#### **Prioritization Subcommittee**

#### Meeting Agenda

May 3, 2023 9:30 AM

#### Meeting to be held at Land of Sky Regional Council or via

**Zoom:** https://zoom.us/j/91373453789

**Voting Members on the Committee:** Jessica Morris (City of Asheville, Vice-Chair), William High (Buncombe County), Autumn Radcliff (Henderson County), Anthony Sutton (Town of Waynesville), Elizabeth Teague (Town of Waynesville, Chair), Jerry Vehaun (Town of Woodfin), Archie Pertiller (Town of Black Mountain)

1.	Welcome and Introductions	Elizabeth Teague
2.	Public Comment	Elizabeth Teague
3.	Approval of March, 2023 Meeting Minutes	Elizabeth Teague
<b>4.</b> A. B. C. D.	Business Draft 2024-2033 TIP Update CMP Biennial Report PM2 & PM3 Performance Targets Park and Ride Status and Needs	Tristan Winkler, MPO Staff Tristan Winkler, MPO Staff Logan DiGiaccomo, MPO Staff Jon Barsanti, TDM
5.	News, Events, Updates	Elizabeth Teague
6.	Public Comment	Elizabeth Teague
7.	Adjournment	Elizabeth Teague

# Item 4A

#### Draft 2024-2033 TIP Update

The "final" Draft 2024-2033 TIP is available here: <a href="https://frenchbroadrivermpo.org/tip/">https://frenchbroadrivermpo.org/tip/</a>

This includes the swap that was approved by the MPO Board and NCDOT to swap-in the I-26/US 64 Interchange Improvements in place of Kanuga Road Modernization as well as the split of the Sweeten Creek Road widening.

Several other changes were made to project schedules as part of the "final" Draft STIP for projects in the FBRMPO region. That incudes a one-year delay for the Liberty Road Interchange in Buncombe County on I-40 as well as a three-year delay for the planned widening of NC 112 (Sand Hill/Sardis Road), also in Buncombe County.

ROUTE/CITY	DESCRIPTION	PROJECT ID	CONSTRUCTION SCHEDULE DRAFT 2024- 2033 STIP (AUGUST 2022)	CONSTRUCTION SCHEDULE FINAL 2024- 2033 STIP (MARCH 2023)	CONSTRUCTION DRAFT STIP TO FINAL STIP CHANGE
I-40	I-40/SR 1228 (LIBERTY ROAD). CONVERT GRADE SEPARATION TO AN INTERCHANGE AND CONSTRUCT TWO LANE ROADWAY NORTH OF I-40 TO SR 1224 AND FOUR LANE ROADWAY SOUTH OF I-40 TO US 19/US 23/NC 151 WITH PARTS ON NEW LOCATION.	I-4759	2025	2026	1 YEAR DELAY
NC 112 (SARDIS ROAD/ SANDHILL ROAD)	NC 191 (BREVARD ROAD) TO US 19/23 (SMOKEY PARK HIGHWAY). WIDEN ROADWAY.	U-6047	2028	2031	3 YEAR DELAY

ROUTE/CITY	DESCRIPTION	PROJECT ID	CONSTRUCTION SCHEDULE DRAFT 2024- 2033 STIP (AUGUST 2022)	CONSTRUCTION SCHEDULE FINAL 2024- 2033 STIP (MARCH 2023)	CONSTRUCTION DRAFT STIP TO FINAL STIP CHANGE
US 25A (SWEETEN CREEK ROAD)	US 25 (HENDERSONVILLE ROAD) TO SR 3116 (MILLS GAP ROAD)	U- 2801AA	2031	FUNDED FOR PRELIMINARY ENGINEERING ONLY	PROJECT UNCOMMITTED
I-26	US 64 INTERCHANGE IMPROVEMENTS	I- 4400BA	FUNDED FOR PRELIMINARY ENGINEERING ONLY	2029	PROJECT BECOMES COMMITTED
SR 1127 (KANUGA ROAD)	US 25 BUSINESS (CHURCH STREET) TO SR 1123 (LITTLE RIVER ROAD). UPGRADE ROADWAY.	R-5748	2029	FUNDED FOR PRELIMINARY ENGINEERING ONLY	PROJECT UNCOMMITTED

#### **Next Steps:**

The Board of Transportation plans to approve the Draft STIP at its May meeting.

The FBRMPO plans to consider adoption of the Draft TIP at its August meeting.

# Item 4B:

#### **CMP Biennial Report**

The French Broad River MPO is required to maintain a Congestion Management Process (CMP) for the region which includes congestion monitoring on a biennial basis. A draft biennial report and presentation will be provided.

# Asheville Area Congestion Report

FRENCH BROAD RIVER METROPOLITAN PLANNING ORGANIZATION

#### INTRODUCTION

The Asheville Metropolitan Area has continued to see population and employment growth throughout much of the region over the last several years, despite increasing housing costs, a pandemic, and numerous other challenges. The last several years have highlighted our region's economic resilience and continued desirability.

The region's continued growth has also brought about concerns about the impact on transportation infrastructure and its ability to continue to facilitate the movement of people and goods. Numerous transportation projects are currently underway to add capacity to interstates, arterials, and intersections in order to better accommodate increasing vehicular travel as well as projected increases in vehicular travel.

This report serves as a follow-up to the French Broad River MPO's Congestion Management Process, developed in 2018, as well as the Asheville Area Congestion Report, completed in 2020, in order to continue to monitor congestion and its impacts on the region's transportation network.

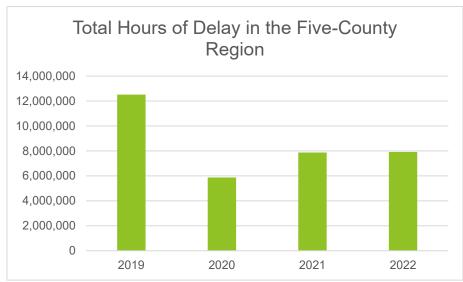
#### **Major Takeaways**

1. Traffic delay has significantly decreased since the pandemic started and has not returned to prepandemic levels despite Vehicle Miles Traveled (VMT) returning to pre-pandemic levels. The amount of vehicle delay in the five-county (Buncombe, Haywood, Henderson, Madison, and Transylvania counties) region in 2021 was roughly half what it was in 2019. The amount

- of roadway mileage experiencing significant issues with reliability have decreased significantly since 2019.
- 2. AM delay continues to be minimal in the region, PM delay continues to be more significant. This was a major takeaway from the 2019 Asheville Area Congestion Report and continues to be the case. This likely reflects the patterns of retirees, tourists, and significant amounts of the workforce working a different schedule.
- **3.** Work from Home continues to increase throughout most of the region. Prior to the pandemic the Asheville Metro Area ranked 6<sup>th</sup> in the country for percentage of workers working from home; the percentage continues to increase although the Asheville Area is no longer ranked 6<sup>th</sup> due to large increases in other metro areas.
- 4. Commuting without a car appears to be stagnant or decreasing- depending on the mode- throughout the entire region. Commute to Work data from US Census Bureau continues to reflect decreases or stagnation in the region's residents who bike, walk, carpool, or take public transportation to work.
- 5. Cross-county commuting has increased significantly. Each of the five counties has observed significant decreases in the number of residents working and living in the same county. Some economic centers have also seen significant shifts in where lower-income workers are coming from, likely reflecting displacement from the region's continuing housing shortage.

# POST-PANDEMIC TRAFFIC DELAY & CAUSES

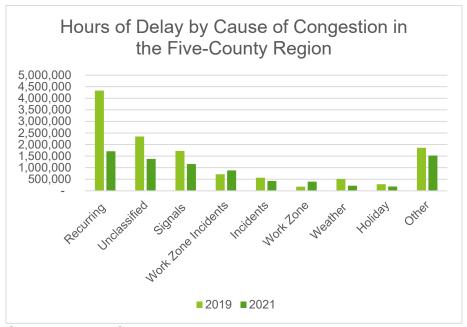
Observed amounts of traffic delay in the five-county region have decreased significantly since the beginning of the pandemic with only marginal gains towards pre-pandemic levels, despite VMT returning to pre-pandemic levels. In other words, vehicles are moving as much or more than they were in 2019, but there is less delay.



The significant reduction in delay is likely due to a redistribution of traffic to non-peak hours, as has been observed with spikes of work from home. Programs such as the region's Transportation Demand Management (TDM) should continue to work with employers to help instill the benefits of telecommuting but more analysis should be done on changes in to hourly travel patterns.

#### Causes of Delay

The causes of delay have also changed significantly since the last report was published in 2020. Most notably, recurring congestion, or congestion caused by an influx of vehicles ("traffic jams,") decreased by more than 60% between 2019 and 2021. Recurring congestion accounted for roughly 35% of congestion incidents in the region in 2019; it accounted for only 21% in 2021.



Some causes of congestion did observe an increase- these most notably include congestion incidents related to work zone activities or work zone incidents. This likely correlates with significant construction projects along I-26, including I-4700 and I-4400.

#### TOP BOTTLENECKS IN 2021

Data from HERE was provided on the top bottlenecks in the five-county region for 2021. This data is ranked based on total delay which is calculated by the total time a congestion event takes place multiplied by the estimated number of vehicles involved.

