COMPASS
COMMUNITY PLANNING ASSOCIATION
of Southwest Idaho

Working together to plan for the future

Treasure Valley Annual Congestion Management System Report, 2020

08-2021

June 2021

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Executive Summary

This Congestion Management Annual Report summarizes how the transportation system in Ada and Canyon Counties is performing and what transportation agencies are doing to help mitigate congestion. This report and the travel time data it is based on are used by COMPASS in its transportation planning activities, including informing the project selection process for the transportation improvement program, analyzing progress toward the goals of the regional long-range transportation plan, and providing assistance to member agencies with their planning processes.

The key takeaways from this report include:

- In 2020, the COVID-19 pandemic and resulting lockdowns and work from home orders had a great impact on congestion in the Treasure Valley. The interstate and state highway saw roughly a 50% (15-mile) reduction of congested miles and significant reductions in traffic volumes in 2020 compared to 2019.
- The evening peak period (3pm to 7pm) is the most congested time of day in the Treasure Valley.
- The interstate and state highway systems both met their reliability targets in 2020 set by ITD and COMPASS for federal performance measures reporting.
- The interstate system did not meet the freight reliability target in 2020 set by ITD and COMPASS for federal performance measures reporting. However, there was improvement as compared to 2019.
- Major capacity projects on I-84 between the Karcher Road interchange (Exit 33) and the Franklin Boulevard interchange (Exit 35) and on US 20/26 (Chinden Boulevard) between State Highway 16 and Eagle Road are underway. It is anticipated that I-84 and US 20/26 (Chinden Boulevard) will experience higher levels of congestion during construction in 2021.
- Population in the region continued to grow in 2020, but development decreased slightly, likely due to the COVID-19 pandemic. Most of the commercial/retail development permitted in 2020 was along State Highway 55 (Eagle Road). Much of the residential development in 2020 was in western Ada County and eastern Canyon County, with State Highway 69, US 20/26, and State Highway 44 likely to be the most impacted corridors.
- Six of the ten most congested roadway segments in 2020 occurred on two highways: State Highway 55 (Eagle Road and Karcher Road) and US 20/26 (Chinden Boulevard).

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. The 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 *Treasure Valley Congestion Management System Plan,* adopted by COMPASS in 2005, details how COMPASS implements the congestion management process, including the travel time data collection process, use of the data, specific definitions of congestion, and a "toolbox" of mitigation strategies. The plan is available at www.compassidaho.org/documents/prodserv/reports/TreasureValleyCMSFinal.pdf.

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, traffic crashes, inclement weather, special events, and emergencies.

Growth Measures

Growth in the Treasure Valley

The Treasure Valley continues to grow. COMPASS estimates population on a yearly basis for cities and counties in its planning area. From 2010 through 2020, the population grew by nearly 27% (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[i] for more information on growth.

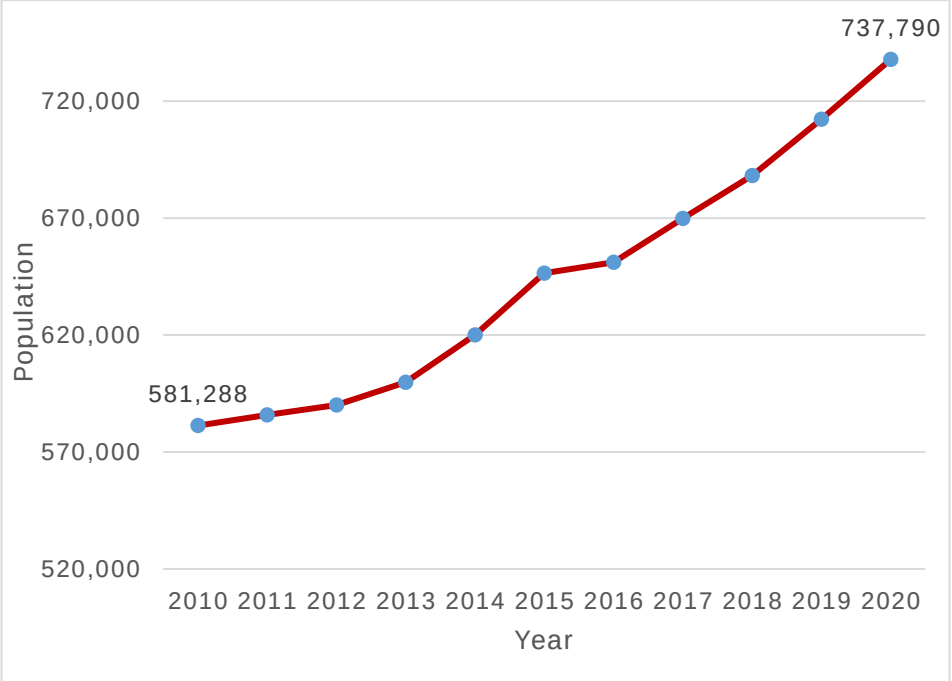

Figure 1: Ada and Canyon Counties Population (2010 – 2020)

Development and Congestion

Increases in population and development activity can impact travel patterns and performance of the transportation system. Development activity increased steadily from 2011 through 2019 in Ada and Canyon Counties, but slightly dipped 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 increases in traffic volumes and congestion due to new construction (Figures 3, 4, and 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[ii] for more information.

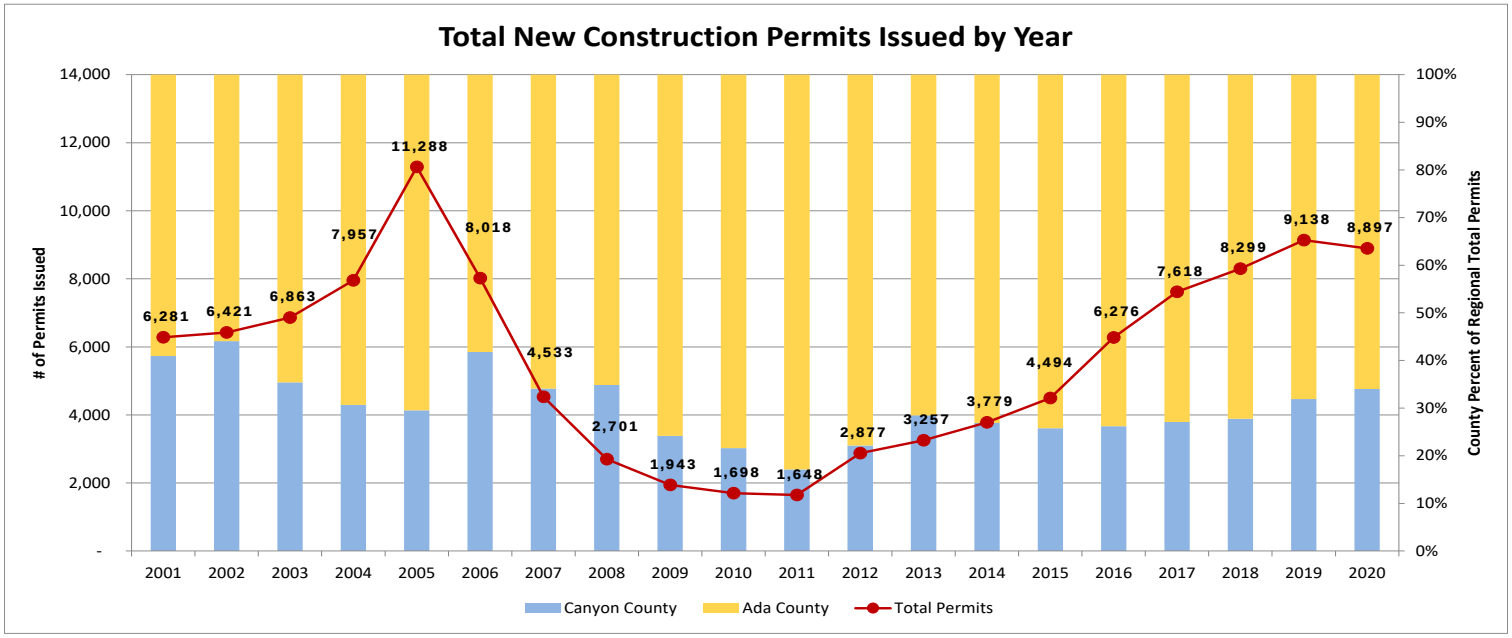

Figure 2: Total New Construction Permits Issued by Year (2001 – 2020)

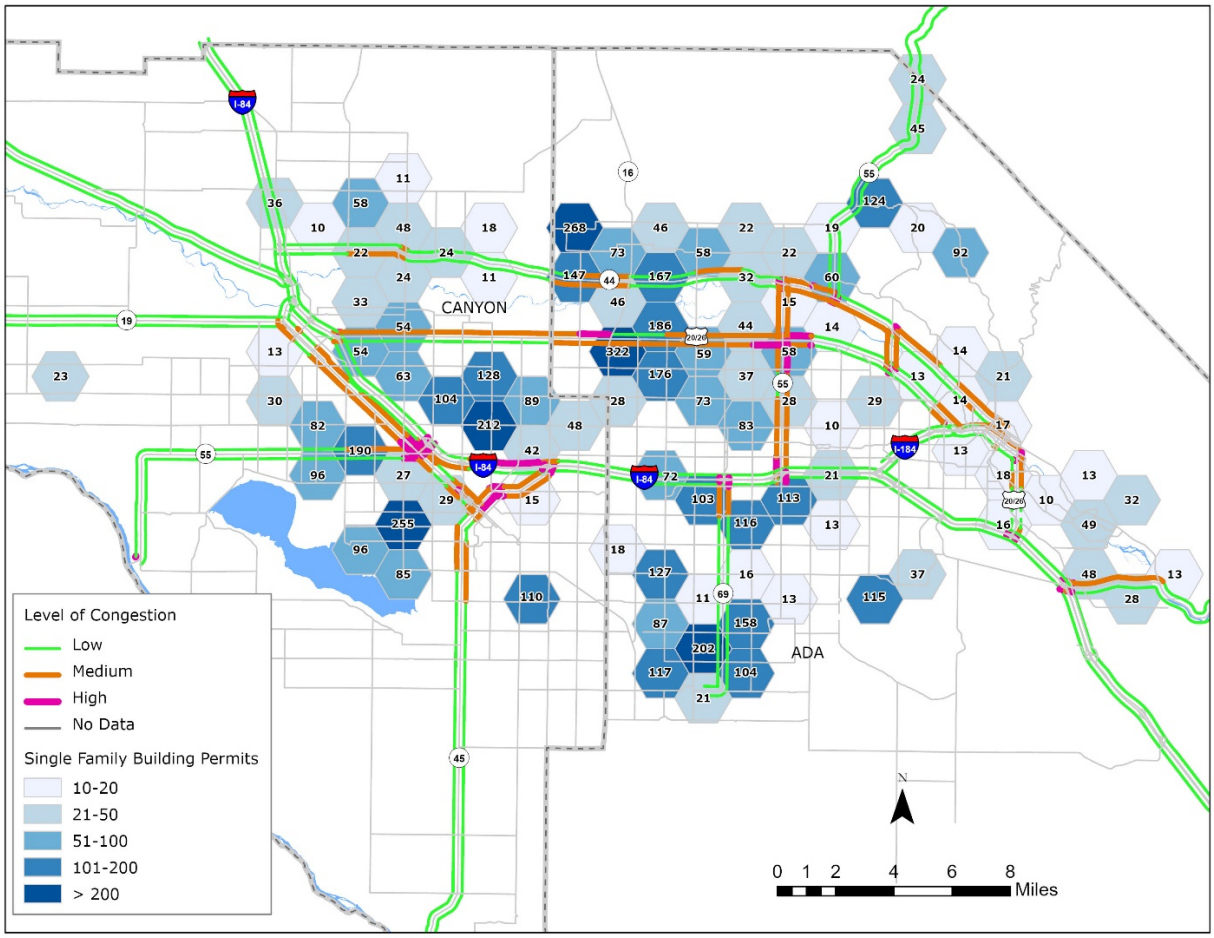

Figure 3: Single Family Building Permit Activity and Levels of Highest Peak Hour Congestion (2020)

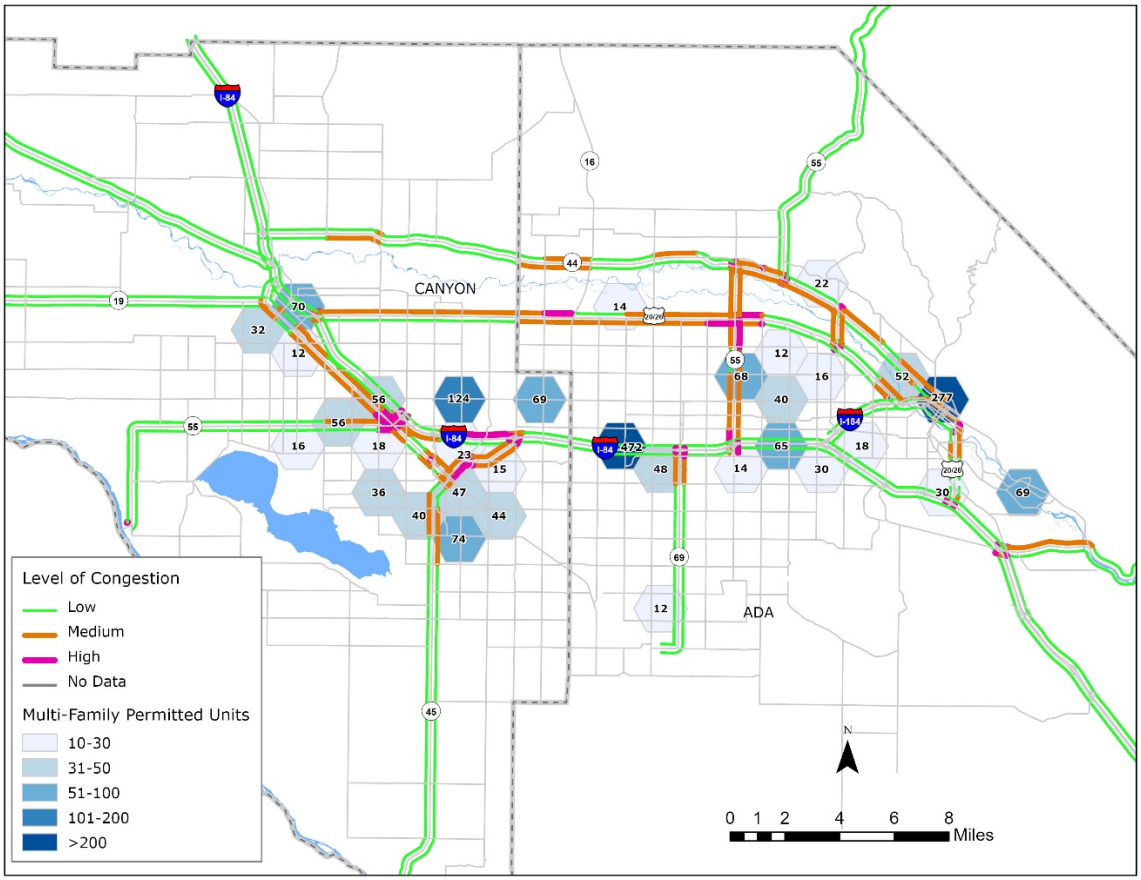

Figure 4: Multi-Family Building Permit Activity and Levels of Highest Peak Hour Congestion (2020)

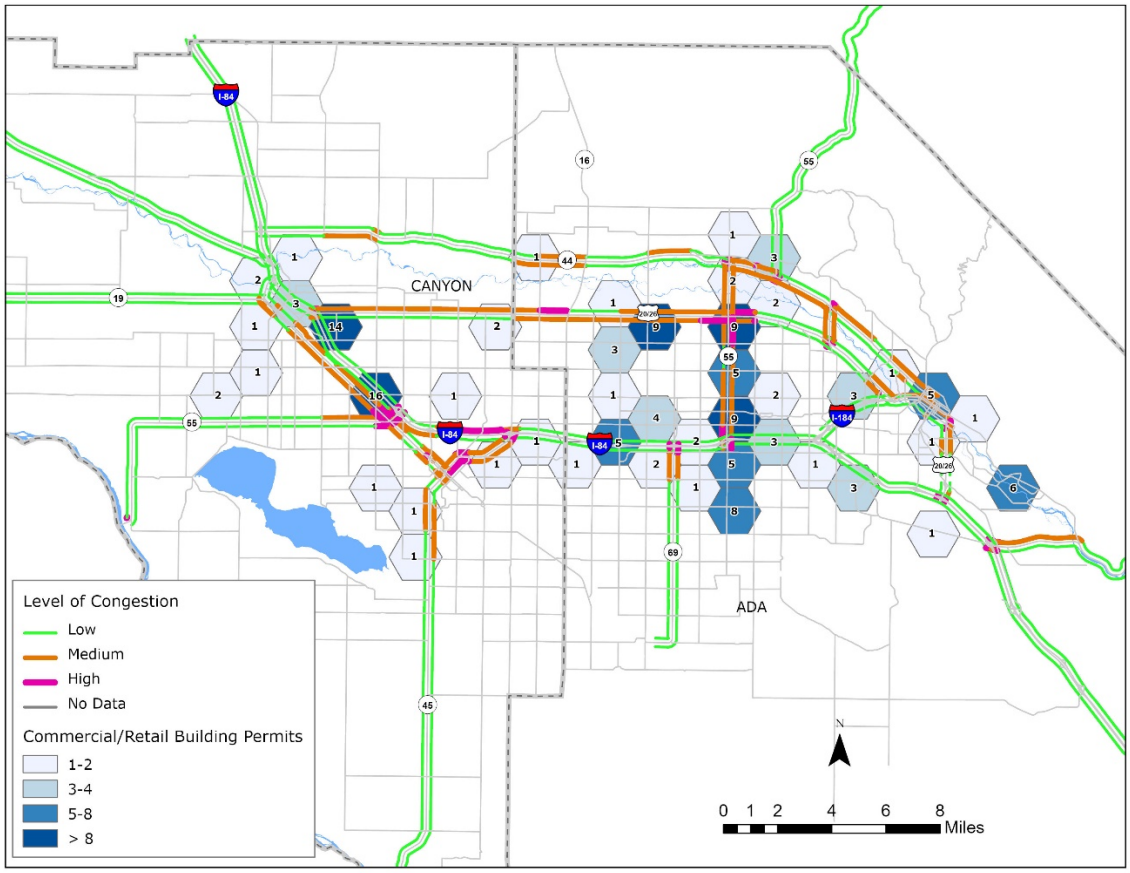

Figure 5: Commercial/Retail Building Permit Activity and Levels of Highest Peak Hour Congestion (2020)

Travel Time Data

COMPASS uses the National Performance Management Research Data Set (NPMRDS) to analyze and identify congested roadways. The NPMRDS is a vehicle probe-based speed and travel time data set that covers portions of the National Highway System. The CMP and annual reports refer to the NPMRDS as the Tier 1 network. These data are 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 of travel time data used in this report and is used to calculate system reliability, Travel Time Index, and commute travel times on the Tier 1 network. These data are also 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)

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 take three times longer to drive a segment at a particular time than it would under free-flow conditions. Free-flow speeds are considered the 85th percentile speed 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 decreased dramatically from 2019 to 2020 due to the COVID-19 pandemic (Table 2). Numbers may vary slightly from previous reports due to data quality improvements and additional data made available by the travel time data vendor.

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	
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**
2016*	126.6	34.6%	50.6	13.8%	188.4	51.5%	**365.7**

^The COVID-19 pandemic and resulting lockdowns kept tens of thousands of commuters off the road in 2020.
*Percentages vary due to change in travel time data vendor.

A survey of the ten most congested roadway segments shows that the worst congestion in the valley in 2020 was concentrated in Ada County on State Highway 55 (Eagle Road) and US 20/26 (Chinden Boulevard,) and in Canyon County along multiple roadways in and around the City of Nampa (Table 3 and Figure 6).

Table 3: Ten Most Congested Tier 1 Network Segments > 0.5 Miles (2020)

Rank	Road	Description	Miles	Direction	TTI	Peak Period	Peak Hour Delay
1	SH 55 (Eagle Rd)	Franklin Rd to I-84 Westbound On Ramp	0.51	Southbound	2.53	PM	1 min 14sec
2	US 20/26 (Chinden Blvd)	SH 16/McDermott Rd to Star Rd	1.00	Westbound	2.43	PM	1 min 41 sec
3	US 20/26 (Chinden Blvd)	Locust Grove Rd to SH 55 (Eagle Rd)	0.99	Eastbound	2.40	Midday	2 min 12 sec
4	SH 55 (Eagle Rd)	McMillan Rd to US 20/26 (Chinden Blvd)	0.98	Northbound	2.34	PM	1 min 47 sec
5	US 20/26 (Chinden Blvd)	Cloverdale Rd to SH 55 (Eagle Rd)	0.93	Westbound	2.27	PM	1 min 36 sec
6	Nampa/Caldwell Blvd	Middleton Rd to SH 55 (Karcher Rd)	0.70	Eastbound	2.20	PM	1 min 52 sec
7	I-84	Exit 38 (Garrity Blvd) to Exit 36 (Franklin Blvd)	1.37	Westbound	2.17	PM	1 min 33 sec
8	11th Ave (City of Nampa)	2nd St to Garrity Blvd	0.72	Northbound	2.14	PM	1 min 39 sec
9	SH 55 (Karcher Rd)	Middleton Rd to Caldwell Blvd	0.52	Eastbound	2.06	PM	1 min 19 sec
10	Nampa/Caldwell Blvd	SH 55 (Karcher Rd) to Middleton Rd	0.70	Westbound	2.02	PM	1 min 18 sec

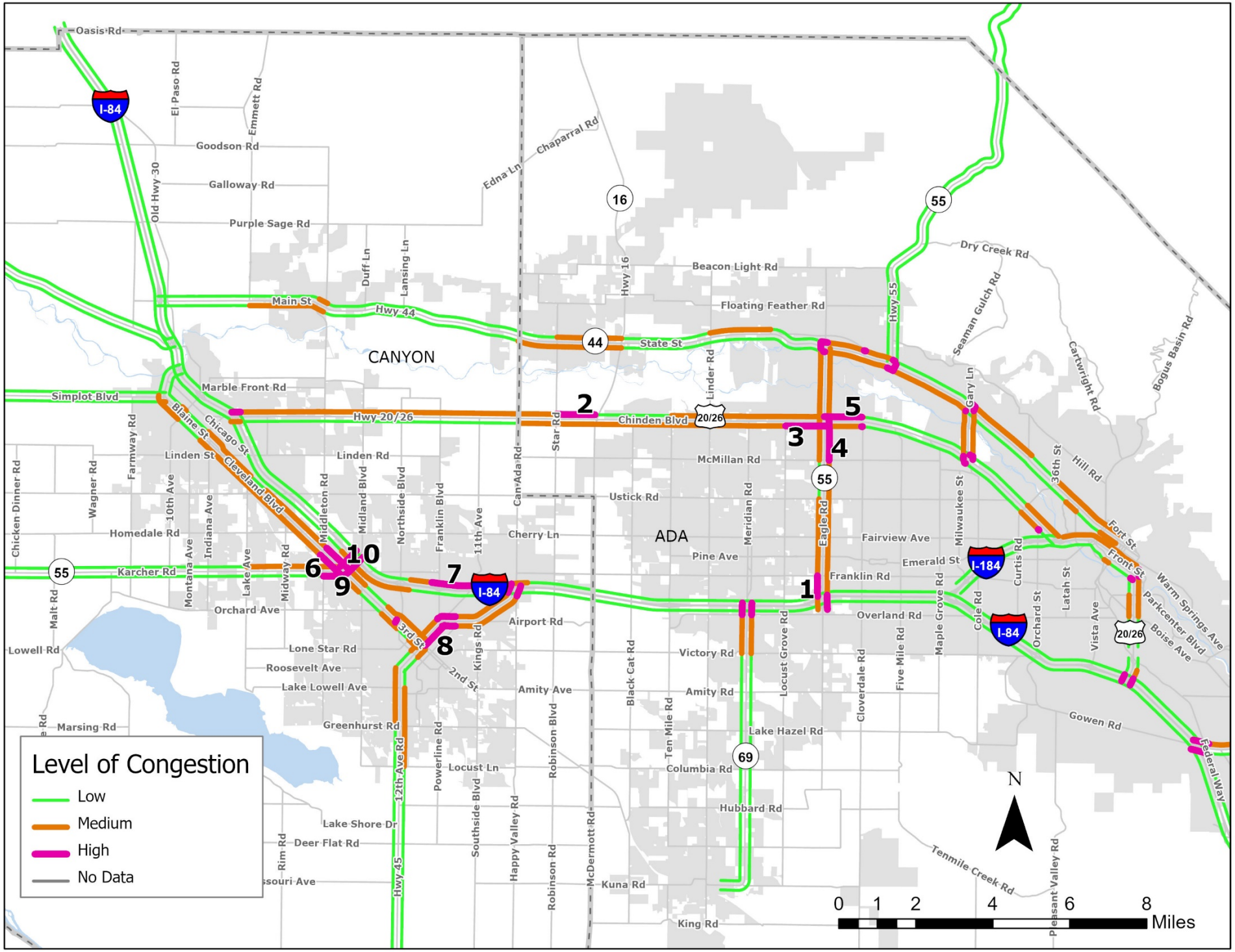

Figure 6: Top Ten Congested Tier 1 Network Segments > 0.5 Miles (Peak period maximum, 2020)

Tier 2 Supplemental Travel Time Data and Analysis

The Idaho Transportation Department (ITD) purchased additional travel time data in 2020 to supplements the NPMRDS. This provides travel time data and the ability to analyze conditions on arterials and other major roadways not included in the NPMRDS. These additional roadways make up the Tier 2 network in the CMP. The same methodology (Travel Time Index) that is used to analyze congestion using the NPMRDS was applied to the Tier 2 travel time data set (Tables 4, 5, and 6; Figures 7 and 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 where no vehicles are detected; however, the analyses and calculations of travel time conducted for this report use only records where actual recorded travel times are available. The percentage of the Tier 2 network considered highly congested decreased to less than 1% due to the COVID-19 pandemic (Table 4).

