COMPASS
COMMUNITY PLANNING ASSOCIATION
of Southwest Idaho

Working together to plan for the future

Treasure Valley Annual Congestion Management System Report, 2021

14-2022

September 2022

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Executive Summary

This Congestion Management Annual Report summarizes how well the transportation system in Ada and Canyon Counties is serving users and what transportation agencies are doing to help mitigate congestion. Travel time data provide the basis for the information in this report and are used by the Community Planning Association of Southwest Idaho (COMPASS) in its transportation planning activities, including prioritizing projects for funding, analyzing progress toward meeting the goals of the regional long-range transportation plan, and assisting member agencies with their planning processes.

2021 Highlights:

- Ada and Canyon Counties continue to experience significant population growth, as demonstrated by the residential development activity throughout 2021. Population estimates for 2021 for the two-county area exceeded 761,000 people – up from 726,027 counted in the 2020 Census. The number of residential building permits issued was at its highest point in over a decade at over 9,600, with most growth occurring in western Ada County and eastern Canyon County.
- Highly- and moderately-congested miles on the interstate and state highway system (Tier 1) increased from 105 miles in 2020 to 120 miles in 2021, but has not surpassed pre-pandemic levels. However, the arterial and collector system (Tier 2) saw a reduction in congested miles, from 34 miles in 2020 to 20 miles in 2021.
- State Highway 55 (Karcher Road), US Highway 20/26 (Chinden Boulevard) near the Ada-Canyon County line, and State Highway 69 (Meridian Road) have had the most significant growth in traffic volumes over the last five years.
- The COMPASS planning area is meeting two of the three targets for travel time reliability on the National Highway System. The Truck Travel Time Reliability score on the Interstate 84 in 2021 was 1.43; not meeting the established statewide target of 1.3. Major construction on I-84 between the Cities of Caldwell and Nampa contributed to this performance.
- Segments of State Highway 55 (Karcher Road), Nampa/Caldwell Boulevard, and Garrity Boulevard comprised five of the top ten most congested segments of the Tier 1 system. These locations are all near or within the City of Nampa. In 2021, the Nampa area experienced significant residential development activity at 1,500 residential permits, while in each 2019 and 2020, over 1,700 residential permits were issued. The ongoing construction on I-84 between the Cities of Caldwell and Nampa also contributed to the congestion on these segments.
- An estimated $14 million has been invested in management and operational projects since 2020. COMPASS tracks progress made by our member agencies toward implementing the projects outlined in the latest Treasure Valley Transportation Systems Management and Operations (TSMO) Strategic Plan[1]. Notable projects include:
    - Upgraded signals on State Highway 55 (Eagle Road) to support automated traffic signal performance measures to better optimize intersections on the corridor (Ada County Highway District/Idaho Transportation Department).
    - Developed a concept for and preparing the fiber optic network to implement a traffic management center in the City of Nampa (City of Nampa).
    - Completed the *I-84 Corridor Operations Study*[2] to identify and develop a list of TSMO/Intelligent Transportation Systems (ITS) strategies and projects to improve reliability, efficiency, and safety on the interstate (COMPASS/Idaho Transportation Department).
    - Several investments in technology to streamline the ticketing/farecard process and to improve passenger information regarding bus location and status (Valley Regional Transit).

[1] https://www.compassidaho.org/documents/prodserv/tsmo/COMPASSTSMOPlan_FINAL.pdf

[2] https://www.compassidaho.org/documents/prodserv/tsmo/I84_Ops/COMPASS_I-84_CorridorOperationsPlan_8-12-22.pdf

Background and Introduction

What is the Congestion Management Process?

The congestion management process (CMP) is a systematic approach for analyzing, identifying, monitoring, and managing congestion. This Congestion Management Annual Report uses data to show trends in congestion, measure progress toward meeting congestion-related performance measures, and recommend strategies to mitigate congestion in Ada and Canyon Counties, Idaho – the Treasure Valley. These two counties comprise the planning area for the region's metropolitan planning organization, the Community Planning Association of Southwest Idaho (COMPASS). A CMP is federally required for areas with populations exceeding 200,000, known as Transportation Management Areas. While only a portion of COMPASS' planning area is subject to this requirement (the Boise Urbanized Area), COMPASS' CMP covers its entire planning area.

The CMP is used as a tool to identify congestion mitigation needs and support the development of COMPASS' long-range transportation plan, *Communities in Motion*, and its regional transportation improvement program (TIP). The process identifies measures and targets for monitoring progress toward mitigating congestion, as well as management strategies to reduce congestion on the transportation system. The Congestion Management Systems Process[3], adopted by the COMPASS Board of Directors in 2022, details how COMPASS implements the congestion management process and a provides "toolbox" of mitigation strategies.

What is Congestion?

Congestion occurs when a roadway has reached its capacity or incurs a temporary reduction in capacity resulting in slower travel times. There are two types of congestion: recurring and non-recurring. Recurring congestion is caused by predictable day-to-day traffic patterns and is usually the result of insufficient capacity and/or high demand on the transportation system. Recurring congestion most often occurs during morning and evening commute periods. Non-recurring congestion is temporary and often unpredictable. Non-recurring congestion is often caused by road construction, crashes, inclement weather, special events, and emergencies.

Growth Measures

Growth in the Treasure Valley

The Treasure Valley continues to grow at a rapid pace. COMPASS estimates population on a yearly basis for cities and counties in its planning area. From 2010 through 2021, the population grew by over 30% (Figure 1). This increase in population has created additional demand on the transportation system, which is one of the causes of congestion. COMPASS and its member agencies are planning for growth and identifying, prioritizing, and securing funding for transportation projects to manage demand and mitigate congestion. Visit the COMPASS demographics web page[4] for more information.

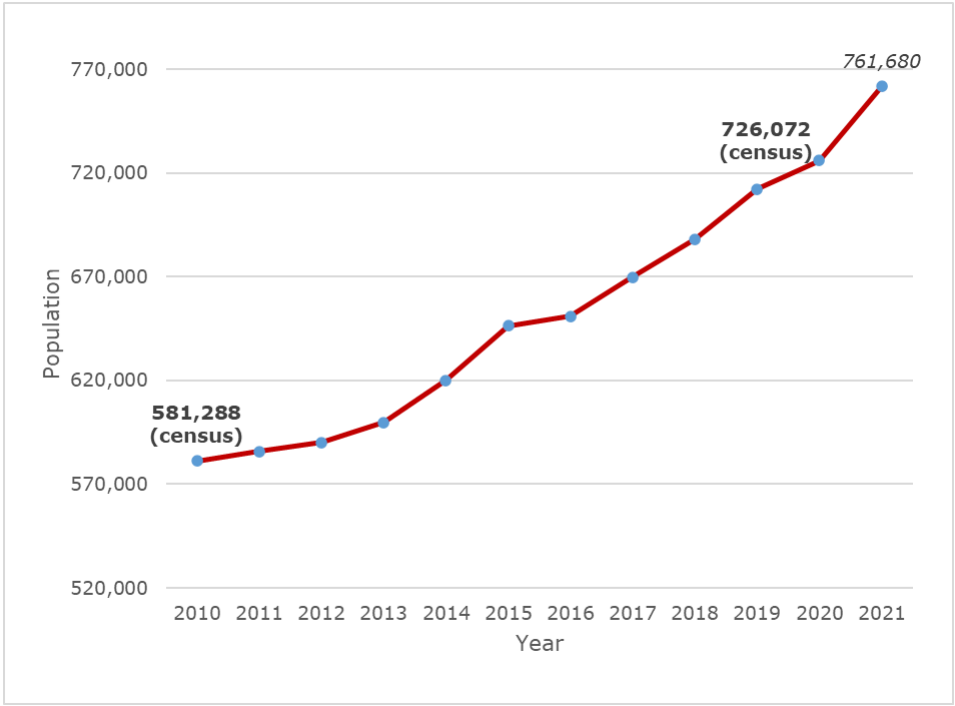

Figure 1: Ada and Canyon Counties Population (2010 – 2021)

[3] https://www.compassidaho.org/documents/prodserv/reports/2022CongestionManagementSystemTechnicalDocument.pdf

[4] https://www.compassidaho.org/prodserv/demographics.htm

Development and Congestion

Increases in population and development activity can impact travel patterns and performance of the transportation system. Development activity increased steadily from 2010 through 2021 in Ada and Canyon Counties but dipped slightly in 2020 likely to the COVID-19 pandemic (Figure 2). Identifying locations with high concentrations of development activity can help pinpoint which corridors in the area might experience the greatest change in traffic volumes and congestion due to new construction (Figure 3, Figure 4, and Figure 5). This information can also help to identify appropriate locations for congestion mitigation strategies, such as providing public transportation services on corridors with concentrations of multi-family unit development or operational improvements on corridors with single-family home development. Visit the COMPASS development monitoring web page[5] for more information.

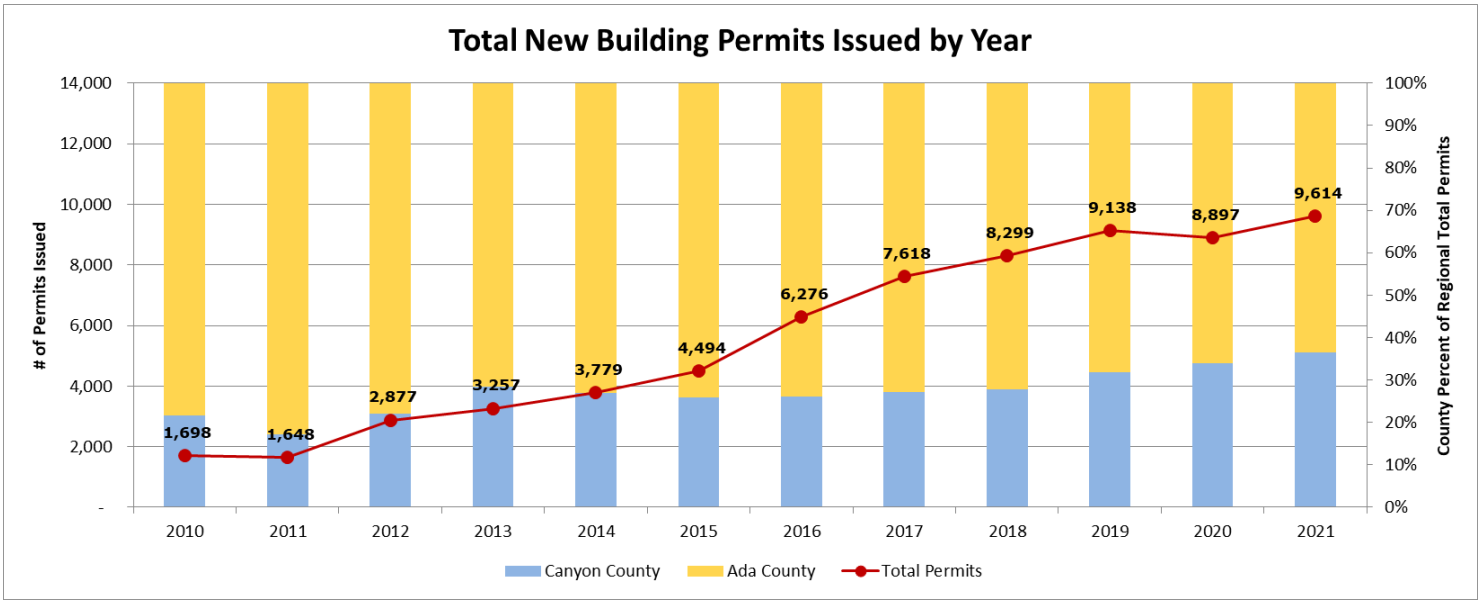

Figure 2: Total New Construction Permits Issued by Year (2010 – 2021)

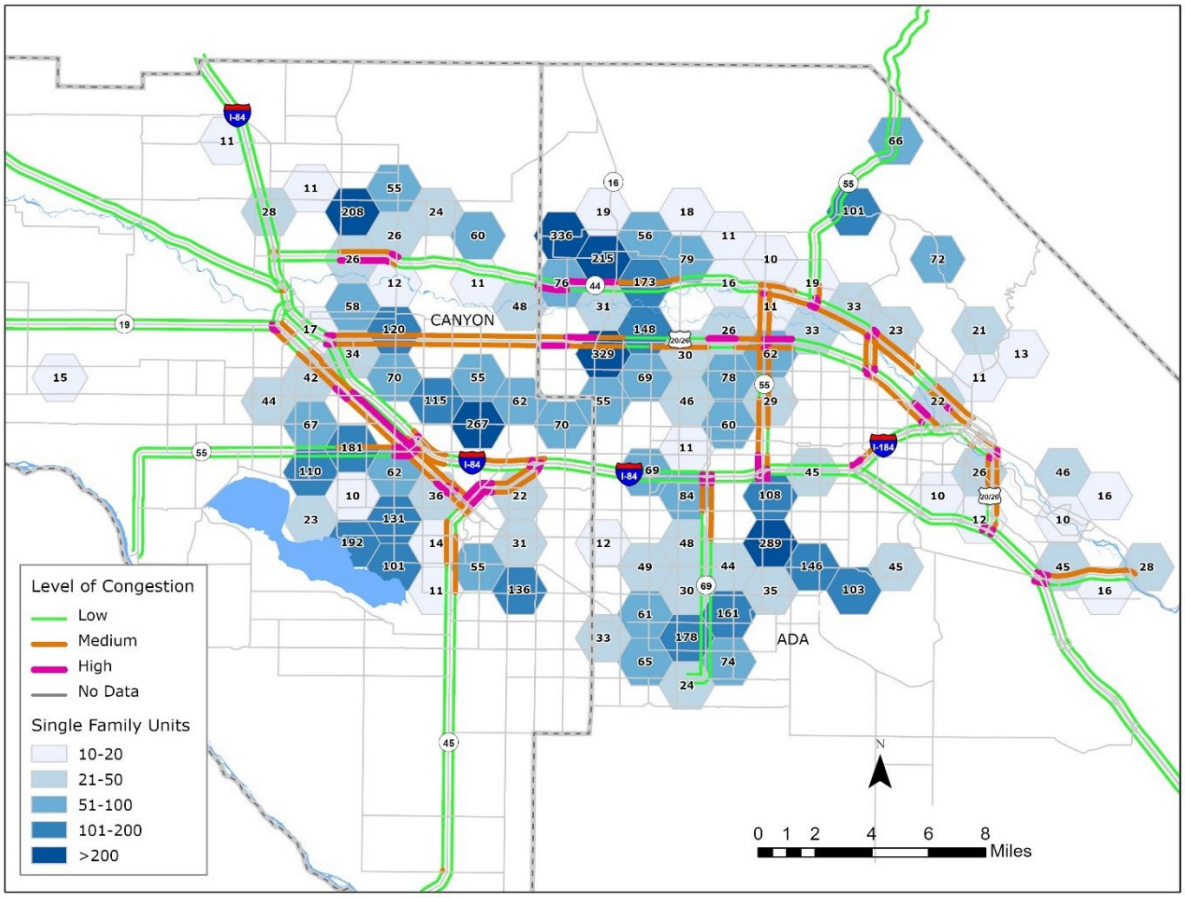

Figure 3: Single Family Building Permit Activity and Levels of Highest Peak Hour Congestion (2021)

[5] https://www.compassidaho.org/prodserv/gtsm-devmonitoring.htm

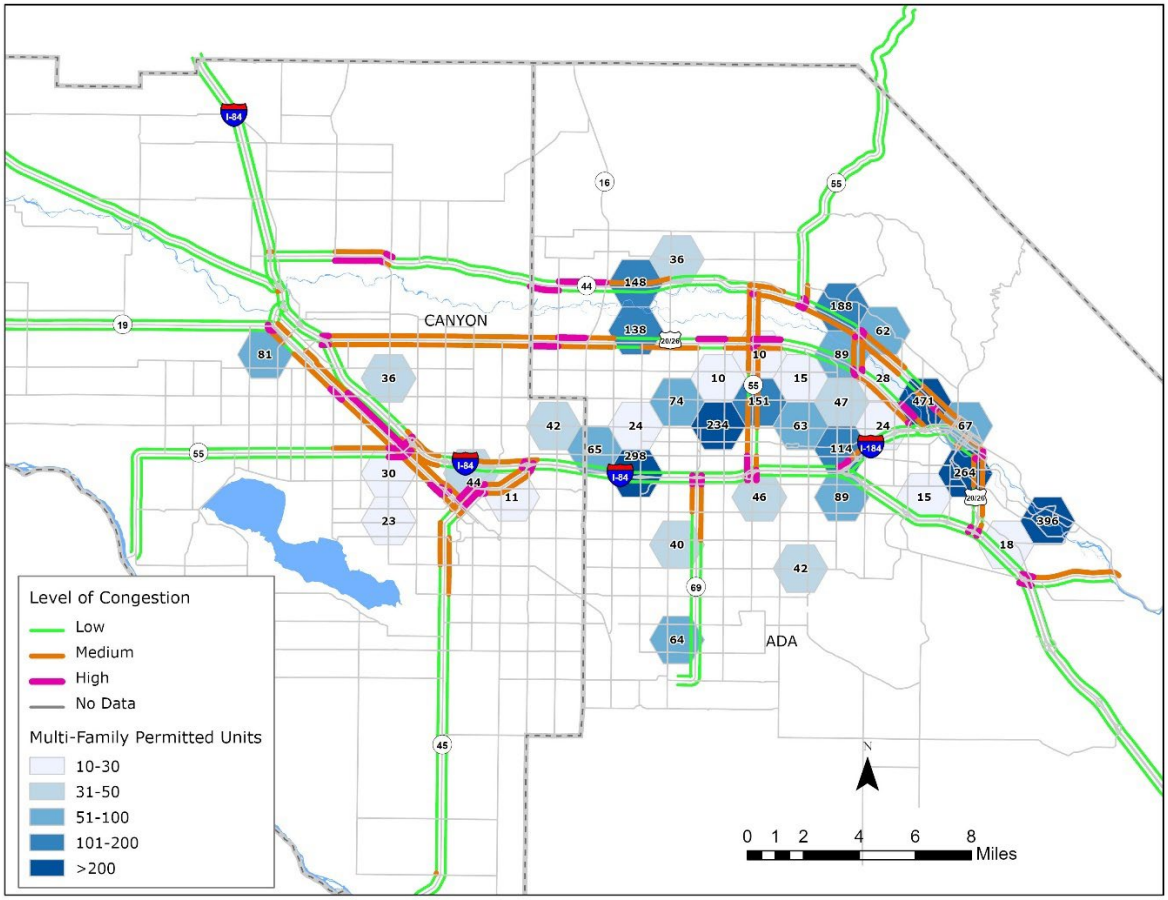

Figure 4: Multi-Family Building Permit Activity and Levels of Highest Peak Hour Congestion (2021)

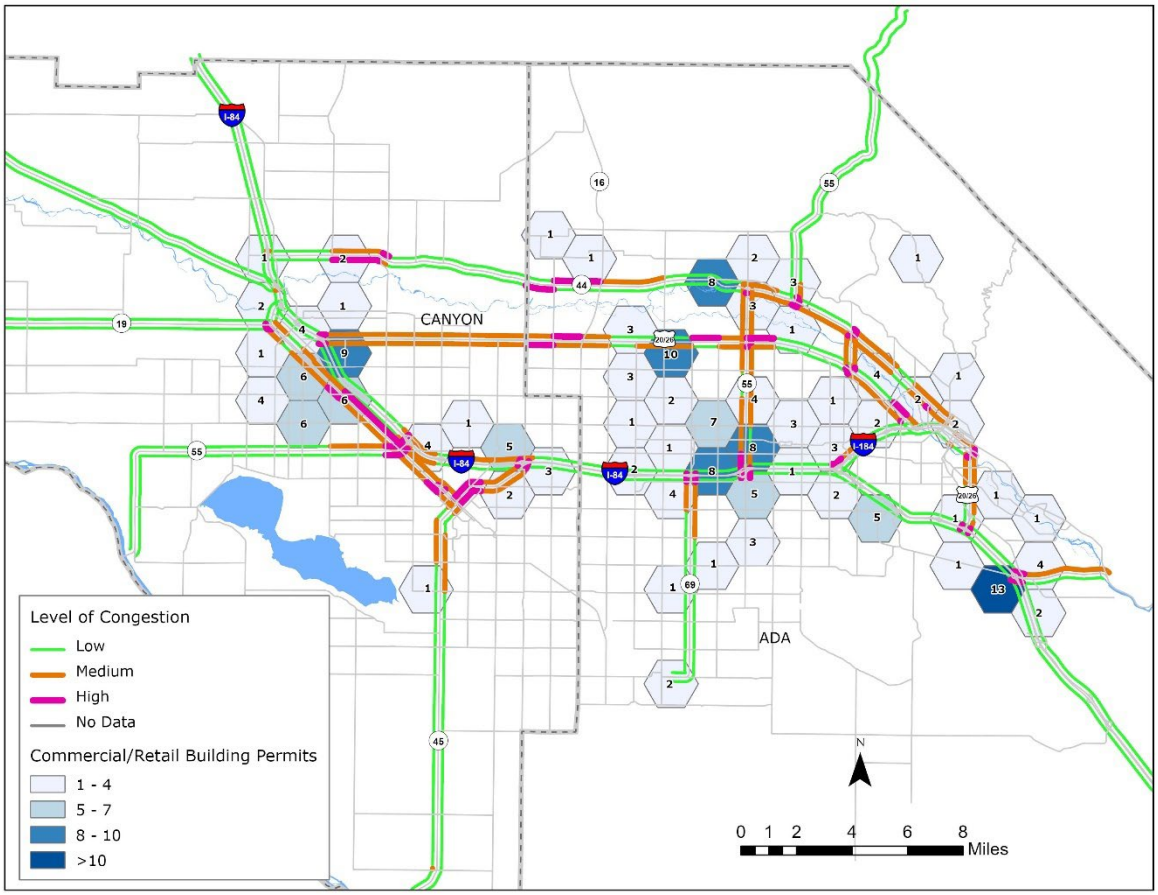

Figure 5: Commercial/Retail Building Permit Activity and Levels of Highest Peak Hour Congestion (2021)

Travel Time Data

COMPASS uses the National Performance Management Research Data Set (NPMRDS) to analyze and identify congestion. The NPMRDS is a vehicle probe-based speed and travel time data set that covers portions of the National Highway System. The Congestion Management Plan and annual reports refer to this as the Tier 1 network. It is procured by the Federal Highway Administration and made available to state and local governments to assist with performance measure reporting. The dataset is composed of travel time records averaged in five-minute intervals for segments of road, or "Traffic Message Channels," on the National Highway System collected from millions of connected vehicles, trucks, and mobile devices that supply location and movement data. The NPMRDS is the primary source for travel time data used in this report and is used to calculate system reliability, Travel Time Index (TTI), and commute travel times on the Tier 1 network. These data are used to develop corridor-level analyses of average speeds, traffic volumes, and causes of congestion; these analyses can be found in the Appendix of this report.

Travel Time Index

TTI is the ratio of the ideal free flow travel time to the actual measured travel time. For example, a TTI value of 3 means that it takes three times longer to drive a segment at a particular time than it would under free-flow conditions. Free flow is considered the 85th percentile travel time at non-peak hours. TTI is a good measure to show the severity of congestion on the transportation system and how congestion impacts travel times. COMPASS uses the TTI to classify roadway segments into high, medium, and low levels of congestion (Table 1). TTI is averaged for morning (6am-9am), midday (9am-3pm), evening (3pm-7pm), and weekend (6am-8pm) peak periods; the highest TTI value for each roadway segment is used to designate the level of congestion for that segment. The percentage of miles of highly congested roadway segments increased from 2020 to 2021 as the region rebounded from the COVID-19 pandemic (Table 2). However, the percentages of medium to highly congested roadway in 2021 remained lower than pre-pandemic conditions.

Table 1: Travel Time Index Thresholds

High	Medium	Low
TTI > 2.0	TTI 1.5 – 2.0	TTI < 1.5

Table 2: Tier 1 Network Congestion Summary, Based on Max Average TTI Thresholds for CMP Time Periods

Year	High		Medium		Low		Total Miles
	Miles	Percent	Miles	Percent	Miles	Percent	
2021	23.0	5.0%	96.9	21.0%	341.9	74.0%	**461.8**
2020	15.1	3.2%	89.8	18.7%	374.5	78.1%	**479.4**
2019	30.6	6.5%	108.5	23.2%	329.5	70.3%	**468.6**
2018	22.8	6.2%	81.6	22.3%	261.3	71.5%	**365.6**
2017	23.2	6.3%	108.3	29.6%	234.2	64.1%	**365.6**

The ten most congested roadway segments according to the NPMRDS shows that the worst congestion in the valley in 2021 was concentrated in three main areas: at State Highway 55 and Nampa/Caldwell Boulevard in Nampa, around the City of Nampa on Garrity Boulevard and I-84, and on the western end of the State Highway 44 (State Street) and US 20/26 (Chinden Boulevard) corridors (Table 3 and Figure 6).