#### #1 WESTBOUND I-26 @ NC 191 (EXIT 33)

# of Events	543
Average Daily Duration	1h 6m
Total Hours of Delay	183,387,389
2019 Ranking	#1

#### #2 EASTBOUND I-26 @ NC 280 (EXIT 40)

# of Events	282
Average Daily Duration	1h 18m
Total Hours of Delay	146,288,146
2019 Ranking	#7

#### #3 EASTBOUND I-26 @ NC 146 (EXIT 37)

# of Events	186
Average Daily Duration	41m
Total Hours of Delay	123,138,521
2019 Ranking	#3

#### #4 WESTBOUND I-26 @ NC 146 (EXIT 37)

# of Events	457
Average Daily Duration	58m
Total Hours of Delay	120,286,571
2019 Ranking	#6

#### #5 WESTBOUND I-26 @ US 25 (EXIT 44)

# of Events	267
Average Daily Duration	22m
Total Hours of Delay	97,884,614
2019 Ranking	#16

#### #6 WESTBOUND I-26 @ NC 280 (EXIT 40)

# of Events	374
Average Daily Duration	33m
Total Hours of Delay	81,756,589
2019 Ranking	#22

#### #7 WESTBOUND US 64 @ DUNCAN HILL ROAD

# of Events	7
Average Daily Duration	5h 25m
Total Hours of Delay	57,511,192
2019 Ranking	-

#### #8 EASTBOUND I-26 @ US 25 (EXIT 44)

# of Events	375
Average Daily Duration	24m
Total Hours of Delay	54,813,062
2019 Ranking	#33

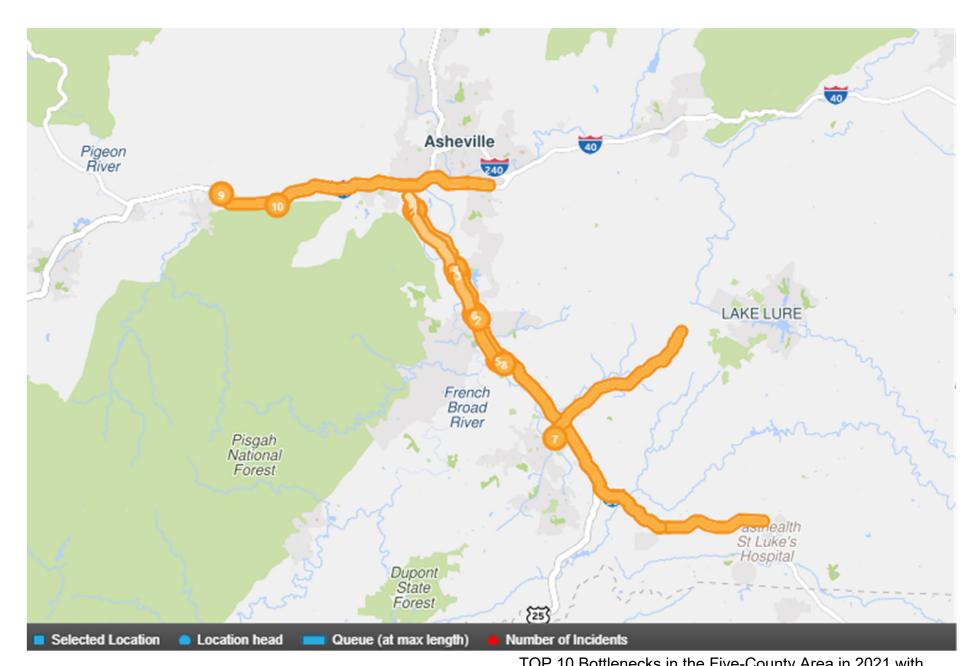
#### #9 WESTBOUND I-40 @ NEWFOUND RD (EXIT 33)

# of Events	111
Average Daily Duration	11m
Total Hours of Delay	36,706,869
2019 Ranking	#19

#### #10 WESTBOUND I-40 @ WIGGINS ROAD (EXIT 37)

# of Events	86
Average Daily Duration	12m
Total Hours of Delay	36,168,119
2019 Ranking	#20

It should be noted that many of the top bottlenecks in the region overlap with on-going construction projects. I-26 has construction from US 64 to I-40 as part of I-4700 and I-4400, likely adding to the delays observed along that corridor.



TOP 10 Bottlenecks in the Five-County Area in 2021 with associated queue lengths. Map provided by RITIS.

#### **EVALUATING DELAY**

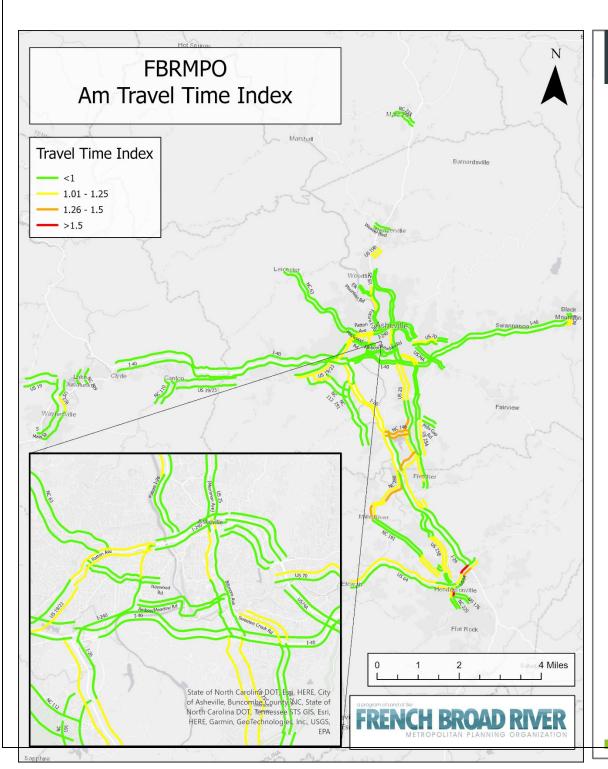
For this report, the MPO primarily looks at two different metrics: Travel Time Index and Planning Time Index. These metrics are used throughout the country and in other parts of the world to determine travel-time reliability and better measure the impact of congestion on roadway users. These measures generally take on different aspects of how users experience congestion.

Per the Bureau of Transportation Statistics<sub>1</sub>, **Travel Time Index** (**TTI**) is the ratio of the travel time during the peak period to the time required to make the same trip at free-flow speeds. A value of 1.5, for example, indicates a 10-minute free-flow trip requires 15 minutes during the peak period. Generally, this metric helps to identify areas with more recurring congestion, i.e. areas where daily congestion events are expected during the defined time period.

The **Planning Time Index (PTI)** is the ratio of travel time on the worst day of the month (the 95th percentile travel time) compared to the time required to make the same trip at free-flow speeds. A PTI of 1.5 indicates a 10-minute free-flow trip takes more than 15 minutes only one day per month<sub>2</sub>. Generally, this metric helps to identify areas where non-recurring congestion may be occurring more frequently and/or may be more severe.

For this report, TTI and PTI were collected for roadway segments identified in the MPO's Congestion Management Process for AM (7-9AM) and PM (4-6PM) peaks. The below

maps illustrate the data by roadway segment in the region for each peak period identified.



