

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

FREDDIE O'CONNELL MAYOR NASHVILLE DEPARTMENT OF TRANSPORTATION AND MULTIMODAL INFRASTRUCTURE

MEMORANDUM

TO: Metropolitan Traffic and Parking Commission

FROM: J. Andrew Smith, Engineer 2

Nashville Department of Transportation

DATE: October 8, 2024

SUBJECT: October 14, 2024, Traffic and Parking Commission Agenda Analysis

PURPOSE:

Provide an overview of all items on the upcoming Metropolitan Traffic and Parking Commission agenda to ensure that commission members have the information necessary for discussion and action prior to the commission meeting.

Commissioners are encouraged to contact Nashville Department of Transportation (NDOT) staff prior to the meeting with any questions.

STAFF ANALYSIS:

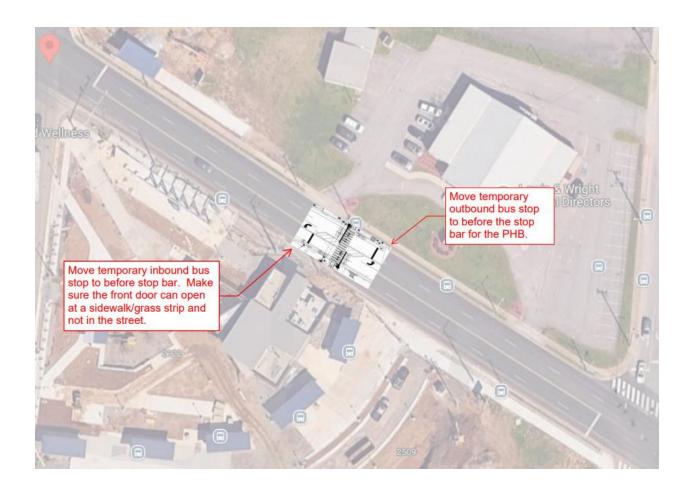
Consent Agenda

5.1 CD 02: Authorization for new Pedestrian Hybrid Beacon near 2500 Clarksville Pk, requested by NDOT

Recommendation: Approval of new PHB at 2500 Clarksville Pike.

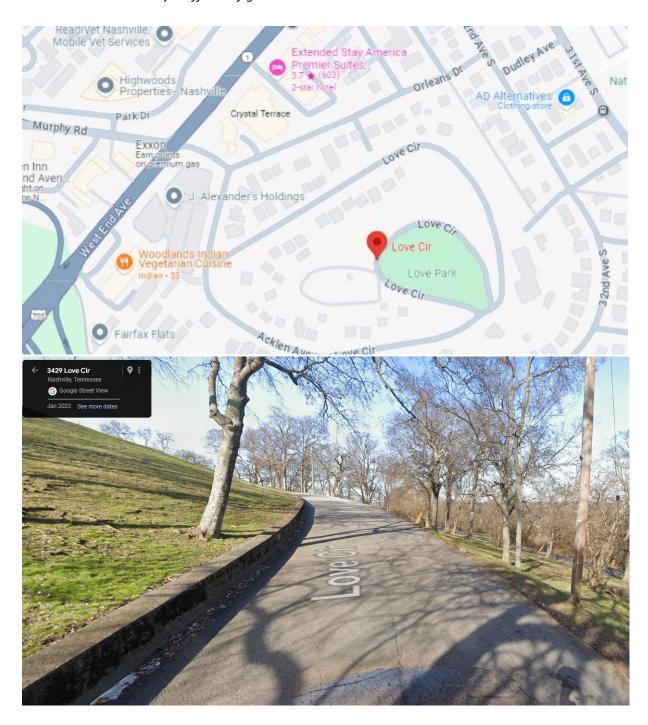
Analysis: A new Pedestrian Hybrid Beacon is recommended for 2500 Clarksville Pike to provide enhanced pedestrian safety. This midblock location is between 25th Ave N and 26th Ave N and will connect to the new WeGo transit hub.

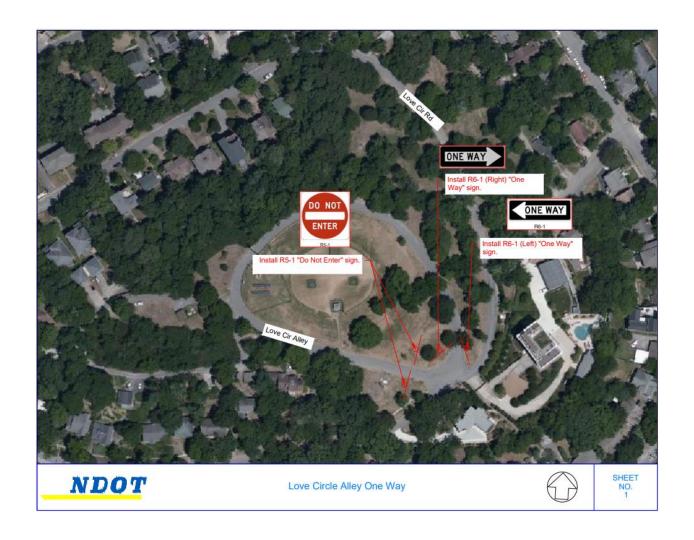




Recommendation: Approval of one-way traffic configuration on the loop portion of Love Circle.