Table 3: Ten Most Congested Tier 1 Network Segments > 0.5 Miles (2021)

Rank	Road	Description	Miles	Direction	TTI	Peak Period	Peak Hour Delay	Avg. Speed
1	Nampa/Caldwell Blvd	SH 55 (Karcher Rd) to Middleton Rd	0.70	Westbound	3.01	PM	3 min 1 sec	13 mph
2	11th Ave	2nd St to Garrity Blvd	0.72	Northbound	2.73	PM	2 min 29 sec	16 mph
3	SH 55 (Eagle Rd)	Franklin Rd to I-84 Westbound On Ramp	0.51	Southbound	2.67	PM	1 min 21 sec	17mph
4	US 20/26 (Chinden Blvd)	SH 16/McDermott Rd to Star Rd	0.96	Westbound	2.63	PM	1 min 52 sec	24 mph
5	11th Ave	Garrity Blvd to 2nd St	0.72	Southbound	2.42	PM	2 min 11 sec	15 mph
6	SH 44 (State St)	Can Ada Rd to Star Rd	0.99	Eastbound	2.31	AM	1 min 54 sec	26 mph
7	I-184	I-84 merge at Wye Interchange	0.53	Westbound	2.30	PM	36 sec	50 mph
8	SH 55 (Karcher Rd)	Middleton Rd to Nampa/Caldwell Blvd	0.52	Eastbound	2.26	PM	1 min 20 sec	16 mph
9	Nampa/Caldwell Blvd	Lake Ave to Ustick Rd	0.54	Eastbound	2.24	PM	1 min 3 sec	24 mph
10	SH 44	Emmett Rd to Middleton Rd	1.77	Eastbound	2.18	AM	2 min 54 sec	28 mph

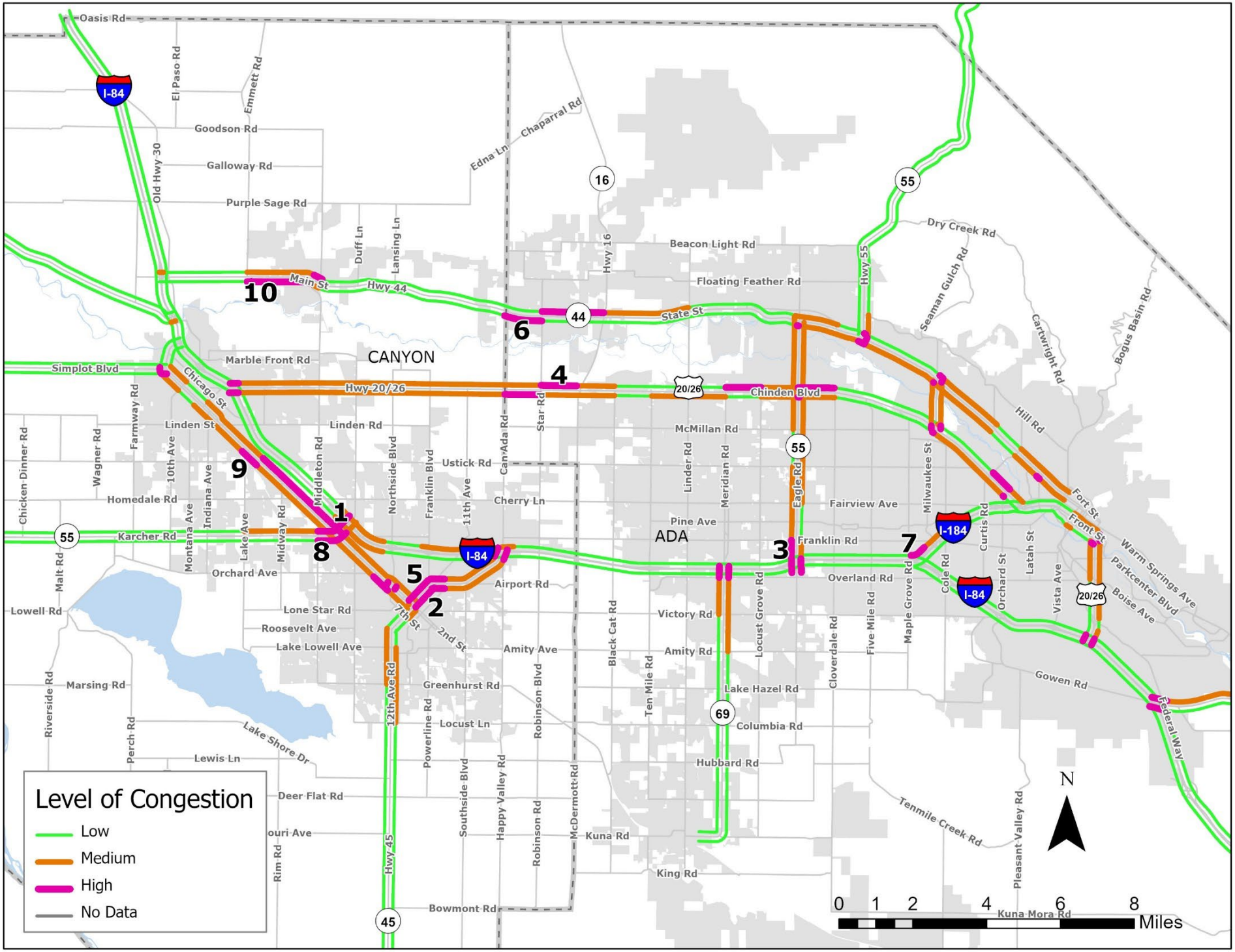

Figure 6: Top Ten Congested Tier 1 Network Segments > 0.5 Miles (Peak period maximum, 2021)

Tier 2 Supplemental Travel Time Data and Analysis

The Idaho Transportation Department (ITD) purchased additional travel time data in 2021 to supplement the NPMRDS. These data provide the ability to analyze conditions on the Tier 2 network — arterials and other major roadways not included in the Tier 1 network. The same methodology (TTI) that is used to analyze congestion using the NPMRDS was applied to the Tier 2 travel time data set (Table 4, Table 5, Table 6, Figure 7, Figure 8). Some of the segments on the Tier 2 network experience low traffic volumes; as a result, recorded actual travel times for the entire year are not available. The data vendor uses imputed data, calculated by using historic averages or free flow speeds, to fill voids in the dataset when no vehicles are detected. The analysis and calculations of travel time done for this report use only records where actual recorded travel times are available; this can result in variations of total miles measured from year to year. In 2021, the Tier 2 network continued to see a decrease in high and medium congested roadways that was observed in 2020 during the COVID-19 pandemic.

Table 4: Tier 2 Network Congestion Summary, Based on Weekday Average TTI Thresholds

Year	High		Medium		Low		Total Miles
	Miles	Percent	Miles	Percent	Miles	Percent	
2021	1.50	0.1%	17.40	1.4%	1,210.00	98.5%	1,228.90*
2020	7.05	0.6%	26.60	2.1%	1,232.43	97.3%	1,266.08
2019	15.88	1.6%	49.45	4.9%	950.58	93.5%	1,015.91
2018	7.22	0.7%	46.74	4.8%	926.50	94.5%	980.46

Table 5: Top Ten Congested Tier 2 Network Segments in Canyon County > 0.1 Miles (2021)

Rank	Road	Description	Miles	Direction	TTI	Peak Period	Delay/Speed
1	I-84 Exit 33 On Ramp	I-84 On Ramp at Exit 33 (SH 55/Karcher Rd)	0.15	Eastbound	2.06	AM	16 sec/21 mph
2	Middleton Rd	Laster St to Nampa/Caldwell Blvd	1.00	Southbound	1.93	PM	74 sec/24 mph
3	I-84 Exit 25 Off Ramp	I-84 Exit 25 Off Ramp (SH 44 / City of Middleton)	0.23	Westbound	1.78	PM	18 sec/23 mph
4	Midland Blvd	Park Centre Way to Nampa/Caldwell Blvd	0.19	Southbound	1.61	PM	19 sec/17 mph
5	I-84 Exit 36 On Ramp	I-84 Exit 36 On Ramp (N Franklin Blvd)	0.21	Westbound	1.71	AM	16 sec/23 mph
6	I-84 Exit 27 Off Ramp	I-84 Exit 27 Off Ramp (Centennial Way)	0.29	Eastbound	1.67	PM	19 sec/24 mph
7	Midland Blvd	W St Lukes Dr to Karcher Bypass	0.37	Southbound	1.61	PM	26 sec/21 mph
8	I-84 Exit 33 Off Ramp	I-84 Off Ramp at Exit 33 (Karcher Rd)	0.30	Westbound	1.61	PM	19 sec/23 mph
9	I-84 Exit 27 Off Ramp	I-84 Exit 27 Off Ramp (Centennial Way)	0.22	Westbound	1.60	PM	17 sec/18 mph
10	Idaho Center Blvd	E Gate Blvd to I-84 On Ramp	0.10	Southbound	1.55	PM	7 sec/21 mph

Table 6: Top Ten Congested Tier 2 Network Segments in Ada County > 0.1 Miles (2021)

Rank	Road	Description	Miles	Direction	TTI	Peak Period	Delay/Speed
1	I-84 Exit 0 On Ramp (I-184)	Wye Interchange (I-184/Franklin Blvd)	0.50	Westbound	2.02	PM	28 sec/37 mph
2	E Yamhill Rd	West of Federal Way to E Lake Forest Dr	0.33	Eastbound	1.94	AM	35 sec/16 mph
3	I-84 Exit 44 On Ramp	I-84 Exit 44 On Ramp (Meridian Rd)	0.39	Eastbound	1.83	AM	23 sec/35 mph
4	I-84 Exit 57 Off Ramp	I-84 Exit 57 Off Ramp (Gowen Rd)	0.19	Eastbound	1.80	PM	14 sec/24 mph
5	I-184 Exit 1A Off Ramp	I-184 Exit 1A Off Ramp (Franklin Rd / Boise)	0.14	Eastbound	1.72	PM	11 sec/21 mph
6	Broadway Off Ramp	Broadway Ave to Federal Way Off Ramp	0.18	Northbound	1.71	Midday	13 sec/21 mph
7	I-84 Exit 42 On Ramp	I-84 Exit 42 On Ramp (Ten Mile Rd)	0.73	Eastbound	1.63	AM	25 sec/42 mph
8	9th St	Idaho St to Front St	0.19	Southbound	1.61	PM	21 sec/13 mph
9	Milwaukee St	Emerald St to Franklin Rd	0.40	Southbound	1.55	PM	25 sec/17 mph
10	W Gowen Rd	Orchard St Extension to S Orchard St	0.27	Eastbound	1.53	AM	18 sec/20 mph

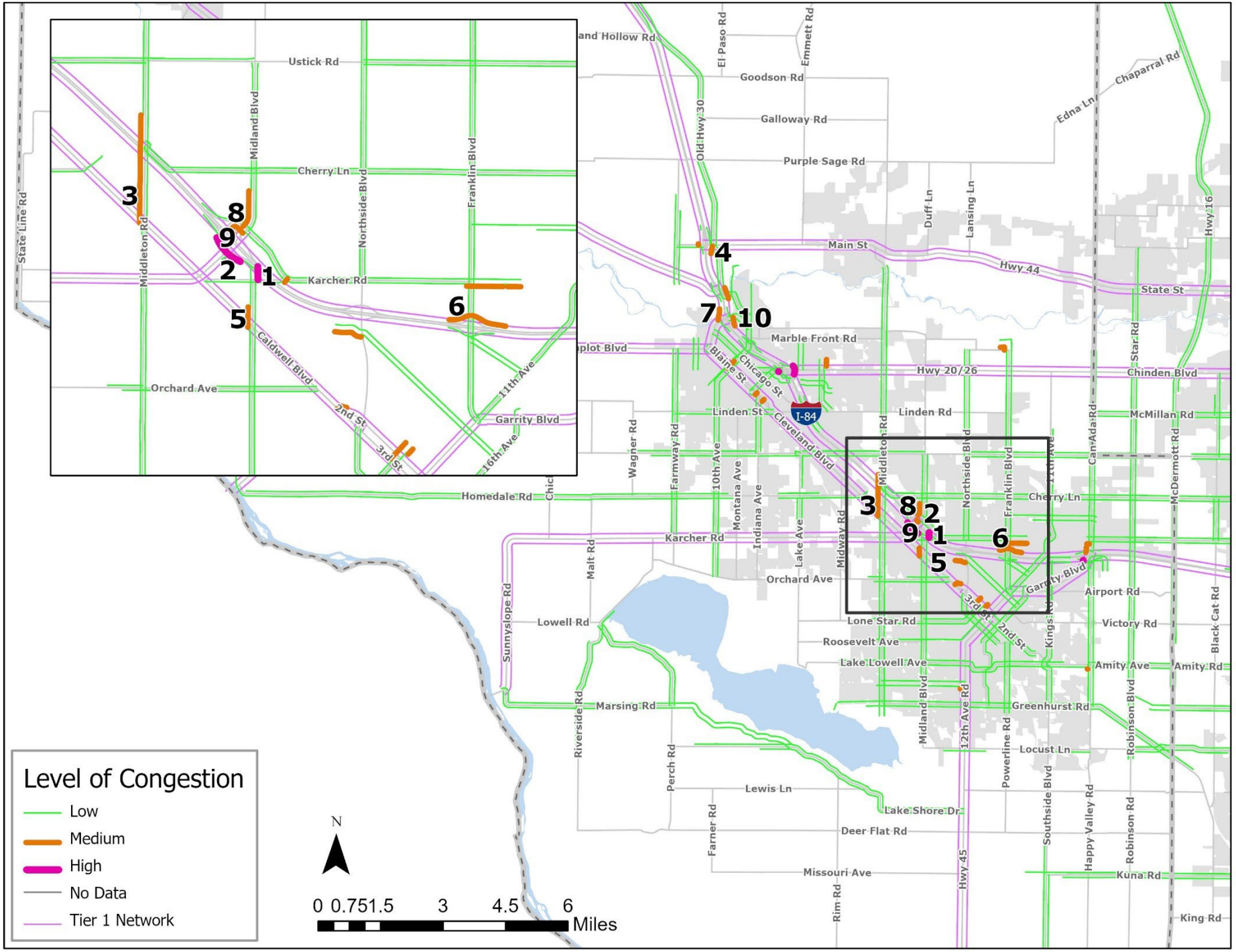

Figure 7: Top Ten Tier 2 Congested Roadways > 0.1 miles in Canyon County (Peak period maximum, 2021)

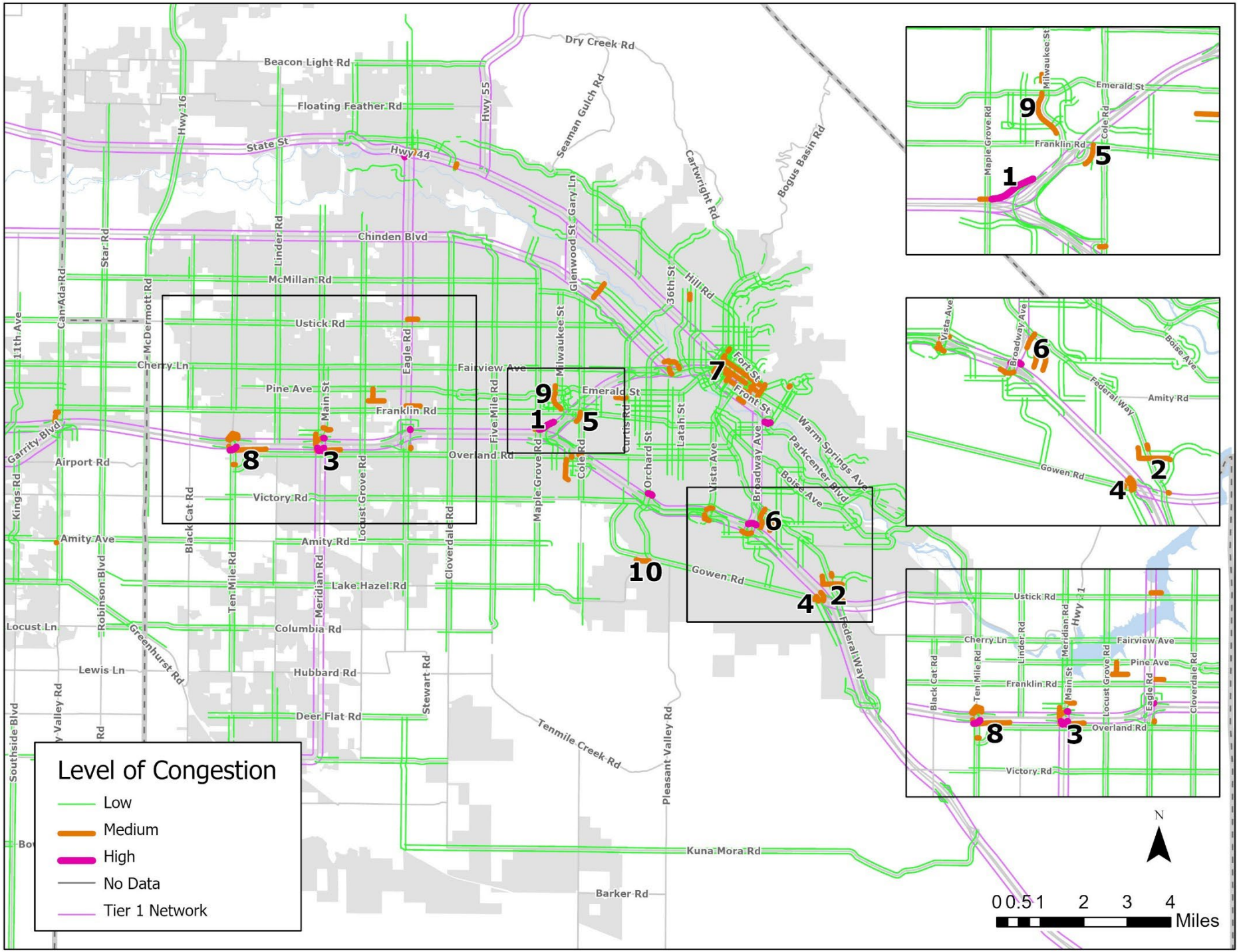

Figure 8: Top Ten Tier 2 Network Segments > 0.1 miles in Ada County (Peak period maximum, 2021)

Peak Hour Commute Times in the Treasure Valley

Recurring congestion in the Treasure Valley occurs primarily during the morning (AM) and evening (PM) commute times. Depending on the route, trave expect to add a significant amount of time to their commute due to congestion (Figure 9). In Figure 9, the free flow travel time is show in green, the tra added to the commute due to congestion is shown in yellow, and the total average weekday commute (free flow + congested travel time) is displayed i bold font. For example, under free flow conditions the travel time on I-84 eastbound from the City of Caldwell to the City of Boise takes around 23 minu during the morning commute just under 5 minutes are added to the travel time, for an average weekday morning commute travel time of about 28 min

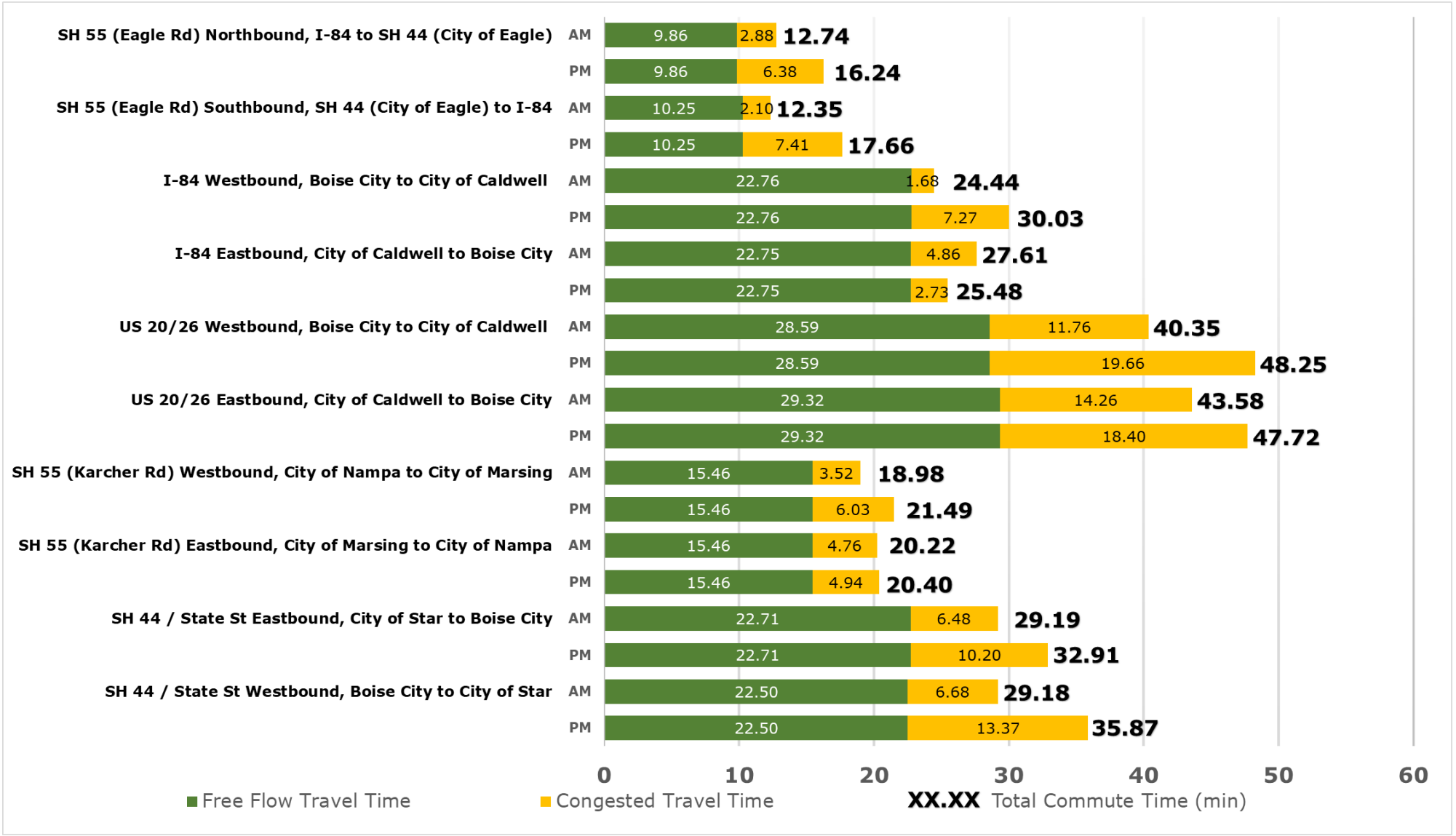

Figure 9: Average Weekday AM and PM Peak Period Commute Travel Times for Select Routes in the Treasure Valley (2021)

Federal System Performance Measures

The Fixing America's Surface Transportation (FAST) Act, signed in 2015, includes provisions requiring state transportation agencies and metropolitan pl organizations such as COMPASS to report performance measures and set targets for safety, infrastructure, and system performance for their planning a System performance is reported as reliability: Level of Travel Time Reliability and Truck Travel Time Reliability. These measures, described below, show predictable or consistent travel times are for passenger and freight vehicles along the Tier 1 network.

FAST Act Performance Measures

95.9% Interstate Reliable — Meets target of ≥90% reliable

85.0% Non-Interstate Roads Reliable — Meets target of ≥70% reliable

1.46 Truck Travel Time Reliabili — Does not meet target score of <1.3

COMPASS has adopted ITD's statewide targets for these measures.

Level of Travel Time Reliability (LOTTR)

Travel time reliability measures are used to tell how consistent travel time is from one point to another, from one day to the next. Factors such as weat events, construction, or crashes can make it difficult to predict how long it can take to travel from one destination to another. Many commuters underst congestion is unavoidable on their commute, but by being able to effectively budget enough commute time can offset some of the inconveniences caus everyday congestion. Therefore, reliability goals and targets focus on the predictability of travel time (Figure 10, Figure 11).

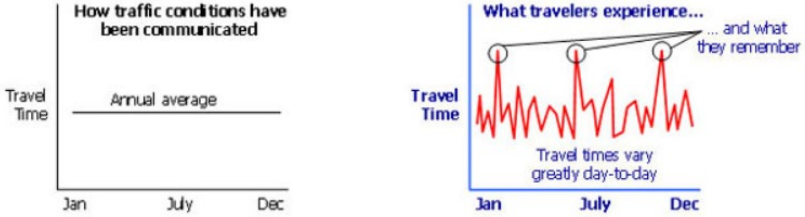

Figure 10: Reliability measures better reflect what commuters experience on a day-to-day basis

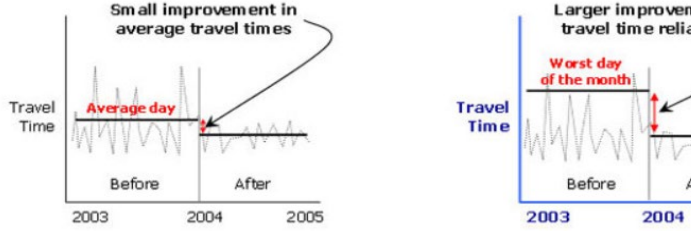

Figure 11: FAST Act goals aim to decrease the varia travel times from day-to-day

LOTTR is defined as the ratio of a longer travel time (80th percentile) to a "normal" travel time (50th percentile). A LOTTR score of 1.5 means that it tak longer to travel a segment of roadway at times of some of the highest levels of congestion than during non-congested times. Roadways with LOTTR sco greater than 1.5 are considered unreliable. The overall system reliability is calculated by weighting each segment by person miles traveled (PMT). A per of reliable PMT on the system is used as an overall rating of the system reliability. COMPASS has adopted ITD's statewide targets of greater than 90% o reliable on interstates and greater than 70% PMT reliable on the non-interstate system for performance measurement in Ada and Canyon Counties. CO meeting its interstate reliability measure at 95.9% of the interstate PMT reliable and its target for non-interstate roads at 85.0% PMT reliable (Figure 1

Truck Travel Time Reliability (TTTR)

TTTR is a metric used to measure how efficiently freight is moving through the transportation system. TTTR is similar to LOTTR except the 95th percenti time is used as the longer travel time in the equation, TTTR is only calculated for the interstate system, and it is presented as a weighted average. ITD statewide target of a TTTR of less than 1.3 and COMPASS has adopted this target for its performance measurement. The COMPASS planning area is not this target, with a TTTR score of 1.46 (Figure 13). This is likely due to issues cause by non-recurring congestion from weather, construction, and traffic on the interstate.