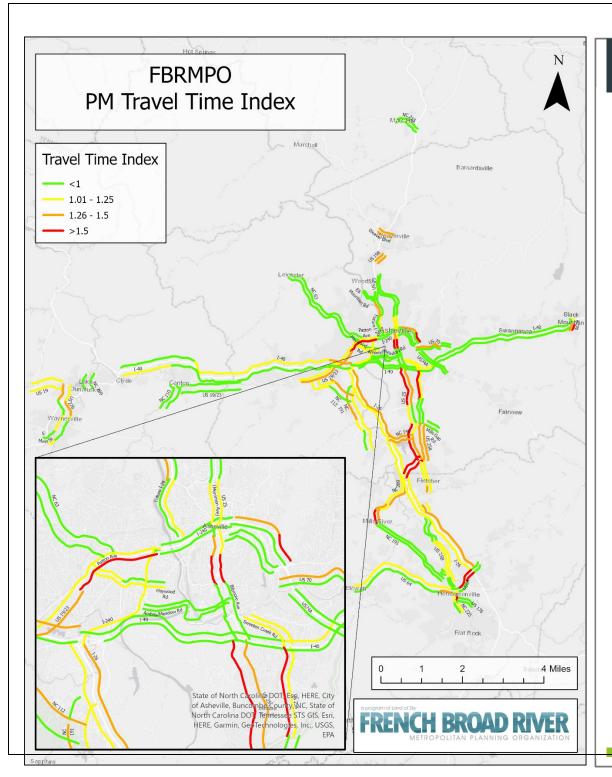
**AM Travel Time Index** 

0.5%

of studied roadway miles had a Travel Time Index > 1.5 in 2021

3.6%

of studied roadway miles had a Travel
Time Index > 1.5 in 2019



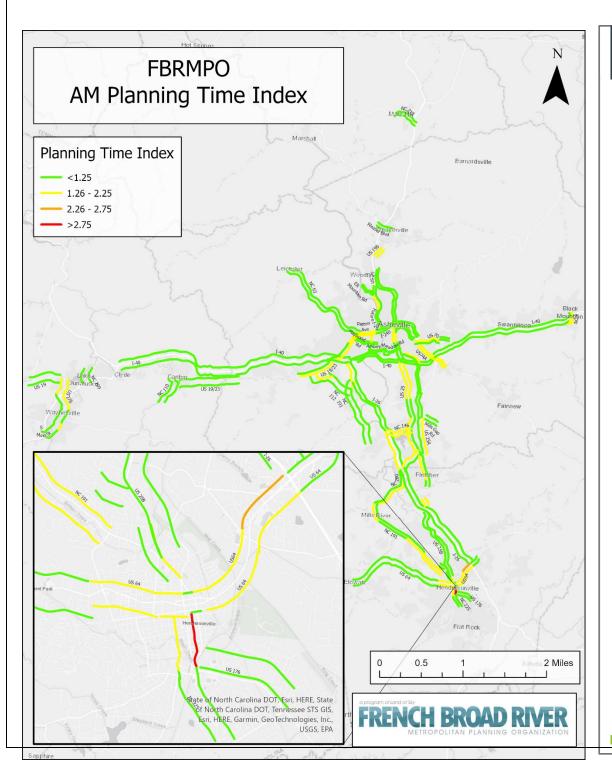
PM Travel Time Index

5.1%

of studied roadway miles had a Travel Time Index > 1.5 in 2021

10.8%

of studied roadway miles had a Travel
Time Index > 1.5 in 2019



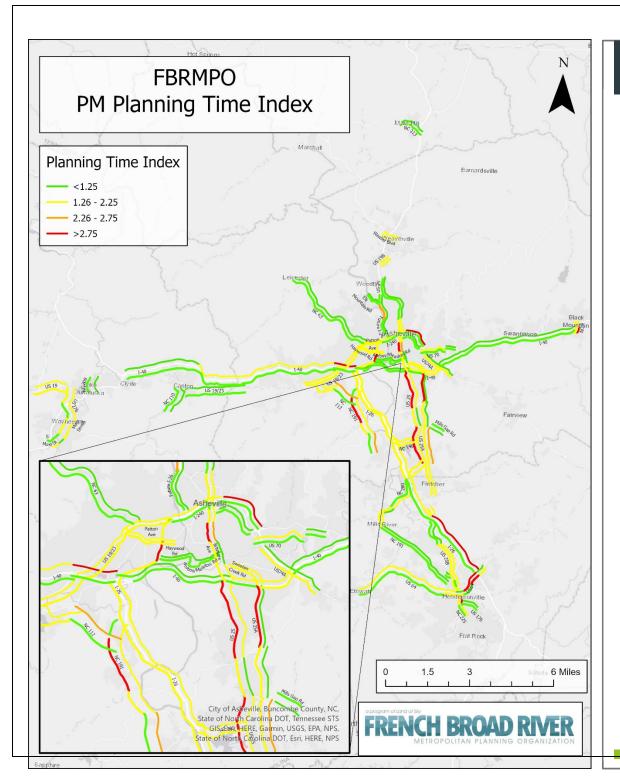
AM Planning Time Index

12%

of studied roadway miles had a Planning Time Index > 1.5 in 2021

16%

of studied roadway miles had a Planning Time Index > 1.5 in 2019



PM Planning Time Index

27%

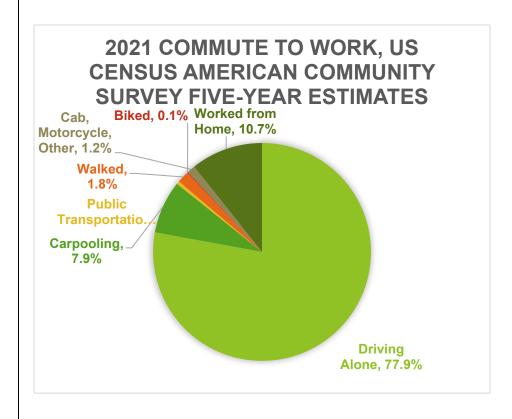
of studied roadway miles had a Planning Time Index > 1.5 in 2021

51.4%

of studied roadway miles had a Planning Time Index > 1.5 in 2019

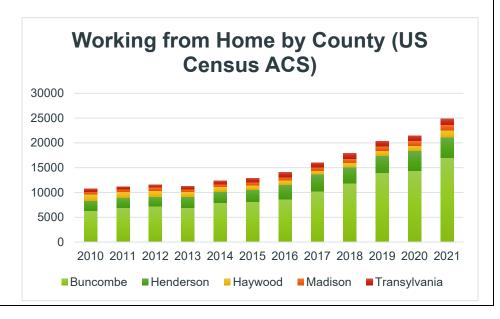
# HOW PEOPLE COMMUTE & MOVE IN THE REGION

Data about how people commute is provided by the US Census Bureau's American Community Survey (ACS.) An important note is this is survey data that is collected from a portion of the population on an annual basis which focuses on residents' commute to work. With bicycle and pedestrian travel especially, this data shouldn't be used to surmise overall demand for bicycle and pedestrian travel as many of those trips are made for recreational purposes and there is limited data to reflect that information.



However, the overall picture about how the region's workers commute is dominated by people driving alone. In 2021, it's estimated that 77.9% of workers drove alone, In comparison to past years, driving alone is down significantly from the peak in 2015 at 80.8% from the same dataset. However, in terms of absolutes the number of workers driving alone is estimated to have increased by more than 22,000 from roughly 159,000 in 2010 to 181,000 in 2021.

While driving alone makes up the majority of workers commuting, other options take up a significant percentage of commuting in the region. Working from Home is the second largest "commute to work" in the region after steady increases over the last decade. To note, this data reflects five-year estimates so is almost certainly deflating the spike in working from home after 2020. Interestingly, every county in the region-with the exception of Haywood- observed a doubling of working from home between 2010 and 2021.

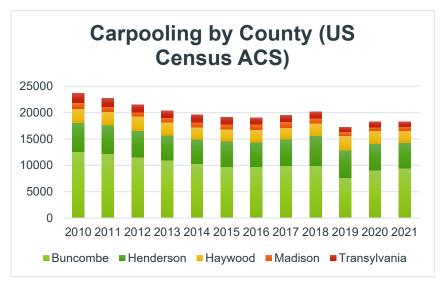


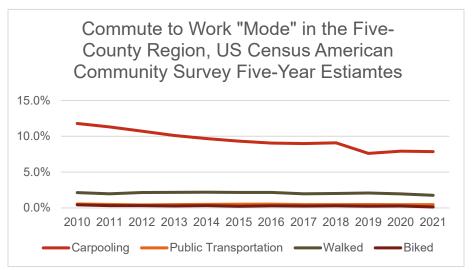
## Carpooling, Transit, and Active Transportation

Less favorable data reflects the role of carpooling, biking, walking, and public transportation in regional commuting. These modes are important to providing accessibility, affordability, and sustainable access to jobs in the region while likely decreasing congestion.

Carpooling is- and has been- one of the most significant "modes" of commuting in the region. This may include family members or friends commuting together or carpools setup through employers or groups of employees. In 2021, 7.9% of the workers in the region reported carpooling as their primary means of getting to work- the third most significant "mode" in the region.

However, carpooling has been on a steady decline since 2010. In 2010, 11.8% or more than 23,000 residents reported





carpooling as their primary means of commuting- that number decreased to a little more than 18,000 in 2021.

Active transportation modes- walking and biking- make up almost 2% of commuters in the region which is only slightly down from 2.5% in 2010. While the percentage of workers walking and biking has fluctuated some, it generally appears to be stagnant for each mode with some insignificant decreases.

Public transportation for commuting has remained remarkably flat at roughly 0.5%. There are some more localized trends that should be looked at more closely, including a decrease from 2% to 1% of Asheville workers utilizing public transportation for commuting and an increase from 0.1% to 1.1% of Hendersonville residents utilizing public transportation for commuting. Overall, while the increase in working from home has provided regional congestion benefits, the continued reliance on single-occupied vehicles may yield continued issues with congestion.

#### TRANSIT AND CONGESTION

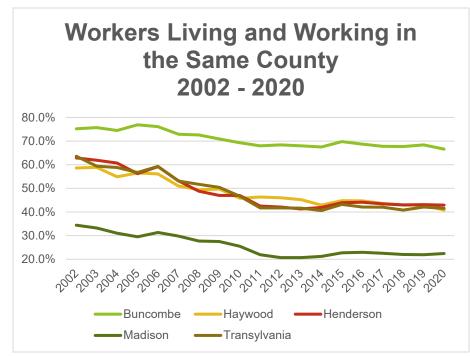
The CMP also identifies increasing transit use as a recommendation to help address congestion along destination corridors. For this analysis, annual ridership for fixed-route transit routes overlapping the identified corridors was calculated based on route-by-route ridership counts provided by local transit agencies. To note: considerations were made to calculate stop-by-stop ridership numbers, but congestion impacting each route could impact users along the entire route, regardless of whether their stop is along the corridor or not. Also, not every destination corridor identified in the CMP is currently served by fixed-route transit. Those corridors have been noted in the table provided below.

