land use and transportation planning. Raleigh is a growing city, and as it grows total vehicle miles travelled can be expected to increase. However, by encouraging more development patterns with lower VMT than baseline, the City’s per capital VMT could decline with growth.

In California, the VMT generated by office and residential uses, or those components of mixed-use projects, are compared to the city-wide or regional average. If the project generates VMT at a rate that is 15% or more below the average rate, no mitigation is required. If projected VMT is higher, a significant impact is found and mitigations must be provided. Retail components of projects are studied to determine if they are likely to increase or decrease VMT and must be mitigated if any increase is projected. A city or regional map of average VMT across the community must be developed and maintained to support VMT evaluation.

Where a project is projected to have a significant impact on VMT, the OPR suggests potential mitigations such as “Tolling new lanes to encourage carpools and fund transit improvements, converting existing general purpose lanes to HOV or HOT lanes, implementing or funding off-site

⁵ Governor’s Office of Planning and Research. (2018). Technical Advisory on Evaluating Transportation Impact in CEQA.

travel demand management, implementing Intelligent Transportation Systems (ITS) strategies to improve passenger throughput on existing lanes”.

The OPR’s technical advisory also notes a key point for the City of Raleigh to consider:

“Because location within the region is the most important determinant of VMT, in some cases, streamlining...review of projects in travel efficient locations may be the most effective means of reducing VMT.”

Many communities in California use screening thresholds “to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study”. The OPR suggests thresholds based on size, access to transit, and the provision of affordable housing.

Action Items to Transition to the Use of VMT

If Council would like to pursue the use of VMT analysis, staff recommends the following steps:

1. Coordinate with CAMPO on the consultant-led development of a VMT analysis screening tool and methodology for VMT-based studies.
2. Submit a staff-initiated text change to the UDO and Raleigh Street Design Manual to modify the content and metrics required for traffic studies that support rezoning analysis.
3. Submit a Comprehensive Plan amendment to emphasize the existing policies relevant to VMT analysis and de-emphasize or remove conflicting policies.
4. Complete a review of best practices in integrating VMT analysis into the development review process.

Each step is described in more detail in the following section.

Step 1: VMT Analysis Screening Tool and Methodology

Before the City transitions to analyzing rezoning cases using VMT analysis, the City must establish appropriate VMT-based thresholds that trigger a traffic study. Current traffic study triggers are based on expected trip generation and existing tools have been developed to efficiently screen zoning cases based on this metric. A new tool or other screening criteria is needed to support determinations under the VMT framework. Submittal requirements must also be developed and written up to support the text change process in the following step.

Since CAMPO maintains the regional Travel Demand Model, which is an input into VMT analysis, CAMPO is a logical lead agency to develop tools for all municipalities in the region to utilize in traffic studies. CAMPO funds planning efforts through the *Unified Planning Work Program* (UPWP), which has been approved for FY23 (July 1, 2022 – June 30, 2023). Staff could submit to CAMPO for funding in FY24, which would delay the start of development to July 1, 2023.

Alternatively, Council could allocate funding to allow the City to work with a consultant on the development of this tool on its own in the near-term. The City could obtain consultant services through a standalone contract or through an on-call contract. Transportation Planning’s current on-call expires in May, 2022 and staff intends to initiate a new on-call around that time to maintain on-call capacity.

Step 2: Text Change Process

Once screening criteria have been identified and a methodology established, staff can initiate a text change to relevant code requirements to support the use of VMT in rezoning traffic studies. Changes are needed to Section 8.2 Infrastructure Sufficiency in the *UDO* as well as Chapter 7 Traffic Impact Analysis in the *Raleigh Street Design Manual*. Following this text change, staff will be able to evaluate rezoning cases with VMT analysis.

Step 3: Comprehensive Plan Amendment

In parallel to the text change, staff recommends refinements to the text and policies in the *Comprehensive Plan* to ensure consistency with the updated approach to transportation impact review and the latest research on congestion. There are several policies in the Plan that directly support VMT reduction (RC 1.5, LU 4.4.) and other sections reference the connection between other policies and VMT outcomes. At the same time, there are multiple references through the Plan that speak about reducing congestion and describe it as “one of the biggest threats to the region’s quality of life”. This focus on congestion as the problem, rather than a lack of transportation choices and mobility, can tend to support localized mitigations that work against mode choice and walkable urban and suburban centers. This language and the other policies that speak directly to level of service should be reviewed and reconsidered to ensure they align with the City’s larger goals.

Step 4: VMT in Development Review

Once Step 1 is completed, staff recommends that the City develop an analysis approach to development review in parallel to the processing of the text change in Step 2. The revised approach to site plan review will be more time intensive and can be combined with a planned overall update to the *Raleigh Street Design Manual*. Many of the jurisdictions that have implemented the use of VMT analysis in California have retained LOS-based analysis for site plan review to address localized impacts and mitigations. The City could take a hybrid approach to development review that may depend on land use context, availability of transit, or other factors.