Analysis: Love Circle encircles Love Park, a Metro Water Services facility. The road scales just under 20 ft in width, with limited other driveway connectivity and limited sight distances. NDOT recommends a one-way traffic configuration.





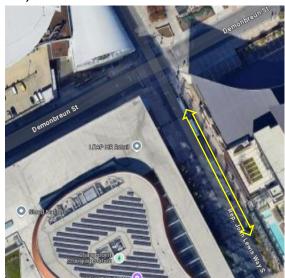
5.3 CD 19: Authorization to replace existing Taxi Stand with new time limited Passenger Loading/Unloading Only and for new Bus Permit Parking Only (11AM-1PM / 7 days) with Pay Parking during all other hours for the east side of Rep John Lewis Way between Demonbreun St and Korean Veterans Blvd, requested by NDOT

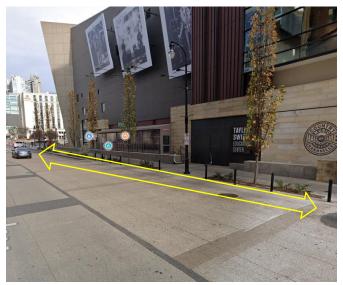
Recommendation:

On the east side of Rep John Lewis Way between Demonbreun St & Korean Veterans Blvd

- Approval of new Bus Parking Only, 11AM-1PM/7 days, with new Pay Parking during all other hours;
- Approval of new time-limited Passenger Loading/Unloading Only, 30-minute limit, 24/7;
- 3. Removal of existing Taxi Stand.

Analysis:



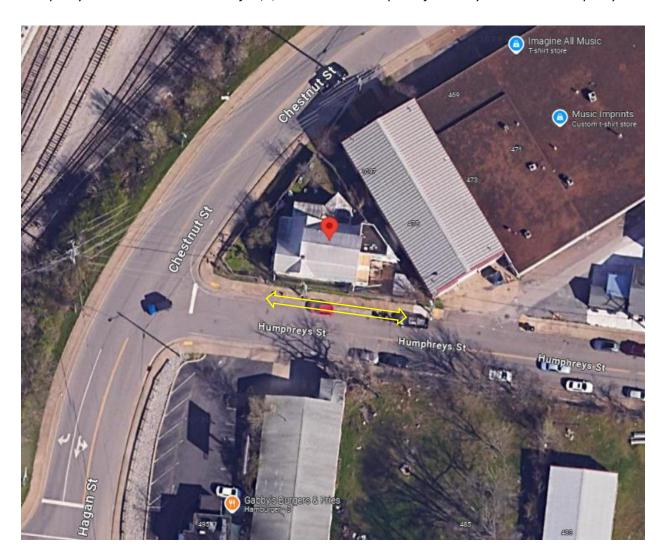


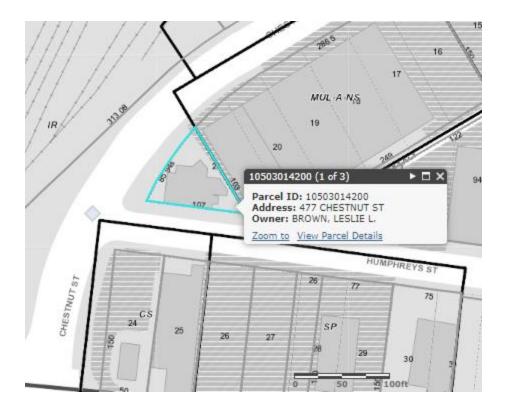
NDOT seeks greater mobility access and curb utilization consistent with the goals of Connect Downtown. To that end, NDOT requests replacement of the existing Taxi Stand with a new time-limited Passenger Loading/Unloading zone and a new bus parking zone at the northern end of this new loading zone approximately 120 ft from Demonbreun St. The proposed 45-ft bus parking space is requested for dual-use Pay Parking during all other times and will accommodate two passenger cars. While the existing taxi stand is occasionally used by taxis, this curb space is mostly occupied by idle coach buses. NDOT hopes to give all vehicles a window up to 30 minutes for passenger loading/unloading and that the coach buses will park at other locations for longer durations.

Recommendation: Approval of Residential Permit Parking on the north side of Humphreys St between Chestnut St and Alley #184.

Analysis: This request is for new RPP parking for solitary residential property that remains at the corner of Chestnut St and Humphreys St. This property has no driveway or any available off-street parking. The address of the property is 477 Chestnut, but the parking would be on the Humphreys St curb space.