Facility	From	То	City/Area	Transit Route(s)	Transit Riders (2019)	Transit Riders (2021)
Patton Avenue	Haywood Road	I-240	Asheville	WE1, WE2, W5	209,030	544,336
Swannanoa River Road	Biltmore Avenue	Tunnel Road	Asheville	WE1	237,729	306,578
Haywood Road	I-240	Patton Avenue	Asheville	W1, W2, W6	361,588	297,229
Tunnel/South Tunnel Road	Swannanoa River Road	Tunnel	Asheville	WE2, 170	297,308	226,427
Biltmore Avenue	College Street	Biltmore Village	Asheville	S1, S2, S5	263,917	175,173
Sweeten Creek Road	I-40	US 25	Asheville	S1, S5	96,270	
Merrimon Avenue	1-240	Beaverdam Road	Asheville	N1, N2	198,829	,
Hendersonville Road	Lodge Street	Blue Ridge Parkway	Asheville	S3, S6	182,164	·
US 64	Blythe Street	King Street	Hendersonville	Rt. 1	31,077	
Charlotte Street	Chestnut Street	College Street	Asheville	N5	34,723	·
Spartanburg Highway	Brooklyn Avenue	NC 225	Hendersonville	Rt. 2	23,836	
NC 225	Highland Lake Road	US 176	Flat Rock	Rt. 2	23,836	·
US 25B	US 176	NC 191	Hendersonville	Rt. 3	23,836	·
North Main Street	US 276/Pigeon	Walnut	Waynesville	Mountaineer Route	3,080	·
South Main Street	Hyatt Creek	US 276	Waynesville	Mountaineer Route	3,080	
NC 110	Main Street	Henson Cove Road	Canton	Black Bear Route	3,080	
Weaver Boulevard	I-26	Main Street	Weaverville		No Fixed Route Service	
NC 191	US 25B	Blythe Street	Hendersonville		No Fixed Route Service	
Amboy/Meadow Road	I-240	Biltmore Avenue	Asheville		No Fixed Route Service	
Elk Mountain Road	I-26	Riverside Drive	Woodfin		No Fixed Route Service	
NC 213	Main Street	I-26	Mars Hill		No Fixed Route Service	

#### **COMMUTING PATTERNS**

A significant part of the region's continuing shift in traffic and travel patterns includes some of the changes in commuting patterns being observed. While it is important to again note that commuting only accounts for one trip purpose and does not account all travel patterns, commuting plays a significant role in determining peak-hours of travel.

Data for this section on commuting was provided through the Longitudinal Employer Household Dynamics (LEHD) dataset provided through the US Census Bureau. It should be noted this data reflects general employer and employee locations, but does not necessarily mean each employee is commuting daily to that location.



Overall, the LEHD data illustrates an increase in cross-county commuting over the last 18 years. The number of Henderson County residents commuting to Buncombe County for jobs has increased 142 percent since 2002 and is the largest county-to-county connection in the region. Other sizeable increases have been observed for Haywood County, Madison County, and McDowell County residents with jobs in Buncombe County.

Worker Origin	Worker Destination	Number of Workers, 2020	Change Since 2002
Henderson	Buncombe	12,305	+ 7,231
Buncombe	Henderson	7,308	(165)
Haywood	Buncombe	5,903	+2,353
Buncombe	Mecklenburg	4,682	+1,744
Madison	Buncombe	3,393	+ 760
McDowell	Buncombe	3,046	+1,874

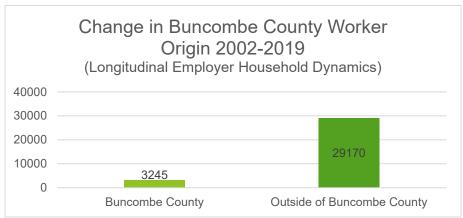
Six Largest County-to-County Connections for All Jobs

Of note is the increasing connection of Buncombe County residents with jobs in Mecklenburg County. Many of these residents are unlikely to be commuting between the two counties daily but may correlate with some of the increase in working from home in Buncombe County observed through ACS data. LEHD data also reflected increases in Buncombe County residents with jobs in Wake County which is likely a result of increased telecommuting but also caveats within the data that focuses on the employer's zip code which may include state government workers whose "employer" is in Wake County but they may never/seldom physically work there.

### Other Impacts on Changing Commuting Patterns

The change in commuting patterns has significant impacts on both transportation as well as economic development, workforce, and housing considerations. The change in commuting patterns can be seen as an increasingly regional issue that reflects where workers are choosing to live and where employers may need to increasingly seek talent.

The region's largest county, Buncombe, saw a net increase of 32,415 jobs between 2002 and 2019, per LEHD data. Of those net gains, 29,170- or 90%- of the net job growth was filled by workers that reside outside of Buncombe County.

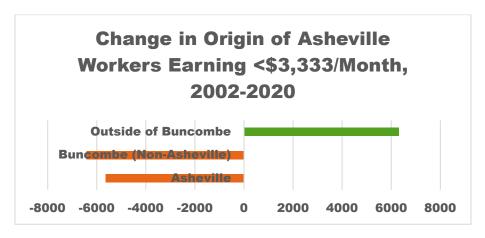


It should also be noted that this trend is not unique to Buncombe. Henderson County saw a net increase of 5,297 jobs in that same time period, of which 78% were filled with out-of-county residents. Haywood County saw a net increase of 2,001 jobs, of which 106% were filled by out-of-county residents. In other words, Haywood County increased the number of jobs but

the number of residents employed in Haywood County decreased. Across the region, cross-county transportation for jobs is of increasing importance.

#### **EQUITY CONSIDERATIONS**

Some of the LEHD data also enables a greater examination of worker/employment trends by earnings. The overall trend appears to show lower-income workers moving further from the regional employment centers of the region.

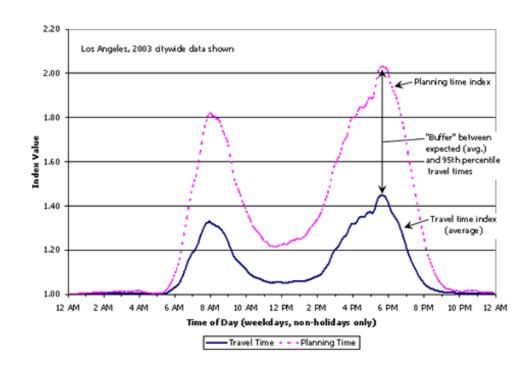


In the City of Asheville, the number of workers earning less than \$3,333/Month were increasingly coming from outside of Buncombe County and decreasingly from within the City limits or even within Buncombe County. This indicates a challenge for Buncombe County industries with lower wages but also indicates what are likely increasing transportation burdens on lower-income workers. The regional housing crisis is likely a major factor in this shift. Similar trends in other jurisdictions were observed but not to the same extent as what is being observed in Asheville.

#### APPENDIX A: TRAVEL TIME INDEX

#### Legend

Attribute	What It Means
Travel Time Index	A ratio of average travel-time over a select time period over free-flow travel-time
TTI Day	Travel Time Index Throughout the Day (6AM – 9PM)
TTI Day	
TTI AM	Travel Time Index in the AM Rush (7AM-9AM)
TTI PM	Travel Time Index in the PM Rush (4PM-6PM)
Change	Change in Travel Time Index between 2019 and 2021



Freight Corridors

		2021				2019		Change			
<b>CMP Code</b>	Route	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM	
F2 WB	I-26 WB NC 280 to I-40	1.12	1.03	1.44	1.19	1.09	1.59	0.07	0.06	0.15	
F2 EB	I-26 EB I-40 to NC 280	1.16	1.04	1.3	1.11	1.04	1.37	-0.05	0.00	0.07	
F8 WB	I-40 WB I-26 to Exit 37	1.01	0.93	1.26	1.01	0.95	1.14	0.00	0.02	-0.12	
F1 WB	I-26 WB US 25 to NC 280	1.1	1.07	1.18	1.04	1	1.09	-0.06	-0.07	-0.09	
F7 WB	I-240 WB 74A to Future 26	0.96	0.9	1.17	1.03	0.93	1.42	0.07	0.03	0.25	
F5 EB	I-240 EB I-40 to Future 26	0.97	0.96	1.08	1.04	1.09	1.23	0.07	0.13	0.15	
F6 SB	Future 26 SB from Weaver Blvd to I-240	0.98	1.03	1.05	1.04	1.18	1.11	0.06	0.15	0.06	
F9 WB	I-40 WB Exit 37 to US 23/74	0.98	0.94	1.04	0.99	0.96	1.03	0.01	0.02	-0.01	
F1 EB	I-26 EB NC 280 to US 25	1.02	0.97	1.03	1	0.98	1.02	-0.02	0.01	-0.01	
F3 WB	I-40 WB US 74A to I-26	0.96	0.92	0.98	0.97	0.95	1.06	0.01	0.03	0.08	
F9 EB	I-40 EB US 23/74 to Exit 37	0.96	0.91	0.97	0.94	0.94	0.94	-0.02	0.03	-0.03	
F4 WB	I-40 WB NC 9 to US 74A	0.97	0.93	0.96	0.99	0.96	1.06	0.02	0.03	0.10	
F6 NB	Future 26 NB from I-240 to Weaver Blvd	0.93	0.9	0.96	0.97	0.96	1.02	0.04	0.06	0.06	
F4 EB	I-40 EB US 74A to NC 9	0.98	0.95	0.96	0.98	0.97	0.98	0.00	0.02	0.02	
F5 WB	I-240 WB Future 26 to I-40	0.91	0.88	0.95	1.03	1.02	1.14	0.12	0.14	0.19	
F7 EB	I-240 EB Future 26 to 74A	0.93	0.9	0.94	0.97	0.98	1.03	0.04	0.08	0.09	
F3 EB	I-40 EB I-26 to US 74A	0.96	0.93	0.93	0.96	0.96	0.95	0.00	0.03	0.02	
F8 EB	I-40 EB Exit 37 to I-26	0.93	0.91	0.92	0.95	0.95	0.98	0.02	0.04	0.06	