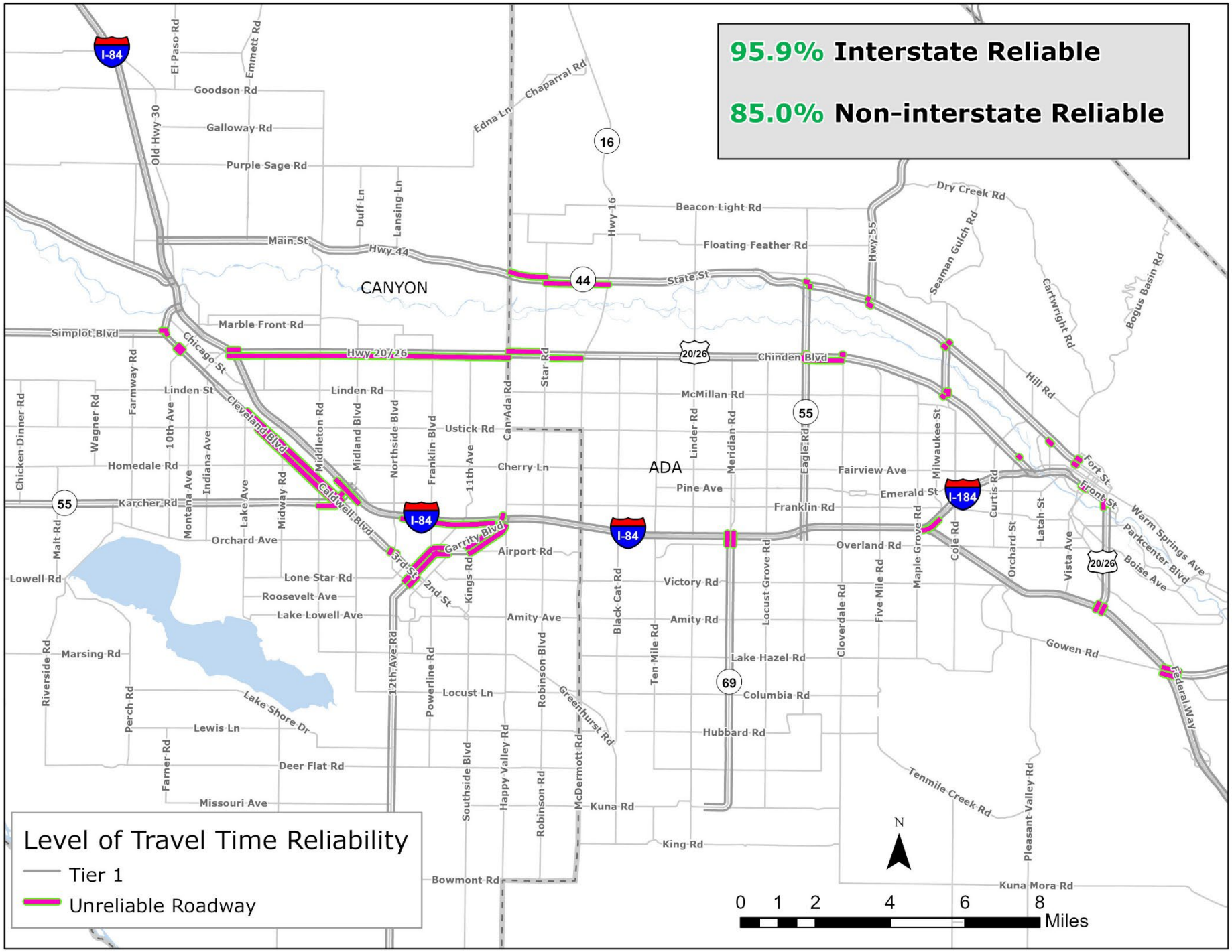

Figure 12: Level of Travel Time Reliability (2021)

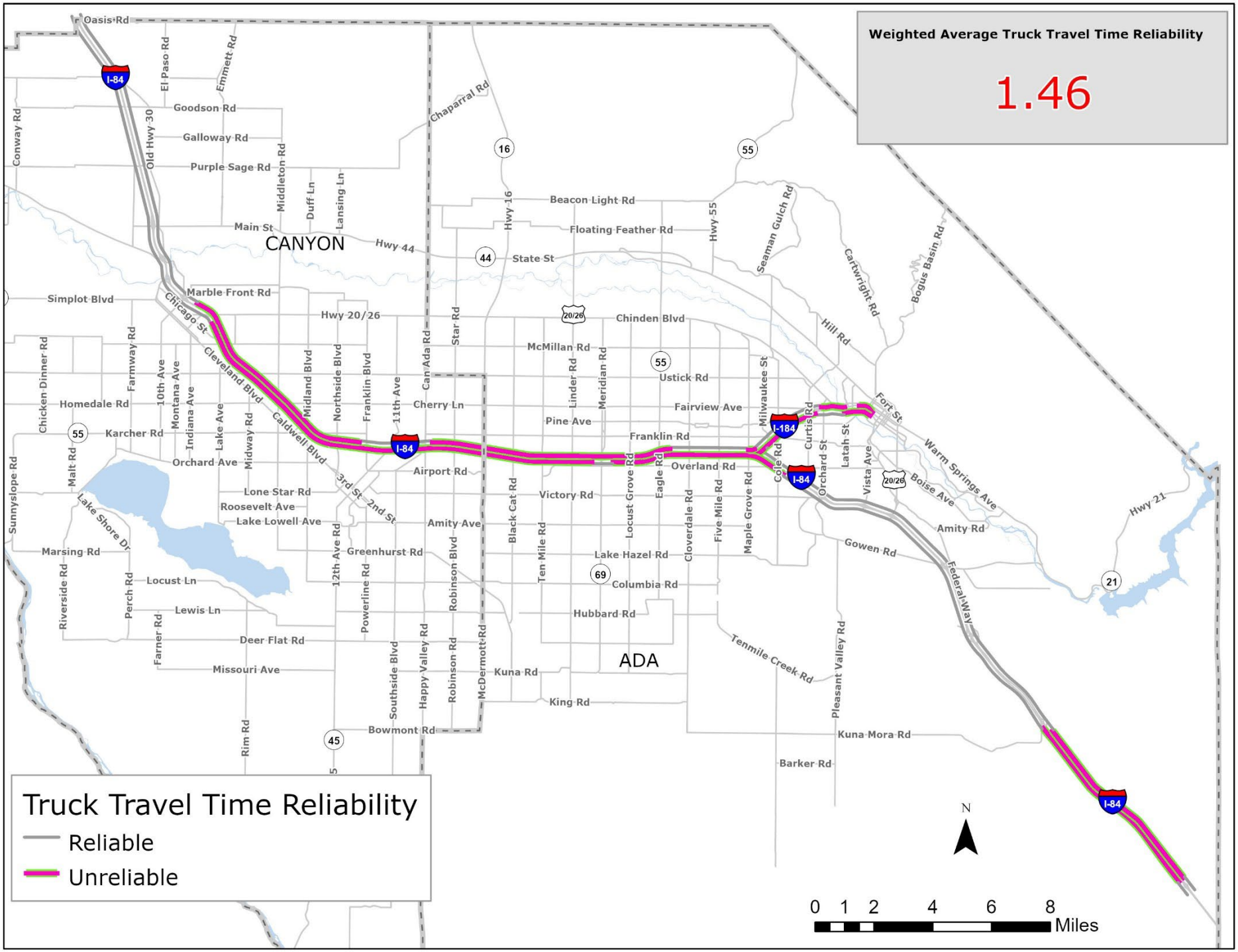

Figure 13: Truck Travel Time Reliability (2021)

COMPASS Performance Measures

COMPASS Change in Motion Scorecard

COMPASS publishes the *Change in Motion Scorecard*[6] on a biennial basis to report on the progress made toward achieving the goals established in *Communities in Motion*, the long-range transportation plan for Ada and Canyon Counties. The transportation related measures reported in the scorecard reflect the multimodal transportation network and are reported at the regional scale. Targets are established for each of the measures in the scorecard to determine how well the strategies, policies, and projects implemented by COMPASS and its member agencies are impacting the region. There are several measures reported in the *Change in Motion Scorecard* related to the congestion management strategies listed in the CMP. By tracking the progression of these measures from year to year, it can be determined which strategies are performing to expectations and which strategies might need to be reassessed.

Strategies and Implementation Program

Congestion Mitigation Strategies

Congestion mitigation strategies are grouped into four categories, as identified in the Federal Highway Administration's *Congestion Management Process: A Guidebook*[7] (Table 7). COMPASS and its member agencies implement these strategies to mitigate congestion through projects included in the TIP and long-range transportation plan (*Communities in Motion*).

Table 7: Congestion Mitigation Strategies

Strategy	Description	Examples
Transportation Demand Management	Providing travelers with more options of how and when they commute to reduce the number of trips during congested hours	• Pedestrian/bicycle infrastructure • Ridesharing • Flexible work arrangements • Transit Oriented Development
TSMO/ITS	Implementing improvements focused on optimizing the current transportation infrastructure	• Optimized signal timing • Improved intersections • Transit signal priority
Transit Operations Improvements	Improving transit operations, access, and services to encourage more usage to reduce the number of vehicles on the road	• Bus Rapid Transit • Expanded frequency/hours of service • Expanded public transportation system
Additional System Capacity	Expanding capacity by adding lanes or new roads	• Additional travel lanes • Filled gaps in the street network • New overpasses/underpasses
Freight and Goods Mobility	Implementing strategies to move freight and goods more efficiently on the transportation system	• Freight signal priority • Improved intersections • Designated loading, unloading, and parking zones

[6] https://www.compassidaho.org/prodserv/gtsm-perfmonitoring.htm

[7] https://www.fhwa.dot.gov/planning/congestion_management_process/cmp_guidebook/cmpguidebk.pdf

Programmed (Budgeted) Congestion Reduction/Mitigation Projects

The TIP is a collection of projects selected by COMPASS to benefit the transportation system Ada and Canyon Counties. Multiple projects programmed (budgeted) in the FY2022-2028 TIP are designed to help mitigate congestion (Figure 14 and Table 8). The current program includes over $500 million aimed toward managing congestion. The impacts of large-scale congestion mitigation projects on the transportation network will be evaluated in subsequent CMP reports. You can find the most current TIP with detailed project information and archived TIPs at http://www.compassidaho.org/prodserv/transimprovement.htm.

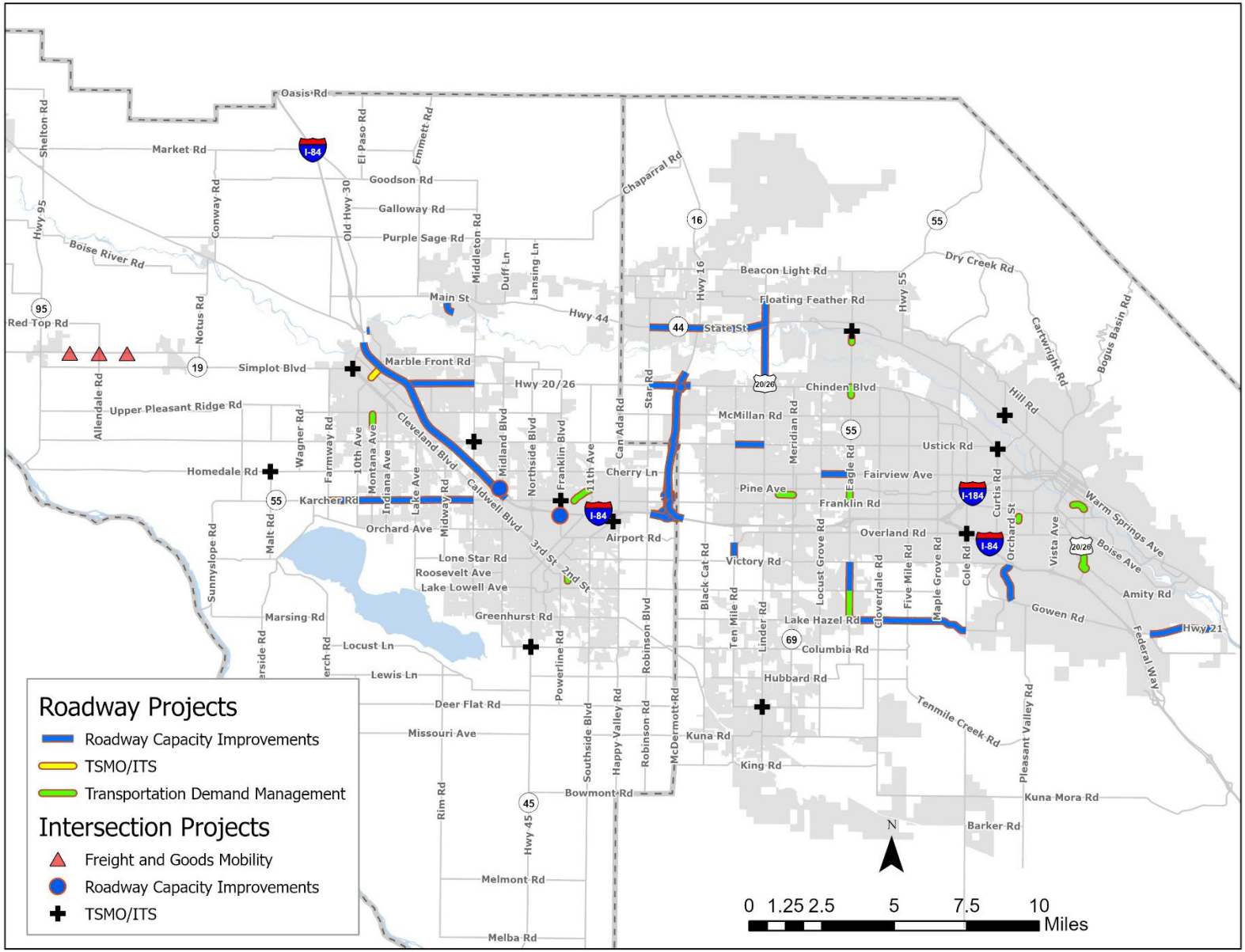

Figure 14: Programmed Congestion Mitigation Projects, FY2022-2028 TIP

Table 8: Number of Projects and Programmed Dollars in the FY2022-2028 TIP for Congestion Management Strategies

Congestion Management Strategy*	Number of Projects	Dollars programmed in the FY2022-2028 TIP
Roadway Capacity Improvements	29	$420,132,000
Transit Operation Improvements	18	$62,802,000
Transportation Demand Management	13	$16,863,000
TSMO/ITS	18	$66,072,000
Total	78	$565,869,000

*Freight Mobility projects not tracked for FY2022-2028 TIP

Appendix
Detailed Corridor Congestion Analyses

I-84

I-84 Speed Profiles

Of the past five years of data, the average speeds in 2020 and 2021 during the morning and evening commutes have increased between the Centennial Way interchange in the City of Caldwell and the Flying Wye interchange with I-184 in the City of Boise (Figures 15 and 16). In 2021, the average speed was about 57 mph during the morning (eastbound) and about 55 mph during the evening (westbound) commutes. Speeds have likely improved due to completed capacity improvements on the interstate and slightly lower traffic volumes due to the COVID-19 pandemic.

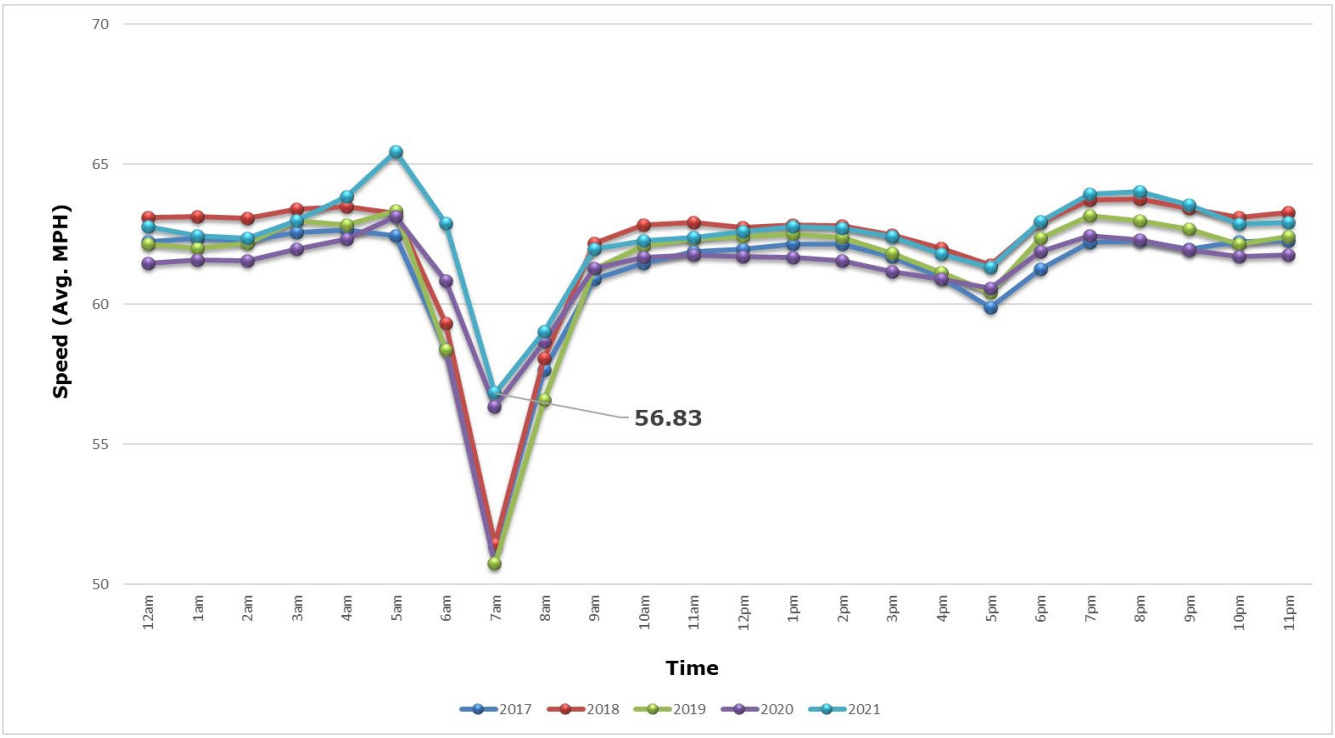

Figure 15: I-84 Eastbound (Centennial Way interchange to Flying Wye interchange I-184), Average Weekday Speeds (2017 – 2021)

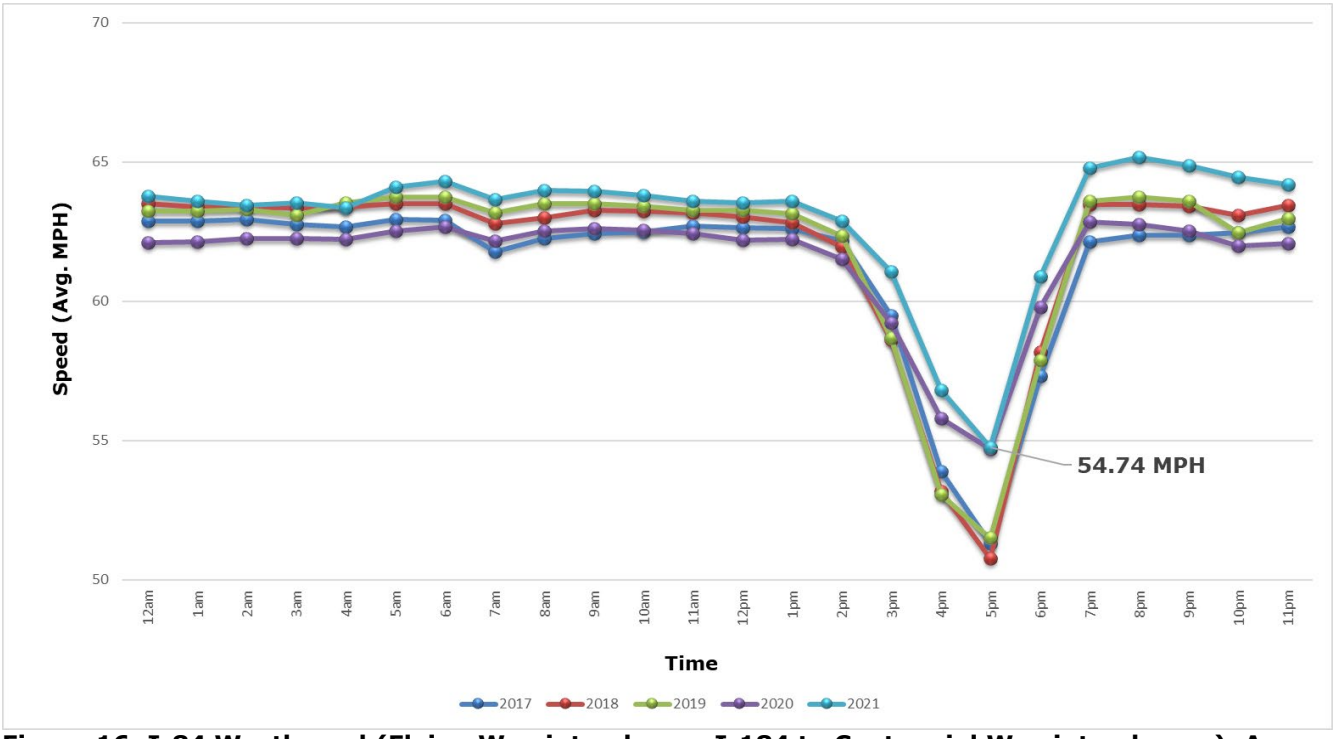

Figure 16: I-84 Westbound (Flying Wye interchange I-184 to Centennial Way interchange), Average Weekday Speeds (2017 – 2021)

I-84 Congestion Analysis and Congestion Mitigation Strategies

I-84 has seen a moderate growth rate in traffic volumes over the past five years. Speed profiles, TTI, and level of reliability measures show that overall I-84 performed well in 2021. I-84 experiences most of its congestion issues near the City of Nampa between the Karcher Road interchange and the Garrity Boulevard interchange (Figure 17). One probable cause of congestion in this area is a large construction project to add additional capacity that began in 2020 and continued through 2021. The programmed and planned projects for this section of I-84 are highlighted in Table 9.

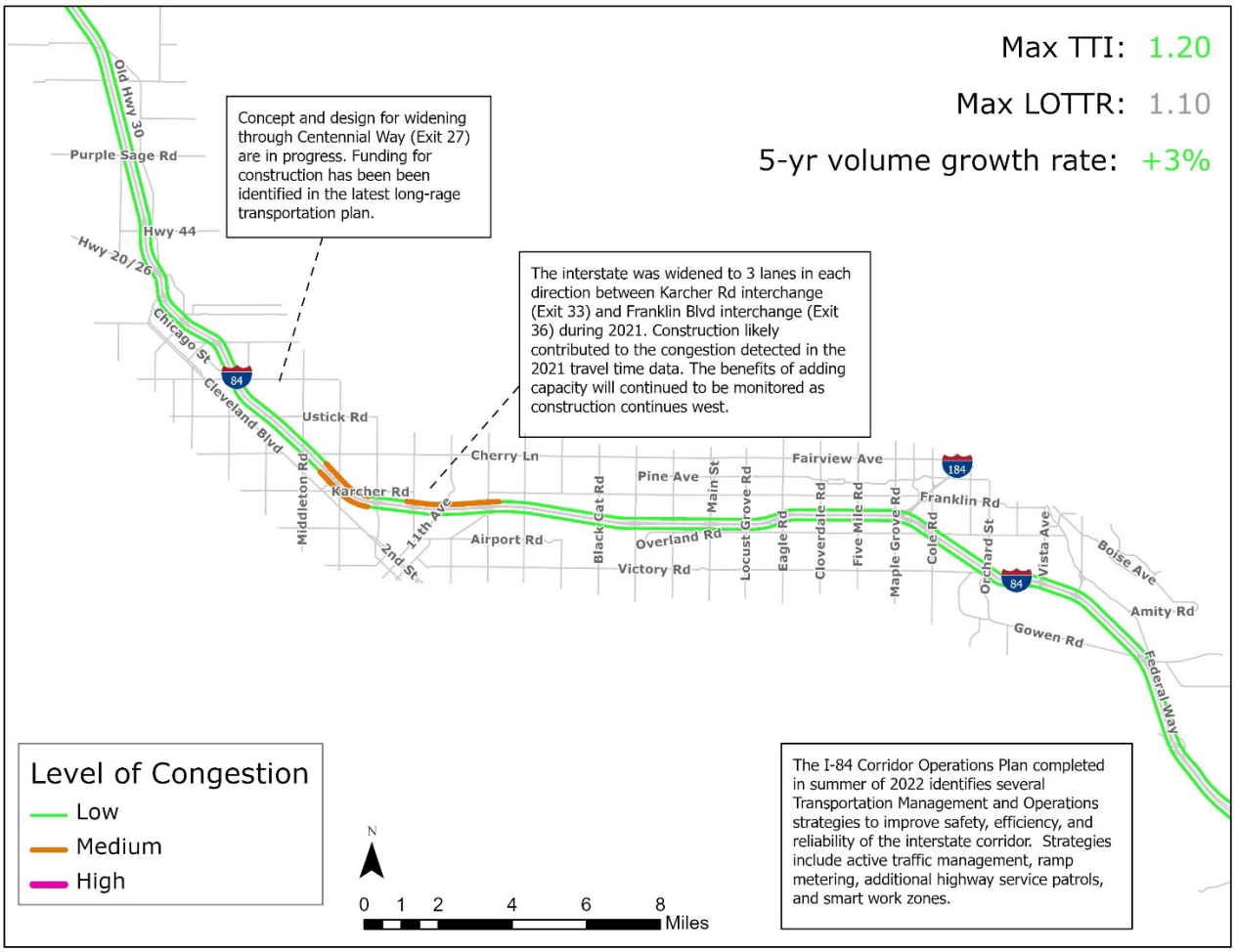

Figure 17: I-84 Levels of Peak Hour Congestion, Causes of Congestion, and Management Strategies (2021)

Table 9: I-84 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2022-2028)	Planned Funded Projects (FY2029-2050)	Planned Unfunded Projects
Transportation Demand Management	✓ ACHD Commuteride		
TSMO/ITS			
Public Transportation Improvements			✓ New and extended services
Additional System Capacity	✓ Widen I-84 to 3 lanes in each direction between Karcher Rd interchange (Exit 33) and Franklin Blvd interchange (Exit 36) and from the City of Caldwell (Exit 29) to Karcher Rd interchange (Exit 33)	✓ Widen I-84 to 3 lanes in each direction between Centennial Way (Exit 27) and City of Caldwell (Exit 29)	✓ Widen I-84 to 3 lanes in each direction between Centennial Way (Exit 27) and SH 44 (Exit 25)

I-184

I-184 Speed Profiles

The average weekday speed profiles for the section of I-184 from the Flying Wye to its terminus about one mile west of the 15th / Front Street intersection show speeds decrease during the morning (eastbound) and evening (westbound) peak hours (Figure 18 and Figure 19). In 2021 the speed profiles show that average speeds are moving back toward pre-pandemic trends (pre 2020).