Humphreys St was measured at 31 ft +/-, and there are no plans for a bicycle lane on Humphreys St.





Metro Code Section 12.42.030 establishes eligibility criteria for new RPP requests, and all of these are met at this location. CM Vo has indicated her support of this request. Therefore, NDOT recommends approval.

12.42.030 - Residential permit parking areas—Eligibility requirements.



In determining whether an area identified as eligible for residential permit parking shall be designated as a residential permit parking area, the chief traffic engineer shall take into consideration the following factors:

- A. The extent of the desire and need of the residents for residential permit parking and their willingness to bear the administrative costs in connection therewith;
- B. Proximity of the neighborhood to major "parking attractors" including employments centers, retail stores, restaurants, universities, hospitals, and tourist attractions:
- C. Scarcity of convenient off-street parking for residents;
- D. The extent to which motor vehicles registered to persons residing in the residential area cannot be accommodated by the number of available offstreet parking spaces;
- E. Substantial use of neighborhood curb space by commuters and other nonresidents for parking;
- F. Traffic, noise and safety problems caused by vehicles cruising for parking.

(Ord. 99-1590 § 3, 1999; Ord. 93-562 § 3, 1993)

Regular Agenda

Unfinished Business

7.1 Approval of expanded metered parking rate structure, requested by NDOT

Recommendation:

1. Approval of new expanded metered parking rate structure:

Central Parking District (Enforceable 24/7)

- \$2.00/hour for hours 1-2
- \$5.00/hour for hours 3-4
- \$6.00/hour for hours 5-10
- \$2.00/hour for hours 1-10 in designated Economy Zones

Non-Central Parking District (Enforceable 6am-midnight)

- \$2.00/hour for hours 1-2
- \$3.00/hour for hours 3-4
- \$4.00/hour for hours 5-10
- \$1.00/hour for hours 1-10 in designated Economy Zones
- 2. Authorization for the NDOT director or designee to establish/disestablish designated Economy Zones as necessary to align with subsequent urban development within Metro.

Analysis: Staff analysis is provided via a separate PowerPoint presentation.



Extended Pricing Model for Central Parking District (CPD)

New Rates Schedule

CORE BENEFITS

 Consistent Rates Extended Parking Times · Economy Zones & Pricing

Current Rate Schedule

				The state of the s				
	CPD Enforced 24/7 Designated			CPD Enforce	Designated Economy			
# of Hours	Charge to Customer	Rate/Hr	Economy parking	# of Hours	Charge to Custom	ner Rate/Hr	parking	
1	\$2.25	\$2.25	Not Available	1	\$2.00	\$2.00	\$2.00	
2	\$4.50	\$2.25	Not Available	2	\$4.00	\$2.00	\$4.00	
3	\$6.75	\$2.25	Not Available	3	\$9.00	\$5.00	\$6.00	
4	Not Available	Not Available	Not Available	4	\$14.00	\$5.00	\$8.00	
5	Not Available	Not Available	Not Available	5	\$20.00	\$6.00	\$10.00	
6	Not Available	Not Available	Not Available	6	\$26.00	\$6.00	\$12.00	
7	Not Available	Not Available	Not Available	7	\$32.00	\$6.00	\$14.00	
8	Not Available	Not Available	Not Available	8	\$38.00	\$6.00	\$16.00	
9	Not Available	Not Available	Not Available	9	\$44.00	\$6.00	\$18.00	
10	Not Available	Not Available	Not Available	10	\$50.00	\$6.00	\$20.00	



Extended Pricing Model for Non-Central Parking District (NCPD)

CORE BENEFITS

 Consistent Rates
Extended Parking Times · Economy Zones & Pricing

Current Rate Schedule

New Rates Schedule NCPD Enforced 6am - 12am Non-CPD Enforced 6am-12am **Designated Economy** Designated # of Hours Charge to Customer Rate/Hr **Economy parking** # of Hours Charge to Customer Rate/Hr parking \$1.75 \$1.75 Not Available \$2.00 \$2.00 \$1.00 \$3.50 \$1.75 Not Available \$4.00 \$2.00 \$2.00 2 2 \$7.00 3 \$5.25 \$1.75 Not Available 3 \$3.00 \$3.00 4 Not Available Not Available Not Available 4 \$10.00 \$3.00 \$4.00 Not Available Not Available Not Available 5 \$14.00 \$4.00 \$5.00 5 6 Not Available Not Available Not Available 6 \$18.00 \$4.00 \$6.00 7 Not Available Not Available Not Available 7 \$22.00 \$4.00 \$7.00 8 Not Available Not Available Not Available 8 \$26.00 \$4.00 \$8.00 Not Available Not Available Not Available 9 \$30.00 \$4.00 \$9.00 Not Available Not Available Not Available \$34.00 \$4.00 \$10.00



Economy Zones for Underutilized Areas

Downtown

☐ JRP from 3rd Ave N to Rosa Parks Blvd☐ YMCA Way

Sobre

- ☐ Palmer Pl
- $f \square$ Lea Ave from Rutledge St to 2nd Ave S

Edgehill

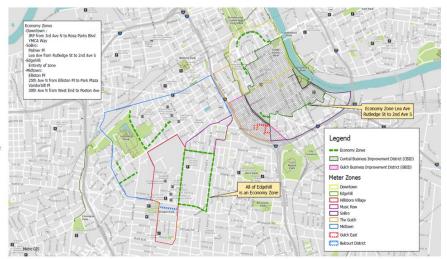
To consider the entire district as it is quite small with no attractors close by.