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

Year	High		Medium		Low		Not Included*		Total Miles
	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	
2020^	7.05	0.6%	26.60	2.1%	1232.43	97.1%	2.73	0.2%	1,268.81
2019	15.88	1.4%	49.45	4.2%	950.58	80.5%	164.48	13.9%	1,180.39
2018	7.22	0.7%	46.74	4.3%	926.50	85.3%	105.61	9.7%	1,086.07

^The COVID-19 pandemic and resulting lockdowns kept tens of thousands of commuters off the road in 2020.
*Not provided in the data set or excluded from the analysis because of limited actual recorded travel time data.

Table 5: Top Ten Congested Tier 2 Network Segments in Canyon County > 0.1 Miles (2020)

Rank	Road	Description	Miles	Direction	TTI	Peak Period	Delay
1	Franklin Rd (Canyon Co.)	Franklin Rd at Joplin Rd	0.18	Southbound	3.21	AM	29 sec
2	E Terra Linda Way (Nampa)	E Terra Linda Way at Idaho Center Blvd	0.12	Westbound	2.40	PM	20 sec
3	I-84 Exit 33 Off Ramp (Nampa)	I-84 Off Ramp at Exit 33 (Karcher Rd)	0.13	Eastbound	2.14	Midday	8 sec
4	Franklin Rd (Canyon Co.)	Franklin Rd at US 20/26 (Chinden Blvd)	0.50	Southbound	2.13	AM	38 sec
5	I-84 Exit 33 On Ramp (Nampa)	I-84 On Ramp at Exit 33 (Karcher Rd)	0.17	Eastbound	2.11	AM	24 sec
6	I-84 Exit 26 On Ramp (Caldwell)	I-84 On Ramp at Exit 26 (Notus/Parma/Old Hwy 30)	0.23	Westbound	2.07	PM	13 sec
7	Idaho Center Blvd (Nampa)	Idaho Center Blvd at I-84 On Ramp (Exit 38)	0.10	Southbound	1.98	PM	13 sec
8	Karcher Bypass (Nampa)	Karcher Bypass at Midland Blvd	0.20	Westbound	1.91	PM	27 sec
9	Idaho Center Blvd (Nampa)	Idaho Center Blvd at Cherry Ln	0.5	Northbound	1.80	PM	46 sec
10	S Powerline Rd (Nampa)	S Powerline Rd at Greenhurst Rd	0.18	Northbound	1.74	PM	14 sec

Table 6: Top Ten Congested Tier 2 Network Segments in Ada County > 0.1 Miles (2020)

Rank	Road	Description	Miles	Direction	TTI	Peak Period	Delay
1	I-84 West On Ramp (Boise)	I-84 West On Ramp from I-184	0.41	Westbound	2.68	PM	39 sec
2	I-84 Exit 52 Off Ramp (Boise)	I-84 Exit 52 Off Ramp (Orchard St)	0.12	Eastbound	2.32	PM	20 sec
3	Ten Mile Rd (Meridian)	Ten Mile Rd at I-84 overpass	0.10	Northbound	2.23	AM	10 sec
4	Overland Rd (Boise)	Overland Rd at Five Mile Rd	0.14	Eastbound	2.19	PM	17 sec
5	Pine Ave (Meridian)	Pine Ave at Meridian Rd	0.10	Westbound	2.18	PM	19 sec
6	Eagle Rd (Eagle)	Eagle Rd south of State St	0.16	Southbound	2.12	Midday	24 sec
7	I-84 Exit 64 Off Ramp (Ada Co.)	I-84 Exit 64 Off Ramp (Black Creek/Kuna Mora Rd)	0.35	Eastbound	2.04	AM	44 sec
8	Whitewater Park Blvd (Boise)	Whitewater Park Blvd at Fairview Ave	0.14	Southbound	2.03	PM	22 sec
9	Orchard St (Boise)	Orchard St at Victory Rd	0.12	Southbound	2.03	PM	23 sec
10	Ustick Rd (Meridian)	Ustick Rd at Eagle Rd	0.23	Westbound	1.99	PM	29 sec

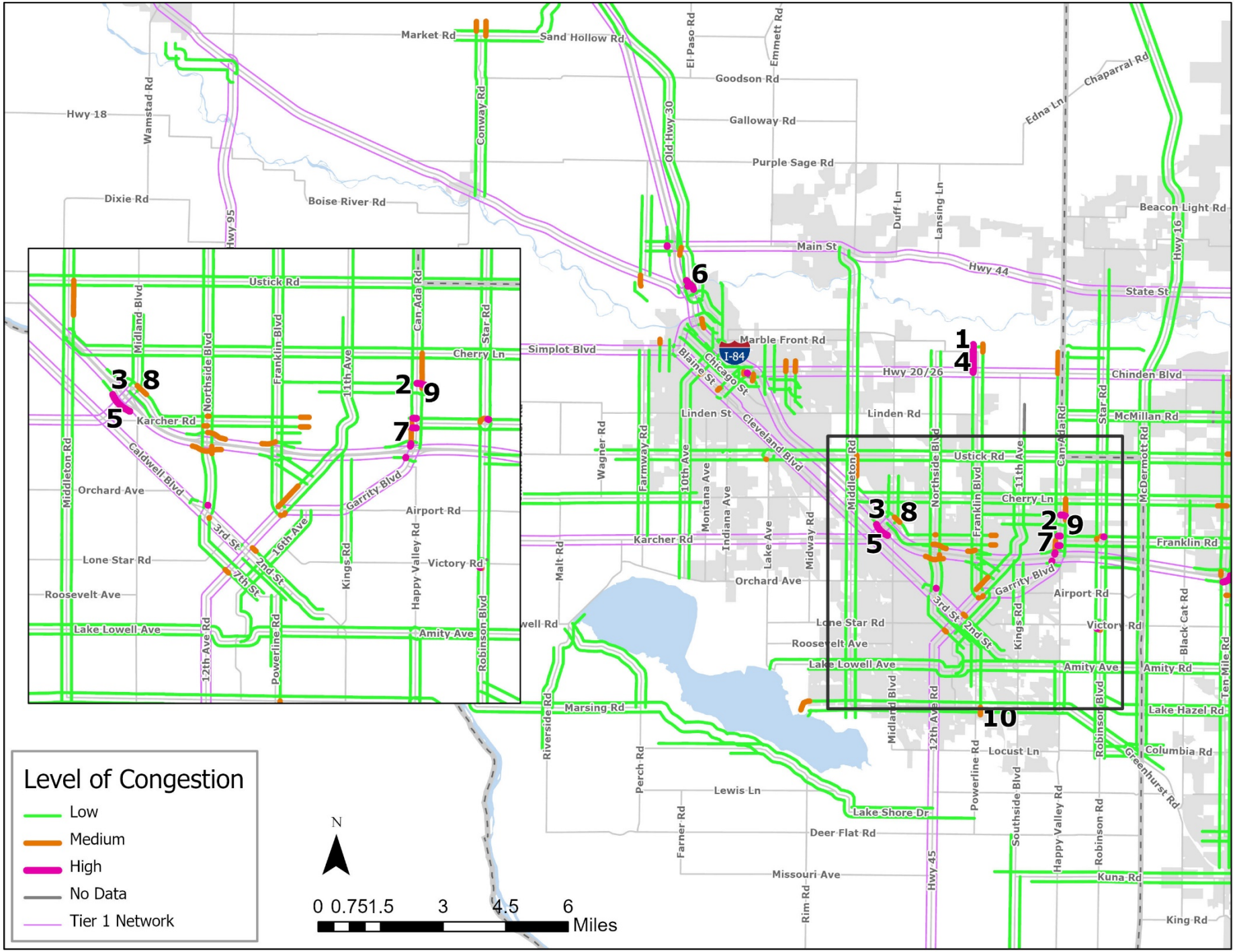

Figure 7: Top Ten Tier 2 Congested Roadways > 0.1 miles in Canyon County (Peak period maximum, 2020)

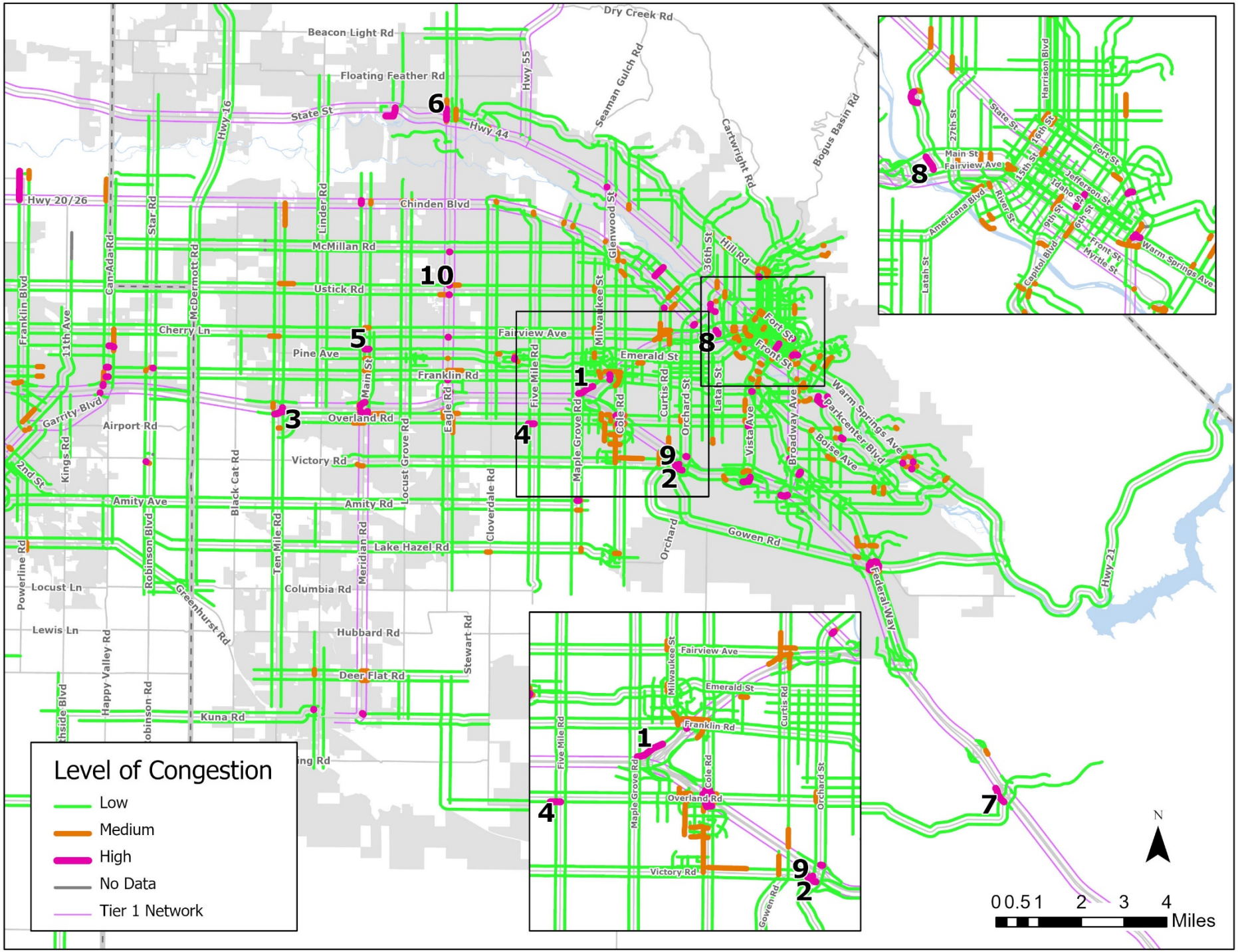

Figure 8: Top Ten Tier 2 Network Segments > 0.1 miles in Ada County (Peak period maximum, 2020)

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, travelers can 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 travel time added to the commute due to congestion is shown in yellow, and the total average weekday commute (free flow + congested travel time) is displayed in black bold font. For example, under free flow conditions the travel time from Caldwell to Boise on I-84 takes around 23 minutes; during the morning commute over 4 minutes are added to the travel time, for an average weekday morning commute travel time of about 27 minutes.

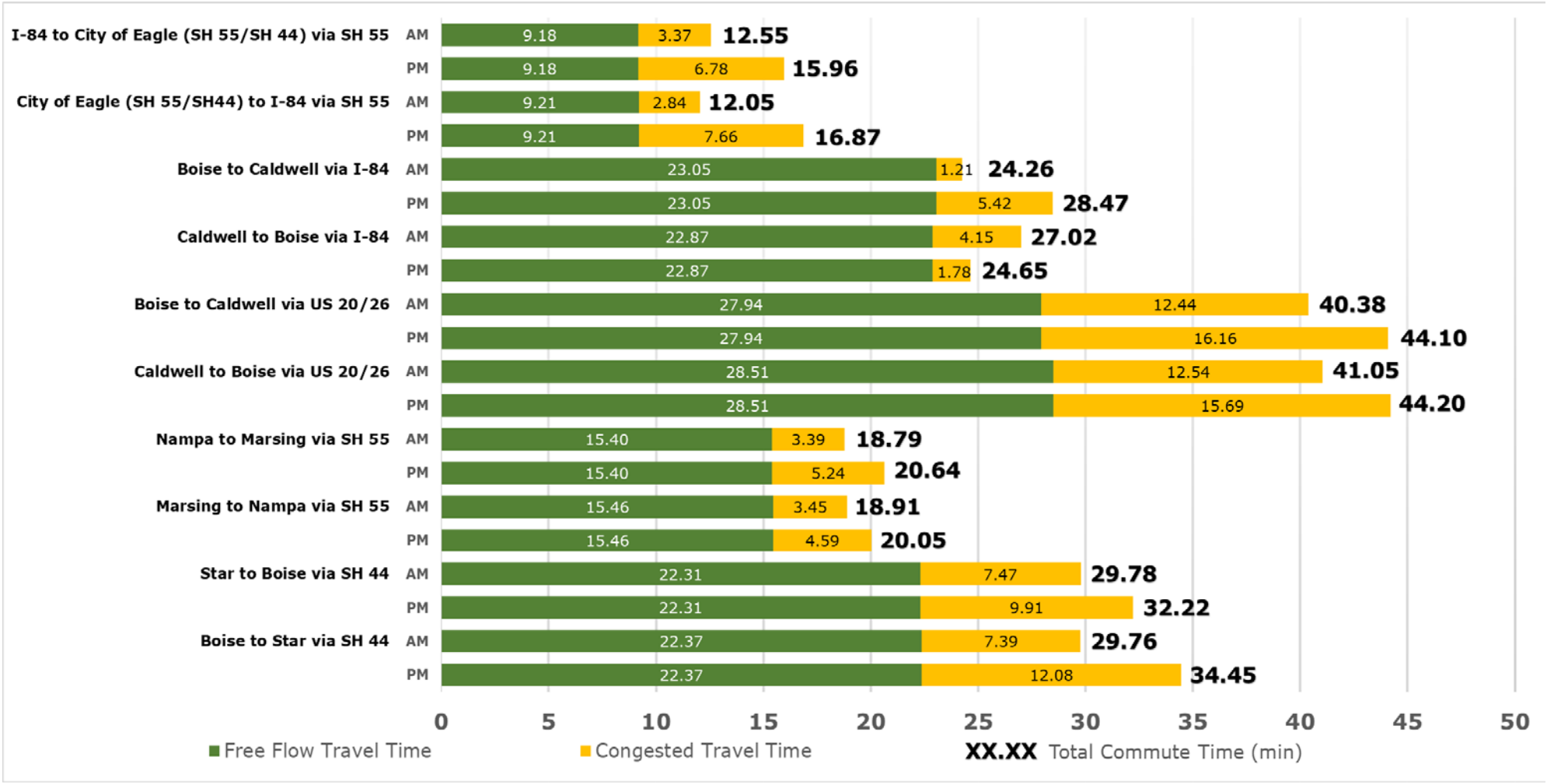

Figure 9: Average Weekday AM and PM Peak Period Commute Travel Times for Select Routes in the Treasure Valley (2020)

Federal System Performance Measures

The Fixing America's Surface Transportation Act (FAST Act), signed in 2015, includes provisions requiring state transportation agencies and metropolitan planning organizations such as COMPASS to report performance and set targets on safety, infrastructure, and system performance for their planning areas. System performance is reported as reliability: Level of Travel Time Reliability and Truck Travel Time Reliability. These measures, described below, show how predictable or consistent travel times are for passenger and freight vehicles along the Tier 1 network. The targets shown below in green and red were adopted by ITD for the State of Idaho; COMPASS has adopted ITD's statewide targets and is reporting for roadways within the COMPASS planning area of Ada and Canyon Counties.

FAST Act Performance Measures – Performance in COMPASS Planning Area

95.4% Interstate Reliable
Meets target of **≥90%** reliable

82.6% Non-Interstate Roads Reliable
Meets target of **≥70%** reliable

1.32 Truck Travel Time Reliability
Does not meet target score of **<1.3**

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 weather, events, construction, or crashes can make it difficult to predict how long it can take to travel from one destination to another. Many commuters understand that congestion is unavoidable on their commute, but by being able to effectively budget enough commute time can offset some of the inconveniences caused by every day congestion. The overall FAST ACT reliability goals and targets are intended to make travel time more predictable (Figures 10 and 11).

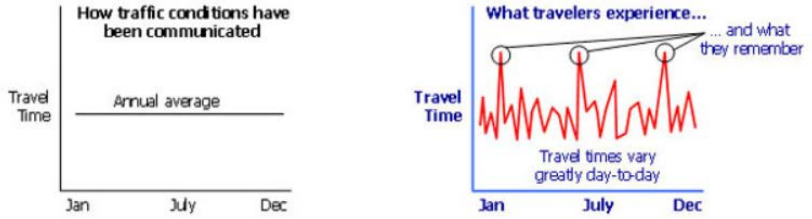

Figure 10: Reliability measures reflect what commuters experience on a day-to-day basis

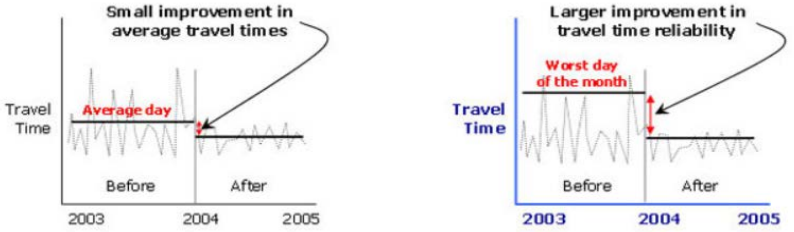

Figure 11: FAST Act goals aim to decrease the variability of travel times from day-to-day

LOTTR is defined as the ratio of the longer travel times (80th percentile) to a "normal" travel time (50th percentile). A LOTTR score of 1.5 means that it takes 50% 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 scores greater than 1.5 are considered unreliable. The overall system reliability is calculated by weighting each segment by person miles traveled (PMT). A percentage 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% of PMT reliable on interstates and greater than 70% PMT reliable on the non-interstate system for performance measurement in Ada and Canyon Counties. COMPASS is meeting its interstate reliability measure at 95.4% of the interstate PMT reliable and its target for non-interstate roads at 82.6% PMT reliable (Figure 12).

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 percentile travel 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 has set a 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 hitting this target, with a 1.32 TTTR (Figure 13). This is likely due to issues caused by non-recurring congestion from weather, construction, and traffic incidents on the interstate.

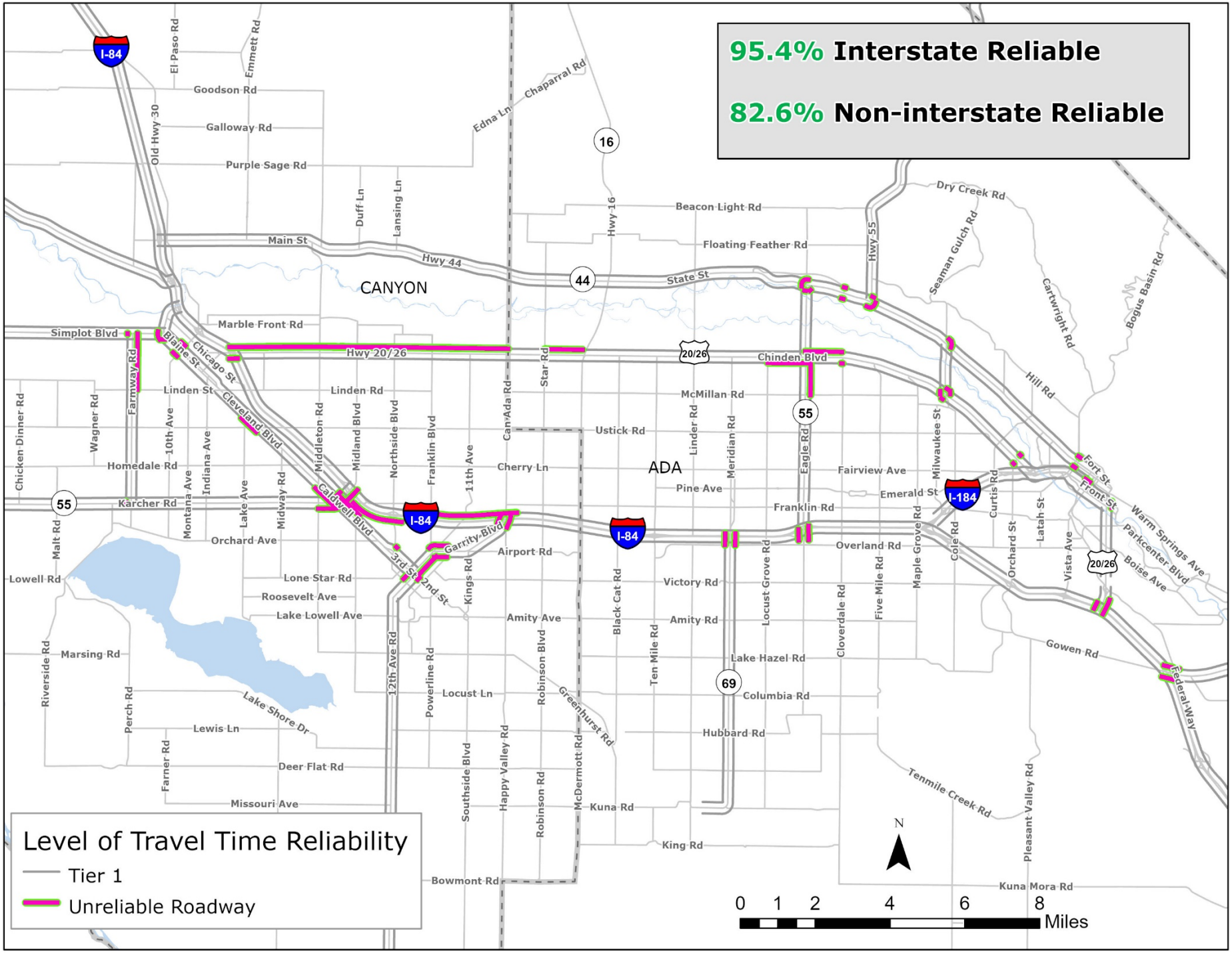

Figure 12: Level of Travel Time Reliability (2020)

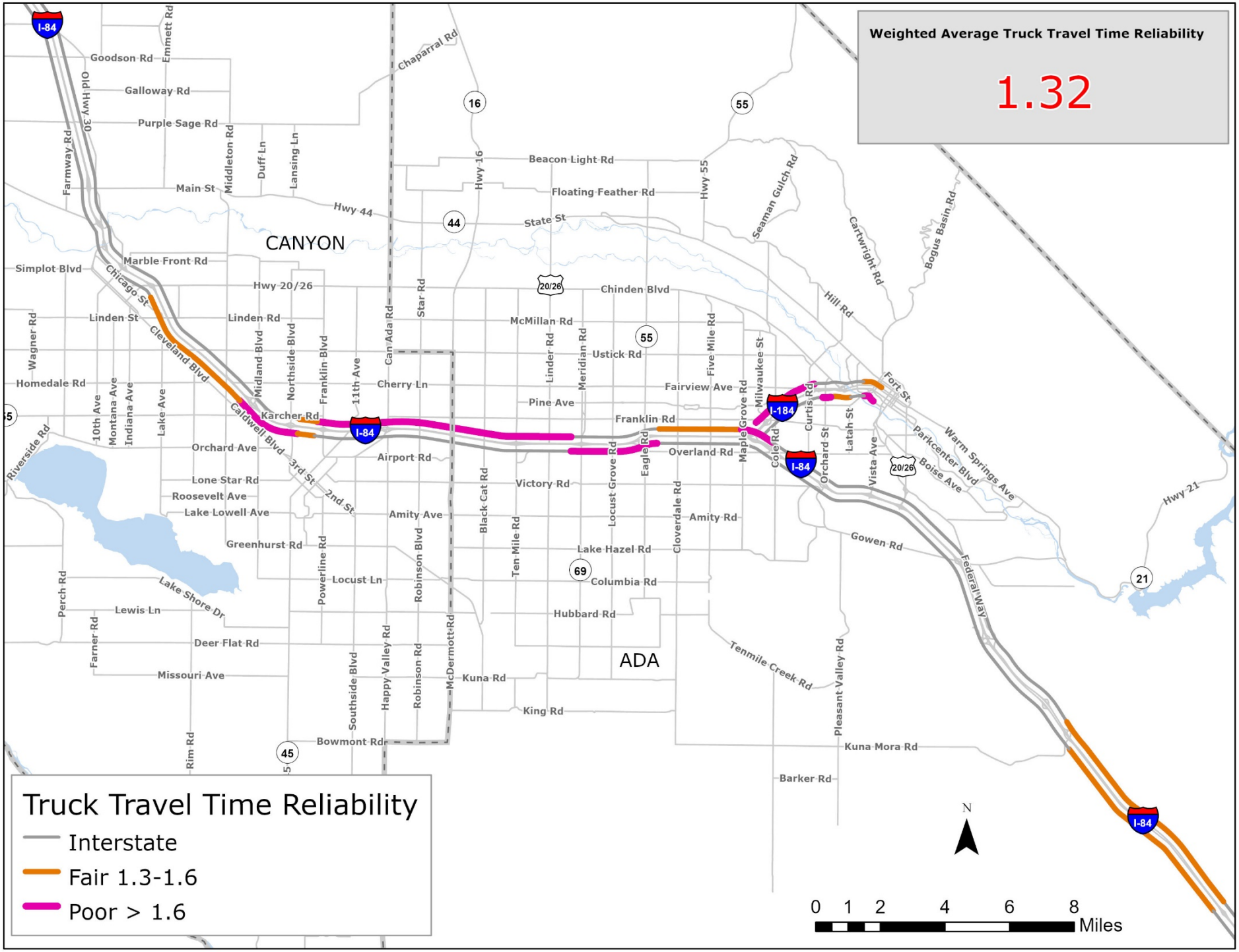

Figure 13: Truck Travel Time Reliability (2020)

COMPASS Performance Measures

COMPASS Change in Motion Scorecard

COMPASS publishes the *Change in Motion Scorecard*[iii] 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 to what extent 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

Congestion Mitigation Strategies

Congestion mitigation strategies are grouped into four categories, as identified in the Federal Highway Administration's *Congestion Management Process: A Guidebook*[iv] (Table 7). COMPASS has added a fifth category to capture strategies focused on improving freight mobility and reliability. COMPASS and its member agencies implement these strategies to mitigate congestion through projects included in its 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 in order to reduce the number of trips during congested hours	• Pedestrian/bicycle infrastructure • Ridesharing • Flexible work arrangements • Transit Oriented Development
Transportation Systems Management and Operations (TSMO)/Intelligent Transportation Systems (ITS)	Implementing improvements focused on optimizing the current transportation infrastructure	• Optimize signal timing • Intersection improvements • 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, or improving intersections	• Add travel lanes • Fill gaps in the street network • Construct overpass/ underpasses
Freight and Goods Mobility	Implementing improvements specifically aimed toward moving freight and goods more efficiently on the transportation system	• Freight Signal Priority • Intersection improvements • Designated loading, unloading, and parking zones

Programmed (Budgeted) Congestion Reduction / Mitigation Projects

The TIP is a five-to-seven year budget of federally funded or regionally significant projects selected by COMPASS to benefit the transportation system Ada and Canyon Counties. Multiple projects programmed (budgeted) in the FY2021-2027 TIP are designed to help mitigate congestion (Figure 14 and Table 8). 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 and archived TIPs at http://www.compassidaho.org/prodserv/transimprovement.htm.