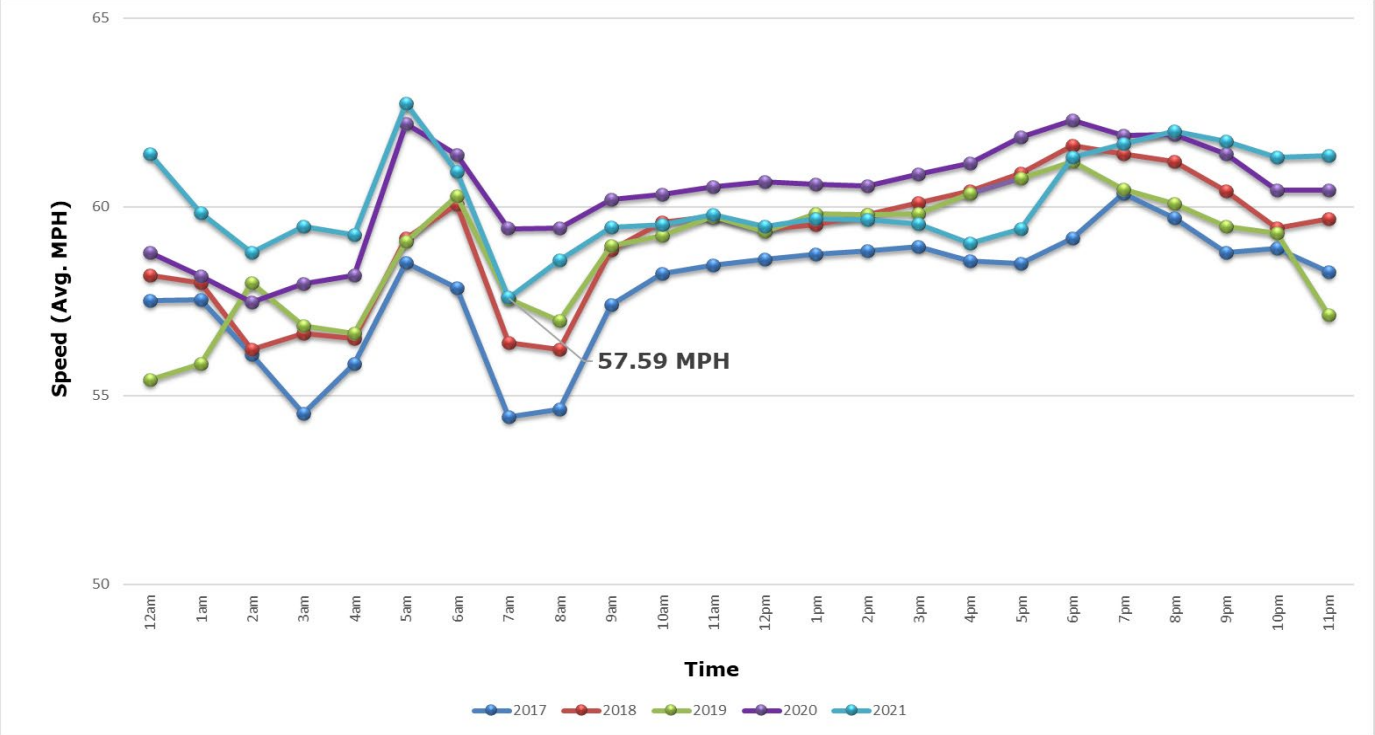

Figure 18: I-184 Eastbound, Average Weekday Speeds (2017 – 2021)

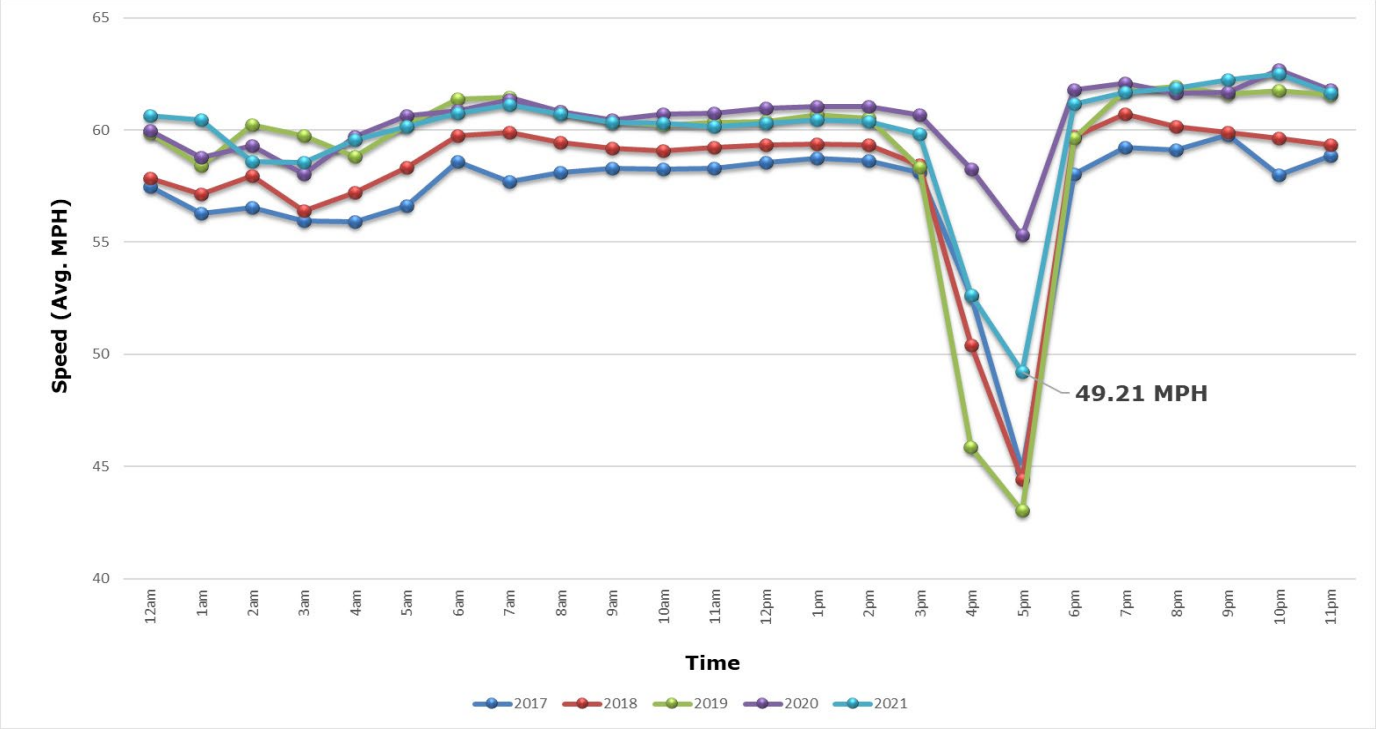

Figure 19: I-184 Westbound, Average Weekday Speeds (2017 – 2021)

I-184 Congestion Analysis and Congestion Mitigation Strategies

Congestion on I-184 typically occurs in the westbound direction during the evening commute where I-184 merges with I-84 (Figure 20). This is caused by commuters leaving the City of Boise at the end of the work day. I-184 was the only corridor in this report that has a decreasing five-year average growth rate; however, speed profiles show that there was some progress lost from 2020. The programmed and planned projects for I-184 are highlighted in Table 10.

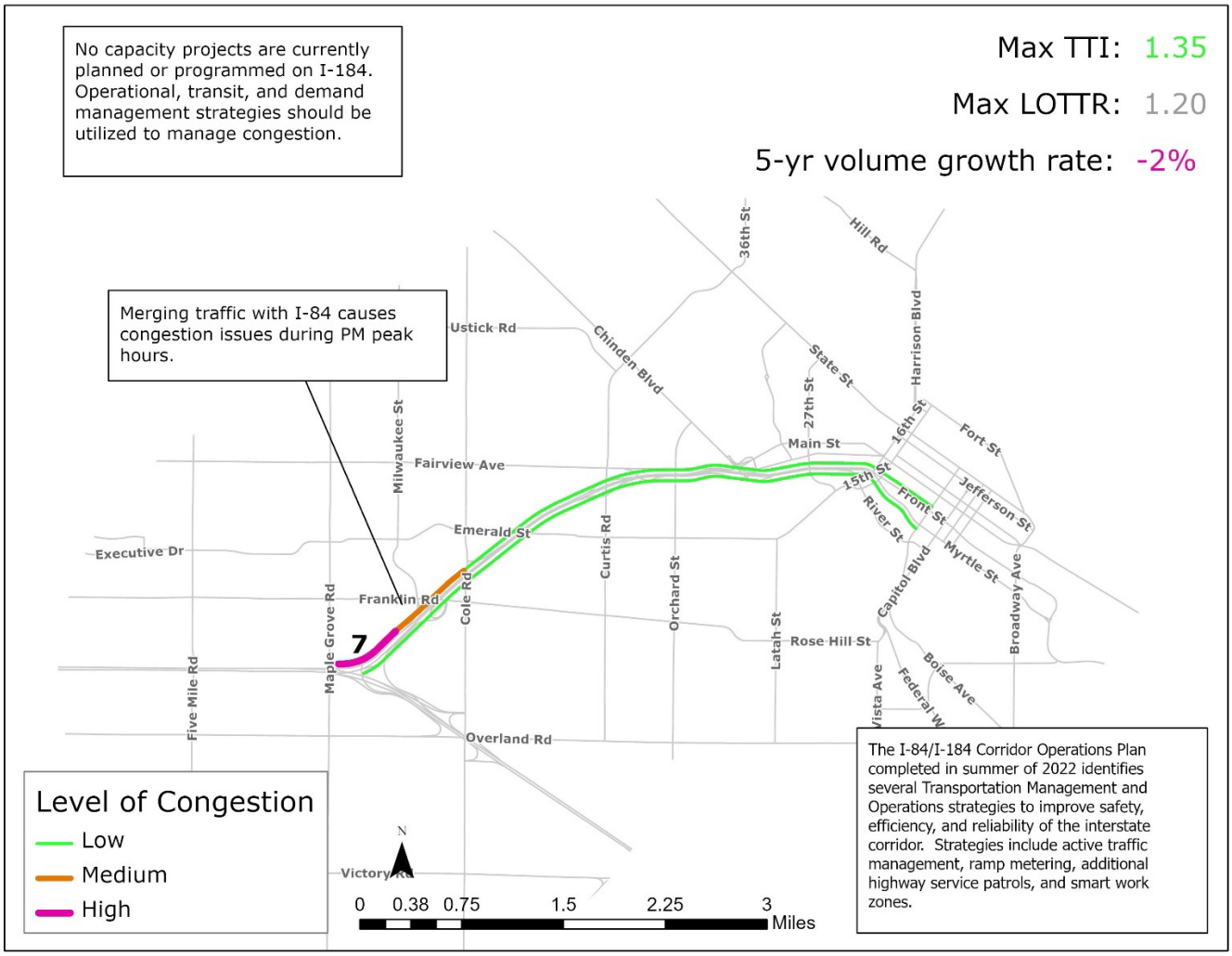

Figure 20: I-184 Levels of Peak Hour Congestion, Causes of Congestion, and Management Strategies (2021)

Table 10: I-184 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2022-2028)	Planned Funded Projects (FY2029-2050)	Planned Unfunded Projects
Transportation Demand Management	✓ ACHD Commuteride		
TSMO/ITS			
Public Transportation Improvements			✓ Planned new and extended services
Additional System Capacity			

US 20/26

US 20/26 Speed Profiles

The US 20/26 speed profiles are broken into five different sections to account for different roadway characteristics along the corridor. The sections below are shown in order from west to east.

US 20/26: I-84 (Exit 29) to State Highway 55 (Eagle Road)

US 20/26 from I-84 (Exit 29) to State Highway 55 (Eagle Road) exhibits predictable morning and midday slowdowns. Speeds are slowest at 5pm (eastbound and westbound). Average speeds decreased in 2021 in both directions during their busiest peak hours; the eastbound speeds dropped dramtically during the evening peak hours. Speeds were lower during the midday hours for both directions in 2021. This could be due to a combination increased development in the area and construction on the corridor in 2021 (Figure 21 and Figure 22).

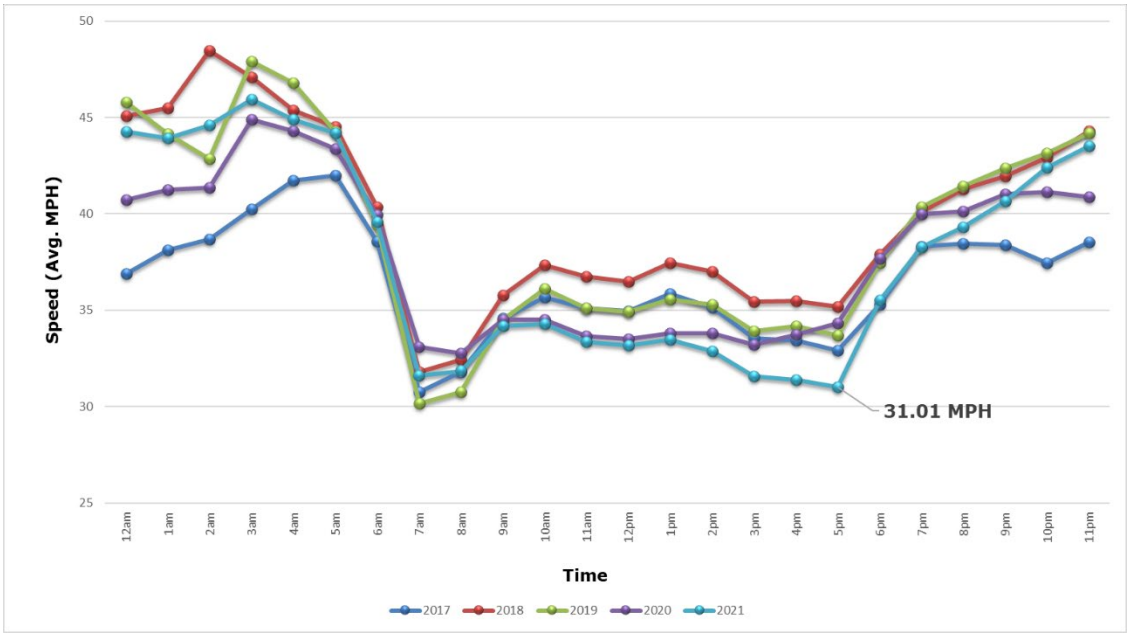

Figure 21: US 20/26 (I-84 to State Highway 55 [Eagle Road]) Eastbound, Average Weekday Speeds (2017 – 2021)

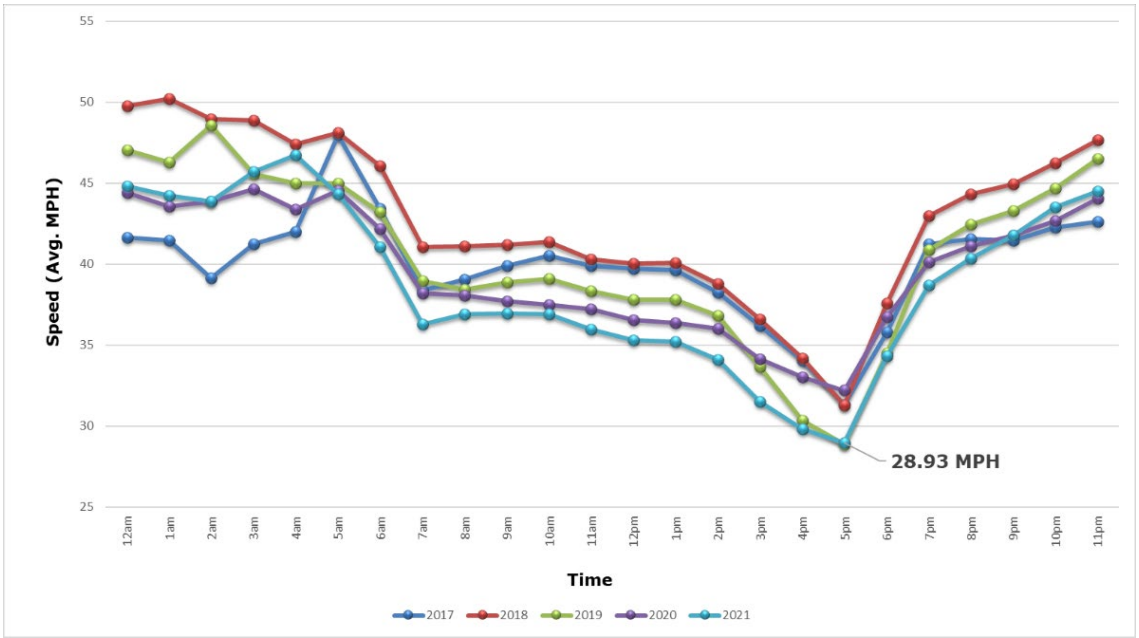

Figure 22: US 20/26 (State Highway 55 [Eagle Road] to I-84) Westbound, Average Weekday Speeds (2017 – 2021)

US 20/26 (Chinden Boulevard): State Highway 55 (Eagle Road) to Glenwood Street

The section of US 20/26 between State Highway 55 (Eagle Road) and Glenwood Street heading eastbound experiences a reduction in speeds beginning with the morning commute and continuing throughout typical business hours (Figure 23). The westbound direction sees the typical evening peak hour slowdown associated with an increase in commuters on the road (Figure 24). Also, the posted speed limit changes from 50 mph (west) to 35 mph (east) 0.25 miles west of Glenwood Street, which contributes to the overall average speed hovering near 30 mph.

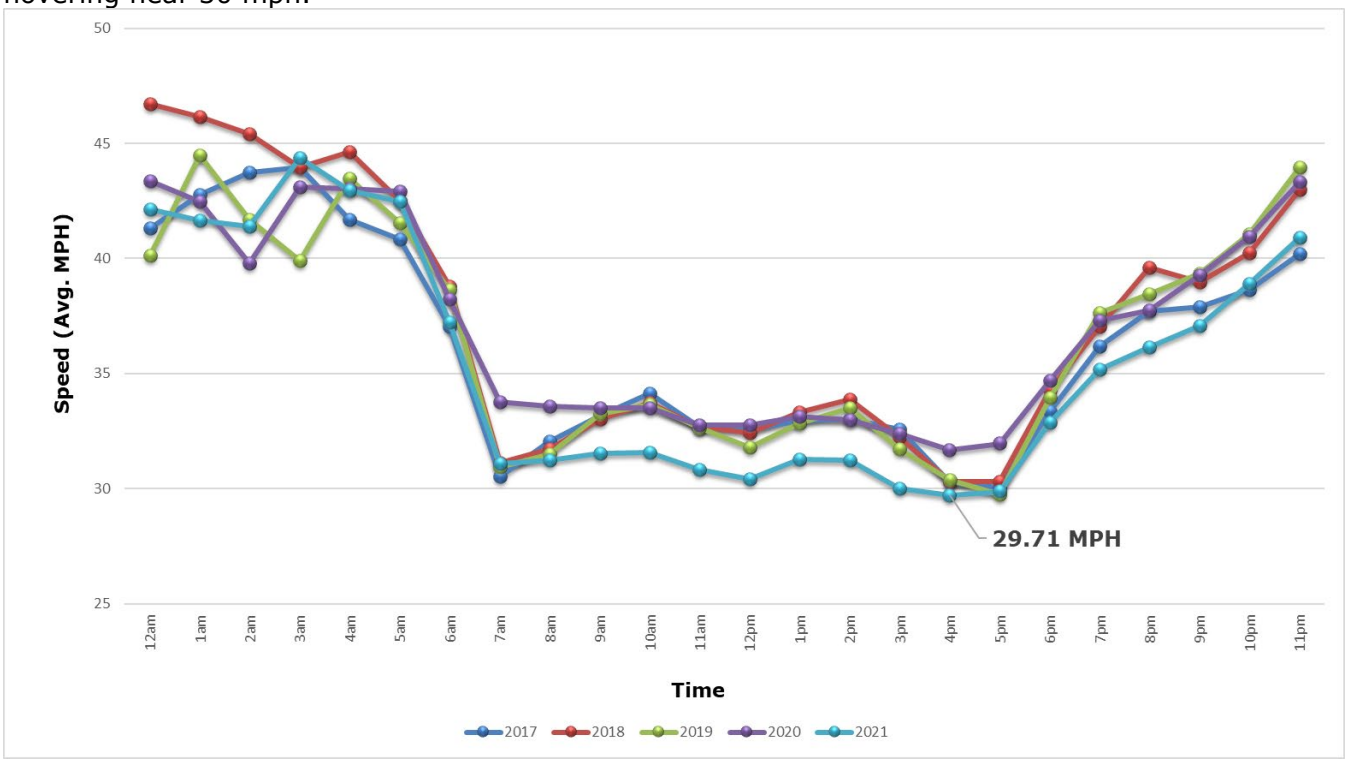

Figure 23: US 20/26 (State Highway 55 [Eagle Road] to Glenwood Street) Eastbound, Average Weekday Speeds (2017 – 2021)

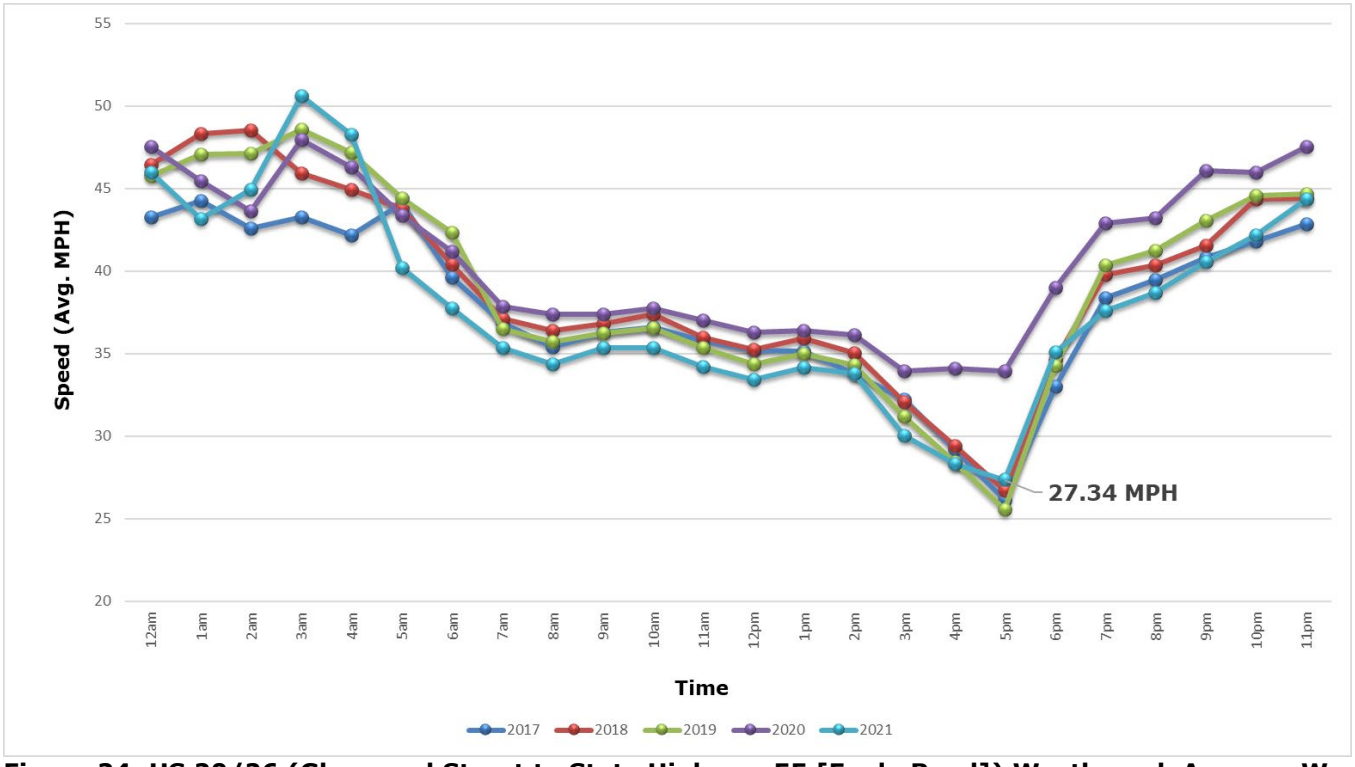

Figure 24: US 20/26 (Glenwood Street to State Highway 55 [Eagle Road]) Westbound, Average Weekday Speeds (2017 – 2021)

US 20/26 (Chinden Boulevard): Glenwood Street to I-184

The section of US 20/26 between Glenwood Street and I-184 heading eastbound sees a degradation in speeds starting with the morning commute and continuing through typical business hours (Figure 25). The westbound direction experiences the most dramatic slowdown, bottoming out at 23 mph, during the 5 pm hour (Figure 26). The 2021 speed profile shows a rebound toward trends seen before the 2020 COVID-19 pandemic.