Midtown

- ☐ Elliston Pl
 - ☐ 25th Ave N from Elliston Pl to Park Plaza
 - Vanderbilt Pl
- 30th Ave N from West End to Poston Ave

Gulch- N/A Gulch East- N/A Music Row- N/A Belcourt- N/A Hillsboro Village- N/A

*NDOT reserves the right to modify economy zones to align with the city's response to urban development.



7.2 CD 11, 14, 15, 19: Authorization to reduce posted speed limits on Hermitage Ave/Lebanon Pk from Korean Veterans Blvd to the Wilson County line, requested by NDOT

Recommendation: Authorization to reduce posted speed limits on Hermitage Ave/Lebanon Pike, from Korean Veterans Blvd to the Wilson County line:

Hermitage Ave	From Korean Veterans Blvd	To Lebanon Pk ¹	25 mph (from 30/40 mph)
Lebanon Pk	From Hermitage Ave	To Spence Ln	35 mph (from 40/45 mph)
Lebanon Pk	From Spence Ln	To Briley Pkwy	45 mph (from 40/45 mph)
Lebanon Pk	From Briley Pkwy	To Donelson Pk	35 mph (from 40 mph)
Lebanon Pk	From Donelson Pk	To Wilson County line	40 mph (from 40/45 mph)

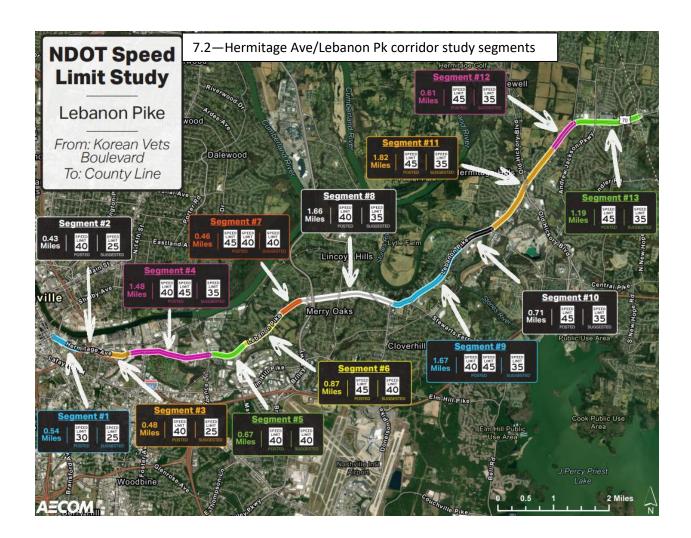
¹ Hermitage Ave becomes Lebanon Pk at the RR crossing near the western terminus of the reversible lane.

Analysis: As noted previously, NDOT commissioned assessments of operating conditions along several of Nashville's arterial corridors to reduce crashes and crash severity on these roads as a Vision Zero initiative. NDOT has been working with council members, TDOT, WeGo, MNPD, and other stakeholders throughout this process.

Consistent with the FHWA Proven Safety Countermeasures and the Nashville Vision Zero Action Plan, NDOT seeks to move from determining speed limits on the 85th percentile standard, and instead base recommended speed limits based on a combination of operating speeds at the 50th percentile while also considering land use, road conditions, traffic volumes, crash histories, and the presence of vulnerable road users to reduce traffic fatalities and other serious injuries.

NDOT staff has conducted numerous engagement meetings with council members and with neighborhood stakeholders and based on stakeholder feedback recommends approval for a reduction of posted speed limit changes for this corridor.

For reference, extracts from the original speed studies commissioned for this corridor are reproduced in this report to illustrate the corridor and the segments which were studied. The recommendations for the Commission are modified to include significant stakeholder input and have had the segment terminal points edited for clarity to more familiar landmarks. Segments with the same recommended posted speed limits have been combined.