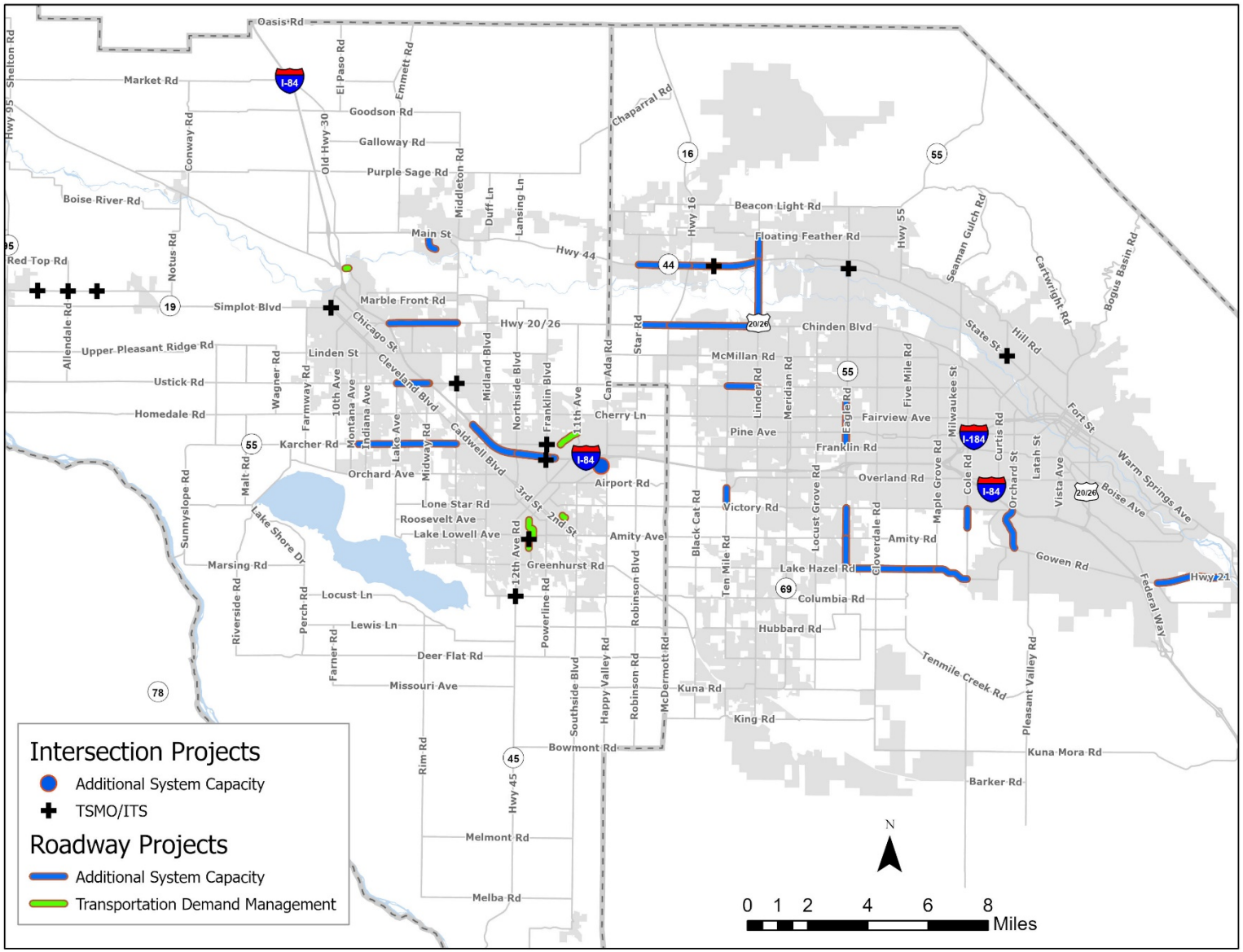

Figure 14: Programmed Congestion Mitigation Projects, FY2021-2027 TIP (regional transit projects are not included on this map; they are listed in Table 8)

Table 8: Programmed Congestion Mitigation Projects, FY2021-2027 TIP

Strategy	Project Name	Tier 1 Corridor
Transportation Demand Management	Pedestrian Improvements, SH-55 (Eagle Road), Meridian	SH 55
	Bicycle Parking, Secure Bicycle Facilities, Boise State University, Boise	
	Holly Street/Northwest Nazarene University Roadway Reconfiguration, Nampa	
	Old Highway 30, Plymouth Street Bridge, Caldwell	
	Pathway, Grimes City Pathway Extension, Nampa	
	Pathway, Indian Creek, Taffy Drive to Peppermint Drive, Nampa	
TSMO / ITS	SH 44 (W State Street), Palmer Lane Intersection Improvements, Star	SH 44
	State Street and Collister Drive Intersection, Boise	SH 44
	SH 45 and Locust Lane Intersection, Nampa	SH 45
	Franklin Boulevard and Karcher Road, Intersection Improvements, Nampa	SH 55
	SH 44 (State Street) and SH 55 (Eagle Road) Intersection , Eagle	SH 44/SH 55
	Centennial Way Roundabout, Caldwell	
	Colorado and Holly, Signal and Pedestrian Improvements, Nampa	
	Franklin Boulevard, Freight Improvements near 3rd Avenue North, Nampa	
	Middleton Road and Ustick Road, Roundabout, Caldwell	
Transit Operations Improvements	Transit - Acquisition of Service, Boise Area, Valley Regional Transit (VRT)	
	Transit - Acquisition of Service, Canyon County, VRT	
	Transit - Acquisition of Service, Nampa Area, VRT	
	Transit - Fixed Line Service, Rural Areas, Treasure Valley Transit (TVT)	
	Transit - Operations - Fixed Route and Mobility Management, Nampa Area, VRT	
	Transit - Operations - Mobility Management, Boise Area, VRT	
	Transit - Preventive Maintenance and Demand Response, Nampa Area, VRT	
	Transit - Preventive Maintenance and Paratransit, Boise Area, VRT	
	Transit - Purchase of Service, Rural Areas, TVT	
Additional System Capacity	I-84, Franklin Boulevard to Northside Boulevard, Nampa	I-84
	I-84, Franklin Interchange to Karcher Interchange, Widen Eastbound, Nampa	I-84
	I-84, Franklin Interchange to Karcher Interchange, Widen Westbound, Nampa	I-84
	I-84, Karcher Road Interchange to Northside Boulevard, Nampa	I-84
	I-84, Ustick Road Overpass, Canyon County	I-84
	I-84B (Garrity Boulevard), Stamm Lane Intersection Improvements, Nampa	I-84
	SH 44 (State Street), SH 16 to Linder Road, Ada County	SH 44
	SH 44 (State Street), Star Road to SH 16, Ada County	SH 44
	SH 55 (Eagle Road), Meridian Towne Center, Meridian	SH 55
	SH 55 (Karcher Road), Indiana Avenue to Lake Avenue, Caldwell	SH 55
	SH 55 (Karcher Road), Lake Avenue to Midway Road, Caldwell	SH 55
	SH 55 (Karcher Road), Midway Road to Middleton Road, Nampa	SH 55
	US 20/26, I-84 to Middleton Road, Canyon County	US 20/26
	US 20/26 (W Chinden), Phyllis Canal Bridge to SH 16, Ada County	US 20/26
	US 20/26 (W Chinden), SH 16 to Linder Road, Ada County	US 20/26
	Cole Road, McGlochlin Street to Victory Road, Boise	
	Eagle Road, Amity Road to Victory Road, Meridian	
	Eagle Road, Lake Hazel Road to Amity Road, Meridian	
	Fairview Avenue, Locust Grove Road to SH 55 (Eagle Road), Meridian	
	Lake Hazel Road, Cloverdale Road to Five Mile Road, Ada County	

Strategy	Project Name	Tier 1 Corridor
	Lake Hazel Road, Eagle Road to Cloverdale Road, Ada County	
	Lake Hazel Road, Five Mile Road to Maple Grove Road, Ada County	
	Lake Hazel Road, Maple Grove Road to Cole Road, Ada County	
	Linder Road, SH 44 (W State Street) to Floating Feather Road, Eagle	
	Linder Road, US 20/26 (Chinden) to SH 44 (State), Ada County	
	Orchard Street Realignment, Gowen Road to Victory Road, Boise	
	SH 21, Technology Way to Surprise Way, Boise	
	South Cemetery Road, Highland Drive to Willow Creek, Middleton	
	Ten Mile Road, Victory Road to Overland Road, Meridian	
	Ustick Road, Lake Avenue to I-84, Caldwell	
	Ustick Road, Ten Mile Road to Linder Road, Meridian	
Freight and Goods Mobility	Peckham Road Intersections (turn radii improvements), Canyon County	

Appendix
Detailed Corridor Congestion Analyses

I-84

I-84 Traffic Volumes, 2016-2020

I-84 in Ada and Canyon Counties accommodates the largest volume of vehicles in the entire State of Idaho. The busiest section of interstate is between the State Highway 55 (Eagle Road) interchange and the I-184 Flying Wye interchange — serving over 150,000 vehicles on an average weekday (Figure 15). However, between 2016 and 2020 the highest average annual growth rates in traffic volumes on I-84 were in Canyon County east of the Sand Hollow Interchange (4%) and west of the US 20/26 Exit 27 interchange (4%) (Table 9). Overall, 2020 volumes dropped dramatically on many portions of the I-84 corridor due to the COVID-19 pandemic.

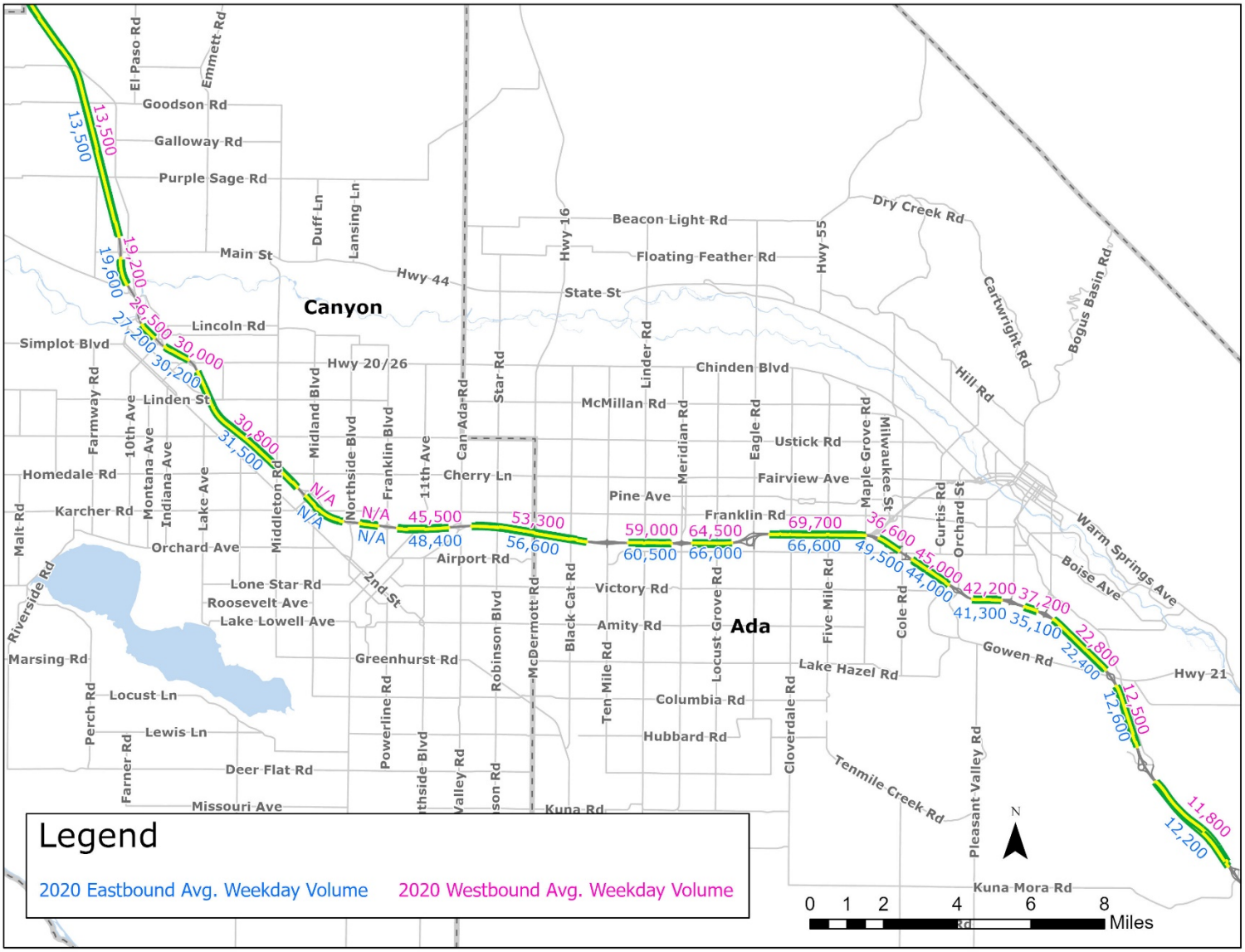

Figure 15: I-84 Annual Average Weekday Traffic Volumes (automatic traffic recorder counts) (2020)

Table 9: I-84 Average Annual Weekday Traffic Volumes (2016-2020)

I-84 Locations	Direction	2016	2017	2018	2019	2020	Annual Growth Rate
1.8 miles southeast of Sand Hollow (Exit 17)	Southeast	11,309	11,859	12,458	13,181	13,454	4%
1.8 miles southeast of Sand Hollow (Exit 17)	Northwest	11,332	11,734	12,528	13,163	13,479	4%
0.4 miles northwest of US 20/26 (Exit 26)	West	16,281	16,918	18,632	18,872	19,211	4%
0.4 miles northwest of US 20/26 (Exit 26)	East	16,786	17,590	17,328	19,268	19,587	4%
Northwest of 10th Ave (Exit 28)	Northwest	23,012	23,809	25,192	26,250	26,466	4%
Northwest of 10th Ave (Exit 28)	Southeast	23,908	24,886	26,157	27,215	27,215	3%
Northwest of Franklin Rd (Exit 29)	Southeast	27,627	28,014	29,912	30,338	30,239	2%
Northwest of Franklin Rd (Exit 29)	Northwest	26,504	27,218	28,393	29,076	28,978	2%
Southeast of Ustick Road overpass (Caldwell)	West	28,350	28,372	30,211	31,482	30,758	2%
0.1 miles southeast of Karcher Rd (Exit 33)	East	38,790	40,239	42,236	41,528	N/A	2%
Southeast of Ustick Road overpass (Caldwell)	East	29,426	29,592	31,378	32,248	31,501	2%
West of eastbound offramp Franklin Blvd (Exit 36)	West	40,905	40,796	42,572	43,236	N/A	1%
1.5 miles northwest of Blacks Creek (Exit 64)	Southeast	11,567	12,082	13,266	13,263	12,187	1%
0.61 miles west of westbound onramp (Exit 44)	East	57,506	60,251	62,683	64,801	60,505	1%
0.61 miles west of westbound onramp (Exit 44)	West	56,162	57,830	61,182	63,183	58,991	1%
0.7 miles east of Robinson Rd overpass	East	54,029	56,267	58,505	60,582	56,611	1%
West of 11th Ave overpass	East	46,221	47,865	50,099	51,638	48,359	1%
1.4 miles southeast of Gowen Rd (Exit 57)	Southeast	12,048	12,486	13,039	13,386	12,566	1%
1.4 miles southeast of Gowen Rd (Exit 57)	Northwest	12,069	12,406	13,164	13,403	12,528	1%
0.6 miles west of Broadway Ave (Exit 54)	East	33,834	38,369	39,937	39,904	35,117	1%
West of 11th Ave overpass	West	44,127	44,602	46,811	48,112	45,547	1%
West of Locust Grove overpass	East	64,359	66,712	69,480	71,518	66,052	1%
West of eastbound offramp Franklin Blvd (Exit 36)	East	43,231	44,163	45,712	44,304	N/A	1%
West of Locust Grove overpass	West	63,606	65,026	68,616	70,523	64,517	0%
0.7 miles east of Robinson Rd overpass	West	52,691	53,440	55,304	57,026	53,340	0%
1.5 miles northwest of Blacks Creek (Exit 64)	Northwest	11,711	11,952	12,668	13,134	11,836	0%
1.2 miles west of I 184 interchange (Five Mile overpass)	West	70,350	71,849	76,620	78,373	69,681	0%
0.74 miles west of eastbound offramp Gowen Rd (Exit 57)	East	23,055	24,369	25,436	25,260	22,447	-1%
1.2 miles west of I 184 interchange (Five Mile overpass)	East	68,434	71,397	74,278	74,983	66,597	-1%
0.74 miles west of eastbound offramp Gowen Rd (Exit 57)	West	23,796	24,315	25,789	25,633	22,803	-1%
0.8 miles west of Orchard St (Exit 52)	Southeast	46,330	47,811	49,763	49,928	44,077	-1%
0.1 miles southeast of Karcher Rd (Exit 33)	West	38,381	37,123	37,540	36,474	N/A	-1%
0.6 miles west of Broadway Ave (Exit 54)	West	39,400	40,266	42,732	42,811	37,177	-1%
0.8 miles west of Orchard St (Exit 52)	Northwest	47,737	48,200	51,263	51,504	44,914	-2%
0.3 miles west of Cole/Overland Rd (Exit 50)	Northwest	39,630	38,932	40,571	42,789	36,595	-2%
0.3 miles west of Cole/Overland Rd (Exit 50)	Southeast	54,637	54,882	55,287	58,715	49,529	-2%
0.4 miles west of Vista Ave (Exit 53)	West	47,322	45,359	N/A	50,811	42,242	-3%
0.4 miles west of Vista Ave (Exit 53)	East	46,652	45,110	N/A	48,403	41,266	-3%

Source: Automatic Traffic Recorders maintained by ITD

I-84 Speed Profiles

Over the past five years, the average speeds during the morning and evening commutes have decreased between the Centennial Way interchange in the City of Caldwell and the Flying Wye interchange with I-184 in the City of Boise (Figures 16 and 17), with the exception of 2020. In 2020, the average speed was about 56 mph during the morning (eastbound) and about 55 mph during the evening (westbound) commutes. This improvement was due to the decrease in the number of people commuting to work during the COVID-19 pandemic.

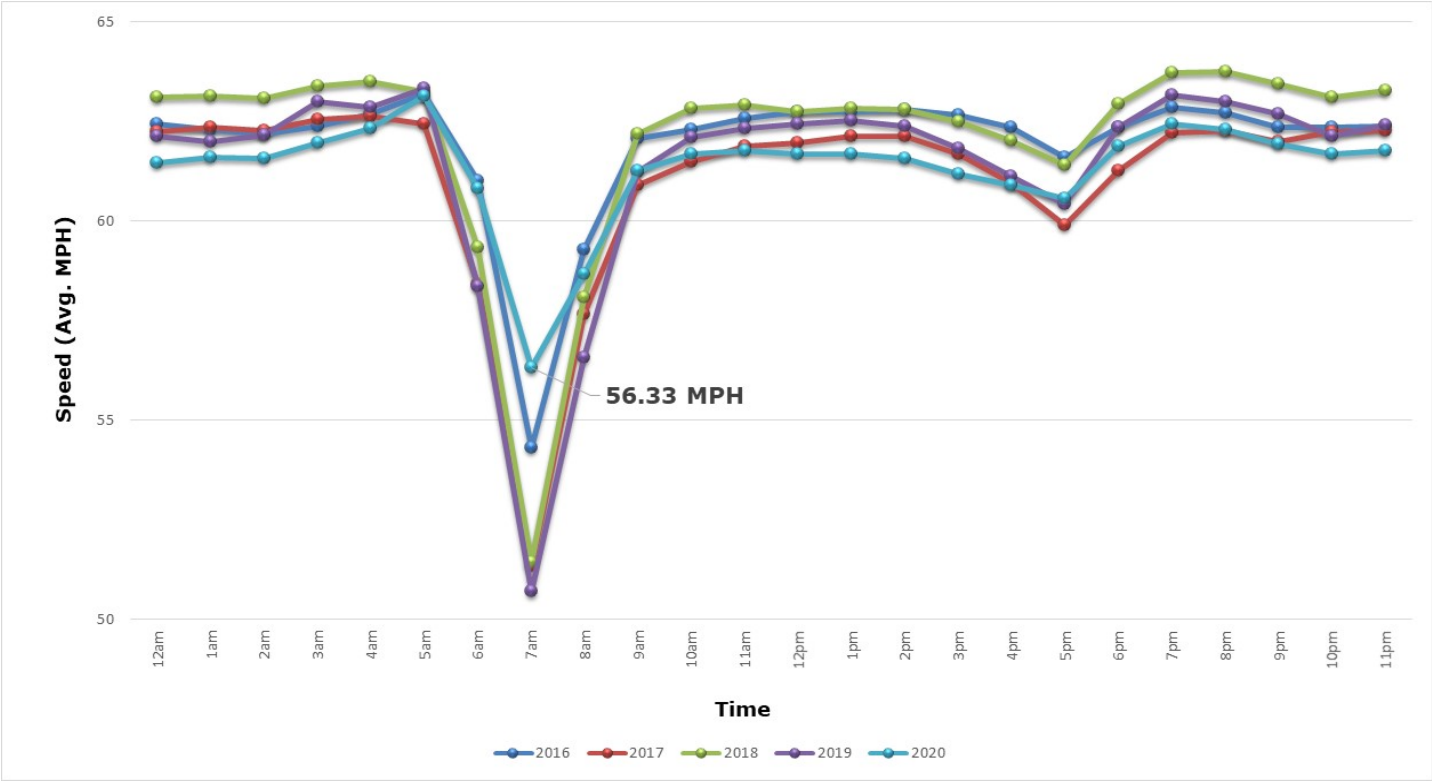

Figure 16: I-84 Eastbound (Centennial Way to Flying Wye interchange I-184), Average Weekday Speeds (2016 – 2020)

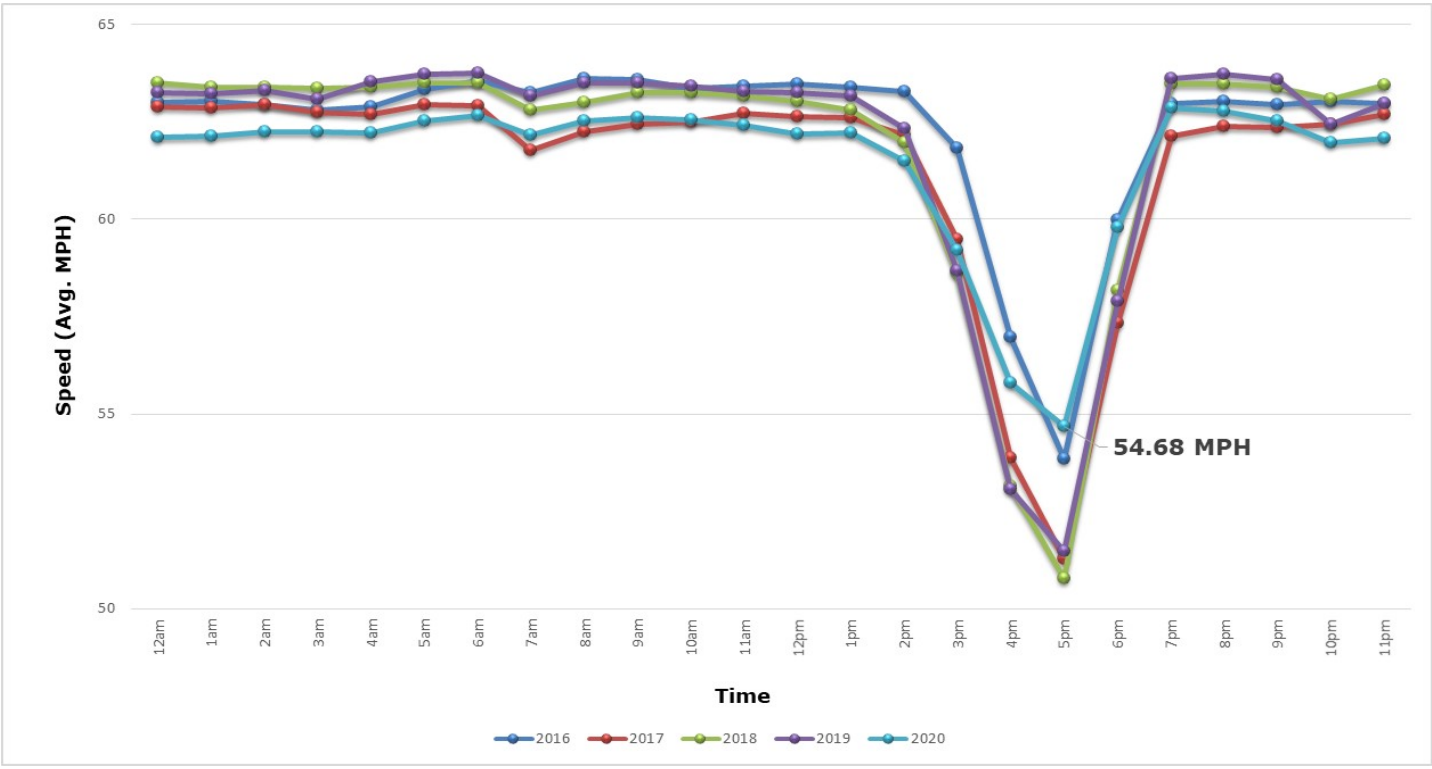

Figure 17: I-84 Westbound (Flying Wye interchange I-184 to Centennial Way), Average Weekday Speeds (2016 – 2020)

I-84 Congestion Analysis and Congestion Mitigation Strategies

I-84 experiences most of its congestion issues near the City of Nampa between the Karcher Road interchange and the Garrity Boulevard interchange (Figure 18). The westbound congestion is caused by a "bottleneck" where the interstate changes from three to two travel lanes. Another cause of congestion in this area is a construction project to add additional capacity that began in 2020. The programmed and planned projects for this section of I-84 are highlighted in Table 10.