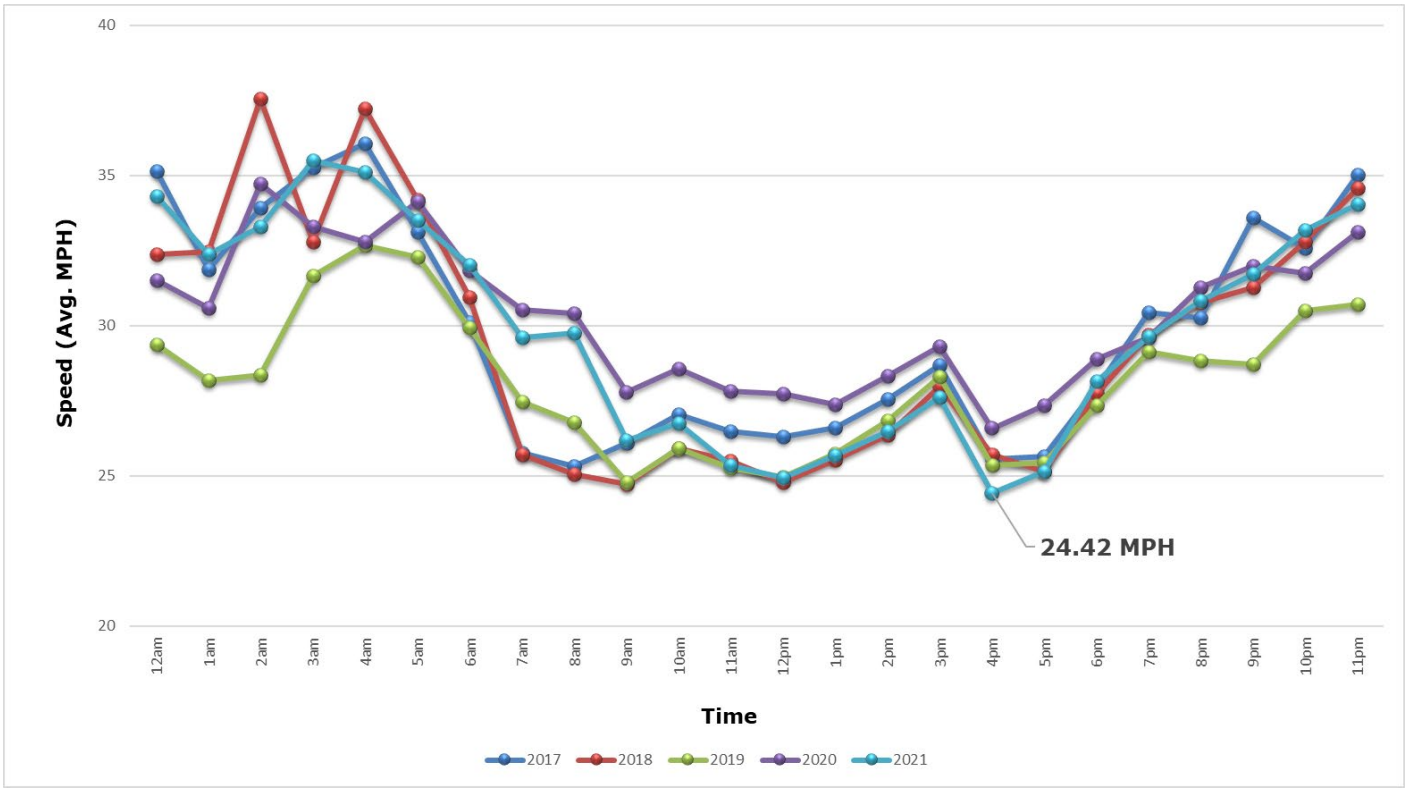

Figure 25: US 20/26 (Glenwood Street to I-184) Eastbound, Average Weekday Speeds (2017 – 2021)

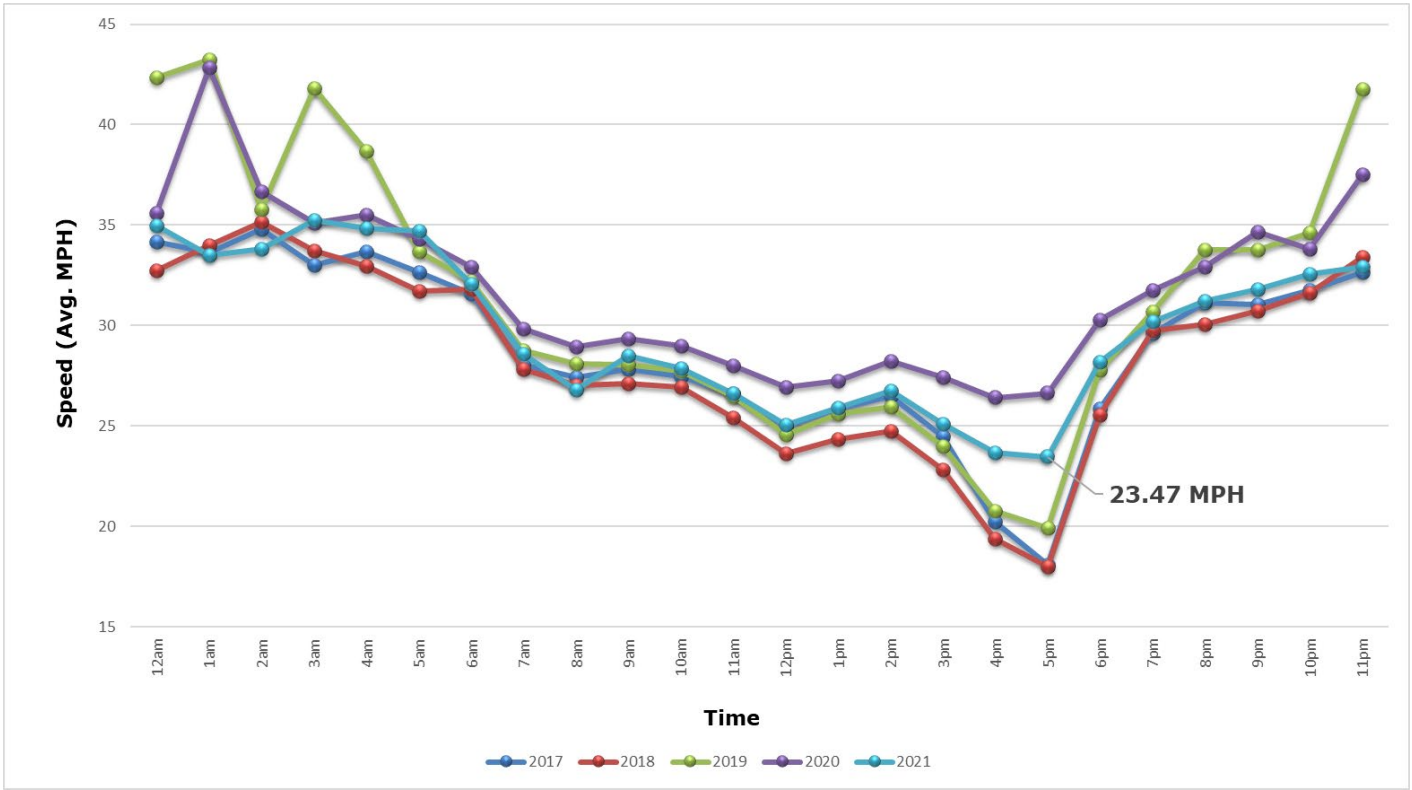

Figure 26: US 20/26 (I-184 to Glenwood Street) Westbound, Average Weekday Speeds (2017 – 2021)

US 20/26 (Front and Myrtle Streets): I-184 to Broadway Avenue

The section of US 20/26 through the urban center of the City of Boise tends to see a speed decrease during the morning peak hours that continues until after peak evening hours in the eastbound direction, with a gradual decrease until reaching its slowest speeds at 4 pm in the westbound direction (Figure 27 and Figure 28). The speed profiles in 2021 still showed overall faster speeds conditions than 2020, but are trending toward pre-pandemic profiles. The highway in this section is divided into two separate one-way thoroughfares providing access to downtown Boise. The fluctuations in speed are likely due to an increased volume during typical business hours and typical commute patterns of eastbound in the morning and westbound in the evening.

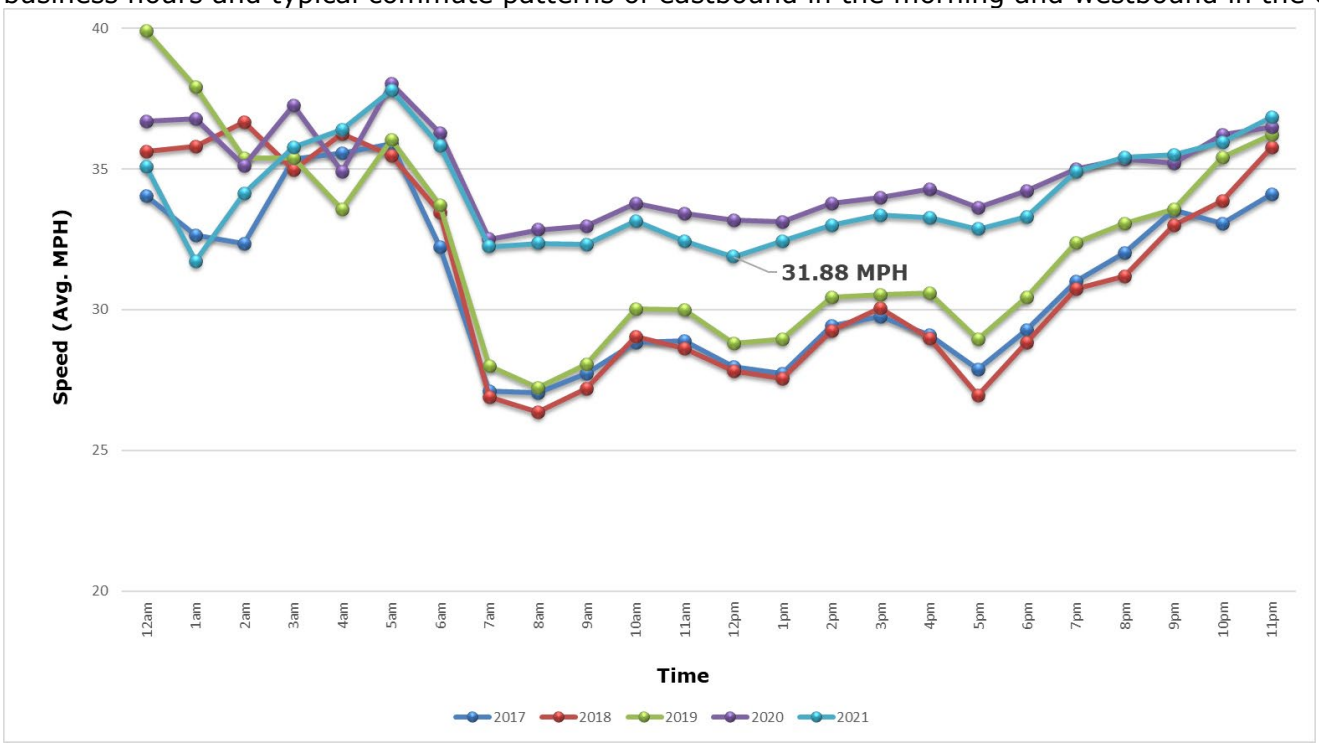

Figure 27: US 20/26 (I-184 to Broadway Avenue via Myrtle Street) Eastbound, Average Weekday Speeds (2017 – 2021)

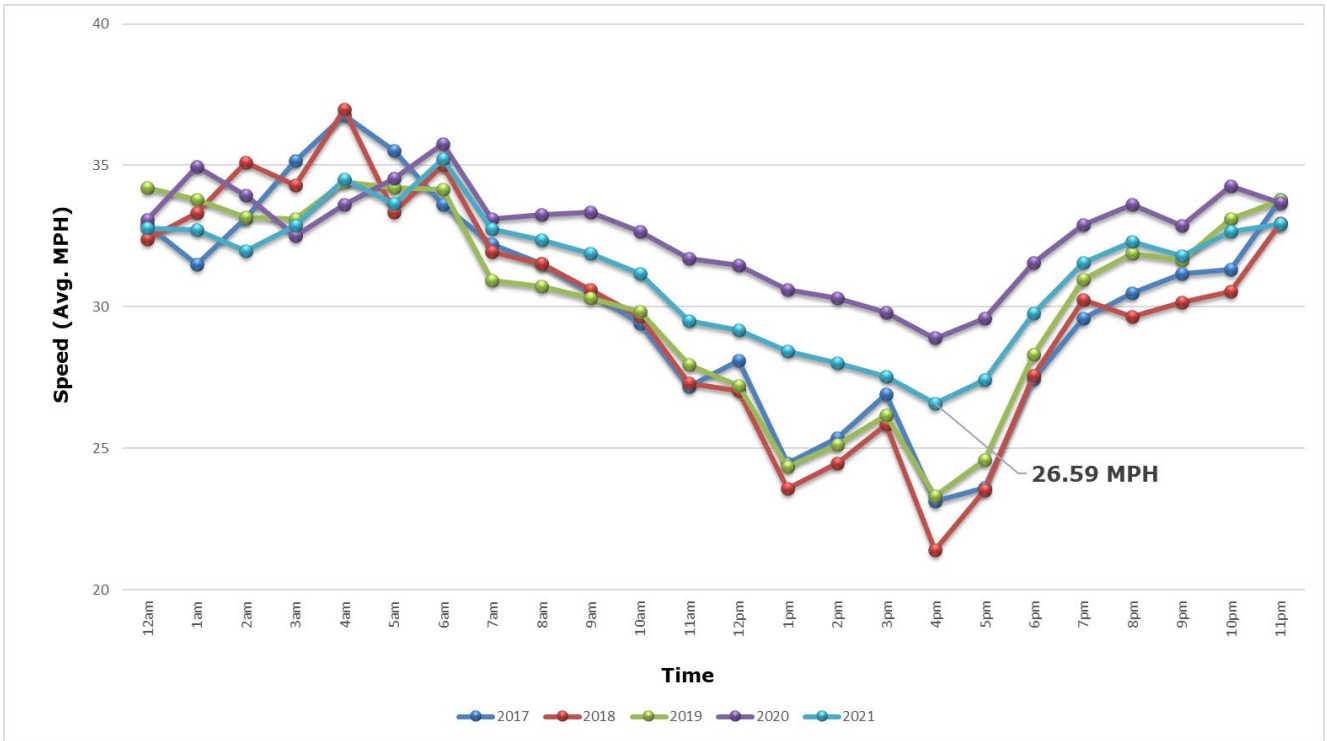

Figure 28: US 20/26 (Broadway Avenue to I-184 via Front Street) Westbound, Average Weekday Speeds (2017 – 2021)

US 20/26 (Broadway Avenue): Myrtle/Front Streets to I-84

US 20/26 (Broadway Avenue) from Front/Myrtle Streets to I-84 sees a slight drop in speeds from 8 am to 5 pm (Figure 29 and Figure 30). In a typical year there are minor slowdowns along the roadway during peak travel hours that are likely due congestion caused by commuters headed to some of the area's larger employers – St. Luke's Regional Medical Center and Boise State University. In 2021 the speed profiles show that the 3pm hour typically experienced the slowest speeds in both directions. This is a shift from previous trends which showed 5pm to typically be the slowest hour.

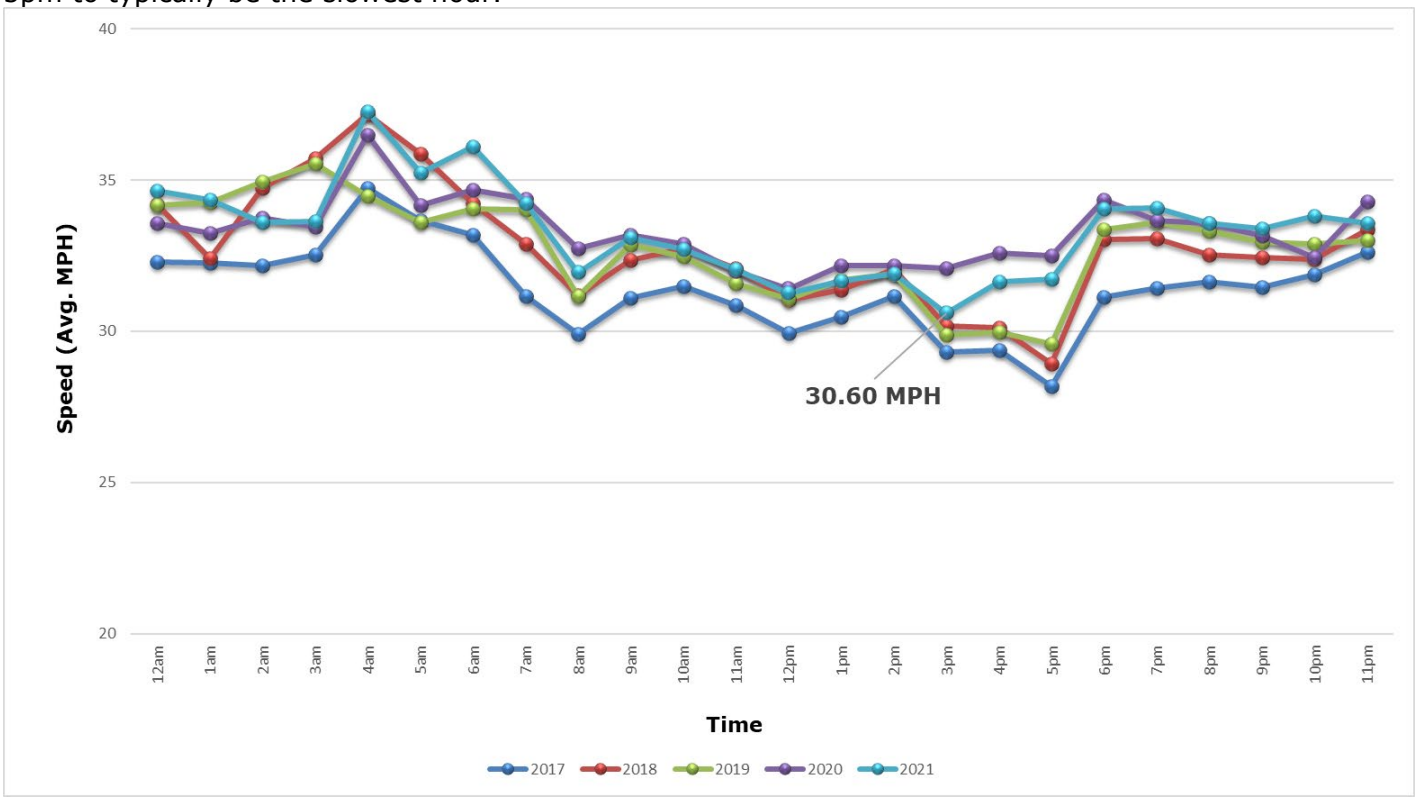

Figure 29: US 20/26 (Myrtle Street to I-84) Southbound, Average Weekday Speeds (2017 – 2021)

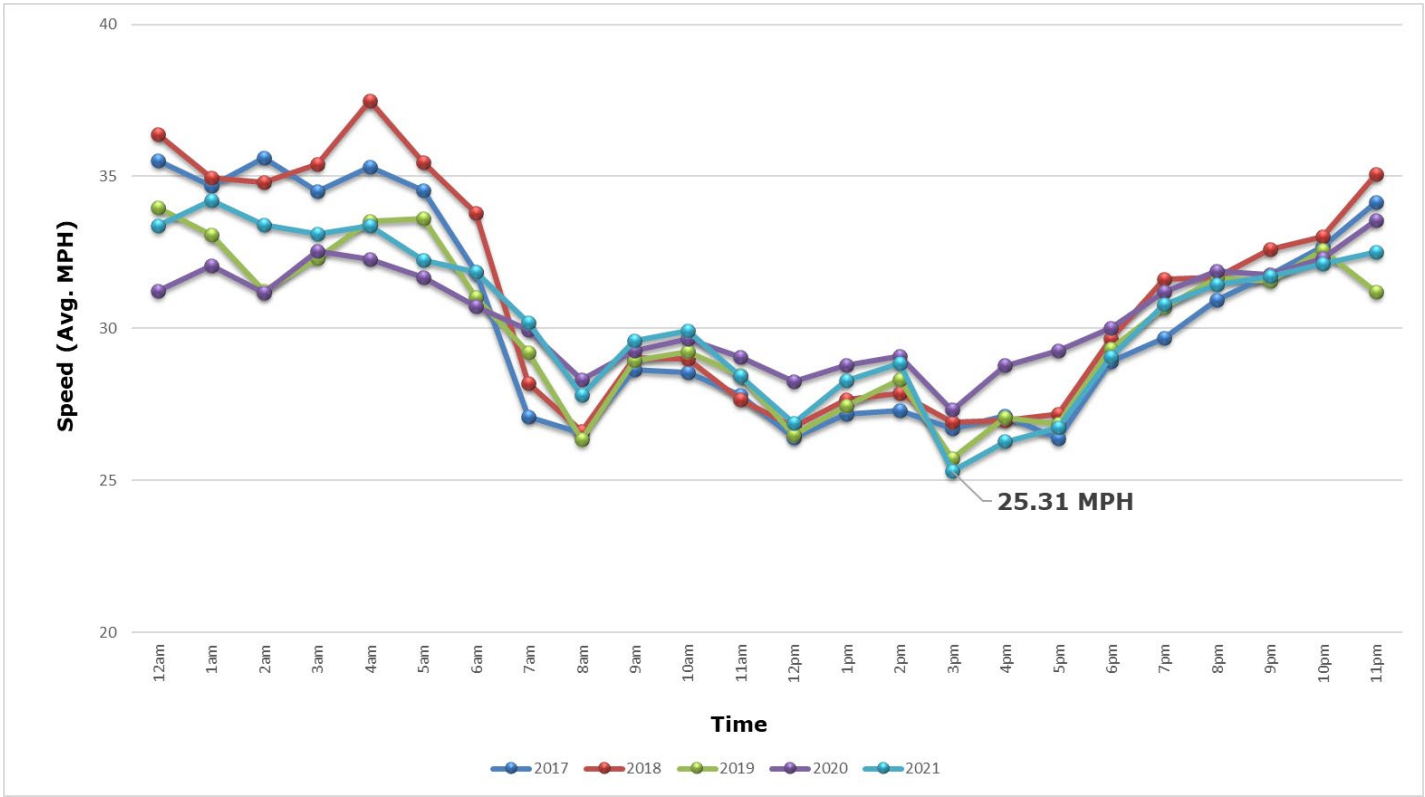

Figure 30: US 20/26 (I-84 to Front Street) Northbound, Average Weekday Speeds (2017 – 2021)

US-20/26 Congestion Analysis and Congestion Mitigation Strategies

US 20/26 is a main east/west thoroughfare in Ada and Canyon Counties. The corridor has capacity issues, high volume intersections, access management issues, and areas with heavy commercial/industrial land use, all of which contribute to congestion throughout the length of the corridor (Figure 31). The speed profiles show degradation in performance, especially on the west end of the corridor. Travel time index and reliability measures indicate moderate congestion is present throughout the corridor. COMPASS has identified a mix of congestion mitigation stratgies to apply on this complicated corridor. Programmed and planned projects are highlighted in Table 11.