7.2—Hermitage Ave/Lebanon Pk speed study data

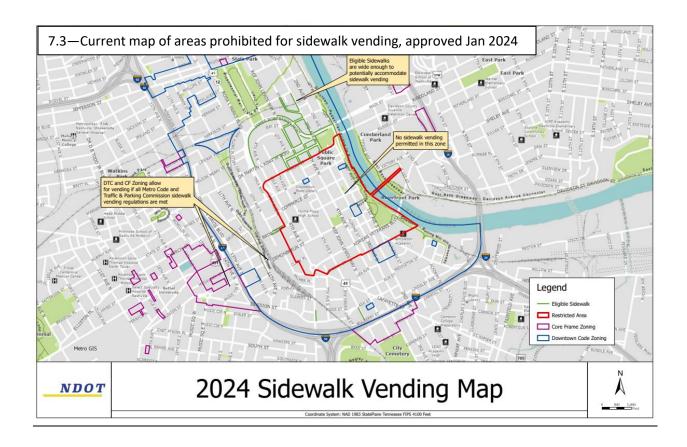
Lebanon Pike (SR-24)		Spot Speeds (10 am-12pm)		INRIX XD Speeds (12am-6am, 9am-3pm, 6pm-12pm)					
Segment #	Termini Points	Speed Limit	50 th %tile Speed	85th %tile Speed	NCHRP 966 Tool Speed	50th %tile Speed	85th %tile Speed	NCHRP 966 Tool Speed	Proposed Speed Limit
1	KVB to Anthes Dr	30	29	32	30	22	29	25	25
2	Anthes Dr to Fairfield Ave	40	29	34	30	35	39	35	25
3	Fairfield Ave to RR Crossing	40	29	34	30	27	31	25	25
4	RR Crossing to Spence Ln	40/45	43	50	45	34	42	35	35
5	Spence Ln to Lightning Towing Driveway	45	45	49	45	43	46	45	40
6	Lightning Towing Driveway to Mill Creek Bridge	45	46	51	45	46	51	45	40
7	Mill Creek Bridge to Cottage Ln	45/40	46	51	45	45	49	45	40
8	Cottage Ln to Donelson Pike	40	38	43	40	33	39	35	35
9	Donelson Pike to Jackson Downs Blvd	40/45	49	53	50	42	48	40	35
10	Jackson Downs Blvd to Central Pike	45	49	53	50	42	48	40	35
11	Central Pike to Highland View Dr	45	45	50	45	32	40	30	35
12	Highland View Dr to Shute Ln	45	45	50	45	42	46	40	35
13	Shute Ln to County Line	45	45	49	45	35	42	35	35

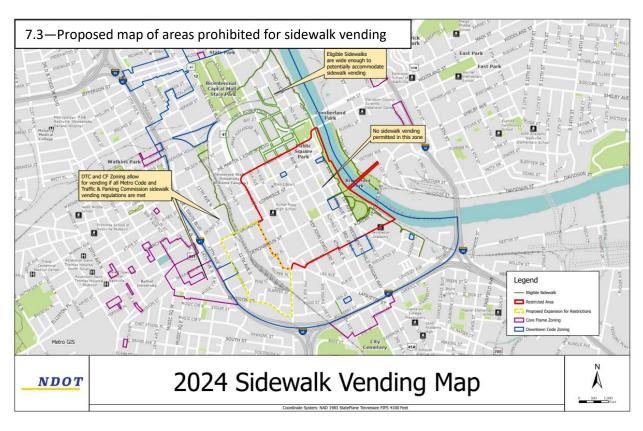
7.3 CD 19: Authorization to extend the downtown sidewalk vending restriction into the Gulch, including the area bounded by Broadway, 12th Ave S, Division St, and 8th Ave S, requested by Gulch stakeholders and NDOT

Recommendation: Approval of new sidewalk vending restrictions in the Gulch by the addition of the public rights-of-way in the area inclusively bounded by Broadway, 12th Ave S, Division St, and 8th Ave S to the existing downtown no-vending area.

Analysis: Metro Code Section 13.08.040.B(6)(b)(i) authorizes the Traffic & Parking Commission the power to set regulations to ensure free flow of pedestrian and vehicular traffic and ensure public safety and appropriate clearances around features in the public right-of-way such as intersections, parking spaces, hydrants, building entrances, and the like. Additionally, the Commission is authorized to adopt a map or maps showing the locations where sidewalk vending is prohibited and/or where it is permitted.

The Commission most recently amended its sidewalk vending regulation at its meeting on January 8, 2024, establishing the current map of downtown areas prohibited for sidewalk vending. That process involved a presentation to the Commission in December 2023, a mass mailout to vending permit holders in late December 2023, and a vote by the Commission in January 2024. Those steps are being followed with this new request. After the presentation to the Commission's September 9, 2024, meeting, NDOT conducted a bulk mailout to current sidewalk vending permittees, and this request is now presented to the Commission for an approval vote.