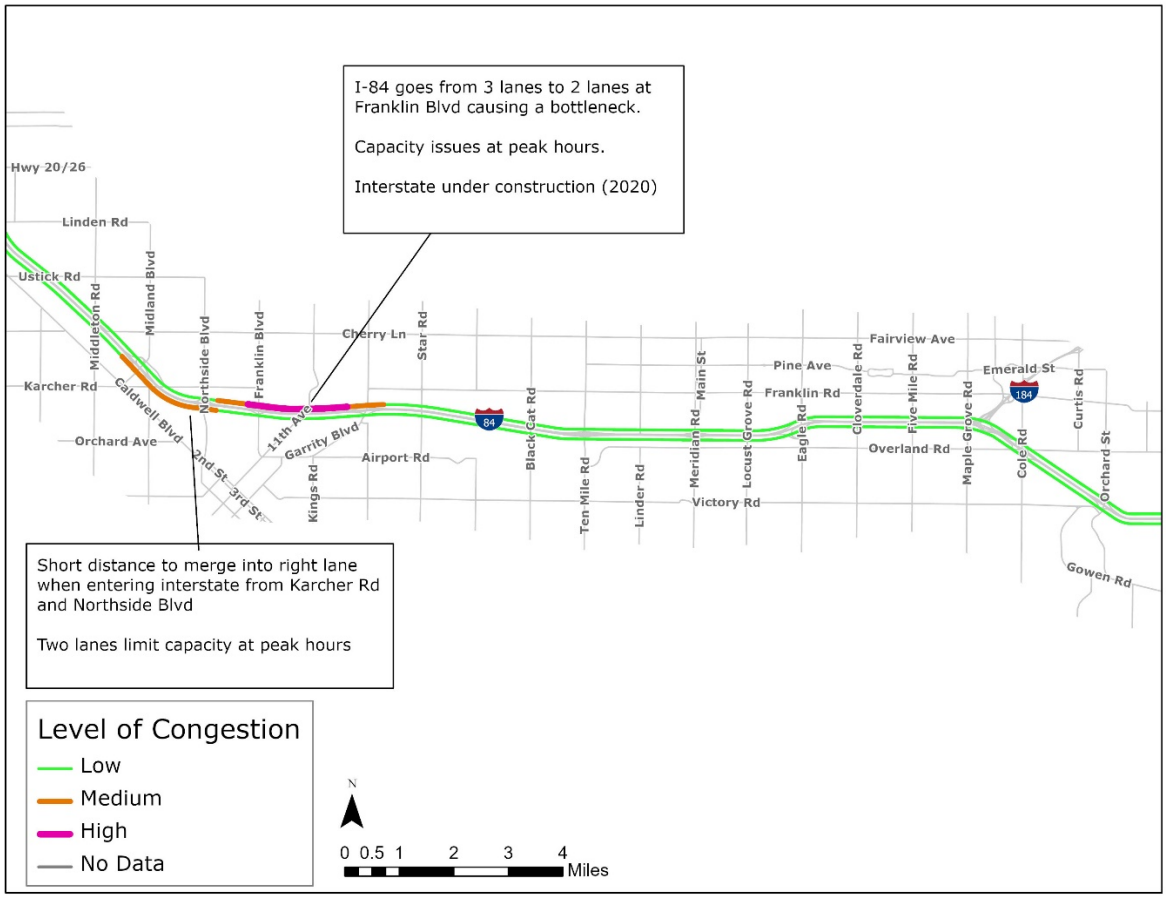

Figure 18: I-84 Levels of Peak Hour Congestion and Causes of Congestion (2020)

Table 10: I-84 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2021-2027)	Planned Funded Projects (FY2028-2040)	Planned Unfunded Projects
Transportation Demand Management	✓ ACHD Commuteride		
TSMO/ITS	✓ I-84 Corridor Operations Plan		
Transit Operations 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)

I-184

I-184 Traffic Volumes, 2016-2020

The busiest stretch of I-184 is between the Curtis Road and Franklin Road interchanges (Figure 19). I-184 volumes decreased significantly due to a large reduction of commuters to downtown Boise in 2020 during the COVID-19 Pandemic (Table 11). The most significant decrease in traffic volumes occurred east of the Boise river on the final stretch of I-184 leading in to downtown Boise.

Figure 19: I-184 Average Annual Weekday Traffic Volumes (automatic traffic recorder counts) (2020)

Table 11: I-184 Average Annual Weekday Traffic Volumes (2016-2020)

I-184	Direction	2016	2017	2018	2019	2020	Annual Growth Rate
1.4 miles Northeast of I 84 Interchange (Emerald Overpass)	Southwest	45,160	45,050	46,894	47,567	38,796	-4%
1.4 miles Northeast of I 84 Interchange (Emerald Overpass)	Northeast	43,093	44,292	45,072	46,030	36,882	-4%
0.4 miles East of Boise River	East	42,198	39,872	43,549	44,665	33,301	-6%
0.4 miles East of Boise River	West	36,542	34,326	37,265	37,498	28,340	-6%

Source: Automatic Traffic Recorders maintained by ITD

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 20 and Figure 21). In 2020 during the COVID-19 pandemic, these trends were still present, but less dramatic than the previous four years.

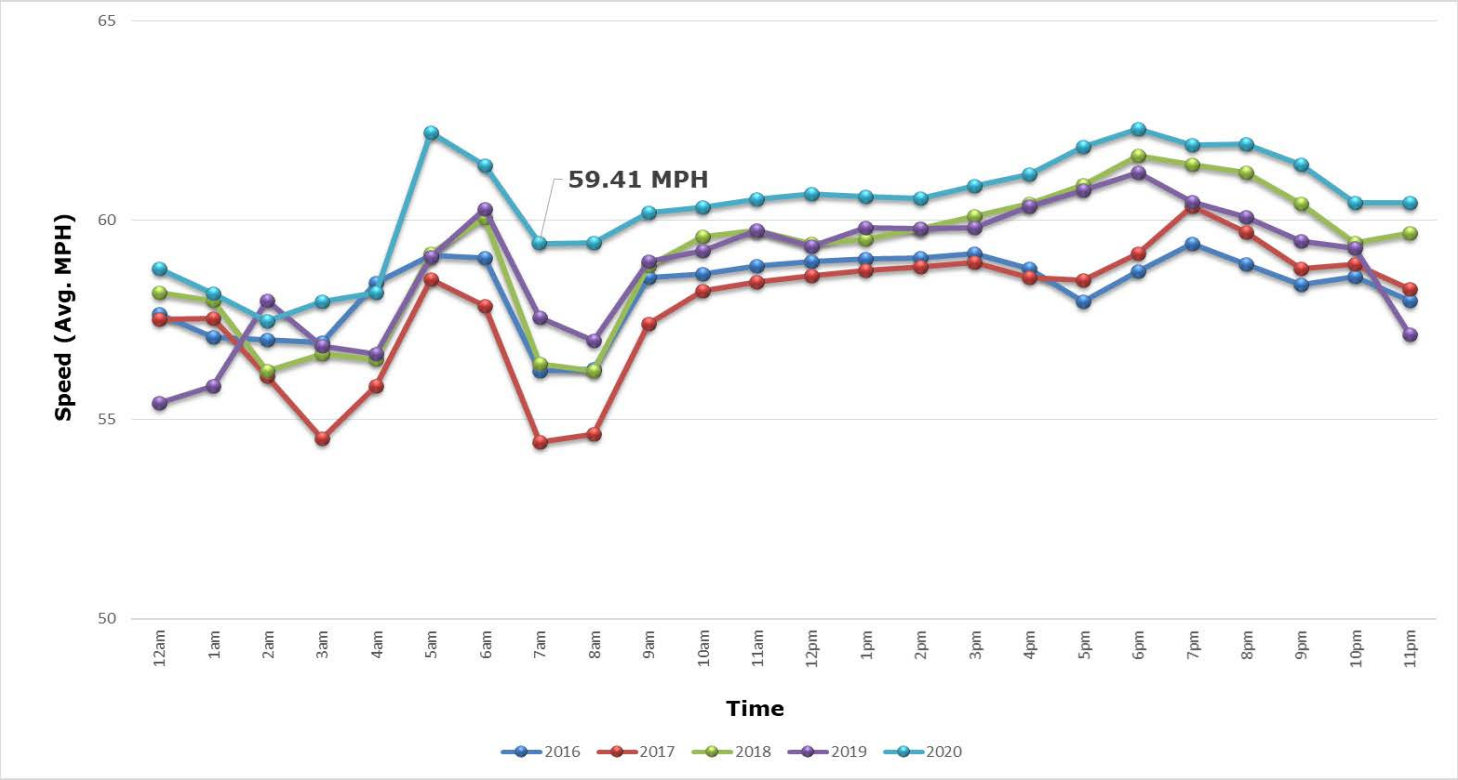

Figure 20: I-184 Eastbound, Average Weekday Speeds (2016 – 2020)

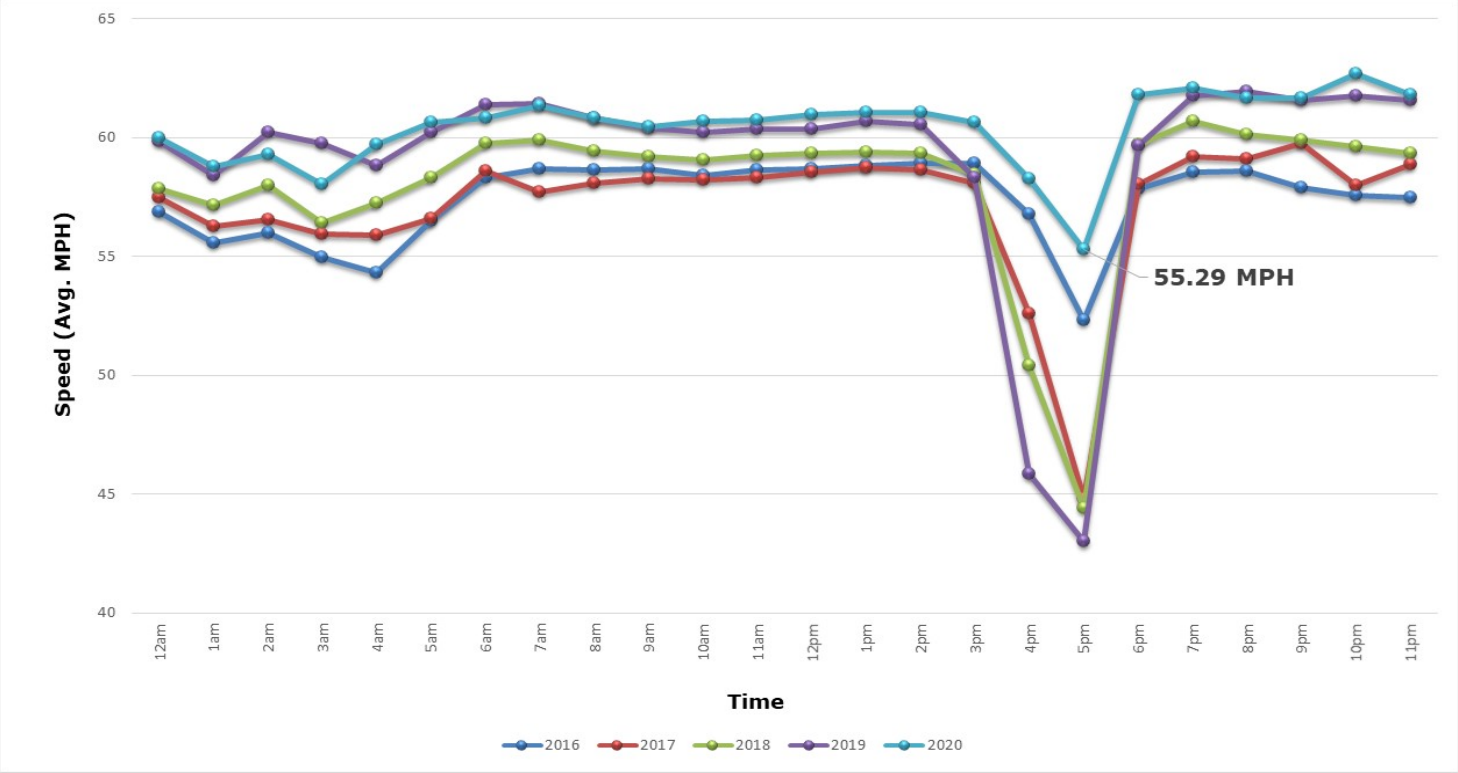

Figure 21: I-184 Westbound, Average Weekday Speeds (2016 – 2020)

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 22). This is caused by commuters leaving the City of Boise at the end of the work day. The programmed and planned projects for I-184 are highlighted in Table 12.

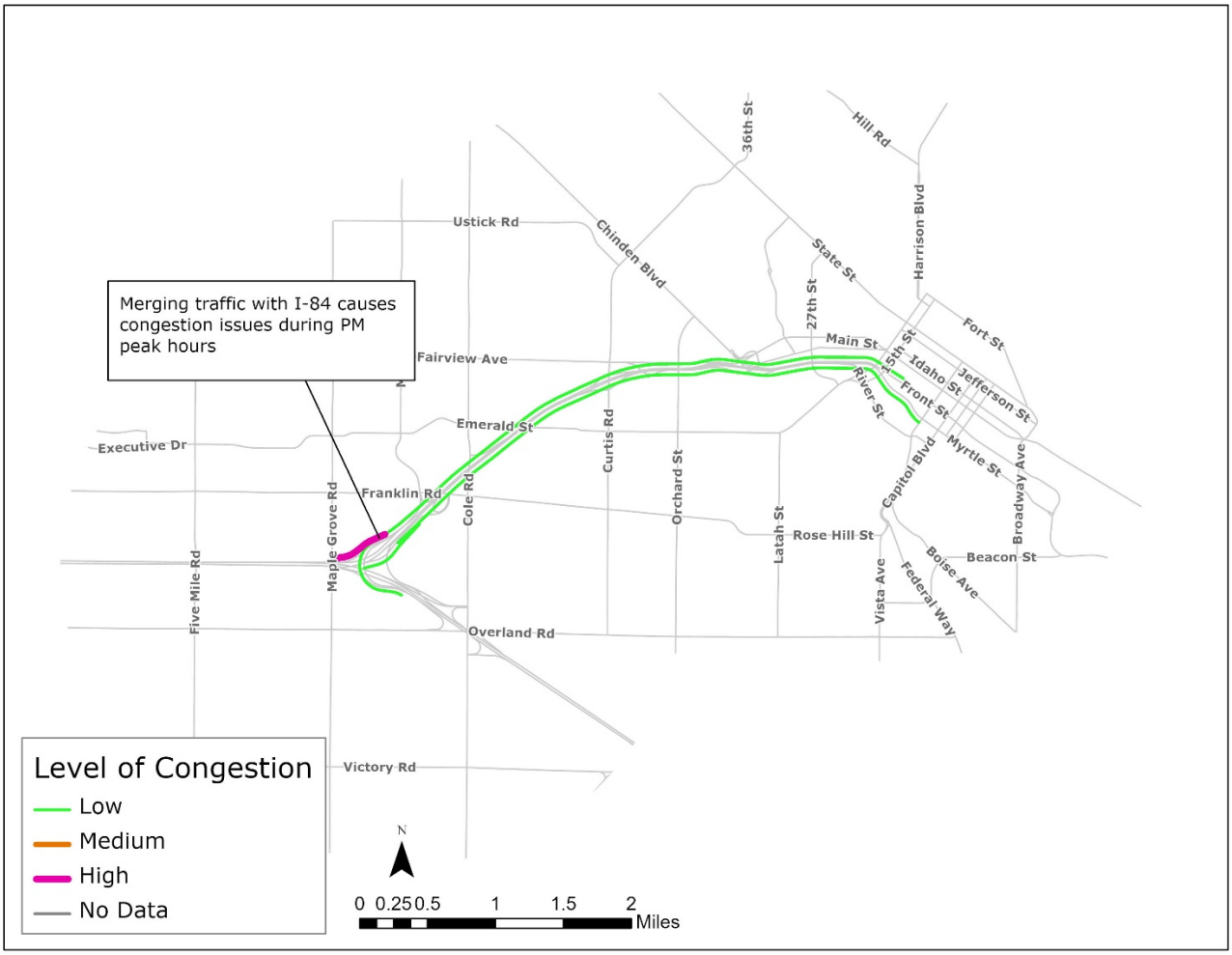

Figure 22: I-184 Levels of Peak Hour Congestion and Causes of Congestion (2020)

Table 12: I-184 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2021-2027)	Planned Funded Projects (FY2028-2040)	Planned Unfunded Projects
Transportation Demand Management	✓ ACHD Commuteride		
TSMO/ITS	✓ I-84 Corridor Operations Plan		
Transit Operations Improvements			✓ Planned new and extended services
Additional System Capacity			

US 20/26

US 20/26 Traffic Volumes, 2016-2020

The highest traffic volume on US 20/26 occurs near downtown Boise where Broadway Avenue crosses the Boise River (Figure 23). US 20/26 has seen its highest average growth rates in traffic volumes along the stretch through Canyon County. Just east of I-84 (Exit 29), US 20/26 has seen an average of 2-3% growth in traffic volumes per year from 2016-2020, despite a slight downtick in volumes in 2020 (Table 13). The busier sections of US 20/26 in Garden City and Boise have averaged much lower growth rates in the same five-year period and had considerably lower volumes in 2020 than previous years.

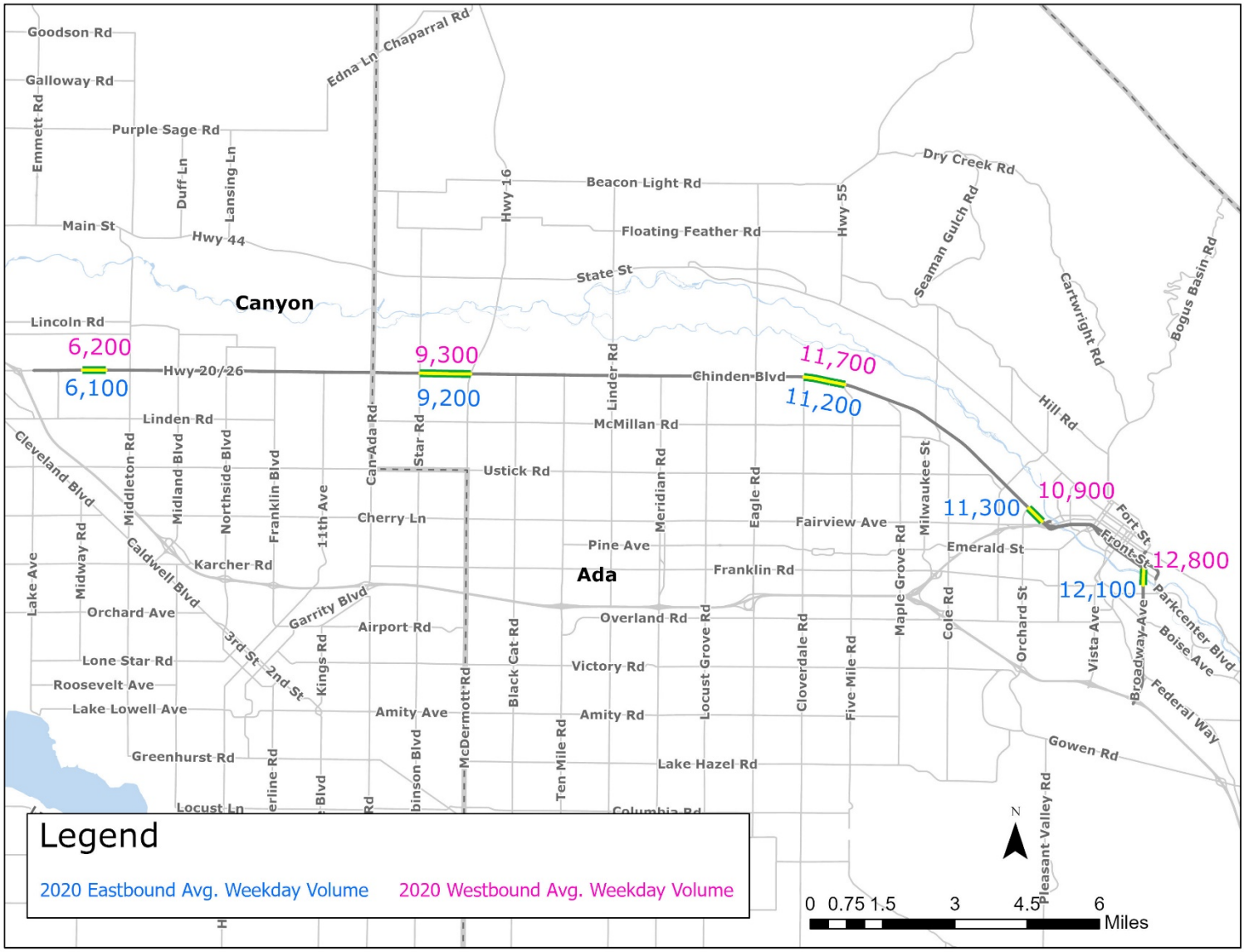

Figure 23: Annual Average Weekday Volumes on US 20/26 (automatic traffic recorder counts) (2020)

Table 13: US 20/26 (Chinden Boulevard/Broadway Avenue), Average Annual Weekday Traffic Volumes (2016-2020)

Road	Location	Direction	2016	2017	2018	2019	2020	Annual Growth Rate
US 20/26	1.6 miles east of Jct I-84 Exit 29 (East of KCID Rd) (Caldwell)	East	5,354	5,796	6,012	6,467	6,125	3%
US 20/26	1.6 miles east of Jct I-84 Exit 29 (East of KCID Rd) (Caldwell)	West	5,625	6,042	6,352	6,634	6,172	2%
US 20/26	West of Apple Valley Rd (Canyon Co.)	East	2,335	2,425	2,569	2,620	2,545	2%
US 20/26	West of Apple Valley Rd (Canyon Co.)	West	2,289	2,343	2,509	2,555	2,488	2%
Chinden Blvd (US 20/26)	West of McDermott Rd (Ada Co.)	East	8,470	9,014	9,524	9,985	9,196	2%
US 20/26	0.38 miles northwest of Mink Rd (Canyon Co.)	Southeast	3,689	3,749	3,861	4,020	3,962	2%
Chinden Blvd (US 20/26)	West of McDermott Rd (Ada Co.)	West	8,668	9,065	9,664	10,160	9,307	2%
US 20/26	0.38 miles northwest of Mink Rd (Canyon Co.)	Northwest	3,573	3,553	3,693	3,869	3,824	2%
Broadway Ave (US 20/26)	South of Myrtle Street (river crossing) (Boise)	North	12,260	12,462	14,066	14,845	12,774	1%
Broadway Ave (US 20/26)	South of Myrtle Street (river crossing) (Boise)	South	12,969	13,928	14,713	15,610	12,070	-2%
Chinden Blvd (US 20/26)	0.14 miles northwest of Five Mile Ext. (Boise)	Northwest	13,276	13,271	14,015	14,049	11,667	-3%
Chinden Blvd (US 20/26)	0.14 miles northwest of Five Mile Ext. (Boise)	Southeast	13,185	13,259	13,721	13,736	11,156	-4%
Chinden Blvd (US 20/26)	West of 32nd St (Boise)	Northwest	13,008	13,150	14,473	14,235	10,937	-4%
Chinden Blvd (US 20/26)	West of 32nd St (Boise)	Southeast	14,154	14,752	15,610	15,169	11,340	-5%

Source: Automatic Traffic Recorders maintained by ITD

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 7am (eastbound) and 5pm (westbound). Average speeds decreased in 2019 in both directions during their busiest peak hours; morning peak eastbound and evening peak westbound. Speeds were lower during the midday hours for both directions in 2020. This could be due to a combination of a shift in travel behavior during the COVID-19 pandemic, increased development in the area, and construction on the corridor in 2020 (Figures 24 and 25).