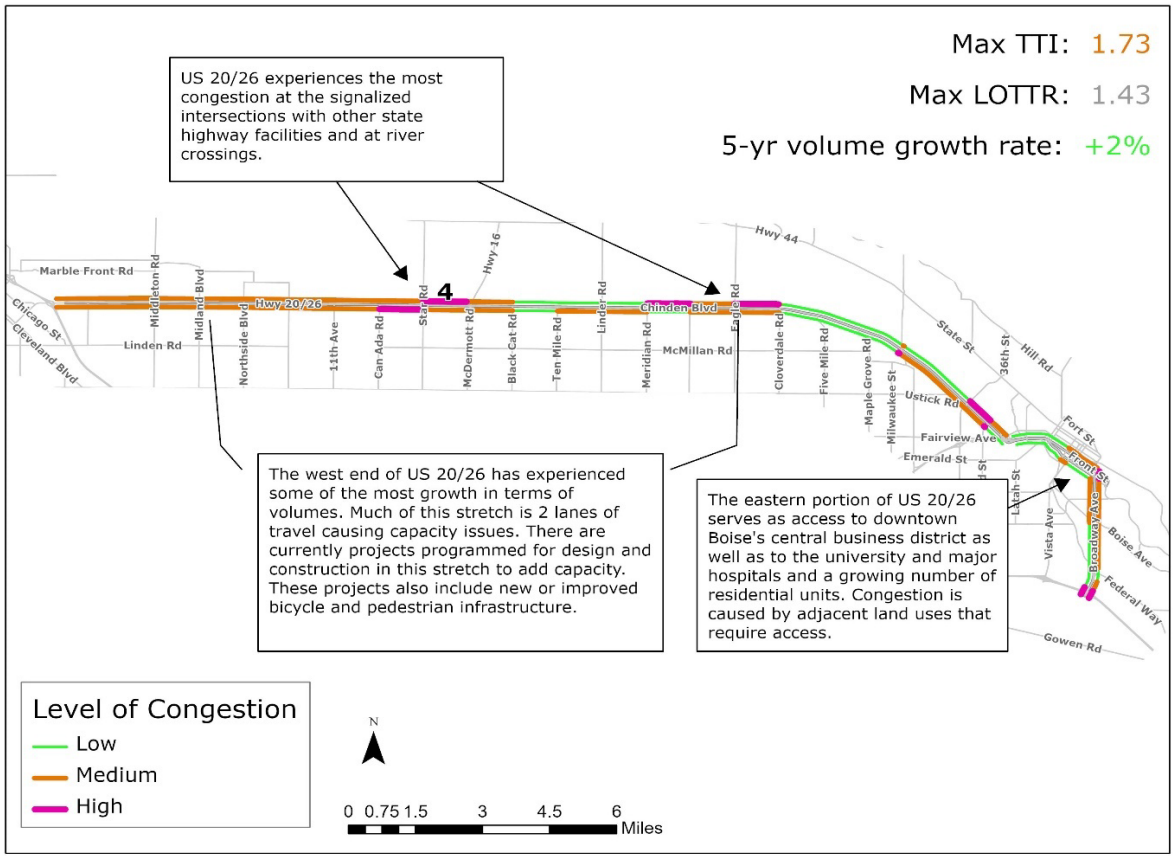

Figure 31: US 20/26 Levels of Peak Hour Congestion, Causes of Congestion, and Management Strategies (2021)

Table 11: US 20/26 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2022-2028)	Planned Funded Projects (FY2029-2050)	Planned Unfunded Projects
Transportation Demand Management	✓ ACHD Commuteride Pedestrian improvements from I-84 to Middleton Road Install pedestrian beacon at 43rd St crossing		
TSMO/ITS	✓ Intersection improvements in Ada and Canyon Counties	✓ Intersection improvements in Ada and Canyon Counties	
Public Transportation Improvements			✓ Planned new and extended services
Additional System Capacity	✓ Widening from 2 to 4 lanes from Star Road to Eagle Road Widening from 4 to 6 lanes from I-84 to Smeed Parkway and 2 to 6 lanes from Smeed Parkway to Middleton Road	✓ Widening from 4 to 6 lanes from Middleton Road to Eagle Road Widening from 2 to 4 lanes from Middleton Road to Star Road	

State Highway 55 (Eagle Road)

State Highway 55 (Eagle Road) Speed Profiles

State Highway 55 (Eagle Road) experiences a steady decrease in speeds throughout the workday (Figure 32 and Figure 33). The slowest speeds are during the midday and evening peak hours in both directions. These dips are telling signs that this corridor serves as both a commuter corridor and a commercial corridor. The speed profile has remained fairly consistent throughout the five-year period despite significant development activity along the corridor.

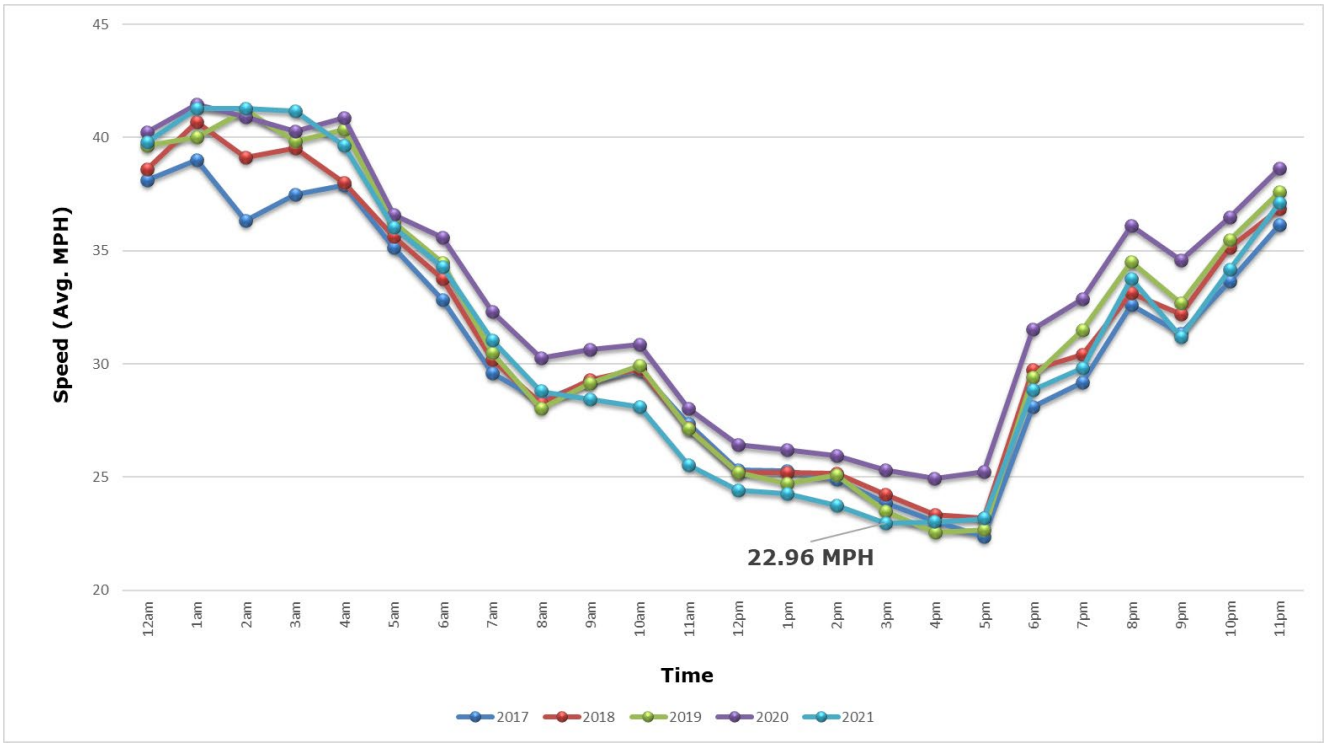

Figure 32: State Highway 55 (Eagle Road) Northbound, Average Weekday Speeds (2017 – 2021)

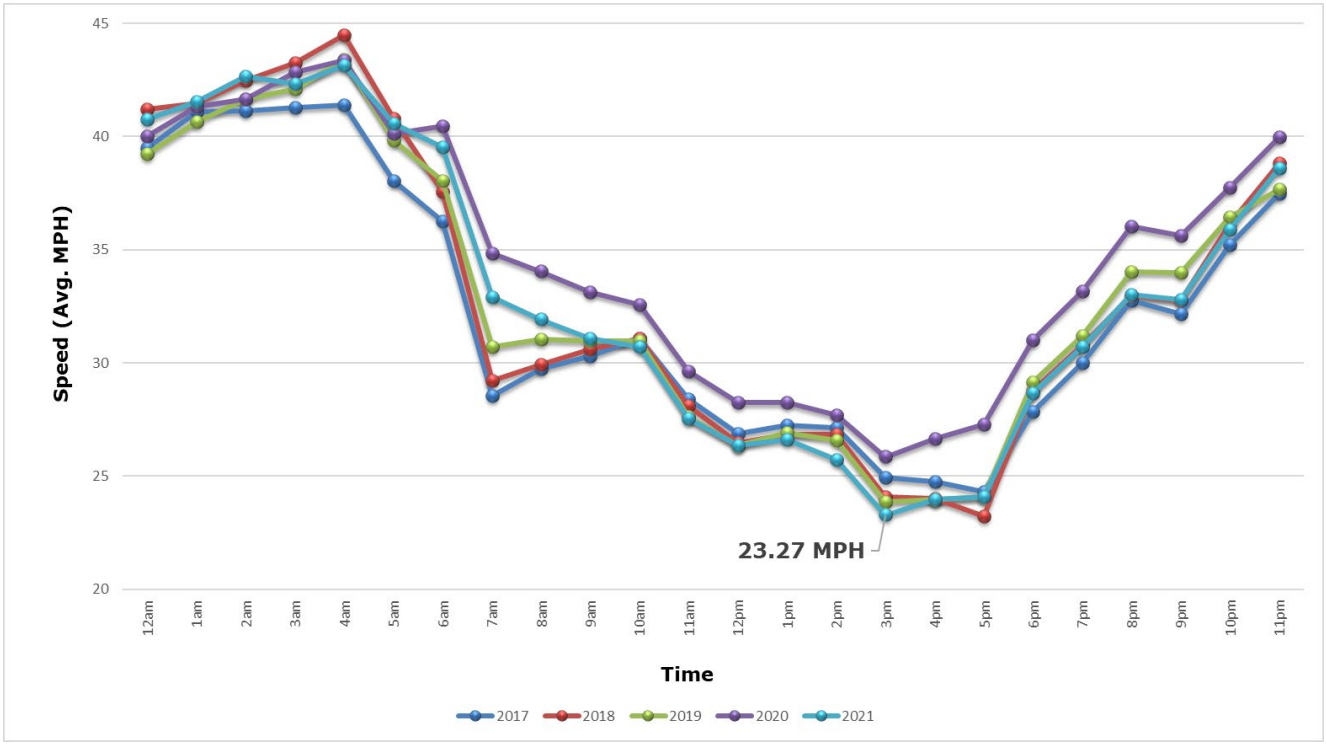

Figure 33: State Highway 55 (Eagle Road) Southbound, Average Weekday Speeds (2017 – 2021)

State Highway 55 (Eagle Road) Congestion Analysis and Congestion Mitigation Strategies

The State Highway 55 (Eagle Road) corridor experiences high levels of congestion caused by high traffic volumes, a variety of land uses, high volume intersections, a lack of public transportation services, and access management issues (Figure 34). This corridor has the overall highest intensity of congestion of the corridors analyzed as indicated via the TTI. The speed profiles also demonstrate a degradation in performance from 2020. Programmed and planned projects are highlighted in Table 12.

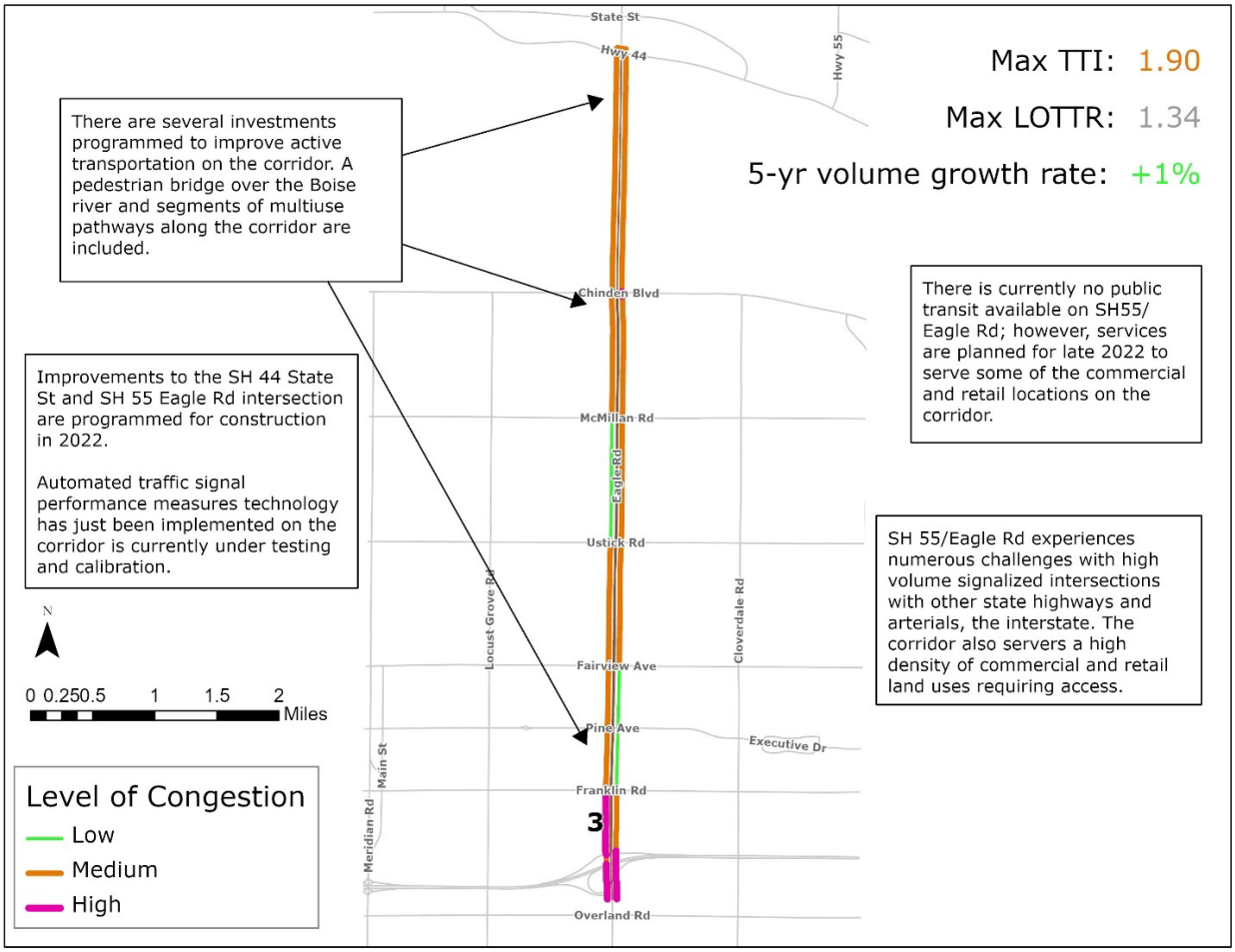

Figure 34: State Highway 55 (Eagle Road) Levels of Peak Hour Congestion, Causes of Congestion and Management Strategies (2021)

Table 12: State Highway 55 (Eagle Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2022-2028)	Planned Funded Projects (FY2029-2050)	Planned Unfunded Projects
Transportation Demand Management	✓ ACHD Commuteride Bike and pedestrian bridge over north channel of the Boise River Pedestrian improvements from Franklin Road to Pine Avenue		
Traffic Operations Improvements/ITS	✓ Intersection improvementst at SH 44 (State St) and SH 55 (Eagle Rd)		
Public Transportation Improvements	✓ New service to The Village mall and other retail hubs starting in fall 2022		✓ Planned new and extended services
Additional System Capacity			

State Highway 55 (Karcher Road)

State Highway 55 (Karcher Road) Speed Profiles

State Highway 55 (Karcher Road) experiences normal morning and evening peak hour travel delays. There is also a noticable drop in average speed throughout the workday hours (Figure 35 and Figure 36). The slowest speeds in both directions occur at 5pm.

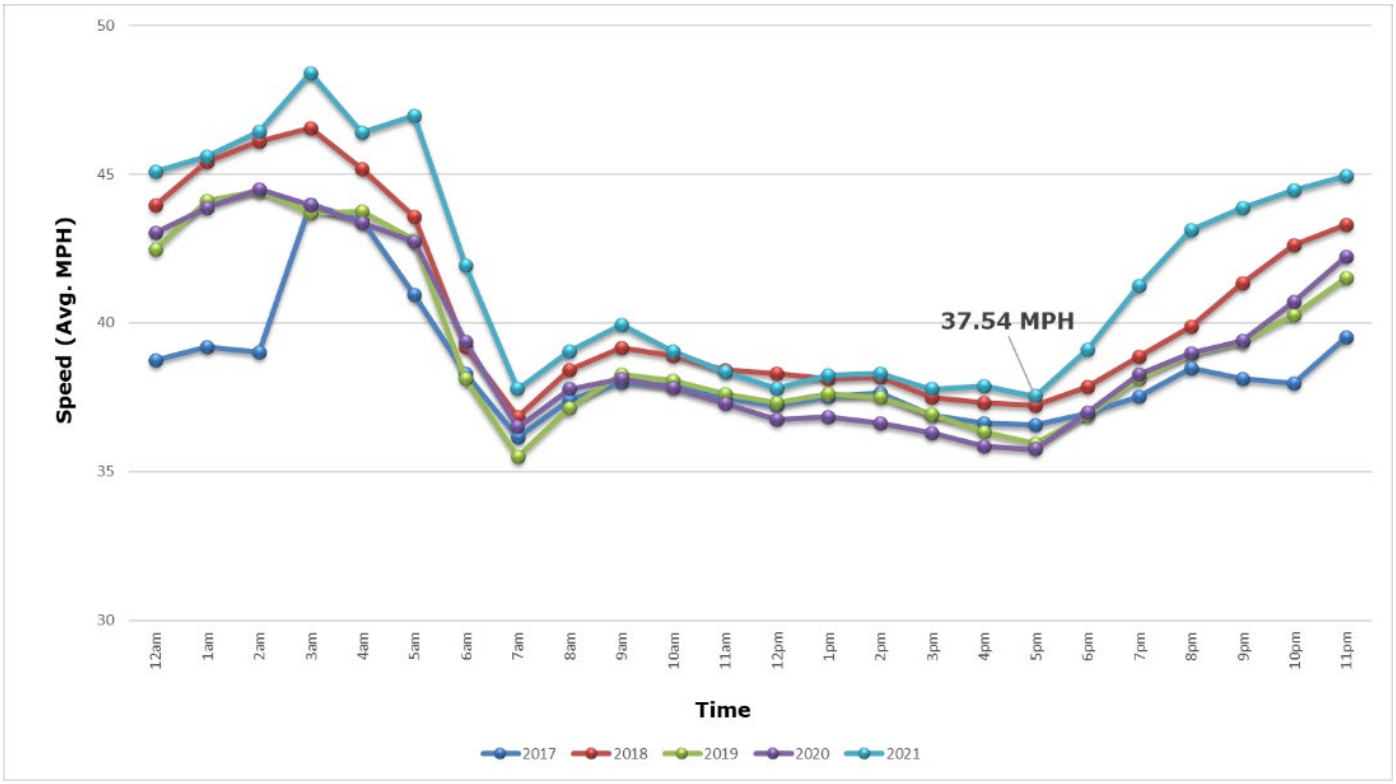

Figure 35: State Highway 55 (Karcher Road) Eastbound, Average Weekday Speeds (2017 – 2021)

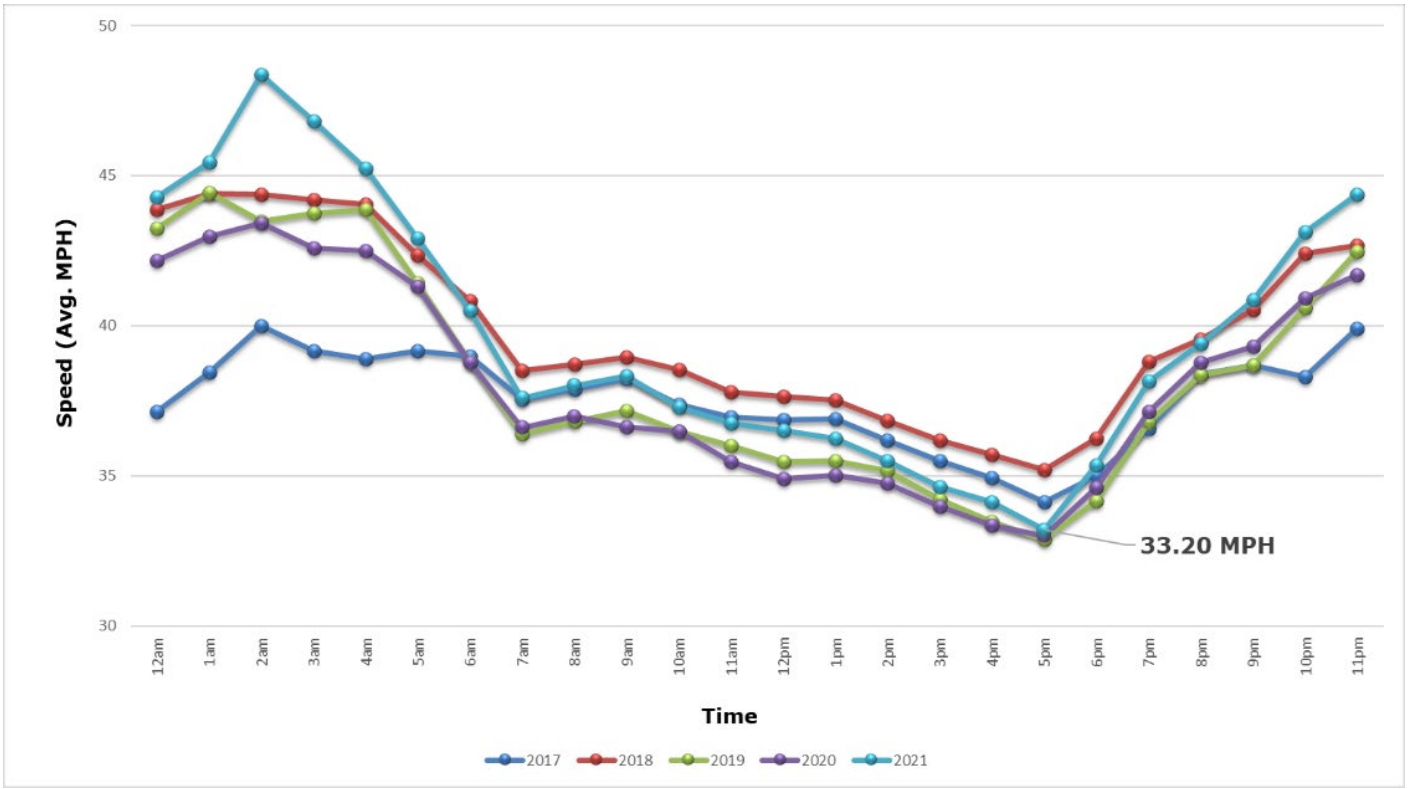

Figure 36: State Highway 55 (Karcher Road) Westbound, Average Weekday Speeds (2017 – 2021)

State Highway 55 (Karcher Road) Congestion Analysis and Congestion Mitigation Strategies

State Highway 55 (Karcher Road) experiences high peak hour congestion mainly in the urban areas surrounding the City of Nampa (Figure 37). The issues stem from a reduction in travel lanes from four to two at Middleton Road, commercial/retail land uses, and high-volume intersections at Nampa/Caldwell Boulevard and the I-84 interchange. This corridor has experienced a steady growth in traffic volume over the past five years. The speed profiles demonstrate performance improvement from 2020, but the TTI indicates moderate congestion. Programmed and planned projects are highlighted in Table 13.