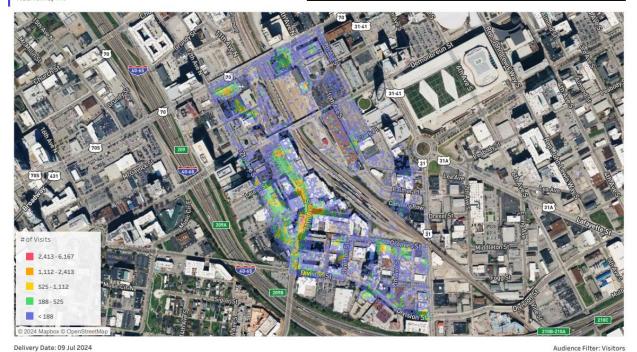


A heat map was provided to NDOT that shows a snapshot of pedestrian activity for the month of June 2024 in the Gulch with the heaviest pedestrian activity concentrated around 11^{th} Ave S and 12^{th} Ave S.

Hexagon Heatmap Based on Visitation | June 1st, 2024 - June 30th, 2024



Gulch Vending Nashville, TN 7.3—Heatmap of pedestrian activity in the Gulch



The sidewalk in the Gulch is mostly 10-ft in width, with a landscaped furnishing zone taking half of the available path of travel. While a vendor could technically set up a stand in the furnishing zone, the ADA path of travel would be diminished by any customer queue at the stand. In the photos below, Noble Park (to the left in the first three photos) is private property.





Using TITAN and AASHTOWARE, NDOT performed a three-year crash history query of the Gulch area and found that there were 29 pedestrian-related crashes. Of these pedestrian crashes, 26 were injury crashes, and two were fatal. Insufficient data exist to establish correlation between pedestrian crashes and sidewalk vending, but the data do show a concerning post-COVID upward trend in pedestrian crashes within the Gulch.



NDOT is actively working to proactively remove sidewalk obstructions such as scooters, bicycles, sandwich boards, and vending stands from locations with the greatest pedestrian densities such as downtown and now in the Gulch. NDOT has begun installing new scooter and bicycle corrals adjacent to the curb in downtown locations and is working with the mobility companies to incentivize using the corrals and to disincentive use the of the sidewalk for scooters and bikes.

The staff recommendation is to expand the existing no-vending area into the Gulch area as described.



7.4 Smart Loading Pilot update

The update on new Smart Loading Pilot program will be given as a separate PowerPoint presentation, and no vote is requested.

Recommendation: Uphold NDOT's denial of All-Way stop control at Cheatham Pl/Delta Ave, Cheatham Pl/9th Ave N, and Cheatham Pl/10th Ave N.







Analysis: NDOT received a request from a Metro Councilmember to add all-way stop control to the Cheatham PI intersections with Delta Ave, 9^{th} Ave N, and 10^{th} Ave N.

NDOT had previously studied these intersections and posted a "cross traffic does not stop" plaque on the stop signs on Cheatham and 9^{th} Ave N. Additionally, speed cushions have either been installed or are programmed for Delta Ave, 9^{th} Ave N, and 10^{th} Ave N as a part of NDOT's Neighborhood Traffic Calming Program.

All-way, or multi-way, stop-controlled intersections are commonplace within Metro. However, where this particular type of traffic control should be used is often misunderstood. When misapplied, all-way stops can create more problems than a traditional two-way stop-controlled intersection.

The Manual on Uniform Traffic Control Devices (MUTCD) provides guidelines for installation of all traffic control devices, including stop signs. By utilizing the MUTCD, local agencies, such as Metro, create a consistent experience for all roadway users and also limit their liability. The MUTCD details right-of-way at intersections and the requirements of stop sign installations across several sections, specifically Sections 2B.04 – 2B.17. Furthermore, NDOT is required by the Metro Code Section 12.12.040 to comply with the requirements of the MUTCD. All traffic control signs, signals and devices are required to conform to the latest version of the MUTCD.

For local agencies, one of the key takeaways from the MUTCD is the installation or removal of a stop sign should be done by an engineering study. This stipulation ensures stop signs are not installed where they are not needed, or where they may do more harm than good. When drivers perceive no need to come to a complete stop, they often just roll through the intersection instead of stopping. Unwarranted stop signs exacerbate bad driver behavior not only at the unwarranted locations, but at all intersections.

The MUTCD has clear guidelines about where stop signs and all-way stops are warranted. Section 2B.12 details the guidelines the engineer should consider before installing an all-way stop. One of many considerations is traffic volumes. All-way stops are typically used where both intersecting roads have similar levels of traffic.

Many intersections in Nashville will not meet the volume guideline to warrant the installation of an all-way stop. The minimum level of traffic on high-speed, major street approaches is 210 vehicles each hour over an eight-hour period. On the minor street approaches, the minimum volume for the same eight-hour period is 140 roadway users each hour. For a point of reference, that means the ADT would be well over 2000 vehicles per day (vpd) on the major road and well over 1000 vpd on the minor road. Volume warrants for an AWS are a high threshold to meet; often where an intersection meets volume warrants, it also meets warrants for a traffic signal. The intersections that were studied with this request did not include traffic counts because field observations showed the number of vehicles to be nowhere near what would be necessary for volume warrants.