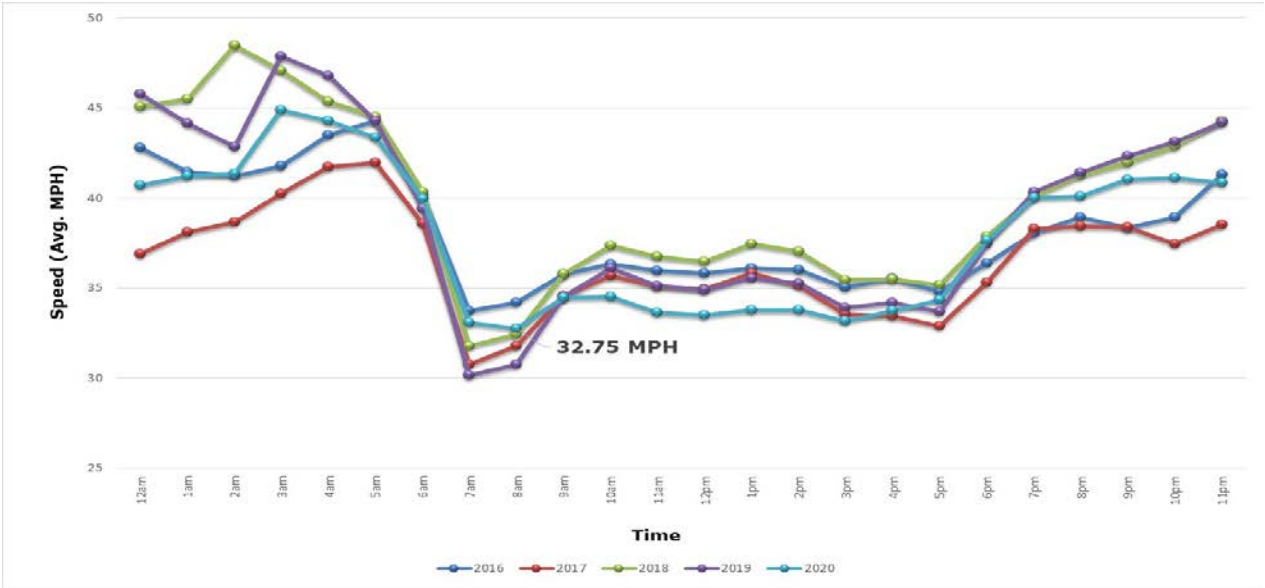

Figure 24: US 20/26 (I-84 to State Highway 55 [Eagle Road]) Eastbound, Average Weekday Speeds (2016 – 2020)

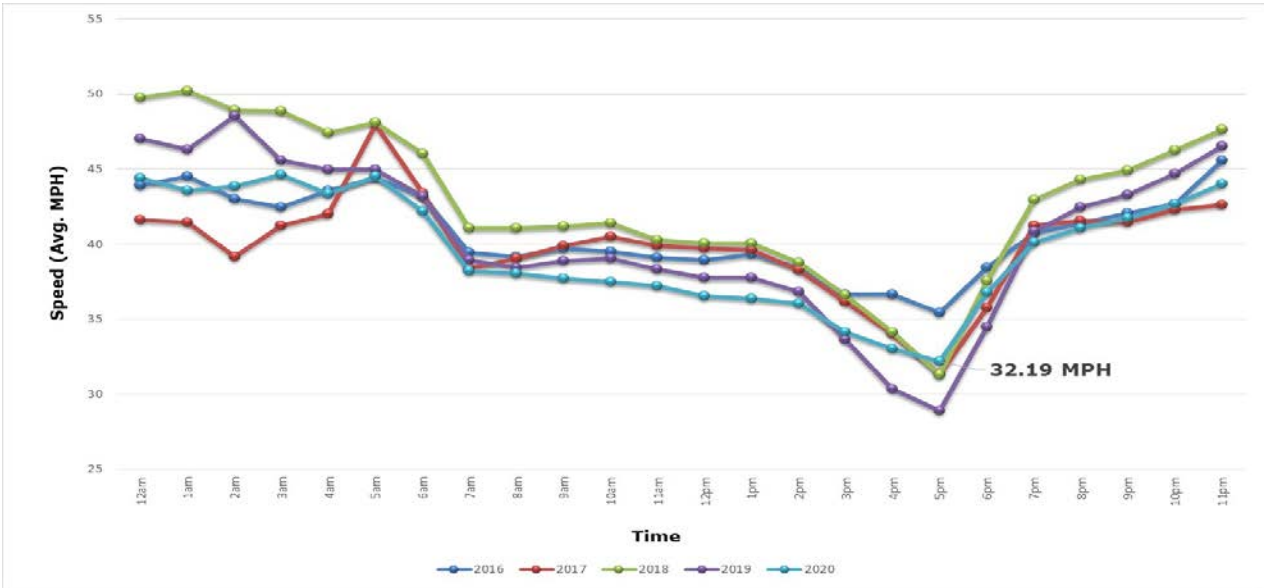

Figure 25: US 20/26 (State Highway 55 [Eagle Road] to I-84) Westbound, Average Weekday Speeds (2016 – 2020)

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 26). The westbound direction sees the typical evening peak hour slowdown associated with an increase in commuters on the road (Figure 27). 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.

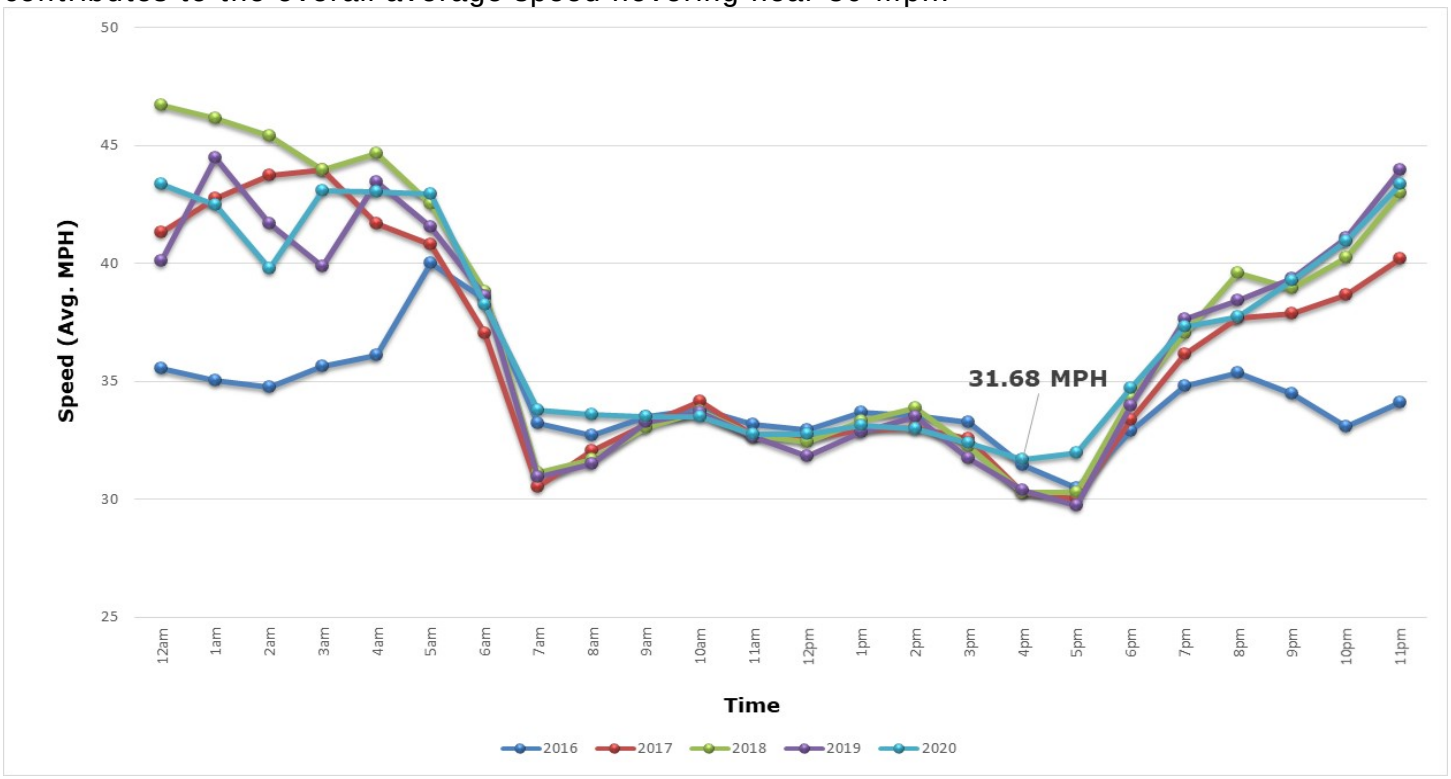

Figure 26: US 20/26 (State Highway 55 [Eagle Road] to Glenwood Street) Eastbound, Average Weekday Speeds (2016 – 2020)

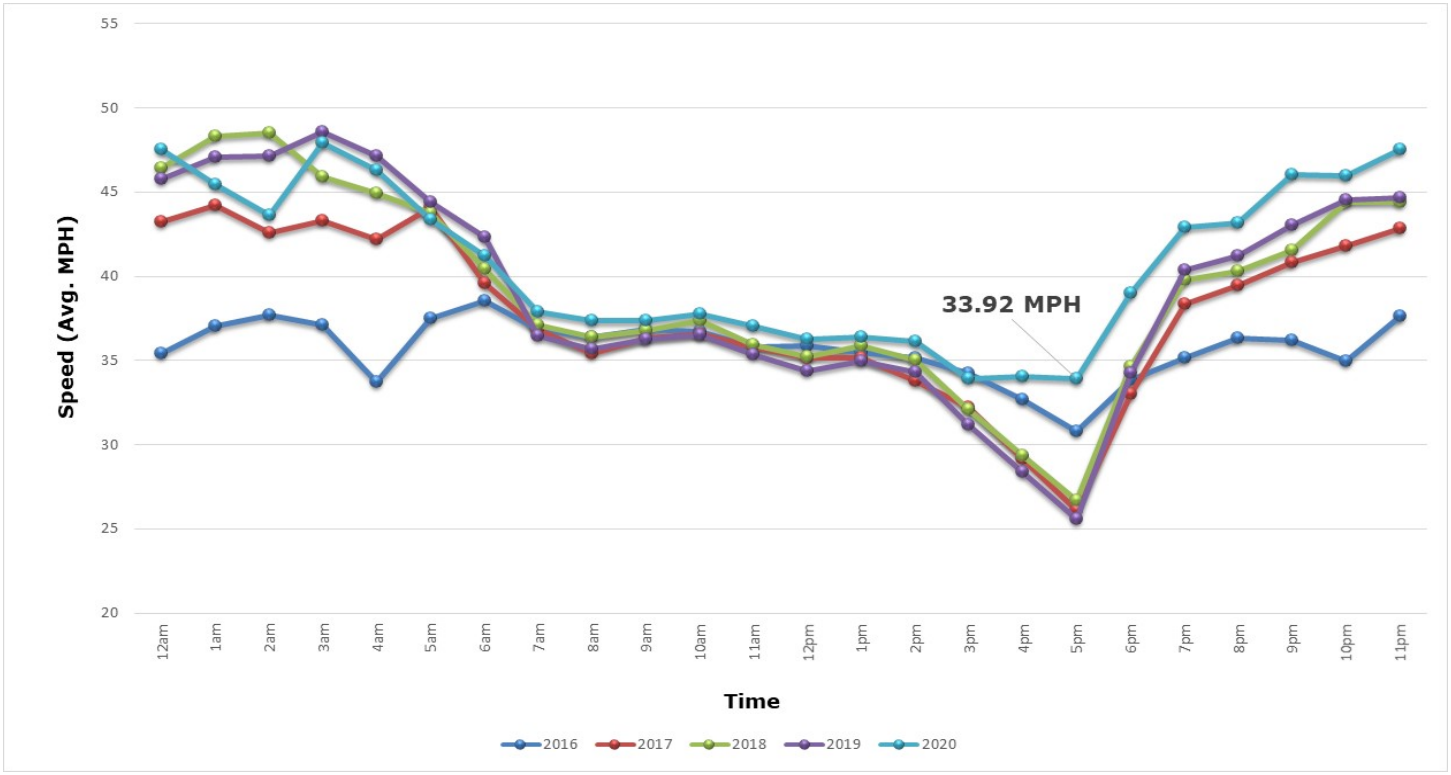

Figure 27: US 20/26 (Glenwood Street to State Highway 55 [Eagle Road]) Westbound, Average Weekday Speeds (2016 – 2020)

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 28). The westbound direction experiences the most dramatic slowdown, bottoming out at 20 mph, during the 5 pm hour (Figure 29). 2020 was an exception to this trend due to the decreased amount of commuter traffic during the COVID -19 pandemic.

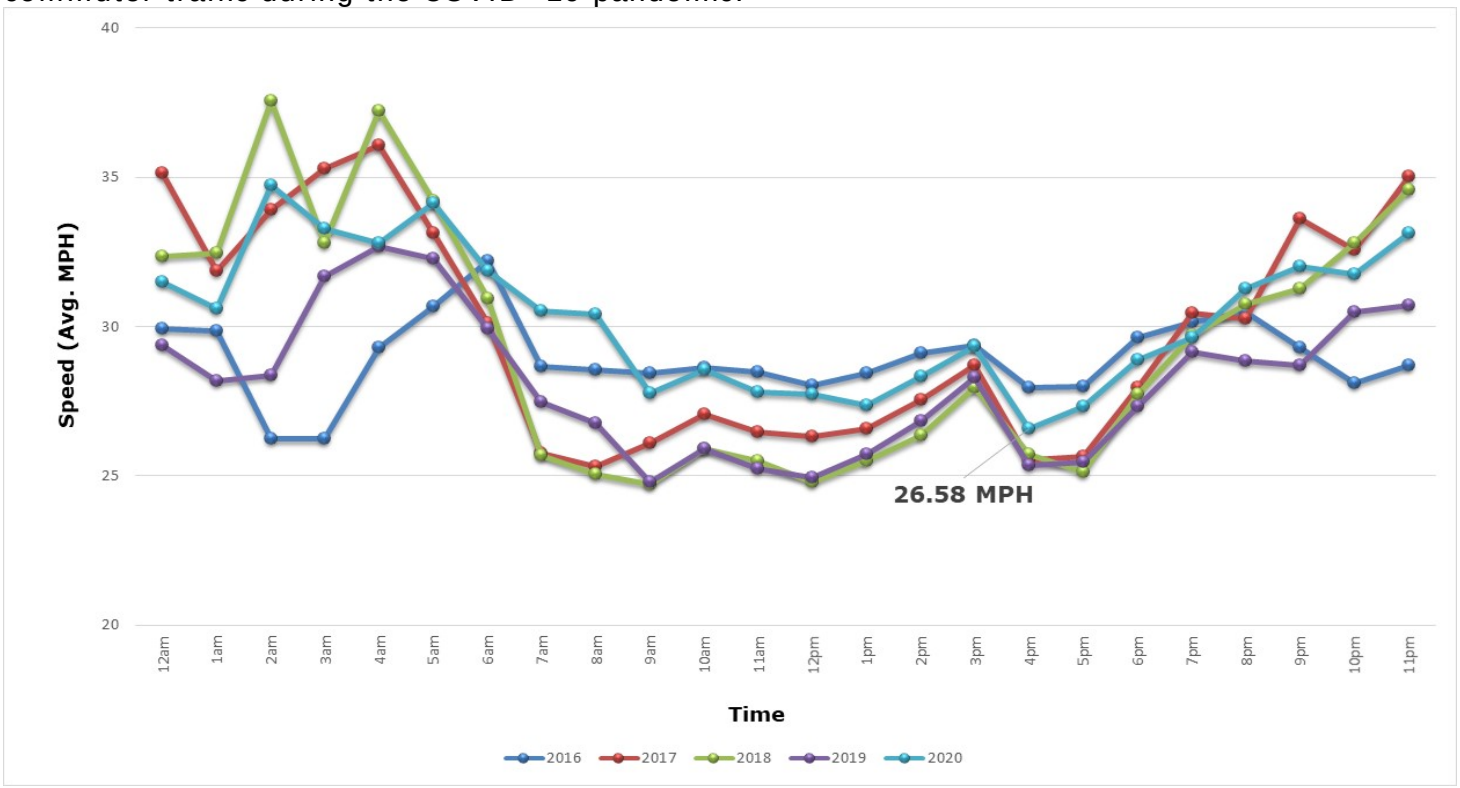

Figure 28: US 20/26 (Glenwood Street to I-184) Eastbound, Average Weekday Speeds (2016 – 2020)

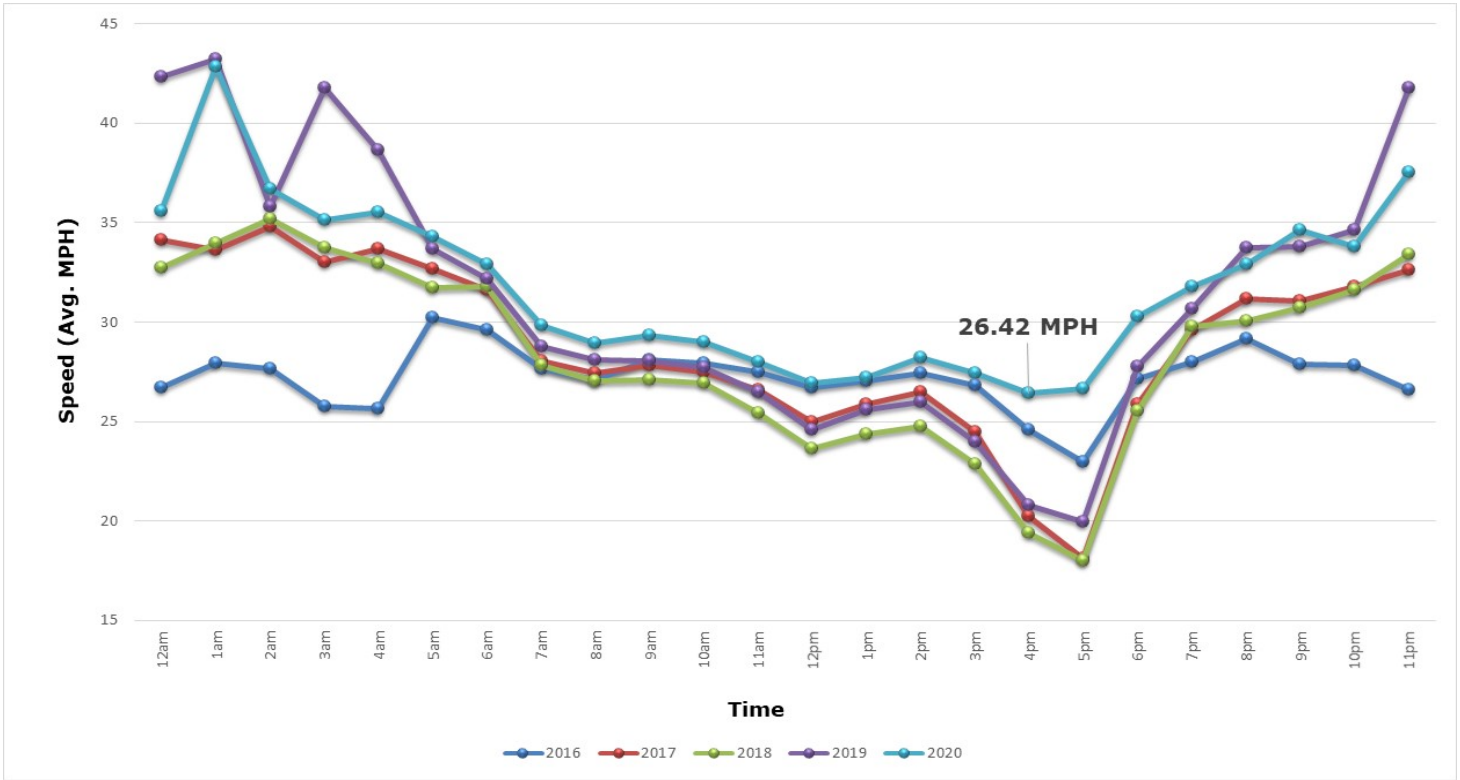

Figure 29: US 20/26 (I-184 to Glenwood Street) Westbound, Average Weekday Speeds (2016 – 2020)

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 4pm in the westbound direction (Figures 30 and 31). The speed profile in 2020 followed this trend, but with much higher overall speeds due to fewer commuters during the COVID-19 pandemic. The highway in this section is divided in to 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.

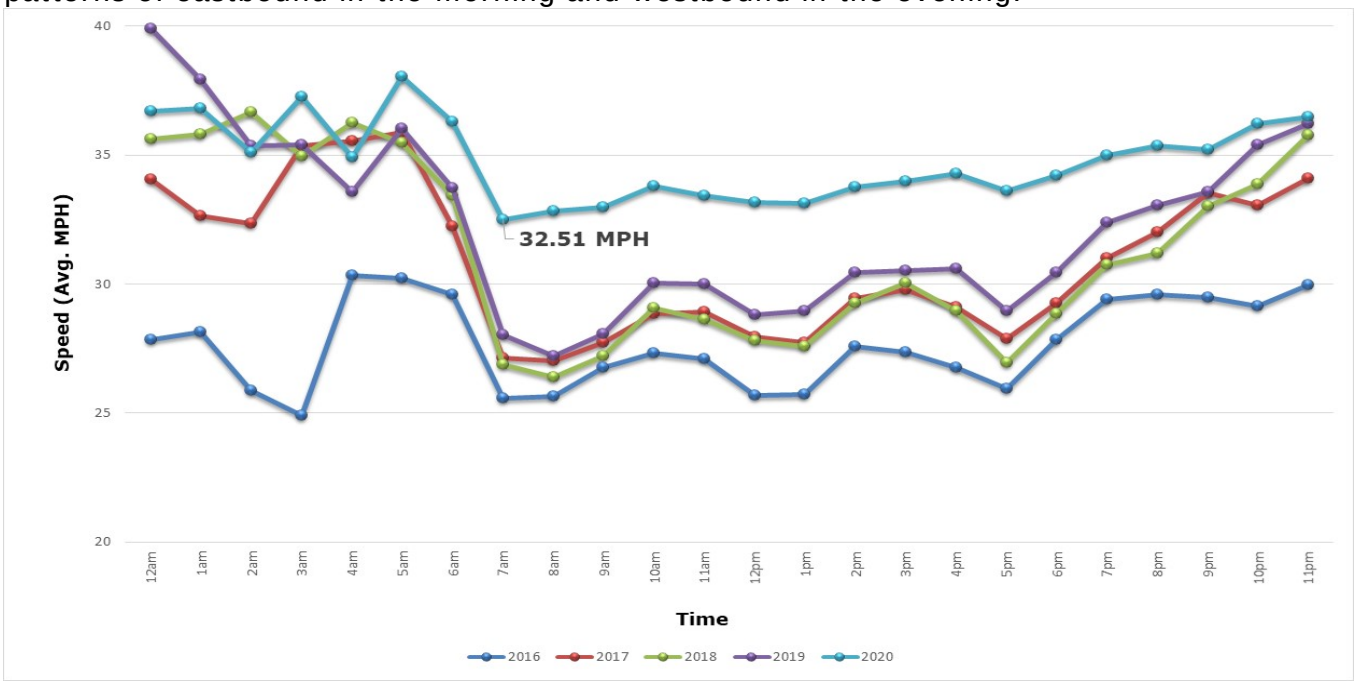

Figure 30: US 20/26 (I-184 to Broadway Avenue via Myrtle Street) Eastbound, Average Weekday Speeds (2015 – 2019)

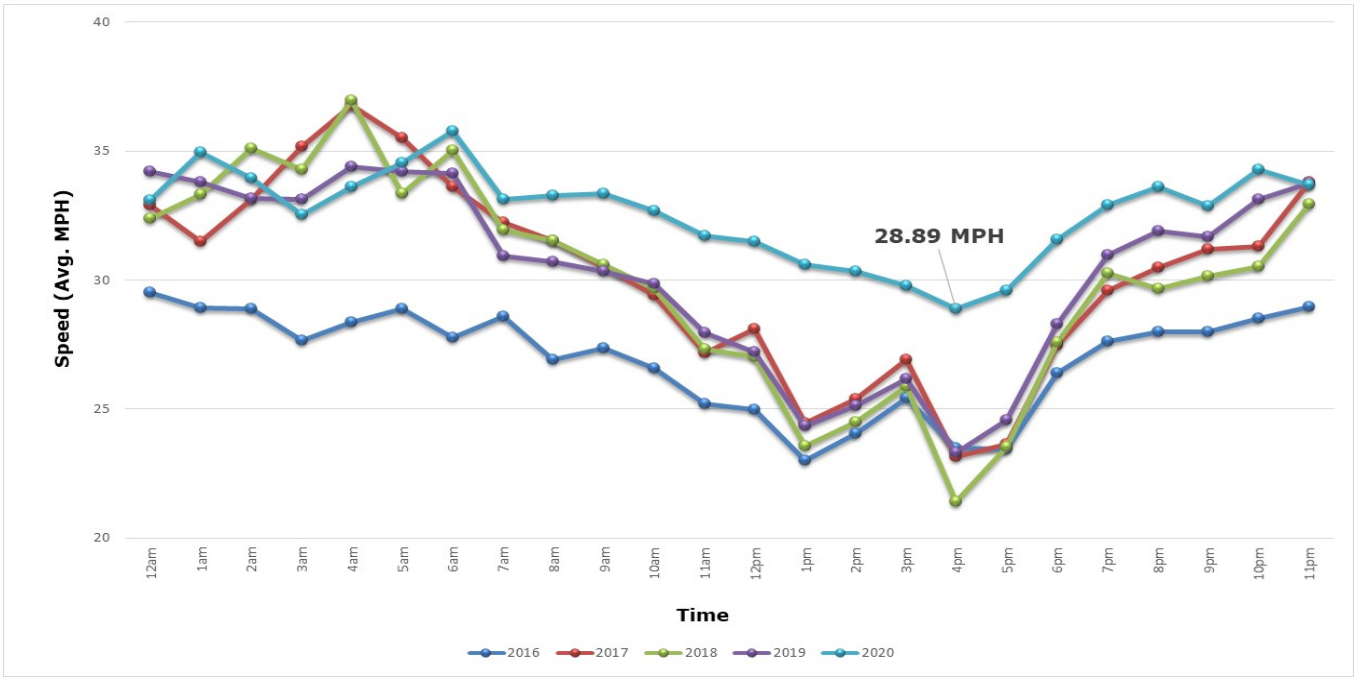

Figure 31: US 20/26 (Broadway Avenue to I-184 via Front Street) Westbound, Average Weekday Speeds (2015 – 2019)

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 8am to 5pm (Figures 32 and 33). 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 2020, likely due to a reduction of the number of people commuting during the COVID-19 pandemic, the southbound PM peak hour speeds weren't impacted by congestion.