**Mobility Corridors** 

		2021				2019		Change		
<b>CMP Code</b>	Route	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM
M12 NB	NC 9 NB Blue Ridge to US 70	1.17	1.07	1.5	1.39	1.19	1.54	0.22	0.12	0.04
M17 EB	US 64 EB King to Howard Gap	1.07	1.03	1.42	1.22	1.05	1.35	0.15	0.02	-0.07
M2 SB	US 25A SB I-40 to NC 280	0.98	0.97	1.37	1.6	1.2	2.28	0.62	0.23	0.91
M5 SB	US 25B SB Reems Creek to New Stock	1.14	1.15	1.36	1.6	1.47	1.75	0.46	0.32	0.39
M5 NB	US 25B NB New Stock to Reems Creek	1.11	1.1	1.33	1.55	1.47	1.69	0.44	0.37	0.36
M17 WB	US 64 WB Howard Gap to King	1.08	1.06	1.32	1.23	1.03	1.29	0.15	-0.03	-0.03
M14 NB	NC 112 NB NC 191 to US 1923	1	1.05	1.3	1.14	1.11	1.43	0.14	0.06	0.13
M9 SB	NC 280 SB US 25 to Butler Bridge	1.06	1.05	1.29	1.23	1.14	1.39	0.17	0.09	0.1
M12 SB	NC 9 SB US 70 to Blue Ridge	1.06	1.01	1.27	1.29	1.15	1.36	0.23	0.14	0.09

			2021			2019			Change		
CMP Code	Route	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM	
M20 NB	US 276 NB Main to US 19	1.05	1.01	1.27	1.07	0.98	1.13	0.02	-0.03	-0.14	
M15 SB	NC 280 SB Butler Bridge to 191	1.01	1.03	1.26	1.12	1.1	1.22	0.11	0.07	-0.04	
M9 NB	NC 280 NB Butler Bridge to US 25	1.05	1.04	1.23	1.16	1.09	1.22	0.11	0.05	-0.01	
M8 SB	US 25 SB BRP to Cane Creek	0.95	0.96	1.18	1.09	1.02	1.24	0.14	0.06	0.06	
M1 SB	US 19/23 WB Haywood to NC 151	0.95	0.93	1.17	1.43	1.31	1.55	0.48	0.38	0.38	
M2 NB	US 25A NB NC 280 to I-40	0.92	0.96	1.16	1.41	1.29	1.79	0.49	0.33	0.63	
M13 NB	NC 191 NB NC 280 to I-26	0.95	0.95	1.16	1.1	1.03	1.31	0.15	0.08	0.15	
M8 NB	US 25 NB Cane Creek to BRP	0.95	0.93	1.15	1.11	1.06	1.19	0.16	0.13	0.04	
M21 WB	US 19 WB Russ to Jonathan Creek	1	0.95	1.15	0.91	0.91	0.91	-0.09	-0.04	-0.24	
M11 EB	NC 146 EB I-26 to US 25	0.98	1.03	1.14	1.08	1.09	1.16	0.1	0.06	0.02	
M13 SB	NC 191 SB I-26 to NC 280	0.94	0.93	1.12	1.14	1.05	1.44	0.2	0.12	0.32	
M1 NB	US 19/23 EB NC 151 to Haywood	0.95	1	1.08	1.43	1.61	1.51	0.48	0.61	0.43	
M11 WB	NC 146 WB US 25 to I-26	0.94	1.01	1.07	1.07	1.1	1.16	0.13	0.09	0.09	
M6 NB	US 25 NB Beaverdam to New Stock	0.94	0.92	1.07	1.05	1	1.11	0.11	0.08	0.04	
M18 WB	US 64 WB Blythe to Brickyard	1	1	1.07	1	0.99	1.01	0	-0.01	-0.06	
M18 EB	US 64 EB Brickyard to Blythe	1	1.01	1.07	0.99	0.98	1	-0.01	-0.03	-0.07	
M20 SB	US 276 SB US 19 to Main	0.95	0.91	1.06	1.02	0.94	1.06	0.07	0.03	0	
M21 EB	US 19 EB Jonathan Creek to Russ	0.97	0.97	1.06	0.91	0.89	0.91	-0.06	-0.08	-0.15	
M14 SB	NC 112 SB US 1923 to NC 191	0.96	1	1.05	1.08	1.09	1.17	0.12	0.09	0.12	
M15 NB	NC 280 NB 191 to Butler Bridge	0.95	0.97	1.04	1.08	1.08	1.16	0.13	0.11	0.12	
M7 WB	US 70 WB BRP to I-240	0.89	0.88	1.04	1.06	0.98	1.14	0.17	0.1	0.1	
M3 SB	US 74A SB I-40 to Old Fort	0.94	0.95	1	1.06	1.11	1.09	0.12	0.16	0.09	
M6 SB	US 25 SB New Stock to Beaverdam	0.92	0.92	0.98	0.99	0.96	1.02	0.07	0.04	0.04	
M7 EB	US 70 EB I-240 to BRP	0.86	0.84	0.98	0.93	0.9	0.97	0.07	0.06	-0.01	
M19 NB	US 25B NB 191 to Butler Bridge	0.91	0.94	0.97	0.99	1.03	0.99	0.08	0.09	0.02	
M3 NB	US 74A NB Old Fort to I-40	0.93	0.98	0.97	1	1.11	0.98	0.07	0.13	0.01	
M19 SB	US 25B SB Butler Bridge to 191	0.91	0.93	0.97	0.95	0.95	0.97	0.04	0.02	0	
M4 SB	NC 63 SB Newfound to US 19/23	0.9	0.94	0.96	1.23	1.23	1.16	0.33	0.29	0.2	
M4 NB	NC 63 NB US 19/23 to Newfound	0.88	0.89	0.96	1.06	1.03	1.06	0.18	0.14	0.1	
M16 SB	NC 191 SB 280 to Blythe	0.89	0.95	0.94	1.12	1.1	1.22	0.23	0.15	0.28	
M22 SB	NC 209 SB I-40 to US 23/74	0.89	0.88	0.94	0.96	0.93	0.97	0.07	0.05	0.03	
M22 NB	NC 209 NB US 23/74 to I-40	0.89	0.88	0.93	1.16	1.1	1.19	0.27	0.22	0.26	

M16 NB	NC 191 NB Blythe to 280	0.88	0.92	0.91	1.08	1.08	1.16	0.2	0.16	0.25
M23 NB	US 19 NB Main to Wiggins	0.85	0.83	0.89	0.9	0.89	0.9	0.05	0.06	0.01
		2021				2019		Change		
CMP Code	Route	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM
M23 SB	US 19 SB Wiggins to Main	0.86	0.86	0.88	0.93	0.92	0.94	0.07	0.06	0.06
M10 EB	Mills Gap US 25 to Concord Road							0	0	0
M10 WB	Mills Gap US 25 to Concord Road				_			0	0	0