In addition to traffic volumes, other data considered by engineers before installing all-way stops are crash experience, vehicle speeds, delay, sight distance, driver expectancy, left turns, and pedestrians. This is not a complete list since an intersection may have unique characteristics requiring engineering judgment to determine what data is pertinent for each intersection study.

The MUTCD recommends that all-way stop installations be made only at locations where it is safe and appropriate to do so. Engineering studies are used to evaluate criteria to determine if all-way stop control is warranted, considering these criteria:

 An interim installation pending the installation of a traffic signal that has met a qualified traffic signal warrant; and

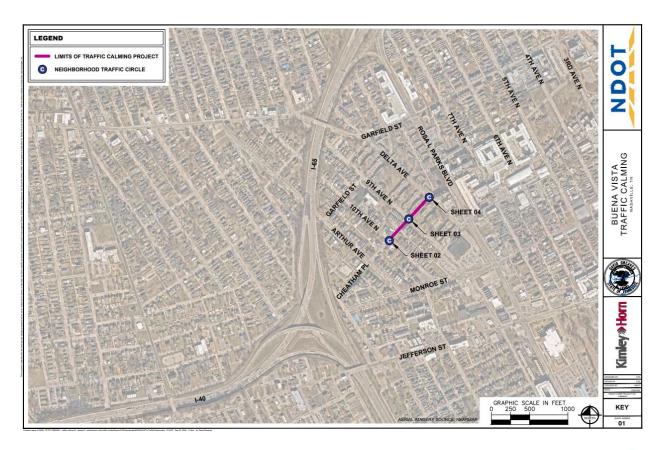
- 2) Five or more crashes in 12-months subject to correction by a multi-way stop; and
- 3) Volume of all traffic (cars, bicycles, pedestrians) within an eight-hour peak period (not necessarily consecutive hours); and
- 4) The speed of approaching traffic; and
- 5) Additional, site specific criteria as permitted.

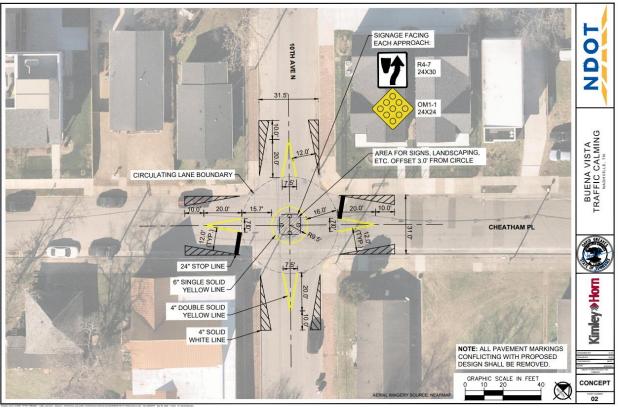
Accordingly, NDOT performed a warrant analysis of these intersections to determine whether these met the requirements in the MUTCD for all-way stop control. Cheatham PI is a residential local road with two-way stop control at each of these intersections. Traffic on Delta, 9^{th} , and 10^{th} is uncontrolled. Pavement width is 23 ft +/-.

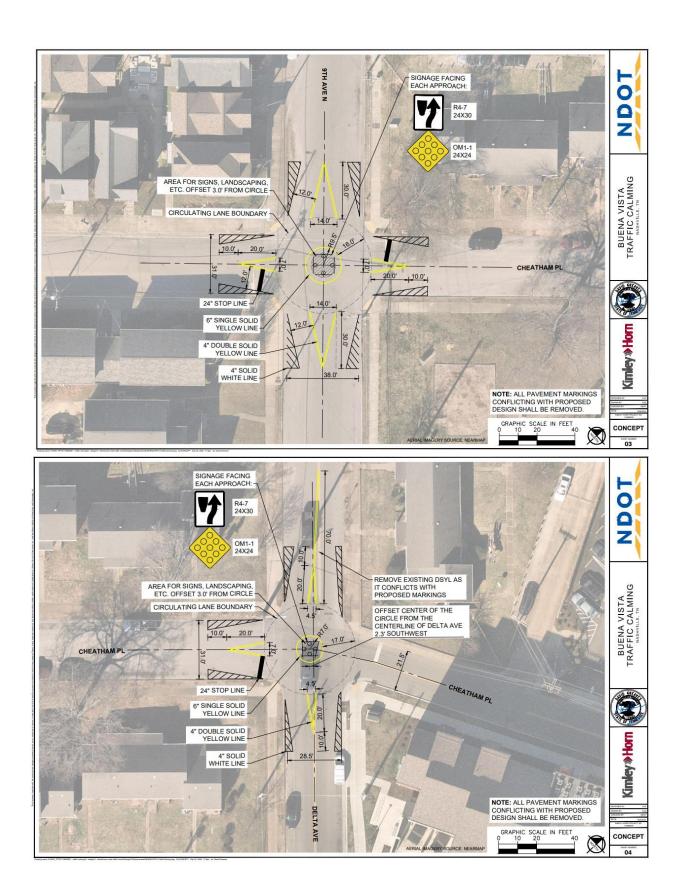
None of these intersections met warrants for traffic volumes, nor where there five or more angle crashes in any twelve month period during the last five years. Sight distance at each of these intersections is good. Therefore, NDOT denied the request for all-way stop control.