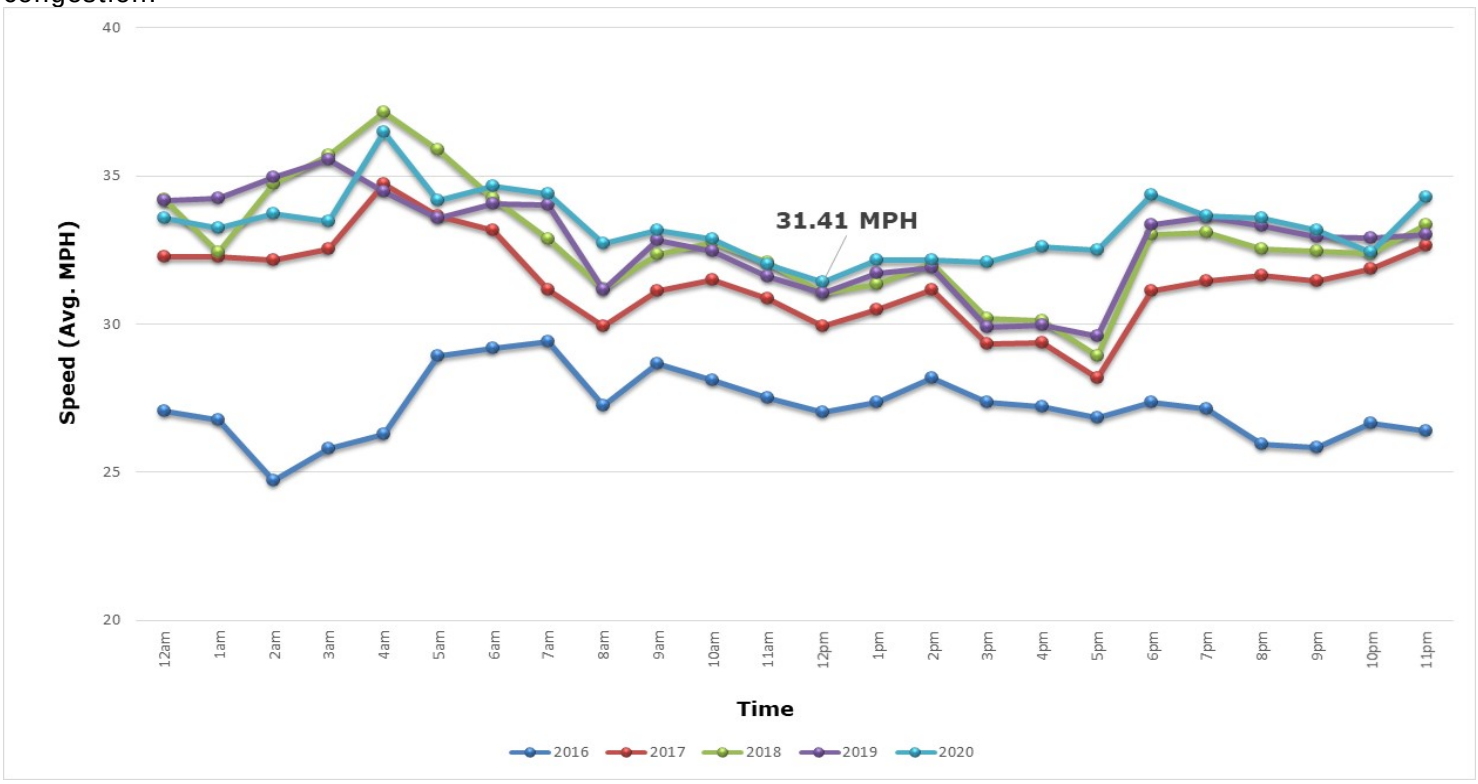

Figure 32: US 20/26 (Myrtle Street to I-84) Southbound, Average Weekday Speeds (2016 – 2020)

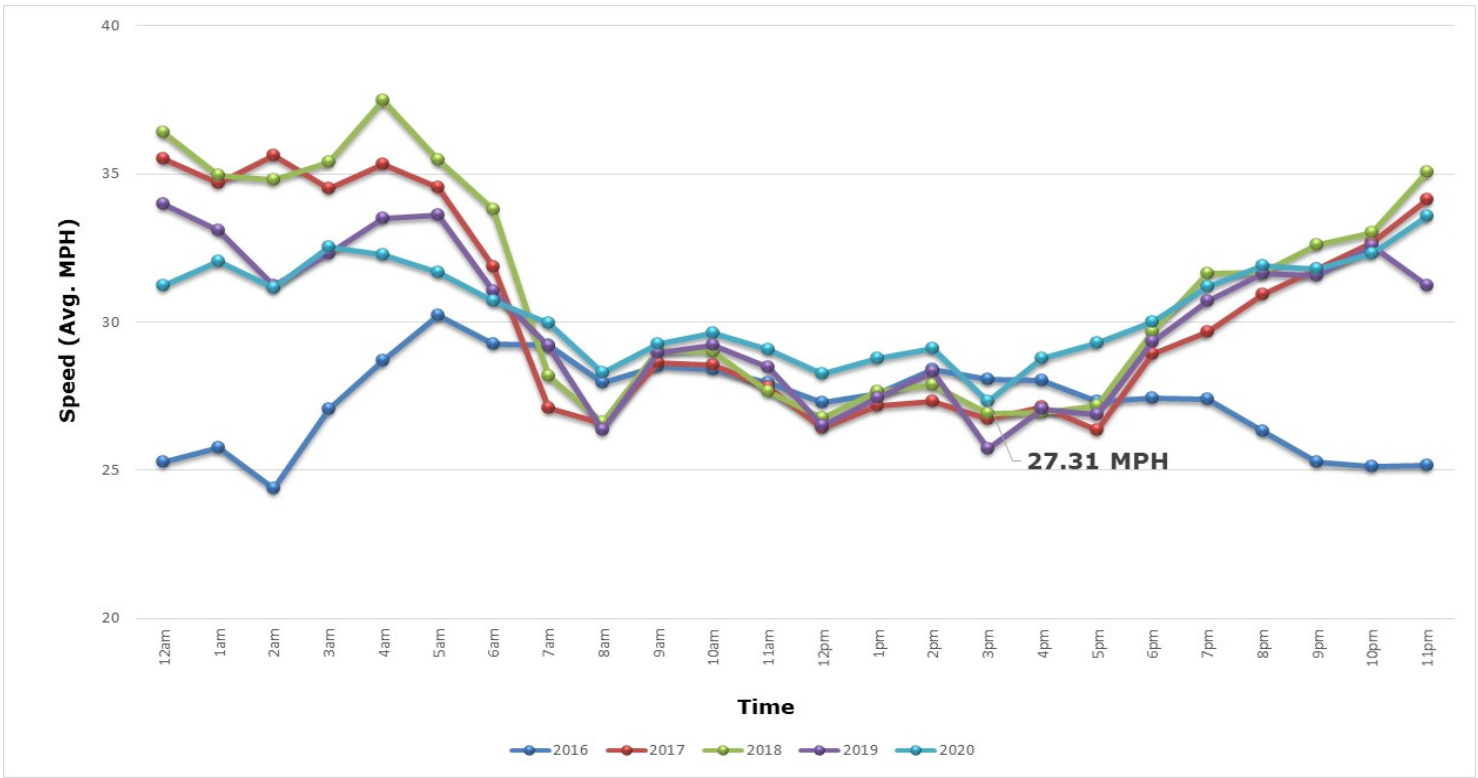

Figure 33: US 20/26 (I-84 to Front Street) Northbound, Average Weekday Speeds (2016 – 2020)

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 34). COMPASS has identified a mix of congestion mitigation stratgies to apply on this complicated corridor. Programmed and planned projects are highlighted in Table 14.

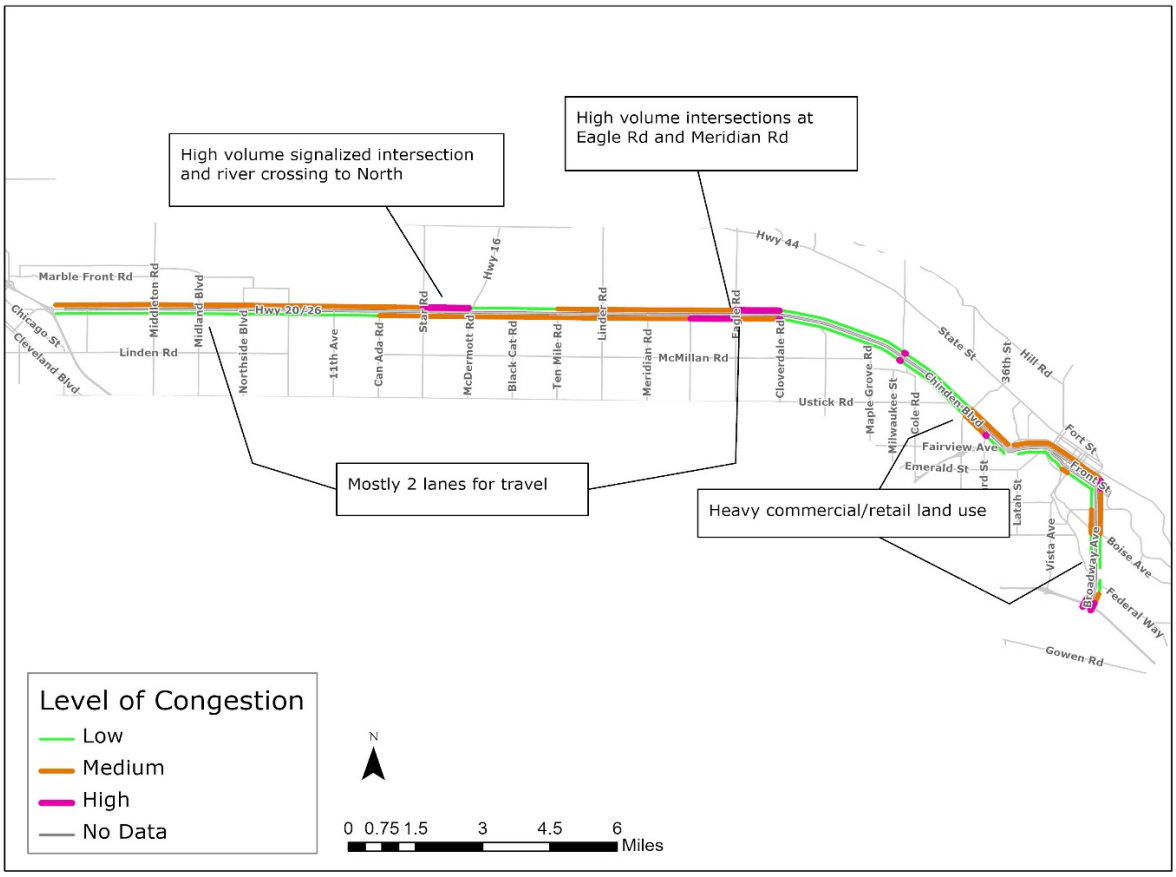

Figure 34: US 20/26 Levels of Peak Hour Congestion and Causes of Congestion (2020)

Table 14: US 20/26 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2021-2027)	Planned Funded Projects (FY2028-2040)	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	
Transit Operations 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 Linder Road to Eagle Road Widening from 2 to 4 lanes from Middleton Road to Star Road	✓ Widening from 4 to 6 lanes from Middleton Road to Linder Road

State Highway 55 (Eagle Road)

State Highway 55 (Eagle Road) Traffic Volume, 2016-2020

State Highway 55 (Eagle Road) serves as one of the main north/south corridors in the Treasure Valley and includes some of the highest volume intersections in the State of Idaho. Over 40,000 vehicles per day cross the north channel of the Boise River (Figure 35). The highway experienced moderate growth between 2016 and 2019 where it crosses the Boise River just south of State Highway 44, but saw a drop in volume during 2020 (Table 15).

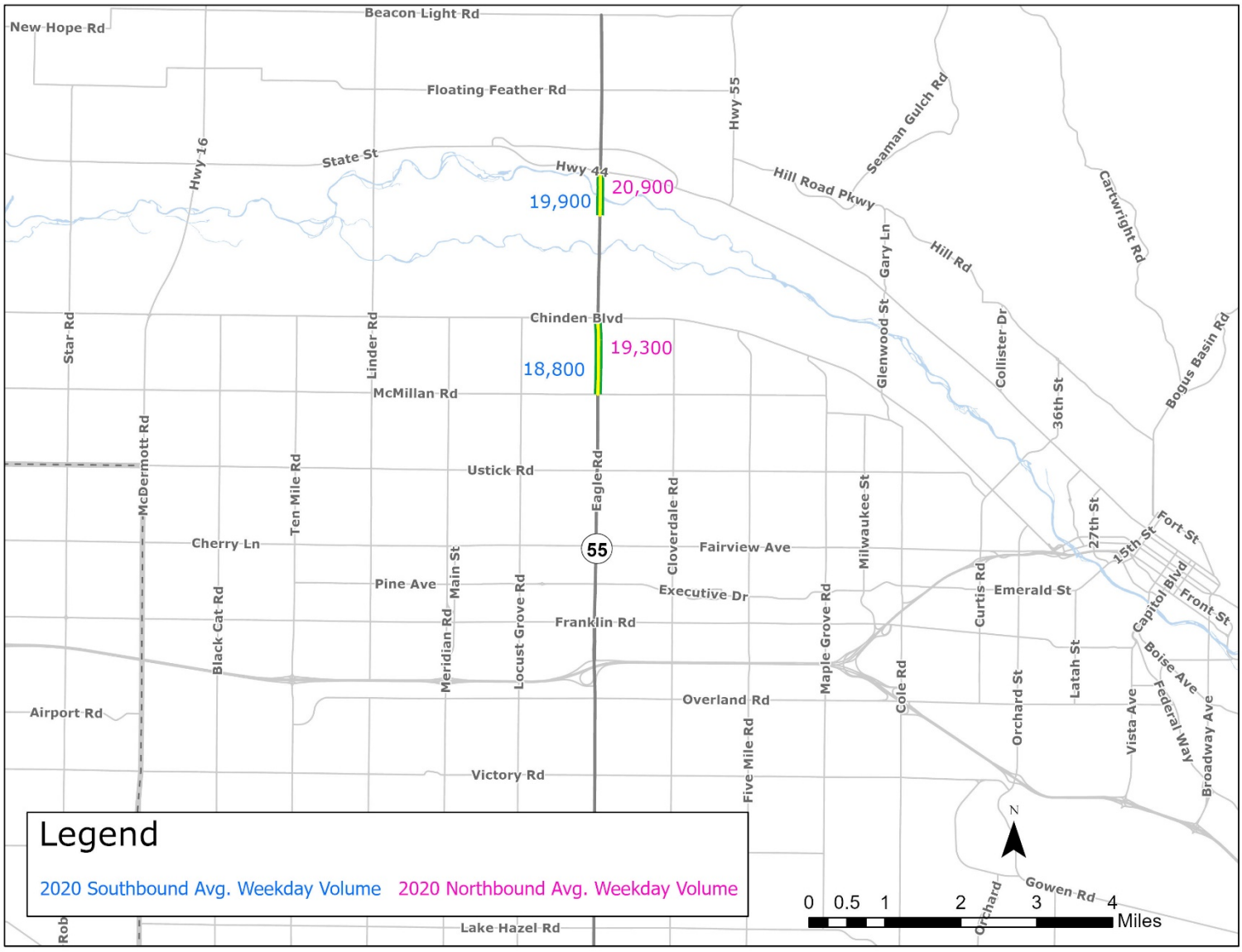

Figure 35: State Highway 55 (Eagle Road), Annual Average Weekday Volumes (2020)

Table 15: State Highway 55 (Eagle Road), Average Annual Weekday Traffic Volumes (2016-2020)

Location	Direction	2016	2017	2018	2019	2020	Annual Growth Rate
0.3 miles south of SH 44 (river crossing)	North	20,881	21,325	21,995	22,538	20,854	0%
0.3 miles south of SH 44 (river crossing)	South	20,299	20,459	21,254	21,709	19,889	-1%
North of Sedona St	North	19,940	20,073	20,459	21,248	19,258	-1%
North of Sedona St	South	19,655	19,503	19,741	20,598	18,822	-1%

Source: Automatic Traffic Recorders maintained by ITD

State Highway 55 (Eagle Road) Speed Profiles

State Highway 55 (Eagle Road) experiences a steady decrease in speeds throughout the workday (Figures 36 and 37). The slowest speeds are during midday and evening peak hours in both directions. These dips are telling signs that this corridor serves both as 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.

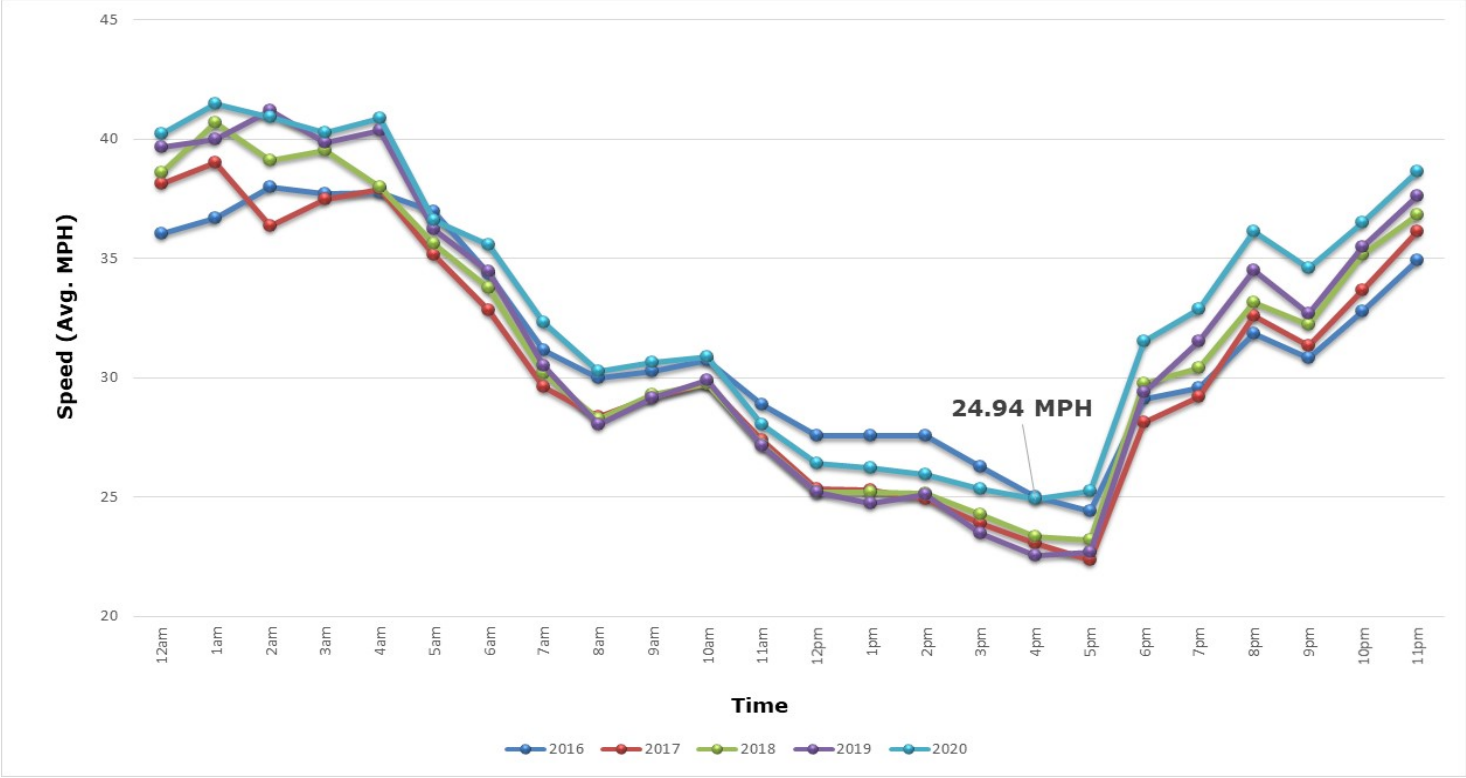

Figure 36: State Highway 55 (Eagle Road) Northbound, Average Weekday Speeds (2016 – 2020)

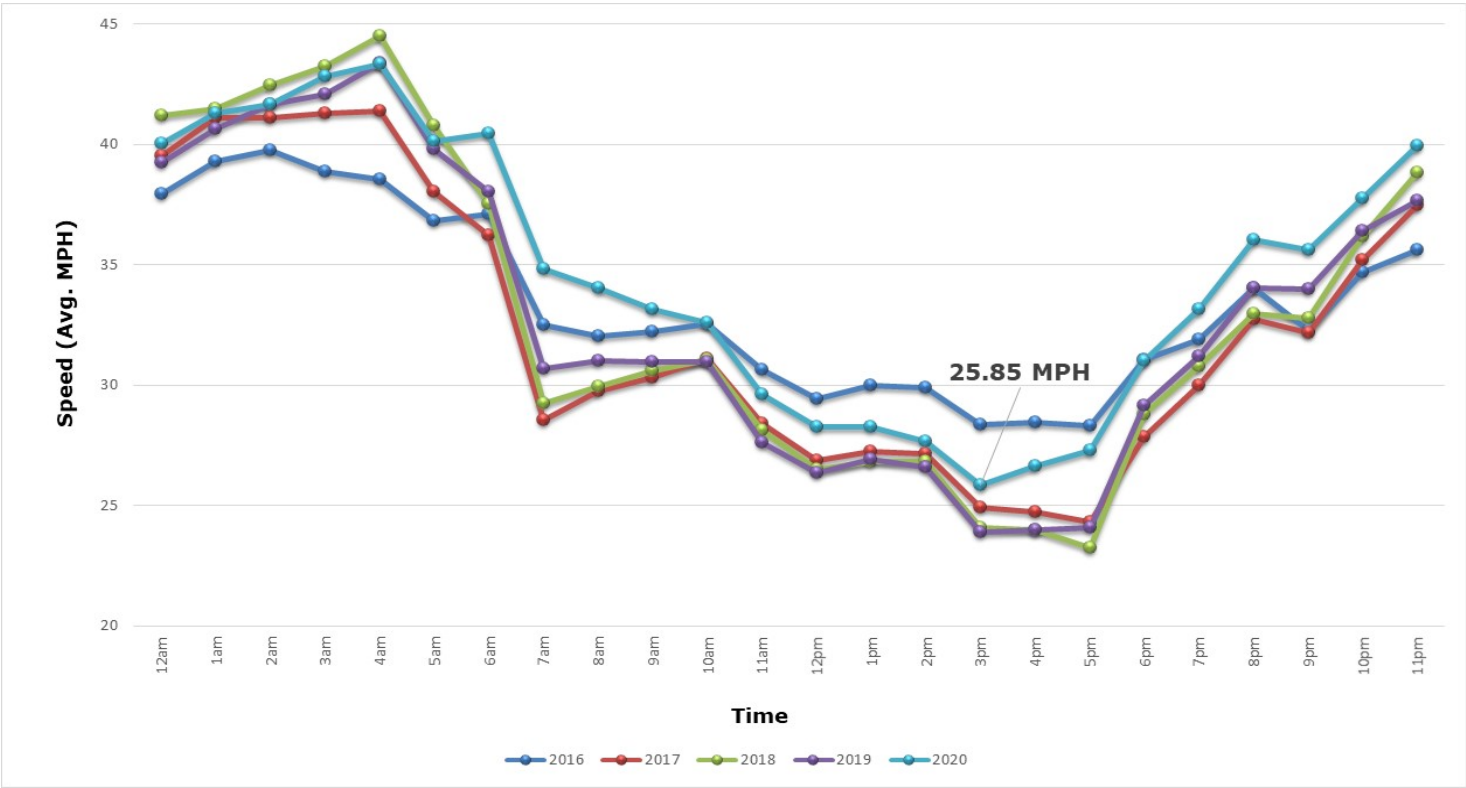

Figure 37: State Highway 55 (Eagle Road) Southbound, Average Weekday Speeds (2016 – 2020)

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 38). Programmed and planned projects are highlighted in Table 16.