#### **Destination Corridors**

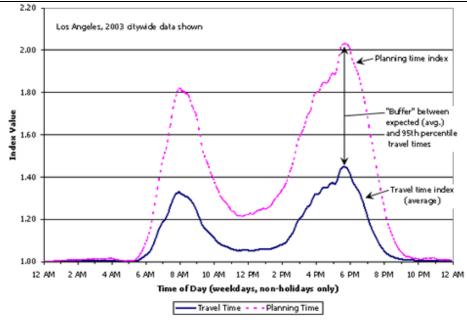
			2021			2019		Change		
<b>CMP Code</b>	Route	PTI Day	PTI AM	PTI PM	TTI Day	TTI AM	TTI PM	TTI Day	TTI AM	TTI PM
D1 SB	US 25 SB Lodge to BRP	1.04	1.05	1.45	1	0.97	1.22	-0.04	-0.08	-0.23
D11 SB	Patton SB I-240 to Haywood	1.04	1.04	1.4	1.27	1.09	1.67	0.23	0.05	0.27
D10 NB	US 25A NB I-40 to US 25	1.03	1.01	1.36	1.3	1.07	1.46	0.27	0.06	0.1
D7 EB	Weaver EB from I-26 to Main	1.11	0.99	1.34	1.4	1.26	1.48	0.29	0.27	0.14
D7 WB	Weaver WB from Main to I-26	1.09	0.99	1.32	1.33	1.13	1.45	0.24	0.14	0.13
D1 NB	US 25 NB BRP to Lodge	1.03	1.01	1.32	1.01	0.94	1.11	-0.02	-0.07	-0.21
D11 NB	Patton NB Haywood to I-240	0.98	1.07	1.23	1.25	1.25	1.37	0.27	0.18	0.14
D3 SB	Haywood SB Patton to I-240	0.89	0.81	1.21	1.19	1.01	1.37	0.3	0.2	0.16
D8 WB	Tunnel from NC 81 to Tunnel	0.91	0.8	1.18	1.07	0.95	1.15	0.16	0.15	-0.03
D8 EB	Tunnel from Tunnel to NC 81	0.88	0.76	1.09	1	0.91	1.06	0.12	0.15	-0.03
D13 EB	US 64 EB Blythe to King	0.98	1.01	1.08	1.15	1.07	1.18	0.17	0.06	0.1
D19 NB	N Main NB Pigeon to Walnut	0.91	0.81	1.07	1.26	1.07	1.3	0.35	0.26	0.23
D6 NB	US 25 NB I-240 to Beaverdam	0.87	0.83	1.06	1.06	0.95	1.16	0.19	0.12	0.1
D14 NB	US 225 NB Highland Lake to US 176	1	0.96	1.06	1.04	0.98	1.07	0.04	0.02	0.01
D6 SB	US 25 SB Beaverdam to I-240	0.85	0.81	1.04	1.04	0.89	1.19	0.19	0.08	0.15
D3 NB	Haywood NB I-240 to Patton	0.83	0.79	1.01	1.09	0.95	1.22	0.26	0.16	0.21
D15 WB	US 176 WB Brooklyn to 225	0.9	0.9	1.01	1.07	1.07	1.16	0.17	0.17	0.15
D5 SB	NC 81 SB US 70 to Biltmore	0.89	0.86	1.01	1	0.91	1.06	0.11	0.05	0.05
D19 SB	N Main SB Walnut to Pigeon	0.84	0.75	1	1.15	0.96	1.2	0.31	0.21	0.2
D13 WB	US 64 WB King to Blythe	0.87	0.96	1	1.03	1.03	1.06	0.16	0.07	0.06
D10 SB	US 25A SB US 25 to I-40	0.9	0.91	1	0.98	0.9	1.04	0.08	-0.01	0.04
D14 SB	US 225 SB US 176 to Highland Lake	0.91	0.9	0.96	0.99	0.97	1.01	0.08	0.07	0.05
D15 EB	US 176 EB 225 to Brooklyn	0.85	0.84	0.95	1	0.98	1.05	0.15	0.14	0.1

D18 SB	S Main SB Pigeon to Hyatt Creek	0.85	0.83	0.95	1	0.91	1.03	0.15	0.08	0.08	
D5 NB	NC 81 NB Biltmore to US 70	0.84	0.82	0.94	0.94	0.86	0.98	0.1	0.04	0.04	
D18 NB	S Main NB Hyatt Creek to Pigeon	0.82	0.79	0.92	0.97	0.88	1.02	0.15	0.09	0.1	
			2021			2019			Change		
<b>CMP Code</b>	Route	PTI Day	PTI AM	PTI PM	TTI Day	TTI AM	TTI PM	TTI Day	TTI Day TTI AM		
D2 NB	NC 191 NB US 25B to Blythe	0.82	0.86	0.88	0.91	0.92	0.92	0.09	0.06	0.04	
D20 WB	213 WB 26 to Main	0.81	0.81	0.87	0.86	0.84	0.88	0.05	0.03	0.01	
D17 NB	US 25 NB 176 to 191	0.77	0.81	0.86	0.9	0.89	0.9	0.13	0.08	0.04	
D17 SB	US 25 SB 191 to 176	0.73	0.72	0.85	0.92	0.81	1	0.19	0.09	0.15	
D2 SB	NC 191 SB Blythe to US 25B	0.81	0.81	0.85	0.86	0.83	0.87	0.05	0.02	0.02	
D20 EB	213 EB Main to 26	0.79	0.8	0.82	0.85	0.84	0.85	0.06	0.04	0.03	
	Amboy/Meadow EB I-240 to										
D4 EB	Biltmore										
	Amboy/Meadow WB Biltmore to I-										
D4 WB	240										
D21	Biltmore Avenue										
D21	Biltmore Avenue										
D9	Charlotte Street										
D9	Charlotte Street										
D12	Elk Mountain										
D12	Elk Mountain										
D16 NB	NC 110										
D16 SB	NC 110										

#### APPENDIX B: PLANNING TIME INDEX

#### Legend

Attribute	What It Means
Planning Time Index	A ratio of 95th percentile travel-time over a select time period over free-flow travel-time
PTI Day	Planning Time Index Throughout the Day (6AM – 9PM)
PTI AM	Planning Time Index in the AM Rush (7AM-9AM)
PTI PM	Planning Time Index in the PM Rush (4PM-6PM)
Change	Change in Planning Time Index between 2019 and 2021



Freight Corridors

			2021			2019		Change		
<b>CMP Code</b>	Route	PTI Day	PTI AM	PTI PM	<b>PTI Day</b>	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM
F2 WB	I-26 WB NC 280 to I-40	1.77	1.12	2.52	2.02	1.42	3.11	0.25	0.30	0.59
F2 EB	I-26 EB I-40 to NC 280	1.73	1.16	2.14	1.72	1.21	2.36	-0.01	0.05	0.22
F8 WB	I-40 WB I-26 to Exit 37	1.14	1	1.98	1.25	1.07	1.84	0.11	0.07	-0.14
F1 WB	I-26 WB US 25 to NC 280	1.39	1.09	1.9	1.23	1.09	1.65	-0.16	0.00	-0.25
F7 WB	I-240 WB 74A to Future 26	1.09	0.98	1.88	1.46	1.02	2.58	0.37	0.04	0.70
F5 EB	I-240 EB I-40 to Future 26	1.09	1.1	1.63	1.33	1.67	2.21	0.24	0.57	0.58
F6 SB	Future 26 SB from Weaver Blvd to I-240	1.1	1.24	1.43	1.33	1.98	1.71	0.23	0.74	0.28
F9 WB	I-40 WB Exit 37 to US 23/74	1.08	1.01	1.42	1.07	1.05	1.14	-0.01	0.04	-0.28
F3 WB	I-40 WB US 74A to I-26	1.05	1	1.24	1.07	1.03	1.34	0.02	0.03	0.10
F5 WB	I-240 WB Future 26 to I-40	1.01	0.96	1.13	1.14	1.1	1.58	0.13	0.14	0.45
F6 NB	Future 26 NB from I-240 to Weaver Blvd	1.02	0.99	1.12	1.07	1.04	1.37	0.05	0.05	0.25
F1 EB	I-26 EB NC 280 to US 25	1.13	1.06	1.11	1.1	1.08	1.13	-0.03	0.02	0.02
F7 EB	I-240 EB Future 26 to 74A	1.03	1	1.06	1.15	1.23	1.52	0.12	0.23	0.46
F4 WB	I-40 WB NC 9 to US 74A	1.08	0.99	1.03	1.04	1.03	1.08	-0.04	0.04	0.05
F8 EB	I-40 EB Exit 37 to I-26	1.04	0.98	1.03	1.08	1.04	1.2	0.04	0.06	0.17
F9 EB	I-40 EB US 23/74 to Exit 37	1.03	0.98	1.02	1.01	1.01	1.01	-0.02	0.03	-0.01
F4 EB	I-40 EB US 74A to NC 9	1.11	1.02	1.01	1.06	1.05	1.05	-0.05	0.03	0.04
F3 EB	I-40 EB I-26 to US 74A	1.06	1.01	1.01	1.05	1.04	1.05	-0.01	0.03	0.04

**Mobility Corridors** 

_		2021			2019			Change		
<b>CMP Code</b>	Route	PTI Day	PTI AM	PTI PM	<b>PTI Day</b>	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM
M12 NB	NC 9 NB Blue Ridge to US 70	1.74	1.42	2.31	1.93	1.55	2.13	0.19	0.13	-0.18
M17 EB	US 64 EB King to Howard Gap	1.58	1.4	2.13	2	1.54	2.18	0.42	0.14	0.05
M14 NB	NC 112 NB NC 191 to US 1923	1.35	1.38	2.1	1.72	1.41	2.44	0.37	0.03	0.34
M2 SB	US 25A SB I-40 to NC 280	1.39	1.15	2.1	1.6	1.2	2.28	0.21	0.05	0.18
M21 WB	US 19 WB Russ to Jonathan Creek	1.48	1.25	1.82	1.03	1.03	1.03	-0.45	-0.22	-0.79
M13 NB	NC 191 NB NC 280 to I-26	1.23	1.18	1.81	1.54	1.29	2.25	0.31	0.11	0.44
M17 WB	US 64 WB Howard Gap to King	1.62	1.41	1.79	1.93	1.53	2.04	0.31	0.12	0.25
M5 SB	US 25B SB Reems Creek to New Stock	1.48	1.42	1.76	1.6	1.47	1.75	0.12	0.05	-0.01
M12 SB	NC 9 SB US 70 to Blue Ridge	1.5	1.34	1.72	1.83	1.56	1.83	0.33	0.22	0.11