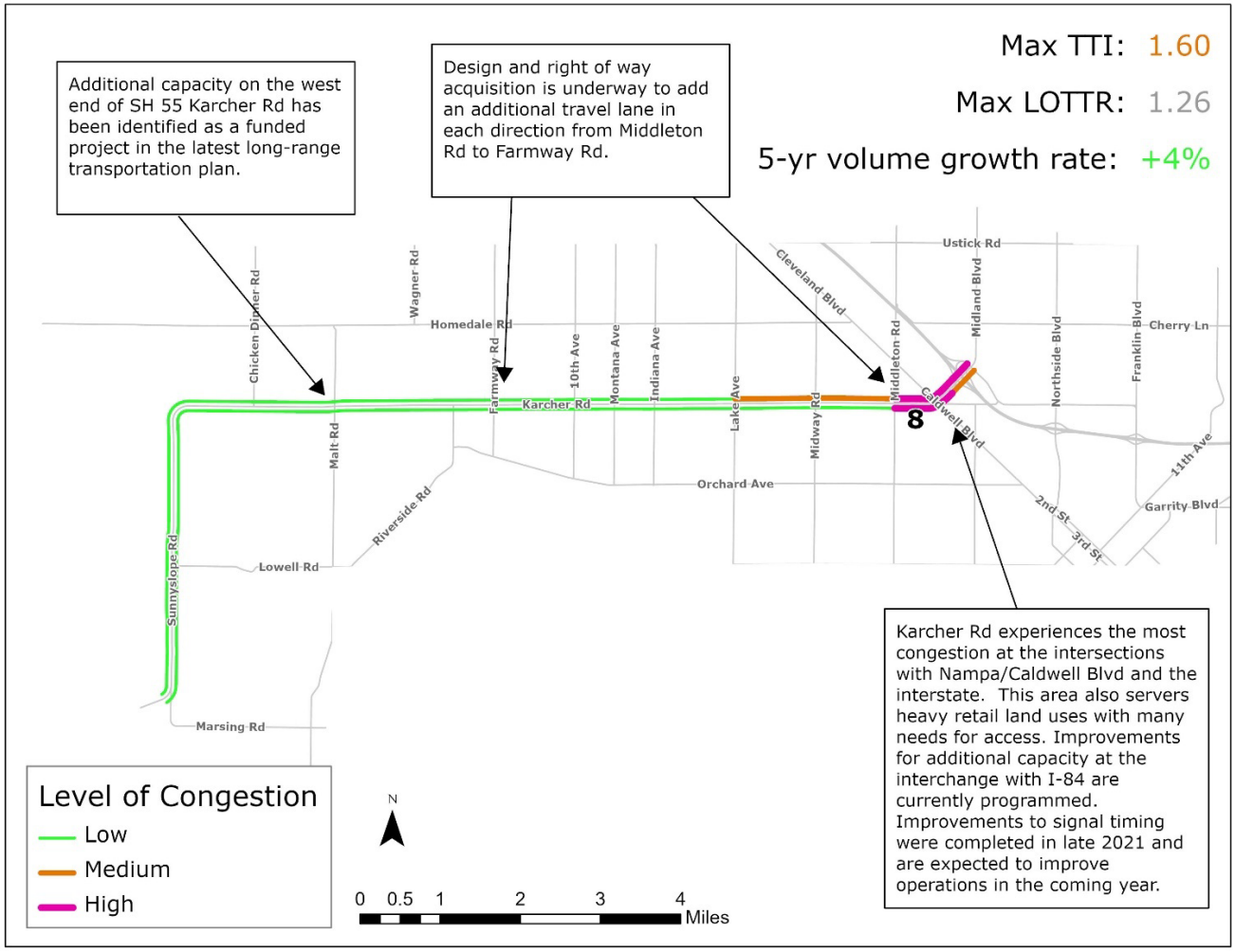

Figure 37: State Highway 55 (Karcher Road) Levels of Peak Hour Congestion, Cause of Congestion, and Management Strategies (2021)

Table 13: State Highway 55 (Karcher Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2022-2028)	Planned Funded Projects (FY2029-2050)	Planned Unfunded Projects
Transportation Demand Management			
TSMO/ITS			
Public Transportation Improvements			✓ Planned services
Additional System Capacity	✓ Add an additional lane in each direction on SH 55 (Karcher Rd) from Midway Rd to Middleton Rd	✓ Widen from 2 to 4 lanes from Pear Lane to Midway Rd	

State Highway 44 (State St)

State Highway 44 (State Street)

The State Highway 44 (State Street) speed profiles are broken into three different sections to account for different roadway characteristics along the corridor. The sections below are shown in order from west to east. No data for this corridor were provided in the in the NPMRDS data set for 2017-2018.

State Highway 44 (State Street): 9th Street to Glenwood Street Speed Profiles

This section of State Highway 44 (State Street) experiences the most delay during the evening peak hours in both directions. There is also a noticable drop in average speed throughout the workday hours (Figure 38 and Figure 39).

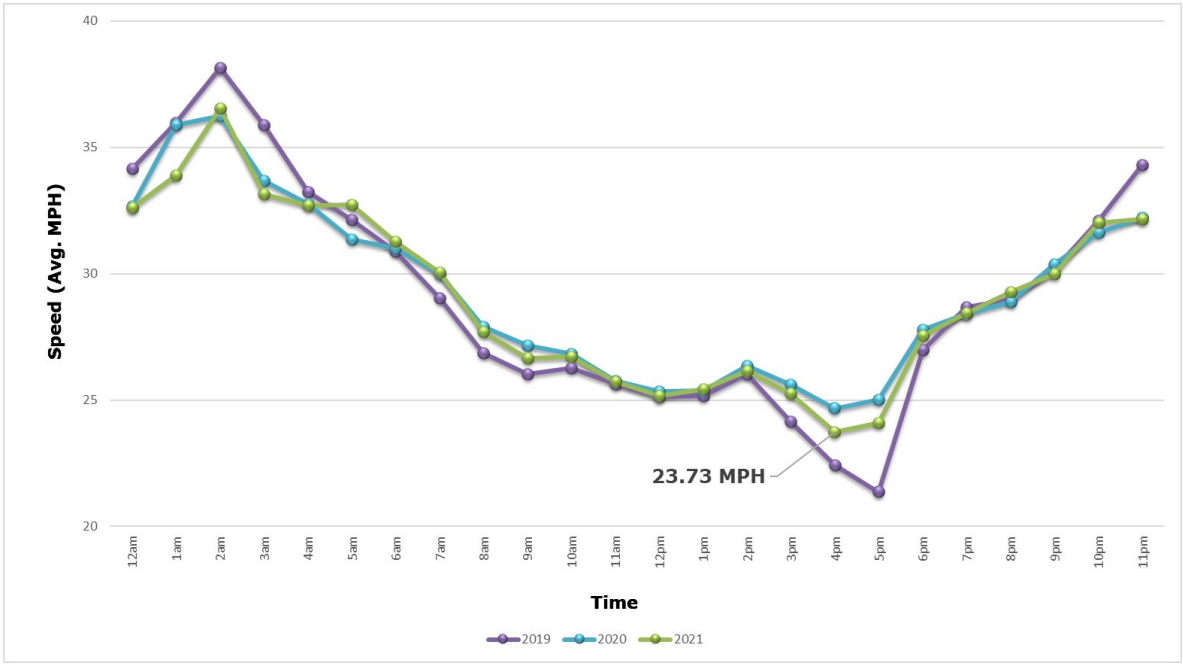

Figure 38: State Highway 44 (9th Street to Glenwood Street) Westbound, Average Weekday Speeds (2019-2021)

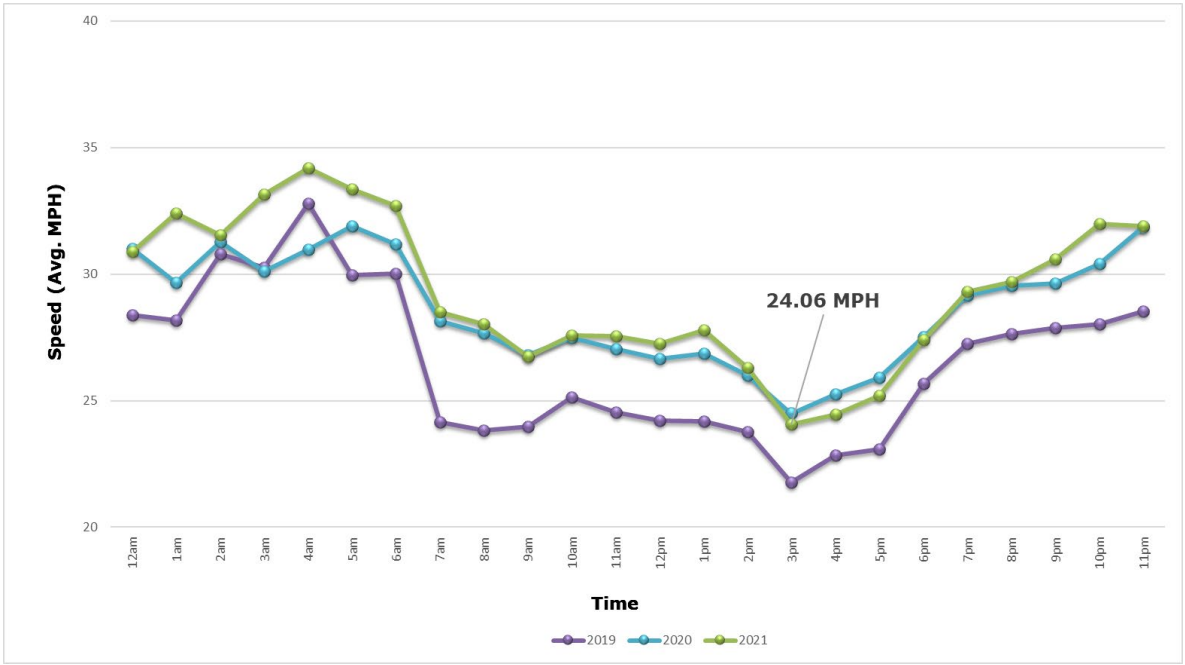

Figure 39: State Highway 44 (Glenwood Street to 9th Street) Eastbound, Average Weekday Speeds (2019-2021)

State Highway 44 (State Street): Glenwood Street to State Highway 16 Speed Profiles

This section of State Highway 44 (State Street) experiences a noticable drop in average speed throughout the workday hours (Figure 40 and Figure 41). Average speeds throughout the day dropped from prior trends in 2021.

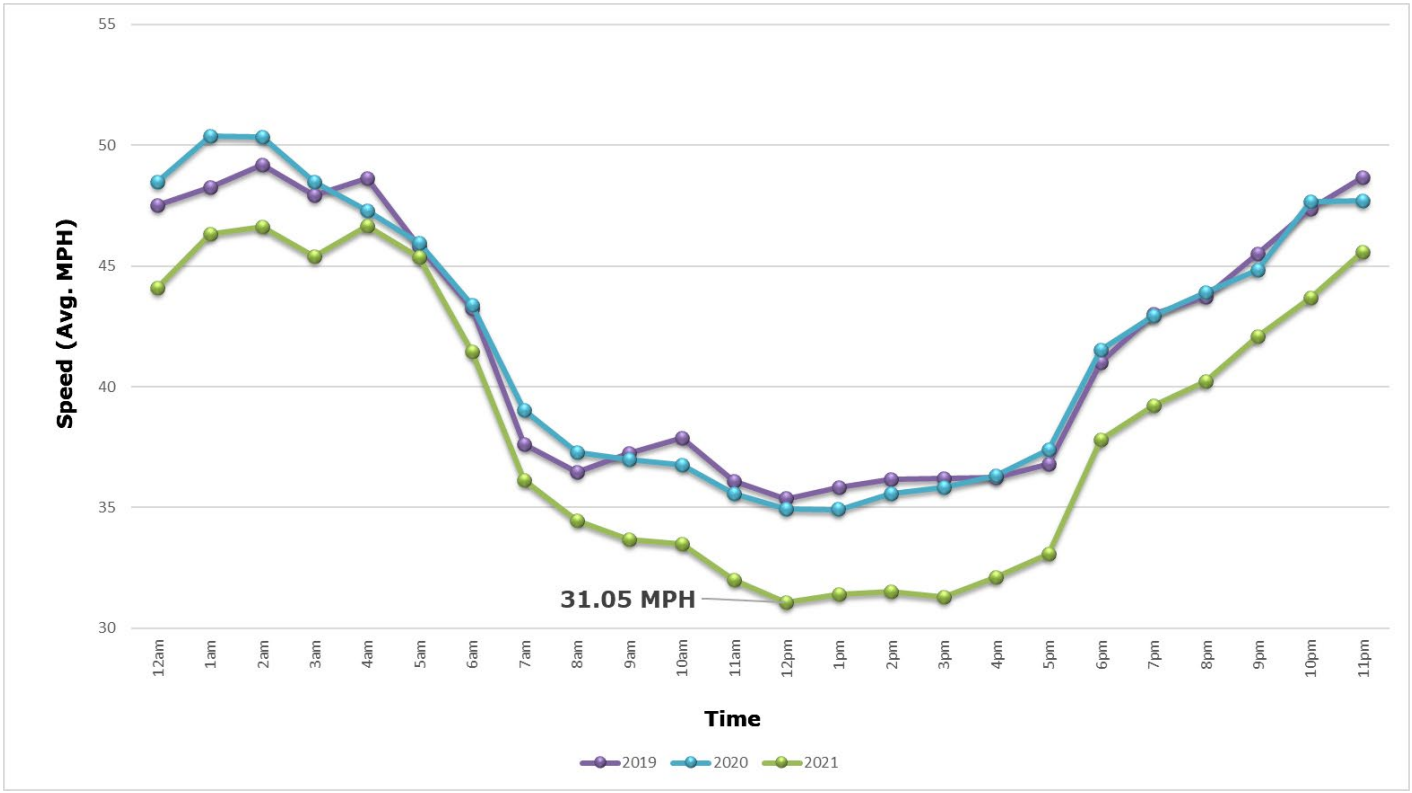

Figure 40: State Highway 44 (Glenwood Street to State Highway 16) Westbound, Average Weekday Speeds (2019-2021)

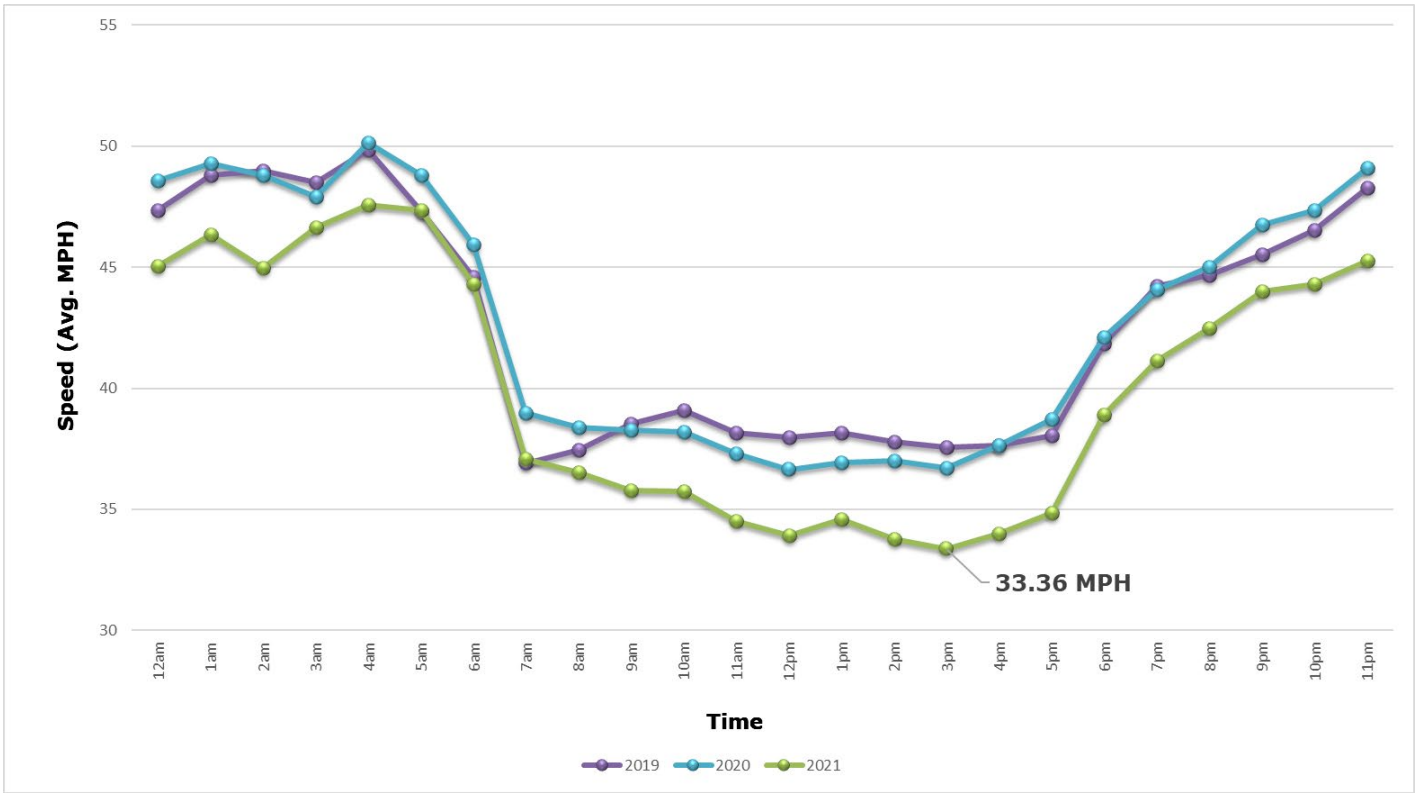

Figure 41: State Highway 44 (State Highway 16 to Glenwood Street) Eastbound, Average Weekday Speeds (2019-2021)

State Highway 44 (State Street): State Highway 16 to I-84 Speed Profiles

This section of State Highway 44 (State Street) experiences less delay that the other two sections analyzed. There are just slight dips in speed during the morning/evening peak hours (Figure 42 and Figure 43).

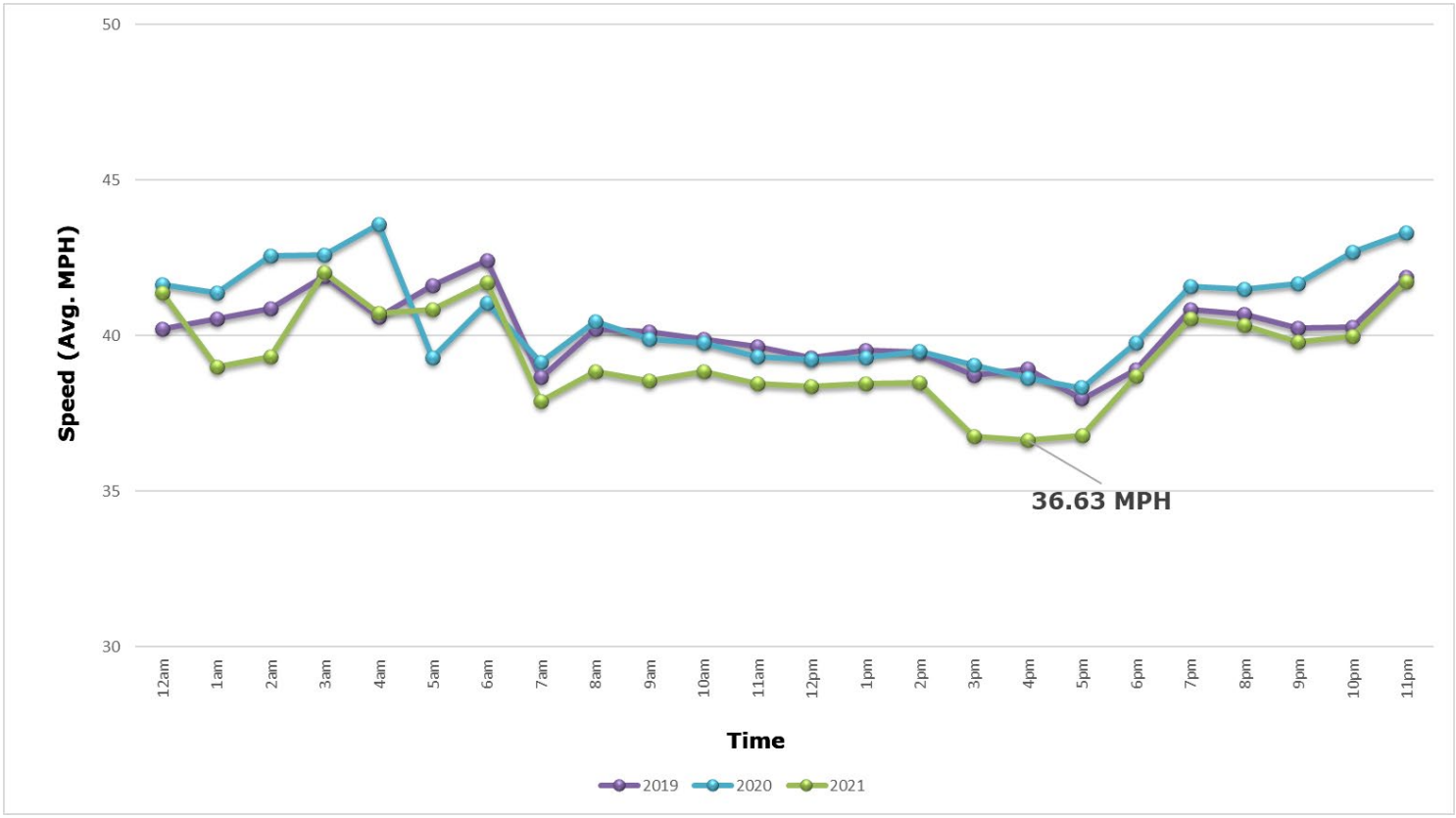

Figure 42: State Highway 44 (State Highway 16 to I-84) Westbound, Average Weekday Speeds (2019-2021)

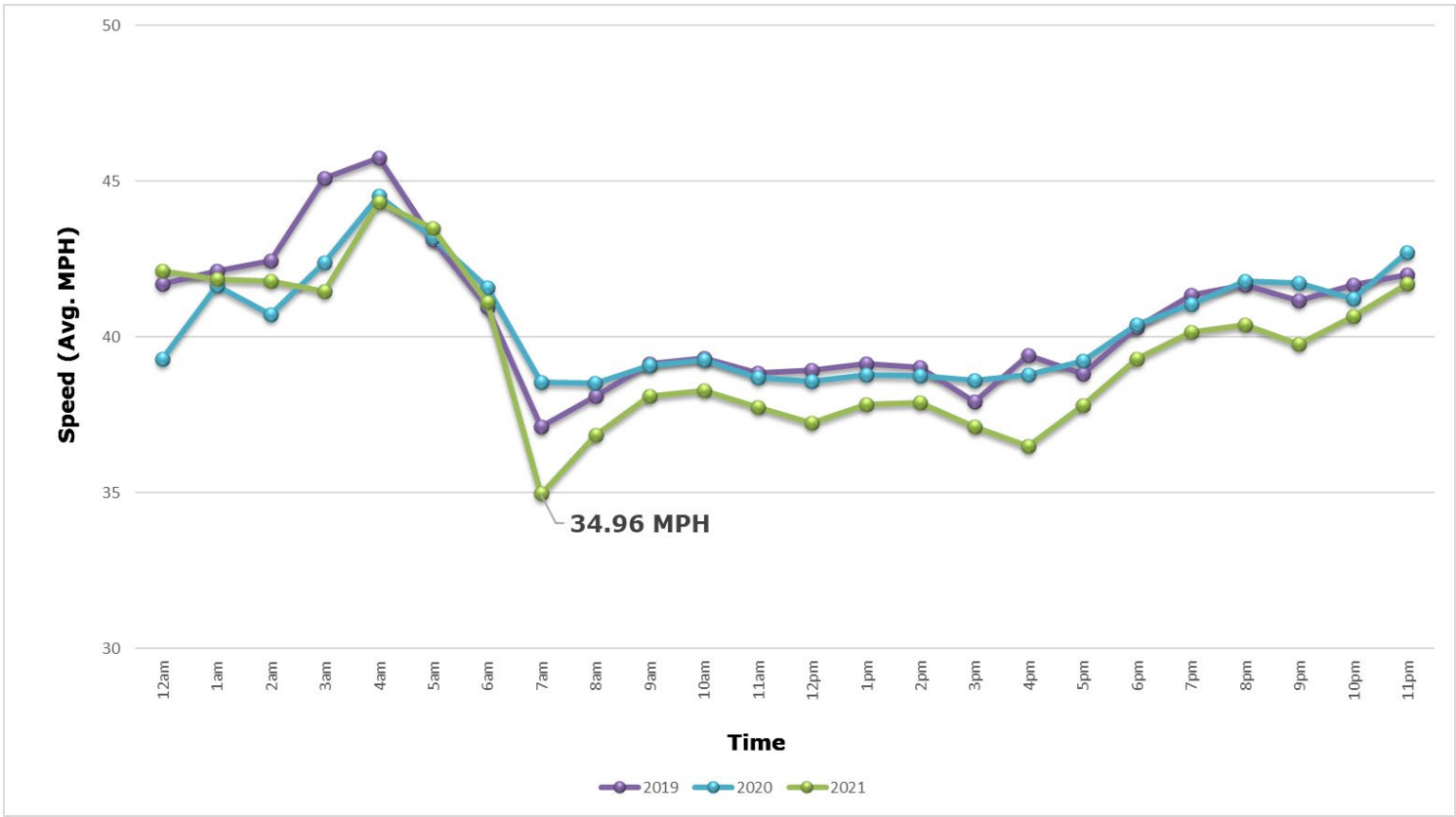

Figure 43: State Highway 44 (I-84 to State Highway 16) Eastbound, Average Weekday Speeds (2019-2021)

State Highway 44 (State Street) Congestion Analysis and Congestion Mitigation Strategies

State Highway 44 (State Street) experiences high peak hour congestion at the Star Road and Middleton Road intersections (Figure 44). The congestion issues on State Highway 44 stem from a high concentrations of commercial/retail land uses, high volume intersections at the river crossings and with state highways, and lane reductions from four to two travel lanes around Linder Road. The speed profiles for the west end of State Highway 44 show noticeable degradation from prior years. The TTI indicates moderate congestion overall on the corridor. Programmed and planned projects are highlighted in Table 14.