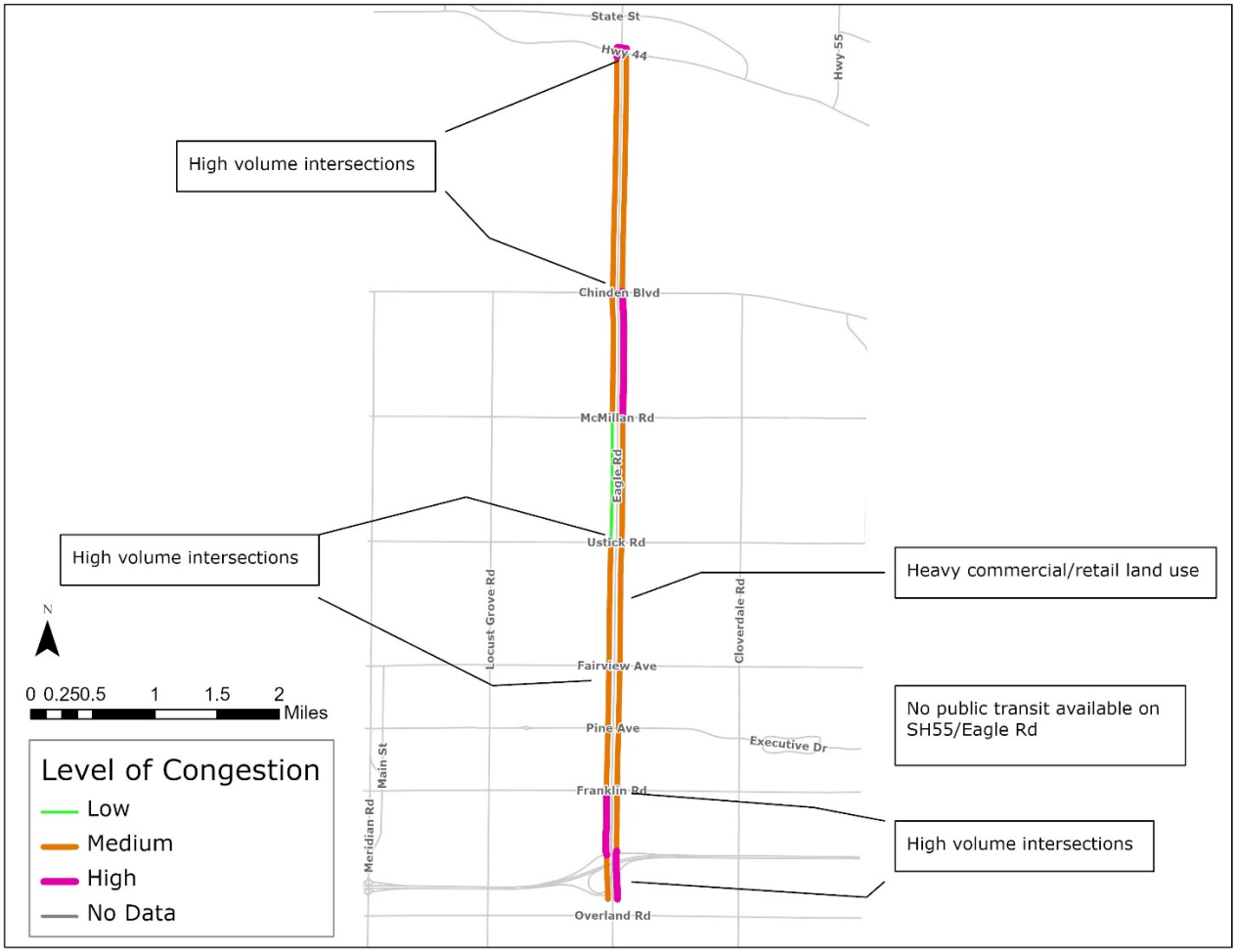

Figure 38: State Highway 55 (Eagle Road) Levels of Peak Hour Congestion and Causes of Congestion (2020)

Table 16: State Highway 55 (Eagle Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2021-2027)	Planned Funded Projects (FY2028-2040)	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		
TSMO/ITS	✓ Intersection Improvementst at SH 44 (State St) and SH 55 (Eagle Rd)		
Transit Operations Improvements			✓ Planned new and extended services
Additional System Capacity	✓ Add one lane southbound from River Valley Street to Franklin Road		

State Highway 55 (Karcher Road)

State Highway 55 (Karcher Road) Traffic Volume, 2016-2020

State Highway 55 (Karcher Road) is busiest near the I-84 interchange (Figure 39). State Highway 55 (Karcher Road) has seen its greatest increase in traffic volumes just east of Indiana Avenue before entering the urban area of the City of Nampa (Table 17).

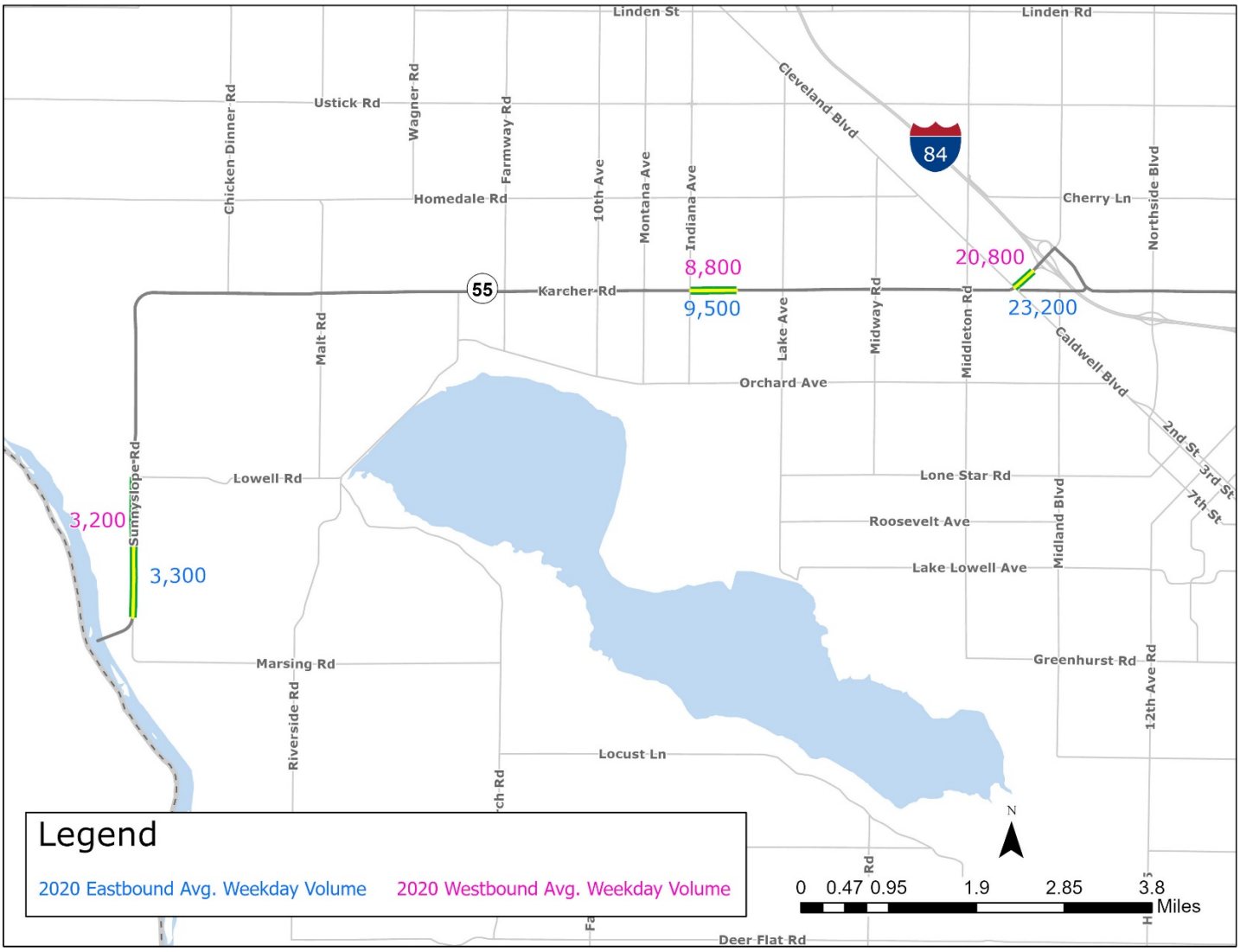

Figure 39: State Highway 55 (Karcher Road) Annual Average Weekday Volumes (2020)

Table 17: State Highway 55 (Karcher Road) Average Annual Weekday Traffic Volumes (2016-2020)

Location	Direction	2016	2017	2018	2019	2020	Annual Growth Rate
0.25 miles east of Indiana Ave	East	8,272	8,149	8,946	9,682	9,507	4%
0.25 miles east of Indiana Ave	West	8,005	7,404	8,256	9,025	8,755	2%
South of Lowell Rd	North	3,170	3,235	3,390	3,311	3,260	1%
South of Lowell Rd	South	3,093	3,202	3,286	3,229	3,178	1%
0.14 miles north of I-84B (Caldwell-Nampa Blvd)	Northeast	22,673	22,146	23,088	24,995	23,207	1%
0.14 miles north of I-84B (Caldwell-Nampa Blvd)	Southwest	21,333	20,399	20,866	22,431	20,823	-1%

Source: Automatic Traffic Recorders maintained by ITD

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 (Figures 40 and 41). The westbound direction saw a noticable dip in speeds throughout the day in 2019 as well as 2020.

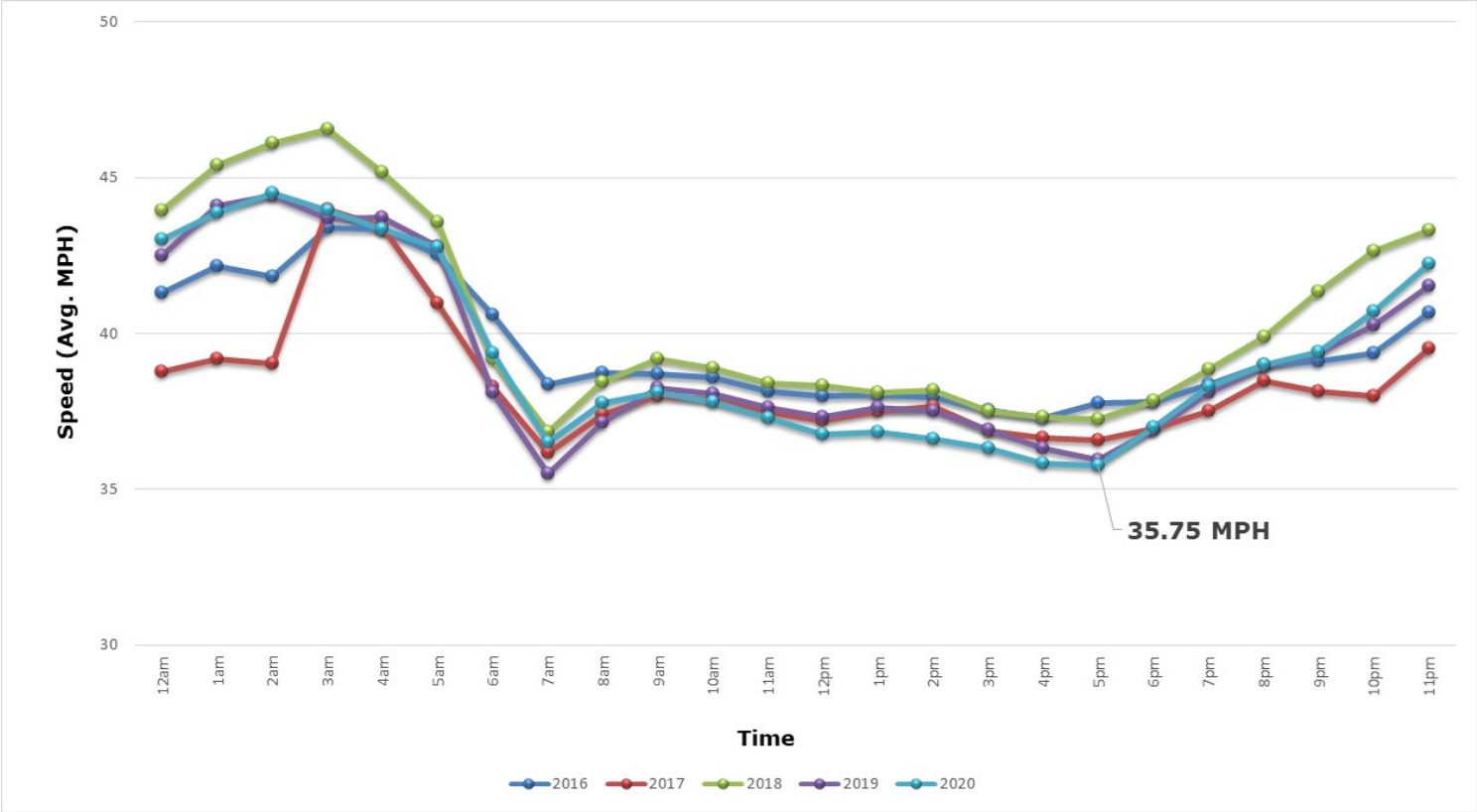

Figure 40: State Highway 55 (Karcher Road) Eastbound, Average Weekday Speeds (2016 – 2020)

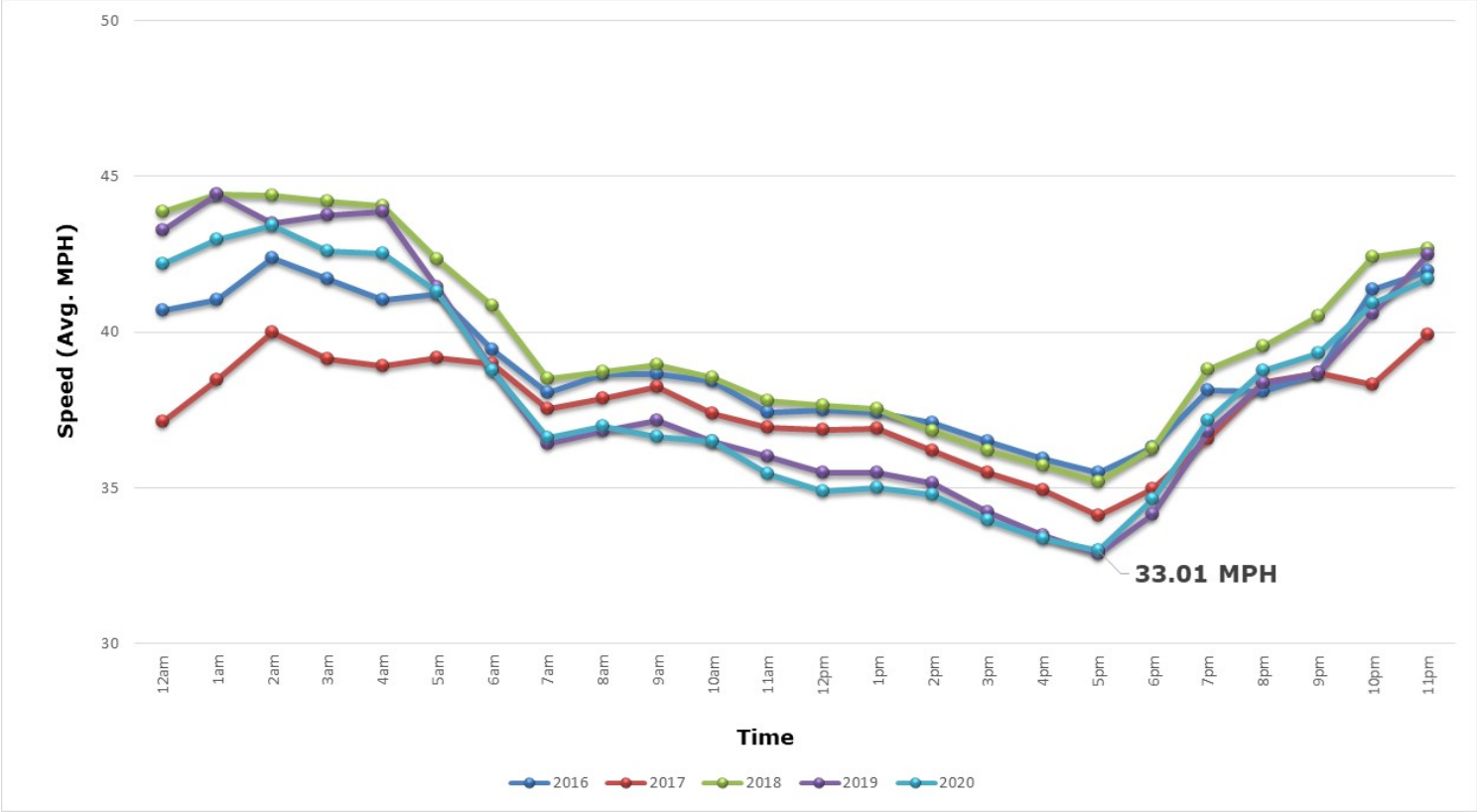

Figure 41: State Highway 55 (Karcher Road) Westbound, Average Weekday Speeds (2016 – 2020)

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 42). 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 Caldwell-Nampa Boulevard and the I-84 interchange. Programmed and planned projects are highlighted in Table 18.

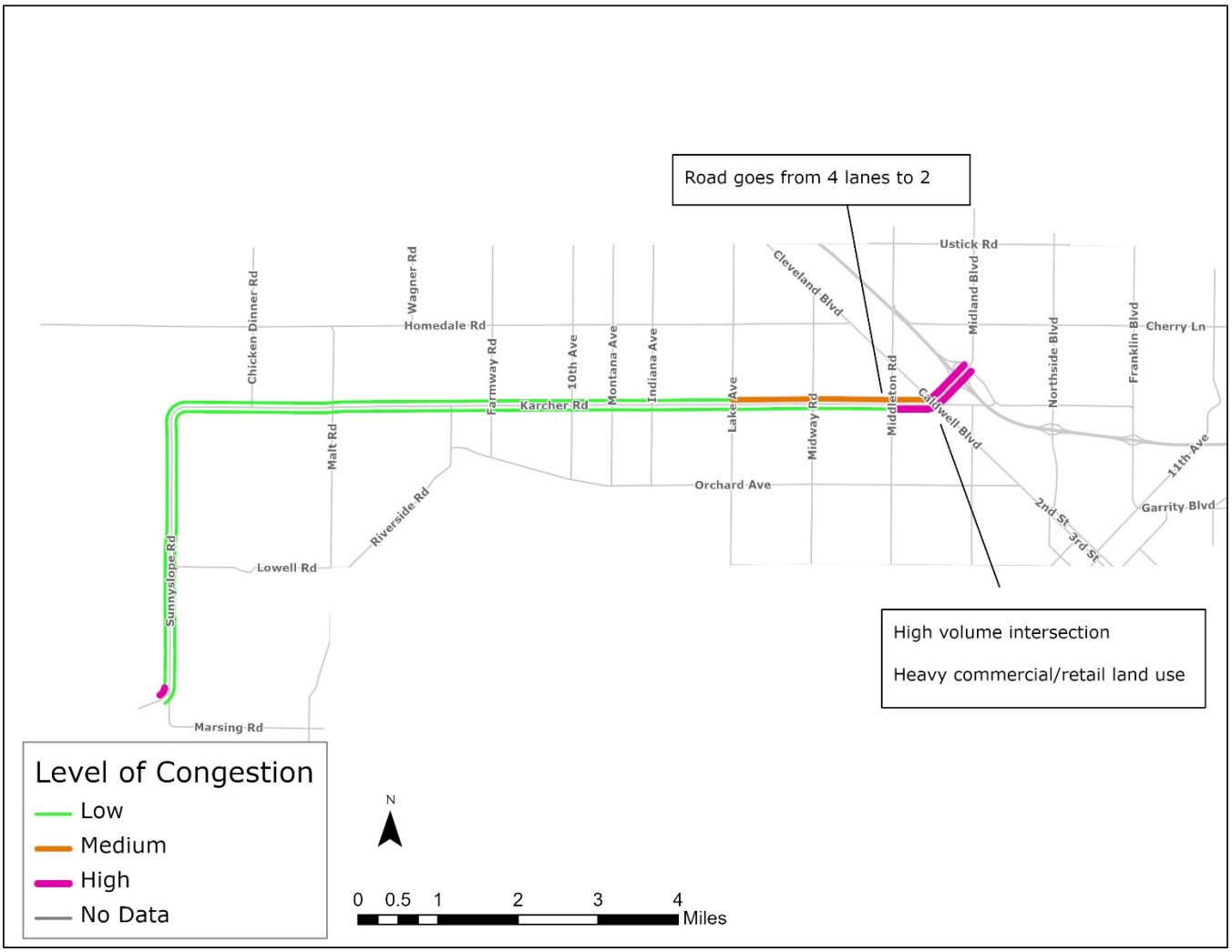

Figure 42: State Highway 55 (Karcher Road) Levels of Peak Hour Congestion and Cause of Congestion (2020)

Table 18: State Highway 55 (Karcher Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2021-2027)	Planned Funded Projects (FY2028-2040)	Planned Unfunded Projects
Transportation Demand Management			
TSMO/ITS			
Transit Operations 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 Indiana Ave to Midway Rd	✓ Widen from 2 to 4 lanes from Pear Lane to Indiana Avenue

State Highway 44 (State St)

State Highway 44 (State Street) Traffic Volume, 2016-2020

In 2020 State Highway 44 (State Street) was busiest east of Palmer Lane, contrary to the trends in previous years (Figure 43). This section also experienced the greatest increase in average annual growth rates as well (Table 19). Traffic volumes decreased near downtown Boise, likely due to a decrease in commuters during 2020.

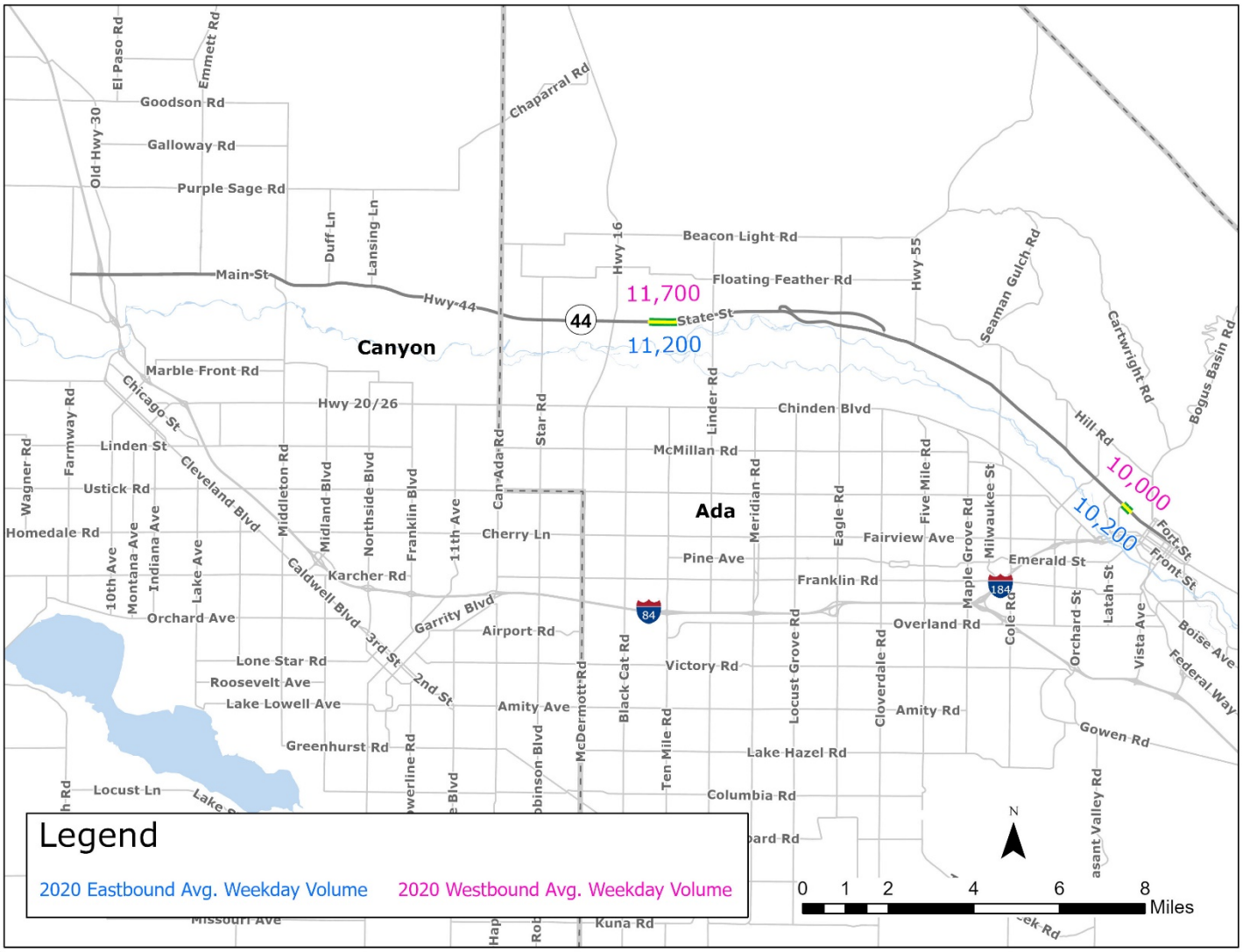

Figure 43: State Highway 44 (State Street) Annual Average Weekday Volumes (2020)

Table 19: State Highway 44 (State Street) Average Annual Weekday Traffic Volumes (2016-2020)

Location	Direction	2016	2017	2018	2019	2020	Annual Growth Rate
East of Palmer Lane	East	9,730	10,254	10,606	10,895	11,171	4%
East of Palmer Lane	West	10,279	10,773	11,366	11,277	11,682	3%
Northwest of 23rd St	Southeast	12,162	11,935	10,776	11,604	10,165	-4%
Northwest of 23rd St	Northwest	12,543	11,858	11,029	11,679	9,955	-6%

Source: Automatic Traffic Recorders maintained by ITD

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 east to west.

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 (Figures 44 and 45). No data for this corridor were provided in the in the NPMRDS data set for 2016-2018.