		2021 2019			Change					
<b>CMP Code</b>	Route	PTI Day	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM
M5 NB	US 25B NB New Stock to Reems Creek	1.47	1.41	1.68	1.55	1.47	1.69	0.08	0.06	0.01
M20 NB	US 276 NB Main to US 19	1.5	1.38	1.67	1.36	1.24	1.47	-0.14	-0.14	-0.2
M2 NB	US 25A NB NC 280 to I-40	1.22	1.17	1.66	1.41	1.29	1.79	0.19	0.12	0.13
M13 SB	NC 191 SB I-26 to NC 280	1.18	1.11	1.66	1.72	1.37	2.74	0.54	0.26	1.08
M9 SB	NC 280 SB US 25 to Butler Bridge	1.36	1.25	1.65	1.59	1.36	1.92	0.23	0.11	0.27
M 15 SB	NC 280 SB Butler Bridge to 191	1.34	1.23	1.57	1.5	1.4	1.61	0.16	0.17	0.04
M8 NB	US 25 NB Cane Creek to BRP	1.26	1.16	1.57	1.52	1.41	1.68	0.26	0.25	0.11
M8 SB	US 25 SB BRP to Cane Creek	1.26	1.17	1.52	1.51	1.3	1.73	0.25	0.13	0.21
M9 NB	NC 280 NB Butler Bridge to US 25	1.34	1.26	1.47	1.51	1.38	1.53	0.17	0.12	0.06
M21 EB	US 19 EB Jonathan Creek to Russ	1.25	1.25	1.43	1.04	1.01	1.04	-0.21	-0.24	-0.39
M11 EB	NC 146 EB I-26 to US 25	1.26	1.31	1.42	1.45	1.47	1.54	0.19	0.16	0.12
M1 SB	US 19/23 WB Haywood to NC 151	1.25	1.15	1.42	1.43	1.31	1.55	0.18	0.16	0.13
M1 NB	US 19/23 EB NC 151 to Haywood	1.22	1.34	1.36	1.43	1.61	1.51	0.21	0.27	0.15
M11 WB	NC 146 WB US 25 to I-26	1.25	1.32	1.34	1.42	1.61	1.56	0.17	0.29	0.22
M7 WB	US 70 WB BRP to I-240	1.16	1.1	1.34	1.36	1.18	1.42	0.2	0.08	0.08
M20 SB	US 276 SB US 19 to Main	1.26	1.17	1.33	1.31	1.16	1.31	0.05	-0.01	-0.02
M14 SB	NC 112 SB US 1923 to NC 191	1.19	1.26	1.31	1.38	1.46	1.53	0.19	0.2	0.22
M18 EB	US 64 EB Brickyard to Blythe	1.18	1.23	1.31	1.11	1.11	1.12	-0.07	-0.12	-0.19
M6 NB	US 25 NB Beaverdam to New Stock	1.15	1.08	1.3	1.26	1.15	1.39	0.11	0.07	0.09
M15 NB	NC 280 NB 191 to Butler Bridge	1.15	1.13	1.27	1.38	1.35	1.46	0.23	0.22	0.19
M3 SB	US 74A SB I-40 to Old Fort	1.11	1.27	1.24	1.06	1.11	1.09	-0.05	-0.16	-0.15
M18 WB	US 64 WB Blythe to Brickyard	1.16	1.14	1.24	1.12	1.12	1.14	-0.04	-0.02	-0.1
M7 EB	US 70 EB I-240 to BRP	1.13	1.06	1.23	1.11	1.07	1.18	-0.02	0.01	-0.05
M3 NB	US 74A NB Old Fort to I-40	1.08	1.4	1.2	1	1.11	0.98	-0.08	-0.29	-0.22
M6 SB	US 25 SB New Stock to Beaverdam	1.07	1.11	1.17	1.15	1.12	1.2	0.08	0.01	0.03
M19 SB	US 25B SB Butler Bridge to 191	1.07	1.08	1.15	1.15	1.16	1.2	0.08	0.08	0.05
M19 NB	US 25B NB 191 to Butler Bridge	1.06	1.11	1.14	1.2	1.35	1.24	0.14	0.24	0.1
M16 SB	NC 191 SB 280 to Blythe	1.03	1.3	1.09	1.5	1.4	1.61	0.47	0.1	0.52
M4 SB	NC 63 SB Newfound to US 19/23	1.03	1.06	1.09	1.23	1.23	1.16	0.2	0.17	0.07
M4 NB	NC 63 NB US 19/23 to Newfound	1.01	0.98	1.06	1.06	1.03	1.06	0.05	0.05	0
M16 NB	NC 191 NB Blythe to NC 280	0.99	1.27	1.04	1.38	1.35	1.46	0.39	0.08	0.42
M22 NB	NC 209 NB US 23/74 to I-40	1	0.99	1.04	1.34	1.29	1.35	0.34	0.3	0.31

CMP Code M22 SB	NC 209 SB I-40 to US 23/74	PTI Day	<b>PTI AM</b> 0.97	<b>PTI PM</b> 1.02	<b>PTI Day</b> 1.03	PTI AM	<b>PTI PM</b> 1.03	<b>PTI Day</b> 0.03	<b>PTI AM</b> 0.03	<b>PTI PM</b> 0.01
		2021			2019			Change		
M23 SB	US 19 SB Wiggins to Main	1	1	1.02	1	1	1.02	0	0	0
M23 NB	US 19 NB Main to Wiggins	0.98	0.92	1.04	0.98	0.95	1	0	0.03	-0.04

#### **Destination Corridors**

		2021			2019			Change		
CMP Code	Route	PTI Day	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM
D1 SB	US 25 SB Lodge to BRP	1.67	1.56	2.48	1.33	1.22	2.39	-0.34	-0.34	-0.09
D10 NB	US 25A NB I-40 to US 25	1.7	1.45	2.38	1.96	1.52	2.01	0.26	0.07	-0.37
D1 NB	US 25 NB BRP to Lodge	1.67	1.45	2.03	1.39	1.32	1.52	-0.28	-0.13	-0.51
D11 SB	Patton SB I-240 to Haywood	1.56	1.4	1.96	2.18	1.6	2.83	0.62	0.2	0.87
D3 SB	Haywood SB Patton to I-240	1.3	1.04	1.88	1.58	1.35	1.82	0.28	0.31	-0.06
D7 EB	Weaver EB from I-26 to Main	1.61	1.32	1.76	1.93	1.71	2.09	0.32	0.39	0.33
D7 WB	Weaver WB from Main to I-26	1.54	1.31	1.74	1.86	1.45	2.17	0.32	0.14	0.43
D8 WB	S Tunnel from NC 81 to Tunnel	1.42	1.13	1.67	1.47	1.24	1.57	0.05	0.11	-0.1
D11 NB	Patton NB Haywood to I-240	1.37	1.39	1.6	1.87	1.82	2.01	0.5	0.43	0.41
D3 NB	Haywood NB I-240 to Patton	1.19	0.99	1.46	1.16	1.09	1.18	-0.03	0.1	-0.28
D19 NB	N Main NB Pigeon to Walnut	1.38	1.12	1.45	1.84	1.59	1.65	0.46	0.47	0.2
D10 SB	US 25A SB US 25 to I-40	1.35	1.26	1.45	1.32	1.25	1.42	-0.03	-0.01	-0.03
D13 EB	US 64 EB Blythe to King	1.38	1.36	1.44	1.75	1.56	1.65	0.37	0.2	0.21
D8 EB	S Tunnel from Tunnel to NC 81	1.33	1.03	1.43	1.33	1.15	1.34	0	0.12	-0.09
D14 NB	NC 225 NB Highland Lake to US 176	1.25	1.13	1.31	1.37	1.16	1.37	0.12	0.03	0.06
D19 SB	N Main SB Walnut to Pigeon	1.31	1.03	1.31	1.56	1.36	1.36	0.25	0.33	0.05
D6 NB	US 25 NB I-240 to Beaverdam	1.23	1.08	1.3	1.41	1.28	1.47	0.18	0.2	0.17
D6 SB	US 25 SB Beaverdam to I-240	1.18	0.98	1.29	1.45	1.22	1.55	0.27	0.24	0.26
D13 WB	US 64 WB King to Blythe	1.28	1.36	1.28	1.47	1.53	1.41	0.19	0.17	0.13
D5 SB	NC 81 SB US 70 to Biltmore	1.15	1.07	1.25	1.45	1.22	1.55	0.3	0.15	0.3
D15 WB	US 176 WB Brooklyn to 225	1.18	1.08	1.24	1.44	1.44	1.63	0.26	0.36	0.39
D17 SB	US 25 SB 191 to 176	0.99	0.9	1.19	1.29	1.1	1.41	0.3	0.2	0.22
D18 SB	S Main SB Pigeon to Hyatt Creek	1.08	1.04	1.16	1.25	1.09	1.29	0.17	0.05	0.13
D15 EB	US 176 EB 225 to Brooklyn	1.06	1.03	1.15	1.37	1.36	1.44	0.31	0.33	0.29