One common misapplication of an all-way stop is to deter or slow down drivers. Research has shown this tactic is not effective and often may cause drivers to speed up after the unwarranted stop sign since they did not see a need for it. The MUTCD specifically states, stop signs should not be used for speed control. Neighborhoods worried about speed control should look at traffic calming measures to effectively slow traffic.

Additional separate traffic calming traffic circle measures have been designed for these intersections and are awaiting installation. Traffic calming measures do not require a Commission vote, but the addition of unwarranted all-way stops will be detrimental to these traffic calming designs and will not add to overall safety. For these reasons, NDOT strongly recommends against the addition of unwarranted all-way stop control at these intersections.







New Business

Other Items

9.1 NDOT stop sign policy

Last month, The Commission requested NDOT staff to provide information on the process for approval of stop signs.

At its March 13, 2023, meeting, the Traffic & Parking Commission approved NDOT's Multi-way Stop Control Policy. The purpose of the policy is to assign right-of-way and regulate traffic, and includes multi-way stop control if certain traffic conditions exist. This is most effective when the volumes of traffic on the intersecting roads is approximately equal. When used appropriately, stop signs can increase safety and standardize expectations of all road users at the intersection. When used incorrectly, e.g., solely to address speeding, stop signs can breed disrespect for the signage, increase noncompliance, and decrease traffic safety.

Installations of all-way stops should be made where it is safe and appropriately warranted. Engineering studies, such as a multi-way stop warrant, are used to evaluate criteria to determine whether the stop signs should be installed. Upon request of multi-way stop control at an intersection of two city streets, NDOT staff collects and analyzes data to determine if the intersection meets minimum qualifying standards. A recommendation is made to the NDOT chief engineer or designee who uses professional engineering judgement to determine if the requested stop signs comply with this T&P-approved policy, and the proposed multi-way stop control is presented to the T&P Commission for approval. Appeals for installation or rejection of multi-way stop control are directed to the Commission.

The warrant analysis considers multiple criteria from the Manual on Uniform Traffic Control Devices:

- 1. An interim installation pending the installation of a traffic signal that has met a qualified traffic signal warrant; and
- 2. Five or more crashes in 12-months subject to correction by a multi-way stop; and
- 3. Volume of all traffic (cars, bicycles, pedestrians) within an eight-hour peak period (not necessarily consecutive hours); and
- 4. The speed of approaching traffic; and
- 5. Additional, site specific criteria as permitted.

9.2 Valet operator license summary

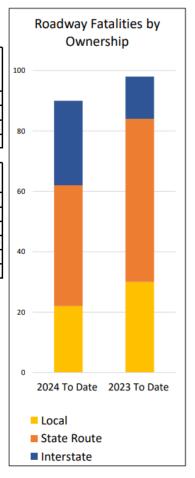
One new valet operator license was issued to 717 Parking Enterprises, effective 10/1/2024.

This snapshot of 2024 roadway fatal crashes is provided from the Vision Zero Advisory Committee. This committee meets on the second Tuesday of each month in the Sonny West Conference Room in the Howard Office Building.

2024 Roadway Fatalities To Date

By Ownership	2024 To Date	2023 To Date	Change (%)	September
Interstate	28	14	100%	6
State Route	40	54	-26%	7
Local	22	30	-27%	4
Total	90	98	-8%	17

NDOT Jurisdiction (Local + State Route)	2024 To	2023 To	Change (9/)	September
NDOT Jurisdiction (Local + State Route)	Date	Date	Change (%)	
Vehicle	27	17	59%	3
Pedestrian	19	25	-24%	2
Motorcycle	9	16	-44%	2
Bicycle	1	1	0%	0
Single Vehicle	8	27	-70%	5
Total	62	84	-26%	11



9.4 Veterans Day—November meeting

The November 2024 Commission meeting falls on Veterans Day this year. Metro offices will be closed in observance of this holiday.

NDOT staff have reserved the Sonny West Conference Room for Tuesday November 12, 2024, at 1:30 pm in anticipation that the Commission reschedules the November meeting. Alternatively, the Commission may vote to cancel the November meeting if it appears that a quorum of Commissioners will not be achieved.

NDOT would remind the Commission that the standing rules of the Commission require an annual vote in November to elect a Chair and Vice-Chair for the Commission. This will be an item on the next agenda.

The Commission needs to vote whether to reschedule or cancel the November meeting.