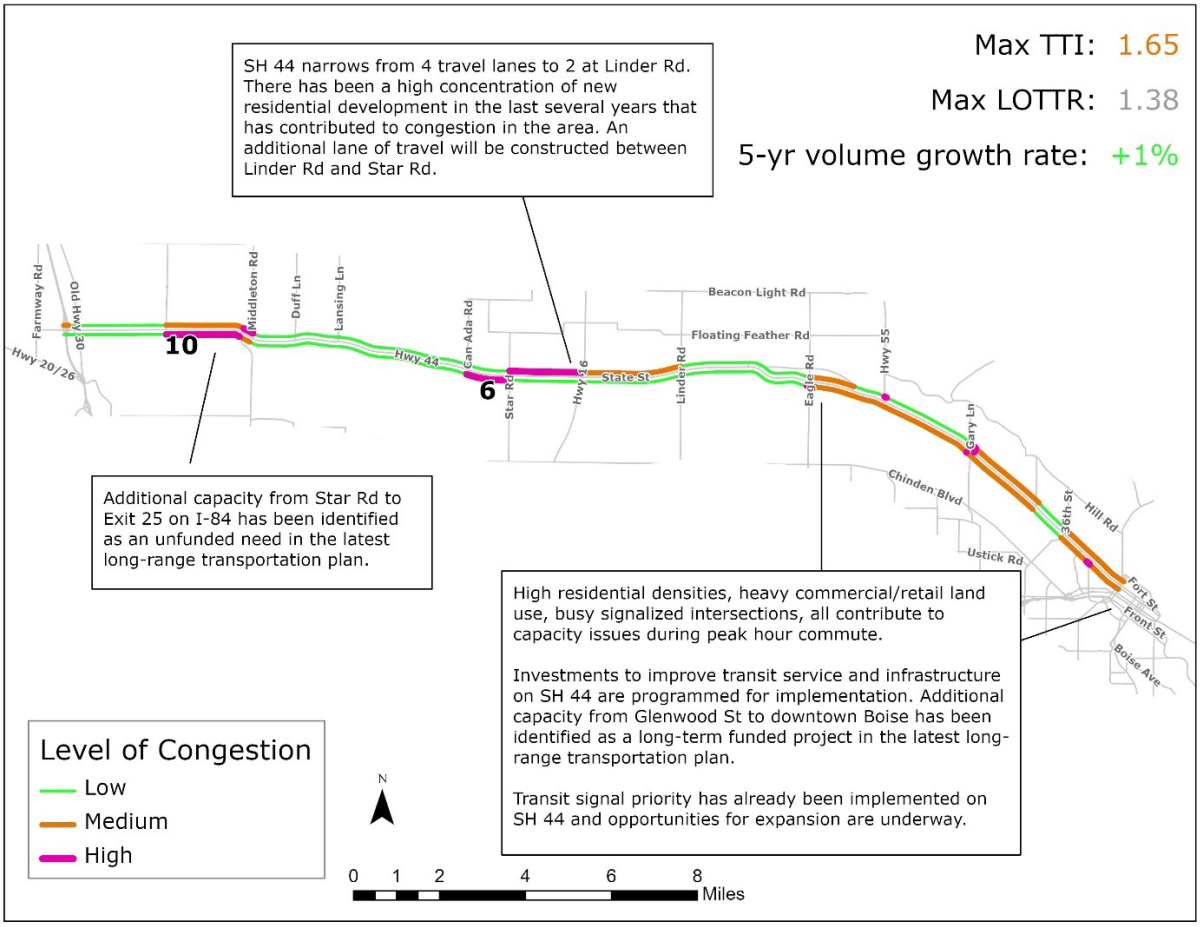

Figure 44: State Highway 44 (State Street) Levels of Peak Hour Congestion, Cause of Congestion, and Management Strategies (2021)

Table 14: State Highway 44 (State Street) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2022-2028)	Planned Funded Projects (FY2029-2050)	Planned Unfunded Projects
Transportation Demand Management			
TSMO/ITS	✓ Intersection improvements at SH 44 (State St) and SH 55 (Eagle Rd)	✓ Replace/modify signal and reconstruct approaches at intersection of SH 44 and Star Rd	
Public Transportation Improvements			✓ Bus Rapid Transit from Glenwood Bridge to downtown Boise
Additional System Capacity	✓ Widen from 2 to 4 lanes from Star Rd to SH 16	✓ Widen from 5 to 7 lanes from Glenwood St to 27th St	✓ Widen from 2 to 4 lanes from I-84 to Star Rd

State Highway 69 (Meridian Road)

State Highway 69 (Meridian Road): Swan Falls Road to Overland Road, Speed Profiles

On State Highway 69 (Meridian Road), speeds decrease during both the morning and evening peak hours (Figure 45 and Figure 46). Average speeds throughout most of the day were slower in 2021 than previous years. No data for this corridor were provided in the in the NPMRDS data set for 2017-2018.

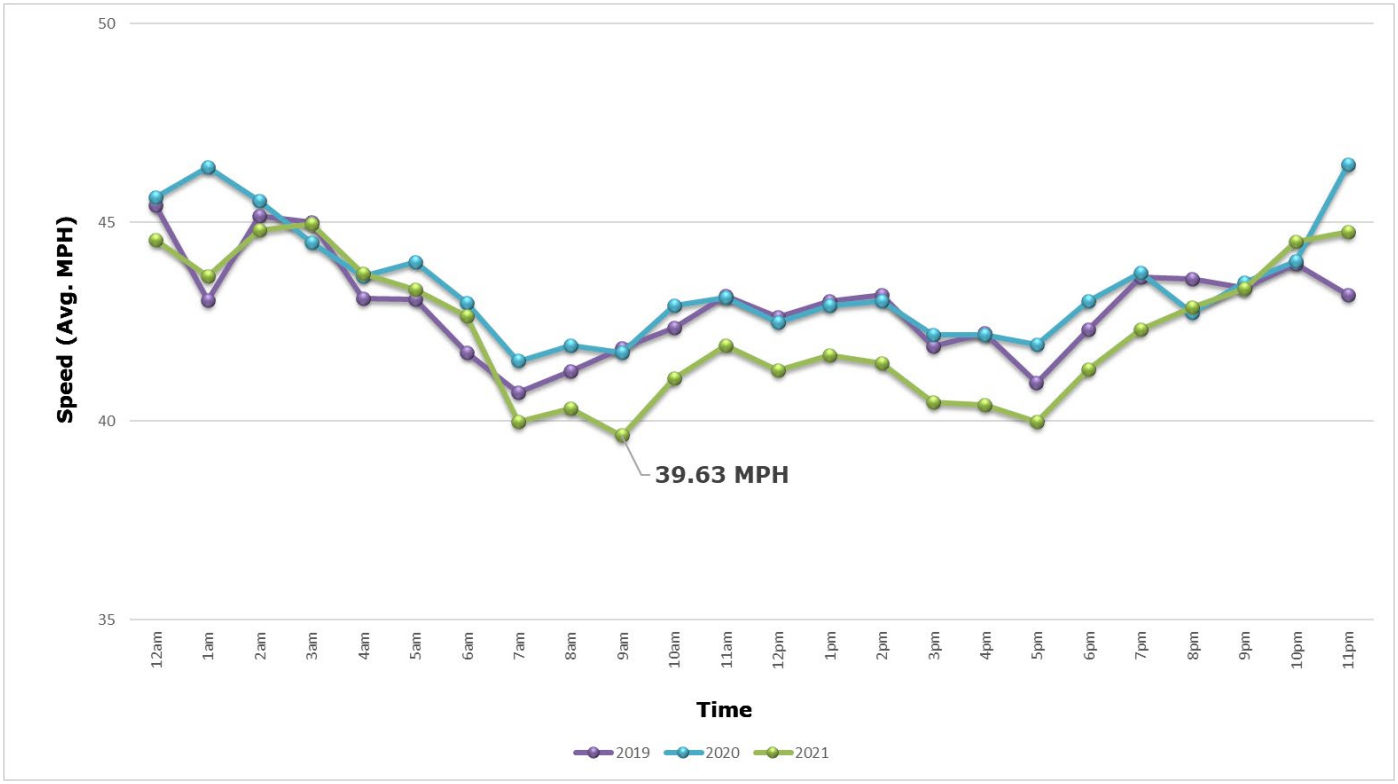

Figure 45: State Highway 69 (Meridian Road) Northbound, Average Weekday Speeds (2019-2021)

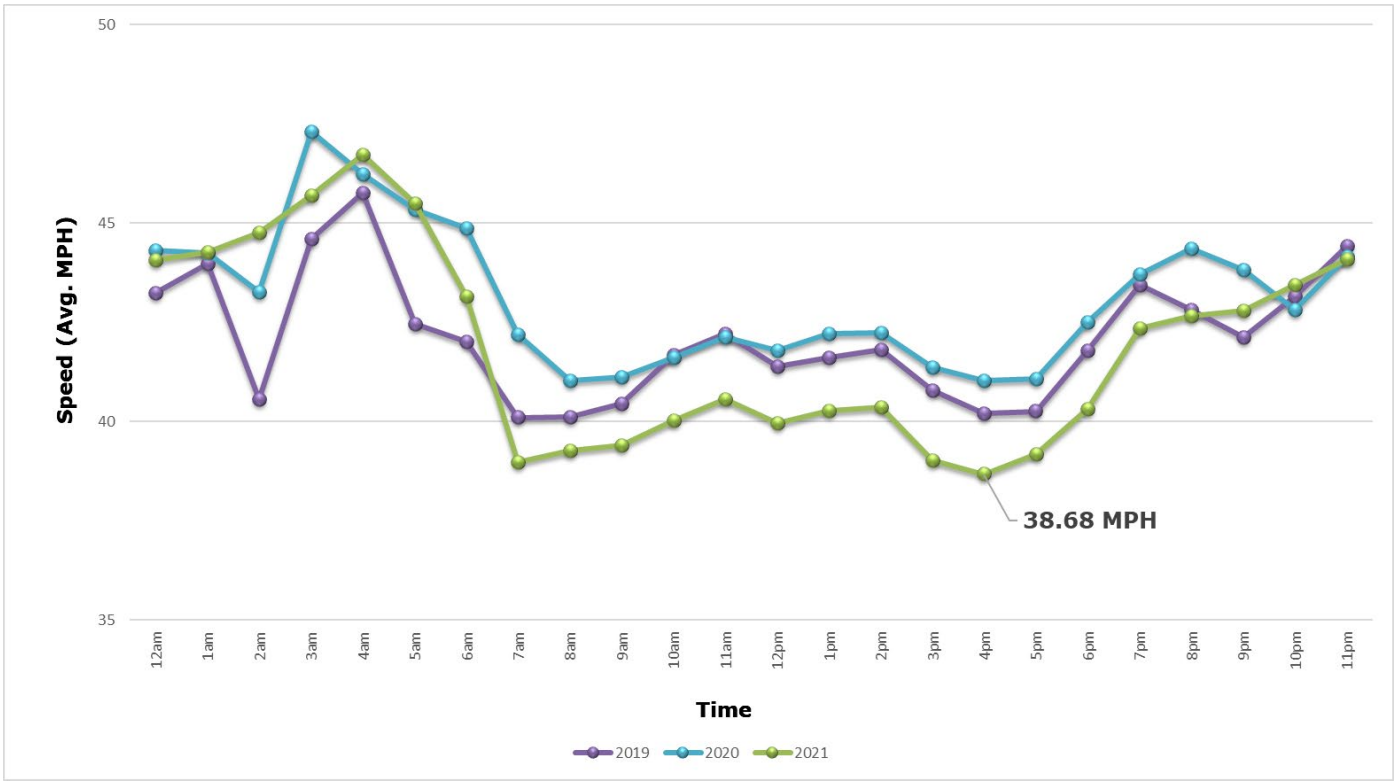

Figure 46: State Highway 69 (Meridian Road) Southbound, Average Weekday Speeds (2019-2021)

State Highway 69 (Meridian Road) Congestion Analysis and Congestion Mitigation Strategies

State Highway 69 (Meridian Road) experiences high peak hour congestion mainly near the busy signalized intersections with Overland Road and I-84 (Figure 47). Speed profiles indicate a degradation in performance from prior years. The TTI indicates moderate congestion on the corridor along with a steady average traffic volume growth rate over the past five years. Programmed and planned projects are highlighted in Table 15.

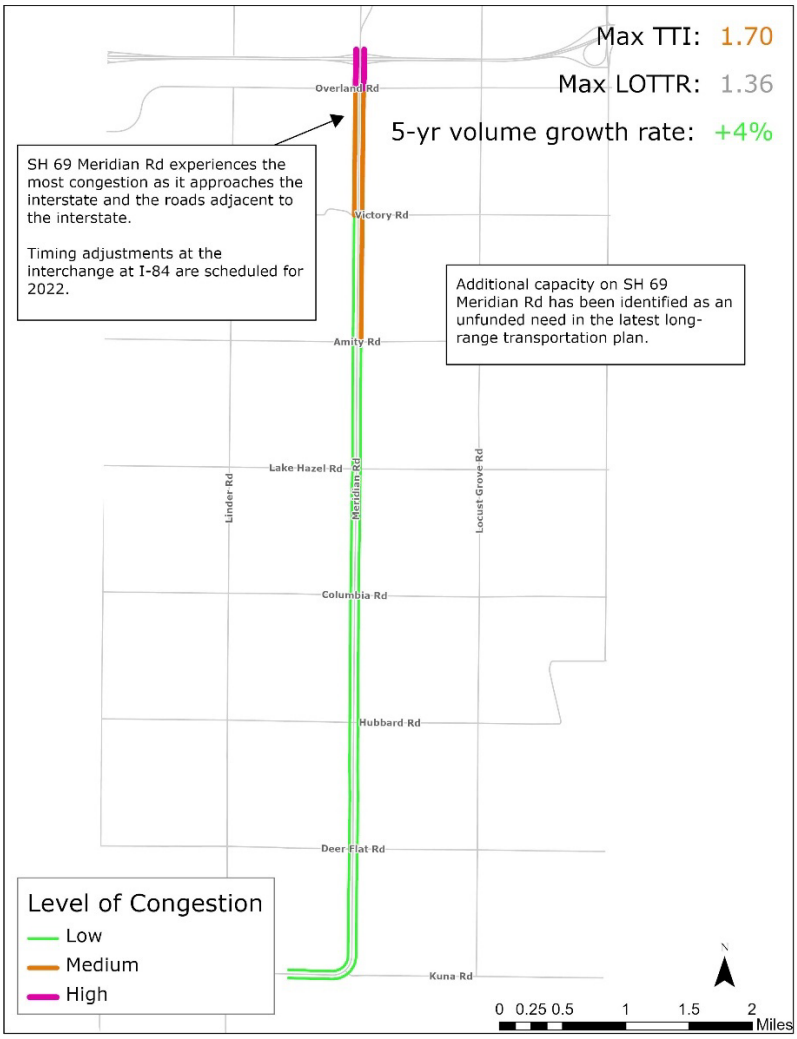

Figure 47: State Highway 69 (Meridian Road) Levels of Peak Hour Congestion, Cause of Congestion, and Management Strategies (2021)

Table 15: State Highway 69 (Meridian Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2022-2028)	Planned Funded Projects (FY2029-2050)	Planned Unfunded Projects
Transportation Demand Management			
TSMO/ITS			
Public Transportation Improvements			✓ Planned services
Additional System Capacity			✓ Additional Capacity identified as long term need

Regional Average Annual Weekday Traffic Volumes (2017-2021)

The average annual growth rates for the past five years indicate that traffic volumes in Canyon County have seen the most growth. I-84, State Highway 55 (Karcher Road), and US 20/26 in Canyon County all saw average growth rates of over 5%. The highest growth rate in Ada County was State Highway 69 (Meridian Road) at 5%.

I-184 and State Street (State Highway 44) heading toward downtown Boise actually saw negative average growth rates. The decreasing rates can likely be attributed to lasting changes in work commute patterns as a result of the COVID-19 pandemic.

For more information on traffic counts visit COMPASS' traffic count webpage[8].

Road	Location	Direction	2017	2018	2019	2020	2021	Annual Average Growth Rate
I-84	1.8 miles se/o Sand Hollow IC	Northwest	11,734	12,528	13,163	13,479	15,444	7%
I-84	1.8 miles se/o Sand Hollow IC	Southeast	11,859	12,458	13,181	13,454	15,453	7%
I-84	nw/o 10th Ave Interchange (Exit 28)	Northwest	23,809	25,192	26,250	26,466	30,977	7%
SH 55 (Karcher Rd)	0.25 miles e/o Indiana Ave	West	7,404	8,256	9,025	8,755	9,609	7%
I-84	0.4 miles nw/o US 20/26 (Exit 26)	West	16,918	18,632	18,872	19,211	21,573	6%
SH 55 (Karcher Rd)	0.25 miles e/o Indiana Ave	East	8,149	8,946	9,682	9,507	10,371	6%
US 20/26	1.6 miles e/o Jct I-84 IC #29 (e/o KCID Rd)	East	5,796	6,012	6,467	6,125	7,343	6%
I-84	0.4 miles nw/o US 20/26 (Exit 26)	East	17,590	17,328	19,268	19,587	22,172	6%
I-84	nw/o 10th Ave Interchange (Exit 28)	Southeast	24,886	26,157	27,215	27,215	30,912	6%
Meridian Rd (SH 69)	s/o Hubbard Rd	North	8,554	9,150	9,773	9,742	10,576	5%
Meridian Rd (SH 69)	s/o Hubbard Rd	South	8,607	9,307	9,965	9,920	10,598	5%
Chinden Blvd (US 20/26)	w/o McDermott Rd	West	9,065	9,664	10,160	9,307	11,119	5%
US 20/26	1.6 miles e/o Jct I-84 IC #29 (e/o KCID Rd)	West	6,042	6,352	6,634	6,172	7,370	5%
Chinden Blvd (US 20/26)	w/o McDermott Rd	East	9,014	9,524	9,985	9,196	10,962	5%
SH 55 (Karcher Rd)	0.14 miles n/o I-84B (Caldwell-Nampa Blvd)	Northeast	22,146	23,088	24,995	23,207	26,607	5%
I-84	nw/o Franklin Rd Interchange (Exit 29)	Southeast	28,014	29,912	30,338	30,239	33,371	4%
Broadway Ave	s/o Myrtle (River Crossing)	North	12,462	14,066	14,845	12,774	14,770	4%
I-84	w/o 11th Ave Overpass	West	44,602	46,811	48,112	45,547	52,778	4%
US 20/26	0.38 miles nw/o Mink Rd	Northwest	3,553	3,693	3,869	3,824	4,178	4%
I-84	1.4 miles se/o Gowen Rd IC	Southeast	12,486	13,039	13,386	12,566	14,677	4%
I-84	nw/o Franklin Rd Interchange (Exit 29)	Northwest	27,218	28,393	29,076	28,978	31,971	4%
I-84	1.4 miles se/o Gowen Rd IC	Northwest	12,406	13,164	13,403	12,528	14,547	4%
US 20/26	0.38 miles nw/o Mink Rd	Southeast	3,749	3,861	4,020	3,962	4,343	4%
I-84	1.5 miles nw/o Blacks Creek IC	Southeast	12,082	13,266	13,263	12,187	13,981	4%
I-84	w/o 11th Ave Overpass	East	47,865	50,099	51,638	48,359	55,257	4%

[8] https://www.compassidaho.org/prodserv/traffic_counts.htm

Road	Location	Direction	2017	2018	2019	2020	2021	Annual Average Growth Rate
Meridian Rd (SH 69)	e/o Sailer Pl (Kuna)	West	5,477	5,778	5,962	5,965	6,310	4%
US 20/26	w/o Apple Valley Rd	West	2,343	2,509	2,555	2,488	2,691	4%
I 84	0.61 miles w/o WB On Ramp IC 44 (Meridian)	West	57,830	61,182	63,183	58,991	66,171	3%
SH 44	e/o Palmer Lane	East	10,254	10,606	10,895	11,171	11,683	3%
Meridian Rd (SH 69)	e/o Sailer Pl (Kuna)	East	5,452	5,778	5,871	5,885	6,208	3%
US 20/26	w/o Apple Valley Rd	East	2,425	2,569	2,620	2,545	2,749	3%
SH 44	e/o Palmer Lane	West	10,773	11,366	11,277	11,682	12,202	3%
I-84	1.5 miles nw/o Blacks Creek IC	Northwest	11,952	12,668	13,134	11,836	13,528	3%
I-84	0.61 miles w/o WB On Ramp IC 44 (Meridian)	East	60,251	62,683	64,801	60,505	67,991	3%
SH 55 (Karcher Rd)	s/o Lowell Rd	North	3,235	3,390	3,311	3,260	3,636	3%
I-84	0.7 miles e/o Robinson Rd overpass	East	56,267	58,505	60,582	56,611	63,004	3%
SH 55 (Karcher Rd)	0.14 miles n/o I-84B (Caldwell-Nampa Blvd)	Southwest	20,399	20,866	22,431	20,823	22,815	3%
I-84	w/o Beg EB Off Ramp Franklin Blvd IC (Exit 36)	West	40,796	42,572	43,236	N/A	45,538	3%
I-84	0.7 miles e/o Robinson Rd overpass	West	53,440	55,304	57,026	53,340	59,590	3%
SH 55 (Karcher Rd)	s/o Lowell Rd	South	3,202	3,286	3,229	3,178	3,558	3%
I-84	w/o Locust Grove Overpass	East	66,712	69,480	71,518	66,052	74,021	3%
I-84	w/o Locust Grove Overpass	West	65,026	68,616	70,523	64,517	71,573	2%
I-84	se/o Ustick Road Overpass (Caldwell)	West	28,372	30,211	31,482	30,758	30,973	2%
I-84	se/o Ustick Road Overpass (Caldwell)	East	29,592	31,378	32,248	31,501	31,973	2%
I-84	0.74 miles w/o EB Off Ramp Gowen Rd (Exit 57)	West	24,315	25,789	25,633	22,803	25,927	2%
I-84	1.2 miles w/o I 184 IC (Five Mile)	West	71,849	76,620	78,373	69,681	76,418	2%
I-84	0.1 miles se/o Karcher Rd Interchange (Exit 33)	West	37,123	37,540	36,474	N/A	39,324	1%
Eagle Rd	0.3 miles s/o SH 44 (River Crossing)	North	21,325	21,995	22,538	20,854	22,381	1%
I-84	0.3 miles w/o Cole/Overland Interchange (Boise)	Northwest	38,932	40,571	42,789	36,595	40,712	1%
I-84	0.74 miles w/o EB Off Ramp Gowen Rd (Exit 57)	East	24,369	25,436	25,260	22,447	25,453	1%
I-84	0.4 miles w/o Vista Ave IC	West	45,359		50,811	42,242	47,288	1%
Eagle Rd	0.3 miles s/o SH 44 (River Crossing)	South	20,459	21,254	21,709	19,889	21,312	1%
I-84	1.2 miles w/o I 184 IC (Five Mile)	East	71,397	74,278	74,983	66,597	74,334	1%
I-84	0.1 miles se/o Karcher Rd Interchange (Exit 33)	East	40,239	42,236	41,528	N/A	41,640	1%
I-84	0.4 miles w/o Vista Ave IC	East	45,110		48,403	41,266	46,346	1%
I-84	0.8 miles w/o Orchard IC	Northwest	48,200	51,263	51,504	44,914	49,509	1%
I-84	0.6 miles w/o Broadway Ave IC	West	40,266	42,732	42,811	37,177	41,310	1%
I-84	0.6 miles w/o Broadway Ave IC	East	38,369	39,937	39,904	35,117	39,255	1%
Chinden Blvd (US 20/26)	0.14 miles nw/o Five Mile Ext.	Northwest	13,271	14,015	14,049	11,667	13,547	1%
I-84	w/o Beg EB Off Ramp Franklin Blvd IC (Exit 36)	East	44,163	45,712	44,304	N/A	45,081	1%
I-84	0.8 miles w/o Orchard IC	Southeast	47,811	49,763	49,928	44,077	48,686	0%
Eagle Rd	n/o Sedona St	South	19,503	19,741	20,598	18,822	19,761	0%

Road	Location	Direction	2017	2018	2019	2020	2021	Annual Average Growth Rate
I-84	0.3 miles w/o Cole/Overland Interchange (Boise)	Southeast	54,882	55,287	58,715	49,529	55,189	0%
Eagle Rd	n/o Sedona St	North	20,073	20,459	21,248	19,258	20,064	0%
Broadway Ave	s/o Myrtle (River Crossing)	South	13,928	14,713	15,610	12,070	13,847	0%
Chinden Blvd (US 20/26)	0.14 miles nw/o Five Mile Ext.	Southeast	13,259	13,721	13,736	11,156	13,132	0%
State St	nw/o 23rd St	Southeast	11,935	10,776	11,604	10,165	11,497	-1%
I-184	1.4 miles ne/o I 84 IC (Emerald Overpass)	Southwest	45,050	46,894	47,567	38,796	43,279	-1%
I-184	0.4 miles e/o Boise River (Connector WB)	West	34,326	37,265	37,498	28,340	32,462	-1%
State St	nw/o 23rd St	Northwest	11,858	11,029	11,679	9,955	11,194	-1%
I-184	0.4 miles e/o Boise River (Connector EB)	East	39,872	43,549	44,665	33,301	36,966	-2%
I-184	1.4 miles ne/o I 84 IC (Emerald Overpass)	Northeast	44,292	45,072	46,030	36,882	40,883	-2%
Chinden Blvd (US 20/26)	w/o 32nd St	Northwest	13,150	14,473	14,235	10,937	12,125	-2%
Chinden Blvd (US 20/26)	w/o 32nd St	Southeast	14,752	15,610	15,169	11,340	12,282	-4%