D5 NB	NC 81 NB Biltmore to US 70	1.05	1.02	1.12	1.44	1.28	1.53	0.39	0.26	0.41
D14 SB	NC 225 SB US 176 to Highland Lake	1.09	1.06	1.12	1.23	1.19	1.26	0.14	0.13	0.14
D18 NB	S Main NB Hyatt Creek to Pigeon	1.05	0.96	1.11	1.24	1.11	1.27	0.19	0.15	0.16
D17 NB	US 25 NB 176 to 191	1	1.02	1.07	1.23	1.22	1.2	0.23	0.2	0.13
		2021			2019			Change		
<b>CMP Code</b>	Route	PTI Day	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM	PTI Day	PTI AM	PTI PM
D2 NB	NC 191 NB US 25B to Blythe	1	1.13	1.04	1.23	1.33	1.09	0.23	0.2	0.05
D20 WB	NC 213 WB 26 to Main	0.96	0.96	1.01	1.01	0.97	1.05	0.05	0.01	0.04
D2 SB	NC 191 SB Blythe to US 25B	0.93	0.93	1	1	0.93	1	0.07	0	0
D20 EB	NC 213 EB Main to 26	0.89	0.89	0.93	0.96	0.96	0.96	0.07	0.07	0.03
D4 EB	Amboy/Meadow EB I-240 to Biltmore									
D4 WB	Amboy/Meadow WB Biltmore to I-240									
D21	Biltmore Avenue									
D21	Biltmore Avenue									
D9	Charlotte Street									
D9	Charlotte Street									
D12	Elk Mountain									
D12	Elk Mountain									
D16 NB	NC 110									
D16 SB	NC 110									

# Item 4C:

#### **FHWA Performance Targets for PM2 & PM3**

NCDOT reported its 2-year and 4-year statewide targets for the federally required performance measures for pavement condition, bridge condition, travel time reliability, truck freight reliability, and CMAQ on December 15, 2022. The 2-year targets represent performance at the end of calendar year 2023, while the 4-year targets reflect performance at the end of 2025.

NCDOT set these targets taking into account recent performance trends, current and planned STIP projects, and variables that influence the measures in each performance area. The primary considerations taken into account when establishing these targets are:

- The State's economic growth and resulting VMT trends in recent years are expected to continue over the next several years.
- Projects and funding levels in the STIP are unlikely to significantly change performance over the next 2-4 years.
- Project costs over the past two years have increased significantly due to inflation and a great deal of uncertainty remains about costs and economic conditions over next four years.
- Given these factors, the targets maintain a conservative and balanced stance given the unknowns. NCDOT will continue to monitor and report performance on a regular basis and has an opportunity to assess performance after 2023 and adjust the 2025 targets if necessary.

# Population/ Land use Population/ Land use Population/ Land use Population/ Land use Reconomy/ Fuel Prices/Cost of Materials Roadway Geometry Rew Capacity/ TSMO Internal Roadway Geometry New Transit Service

# What will performance look like in 2023 and 2025?

New travel patterns vs. return to pre-2020 equilibrium

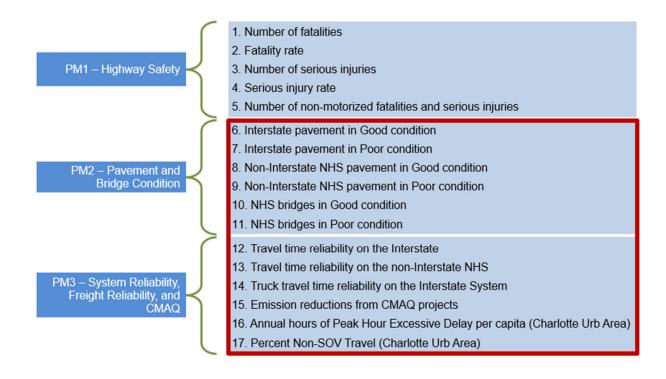
Effects of hybrid and remote work

Changes in carpooling and transit use

Economic conditions and fuel prices

Changes to the STIP due to cost increases

#### **FHWA Performance Measures:**



#### **NCDOT Draft Statewide Targets:**

#### **Pavement Condition:**

Performance Measure	2023 Target	2025 Target
Percent of Interstate Pavement in Good Condition	60%	62%
Percent of Interstate Pavement in Poor Condition	1.8%	1.5%
Percent of Non-Interstate NHS Pavement in Good Condition	30%	31%
Percent of Non-Interstate NHS Pavement in Poor Condition	3.5%	3.0%

#### **Bridge Condition:**

Performance Measure	2023 Target	2025 Target
Percent of NHS Bridges by Deck Area in Good Condition	38%	36%
Percent of NHS Bridges by Deck Area in Poor Condition	5%	5%

#### **Travel Time Reliability:**

Performance Measure	2023	2025
	Target	Target
Percent of Person-Miles Traveled on the Interstate that are	75%	75%
Reliable		
Percent of Person-Miles Traveled on the Non-Interstate NHS	70%	70%
that are Reliable		
Truck Travel Time Reliability Index	1.70	1.70

#### **FBRMPO Options:**

- Establish Unique Targets Only Applicable to FBRMPO Planning Area
- Adoption of NCDOT Recommended Statewide Targets (Staff Recommendation)

#### **Action:**

Consider a recommendation of performance targets.

# Item 4D:

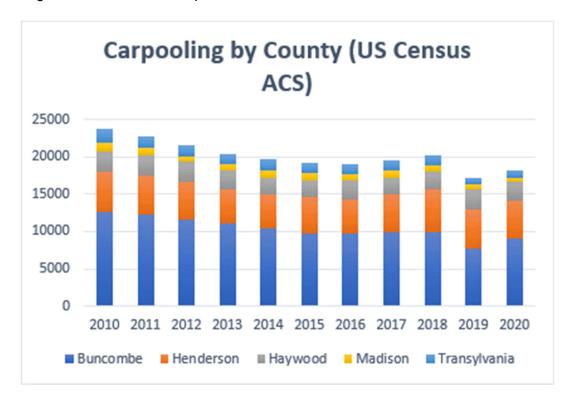
#### **Regional Park and Ride Facilities**

#### Specific Changes Needed at Existing Park and Ride Facilities

**Overview:** We have six official park and rides in the area and two unofficial park and rides. There are two types of Park and Rides: Park and Pool locations at Waynesville, Canton, Weaverville, and Mars Hill, and Park and Rides for Black Mountain, South Asheville, and Rosman. The unofficial park and rides are at the Goodwill Location on Patton Road and the Asheville Outlet Mall off of US-26.

Some of the lots are well utilized, and one is "never" utilized. The Canton, Mars Hill, and Rosman locations are the most used with consistent 40% occupancy, 50% occupancy and 75% occupancy, respectively. The Airport/South Asheville and Weaverville locations normally have 15-25% occupancy, with the Black Mountain location having a range of 5-24%. The Waynesville Location, exit 102 on US-74, has sat vacant whenever surveyed.

Carpooling and Vanpooling have seen a drop in use, especially after the beginning of the COVID Crisis. Carpooling peaked in North Carolina between 2005 and 2008, with 10.40% to 10.74% of commuters traveling with other people. As of 2021 that number stands at 7.50%, according to the Bureau of Transportation Statistics.



The **Black Mountain** Parking Lot is located along the rail line and has a bus stop, The bench is a small shelter for possibly two people. This lot is only identified as a parking lot.

- It needs Park and Ride advertising at the interstate,
- directional arrows,
- and a Share the Ride NC Sign

The **South Asheville/Agricultural Center/Airport Park and Ride** is located on a bus route, has lighting, a shelter, and a trash can. There are no signs directing you to the lot from I-26. This lot has a connection to the Rosman Park and ride. It is quite a distance.

- It needs a Share the Ride NC Sign,
- It could use a Park and Ride one mile out from the US I-26 interchange, east and west of New Airport Rd. It could use a park and ride sign coming from the south/west on 280.

The **Rosman Park and Ride** location is well used. It has a Transylvania in Motion sign.

- It needs a park and ride sign.
- There are no directional arrows, it could use one on the opposite side of the street.
- It needs a shelter, a bench and some lighting.
- It does have a share the ride sign that is being overgrown.

The **Waynesville/Bible Baptist Road** location has very little signage to get you to the location. It does have a Share the Ride sign.

- It needs lighting.
- The sign from the west is non-existent and the sign from the east is obscured by a tree.
- It needs a shelter, a bench, and lighting.

The **Canton/Newfound Road** location is well used. It has a Share The Ride sign. It has lighting and good signage.

The shelter is in need of repair with graffiti, broken glass, and damage to the frame itself.

The **Weaverville/Flat Rock** location is underutilized. It has good signage from the expressway and directional signs leading you to it. It does have lighting.

- It needs an STR Sign.
- It needs a shelter and a trash can.

The **Mars Hill** location is well used considering that there are no park and ride signs on I-26 and there is no STR sign. There are directional signs when you exit I-26. There is no bench or shelter.

- It needs a park and ride sign at the highway.
- It needs an STR sign
- It needs a bench and a shelter.

The **Goodwill/Transit West 3** location and the **Asheville Outlet Mall** location do not have any discernable markings that would indicate that they are park and ride or park and pool locations.

**Summary**: We need a consistent appearance and roadside marketing to attract more people who will participate in Park and Ride and Park and Pool facilities. Park and Ride Signs should be along the major highways. Directional signs should take you to the lot. The lot should be lit. A Share the Ride sign should be present. Park, Charge, and Ride could beef up the numbers with two or more charging stations in each lot, with charging station signs along the major roads with the Park and Ride Green Road Signs. Each lot could use some top-coating and a fresh coat of paint. Consistency in the shelters would help.