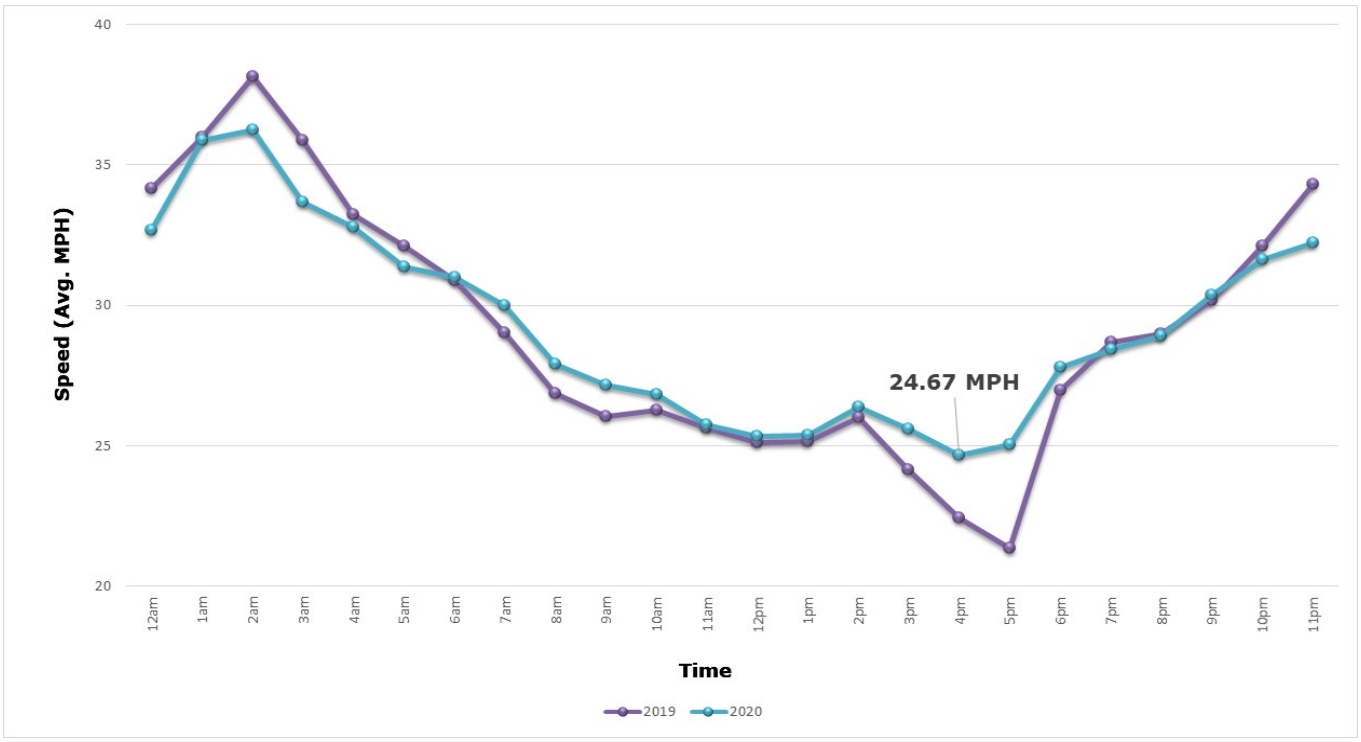

Figure 44: State Highway 44 (9th Street to Glenwood Street) Westbound, Average Weekday Speeds (2019-2020)

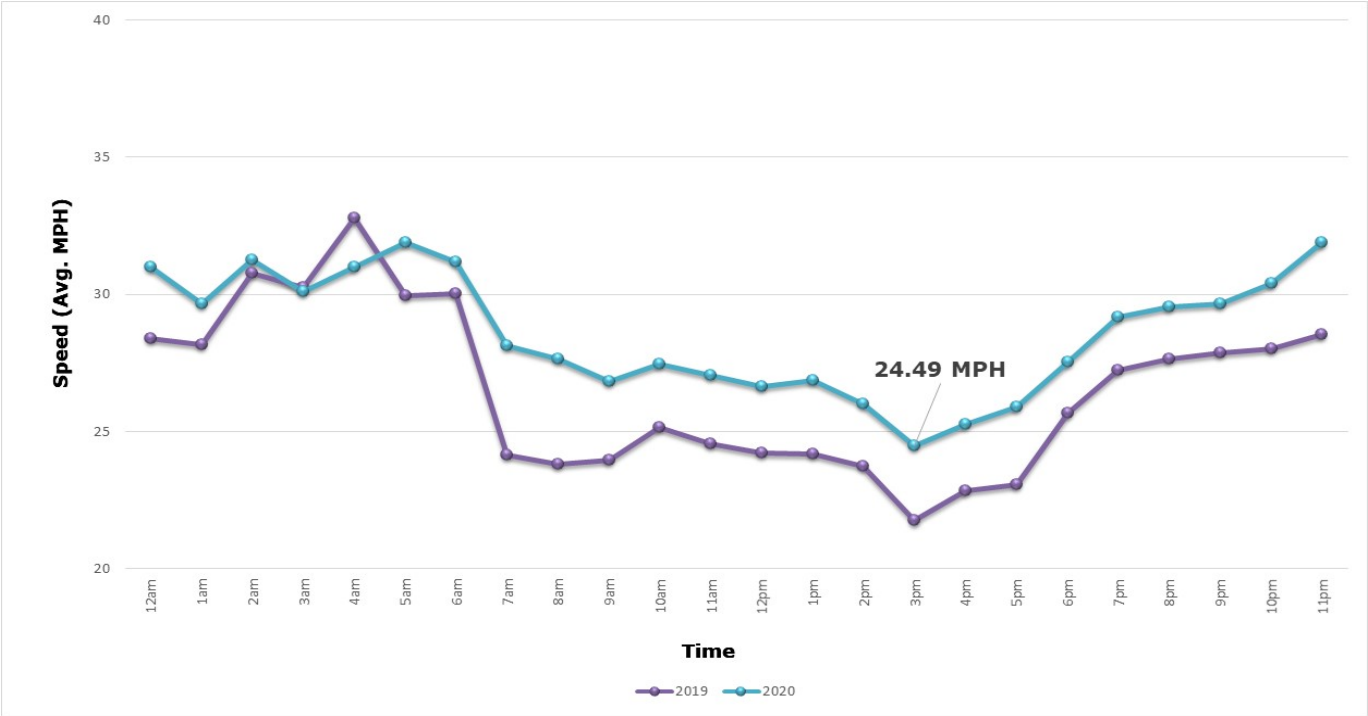

Figure 45: State Highway 44 (Glenwood Street to 9th Street) Eastbound, Average Weekday Speeds (2019-2020)

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

This section of State Highway 44 experiences a noticable drop in average speed throughout the workday hours (Figures 46 and 47). No data for this corridor were provided in the in the NPMRDS data set for 2016-2018.

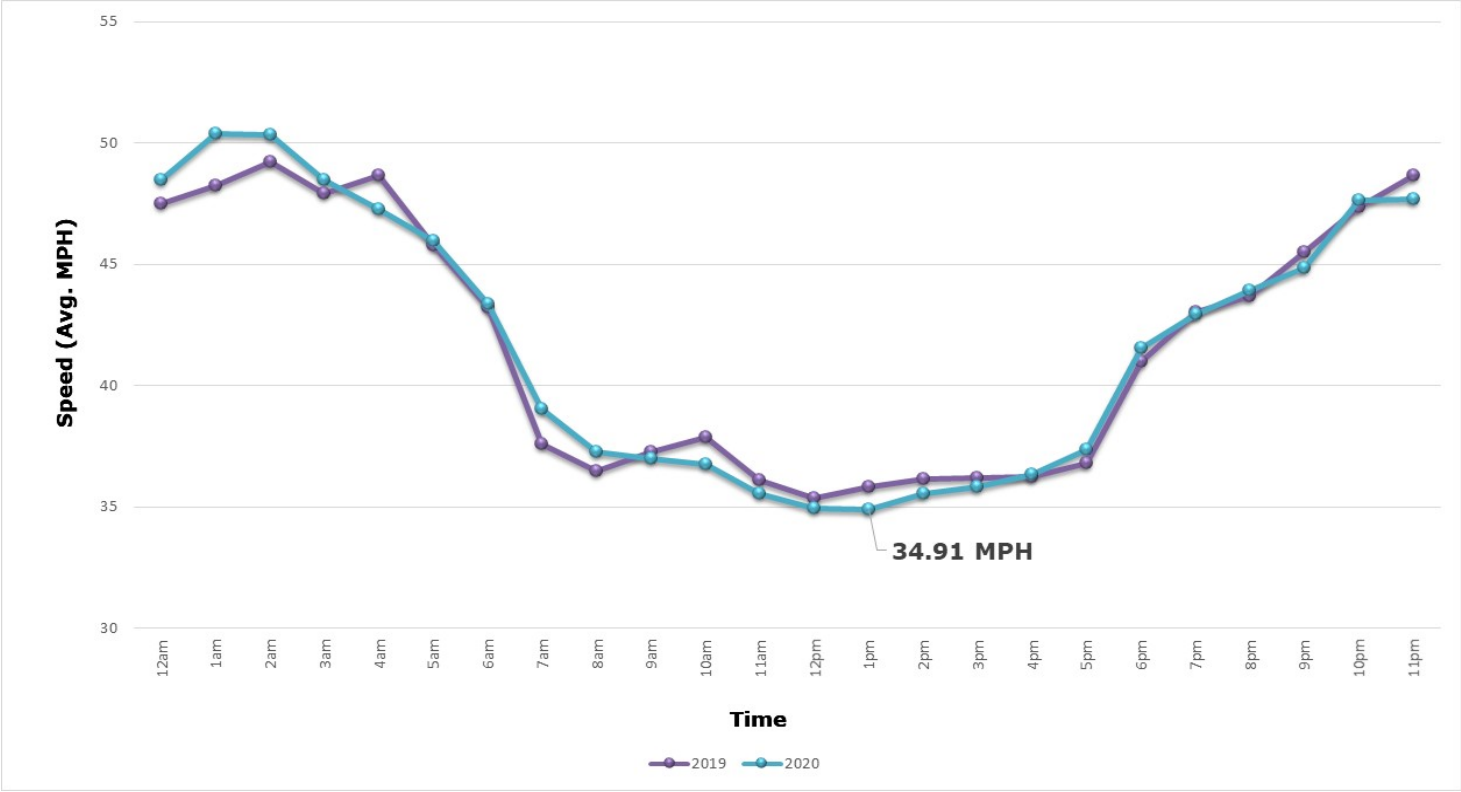

Figure 46: State Highway 44 (Glenwood Street to State Highway 16) Westbound, Average Weekday Speeds (2019-2020)

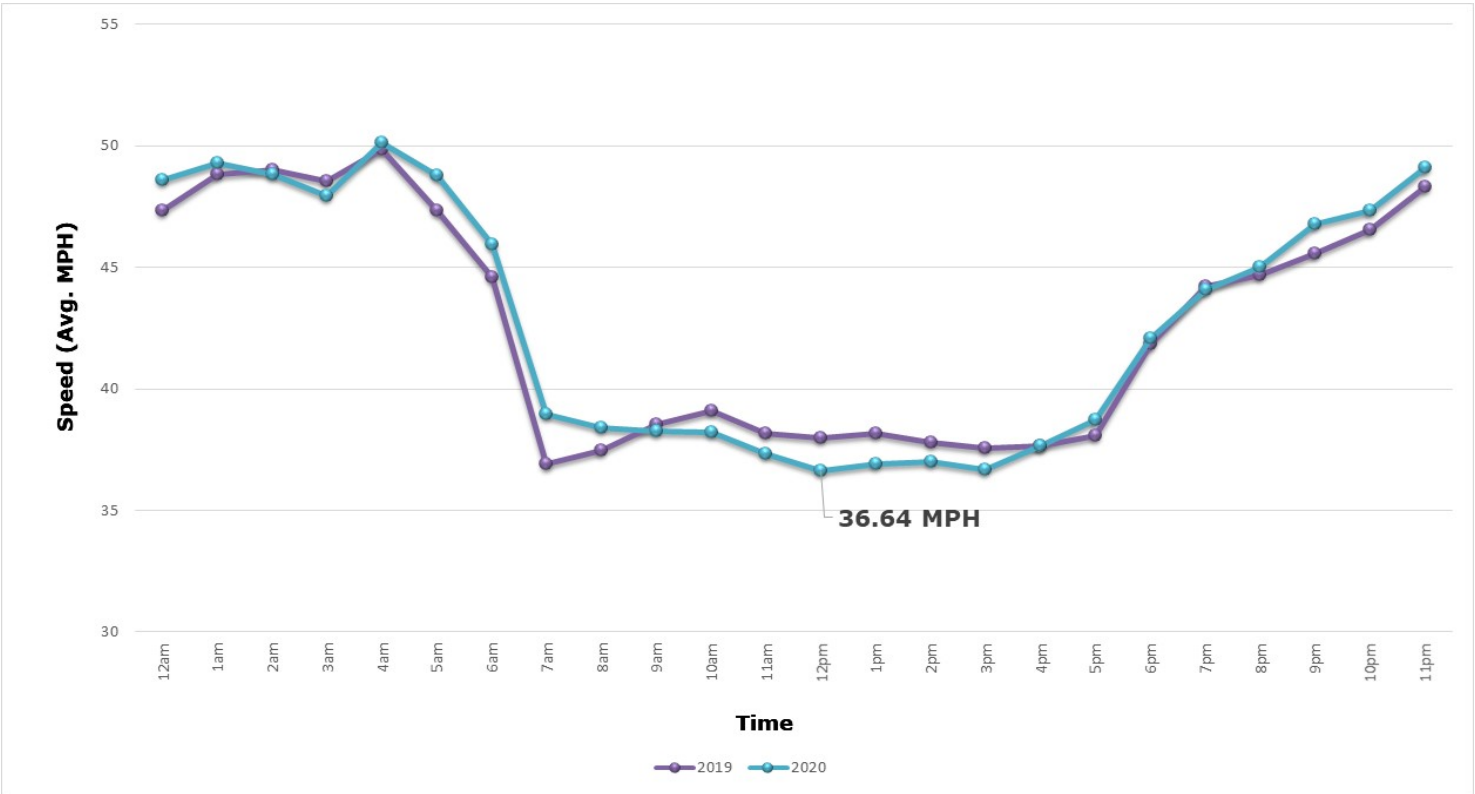

Figure 47: State Highway 44 (State Highway 16 to Glenwood Street) Eastbound, Average Weekday Speeds (2019-2020)

State Highway 44: State Highway 16 to I-84 Speed Profiles

This section of State Highway 44 experiences less delay that the other two sections analyzed. There are just slight dips in speed during the morning/evening peak hours (Figures 48 and 49). No data for this corridor were provided in the in the NPMRDS data set for 2016-2018.

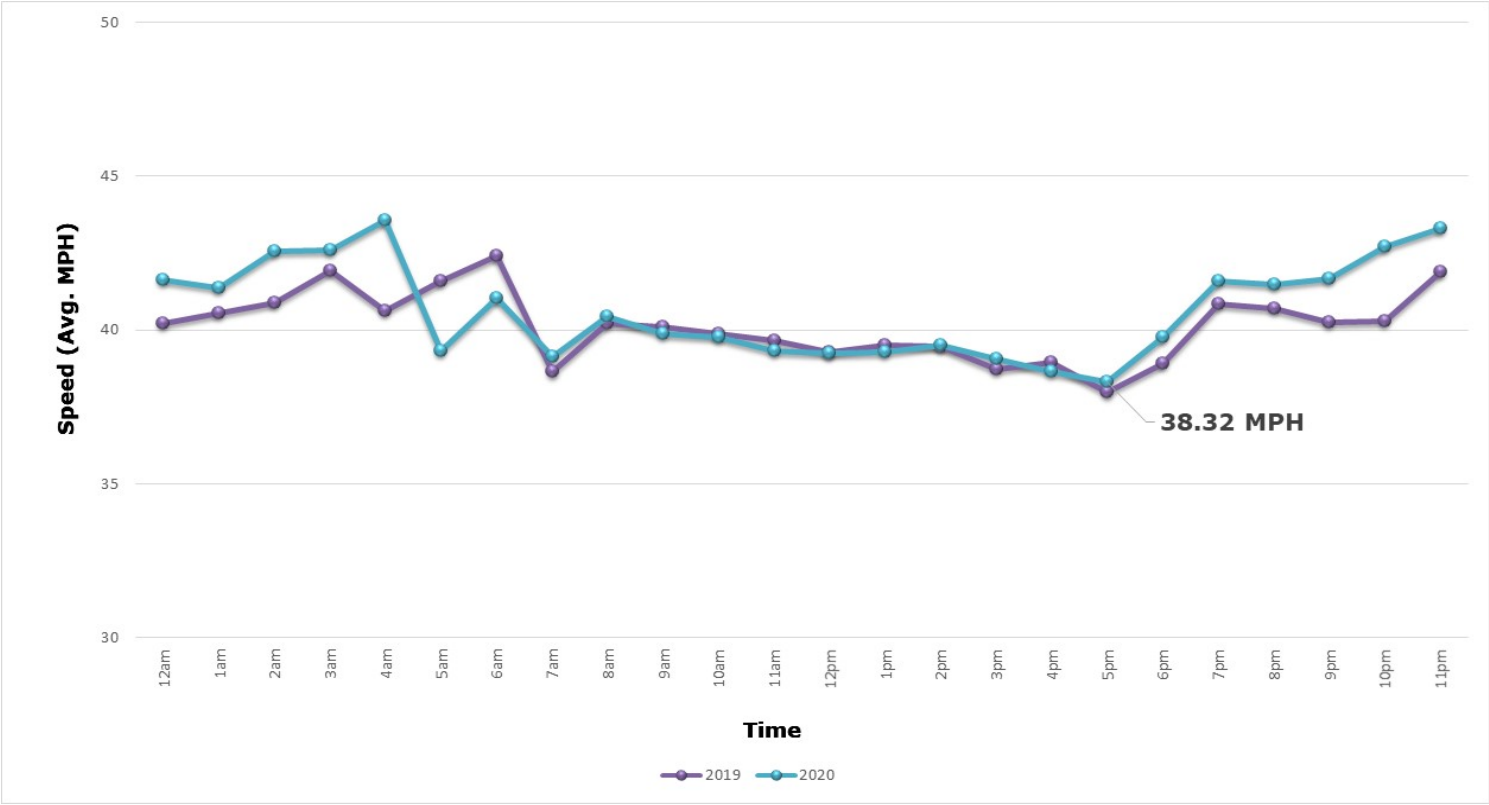

Figure 48: State Highway 44 (State Highway 16 to I-84) Westbound, Average Weekday Speeds (2019-2020)

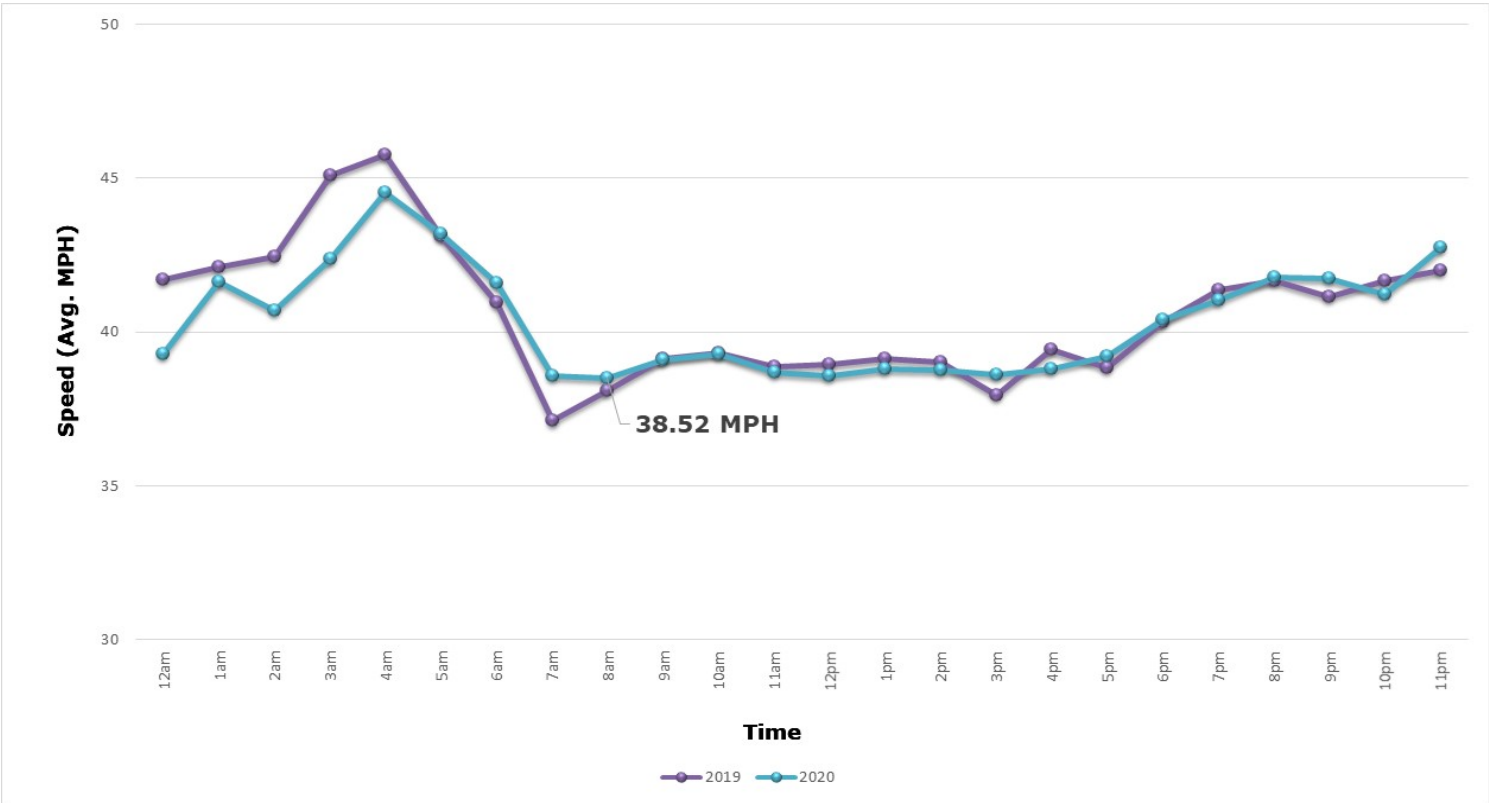

Figure 49: State Highway 44 (I-84 to State Highway 16) Eastbound, Average Weekday Speeds (2019-2020)

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

State Highway 44 (State Street) experiences high peak hour congestion mainly in the urban areas surrounding the City of Boise and the intersection with State Highway 55 (Eagle Rd) (Figure 50). The issues stem from a high commercial/retail land uses, high volume intersections at the river crossings and with State Highway 55 (Eagle Road), and lane reductions from four to two travel lanes around Linder Road. Programmed and planned projects are highlighted in Table 20.

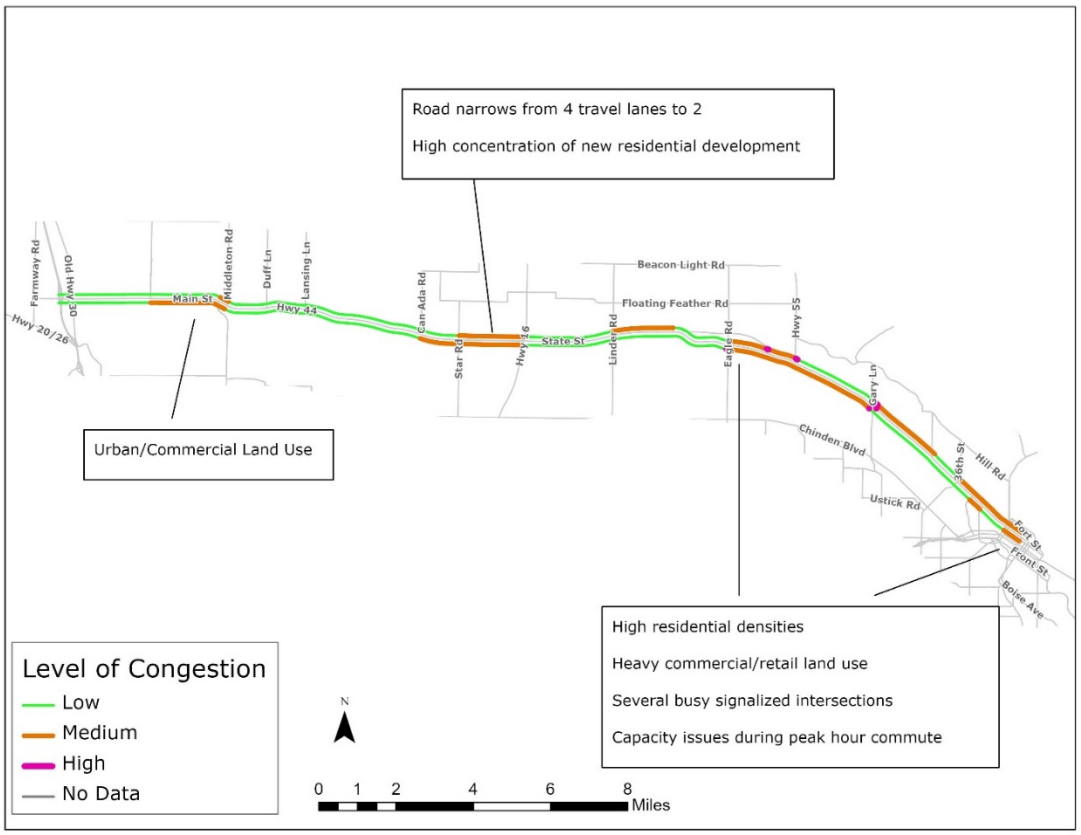

Figure 50: State Highway 44 (State Street) Levels of Peak Hour Congestion and Cause of Congestion (2020)

Table 20: State Highway 44 (State Street) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2021-2027)	Planned Funded Projects (FY2028-2040)	Planned Unfunded Projects
Transportation Demand Management			
TSMO/ITS	✓ Construct Partial continuous flow intersection at SH 44 (State St) and SH 55 (Eagle Rd) Widen and modify intersection of Collister and State St	✓ Replace/modify signal and reconstruct approaches at intersection of SH 44 and Star Rd	
Transit Operations Improvements			✓ Bus Rapid Transit from Glenwood Bridge to downtown Boise
Additional System Capacity	✓ Widen from 2 to 4 lanes from Star Rd to Linder Rd	✓ Widen from 5 to 7 lanes from Glenwood St to 27th St Widen from 2 to 4 lanes Canyon Ln to I-84 on ramp	✓ Widen from 2 to 4 lanes from Canyon Ln to Star Rd Construct new roadway from Duff Ln to Canyon Ln

State Highway 69 (Kuna/Meridian Road)

State Highway 69 (Kuna/Meridian Road) Traffic Volume, 2016-2020

State Highway 69 (Kuna/Meridian Road) has seen its greatest annual growth rate in traffic volumes just south of Hubbard Road (Table 21). Growth rates of 4 to 5% are among some of the highest growth rates for the corridors included in this report.

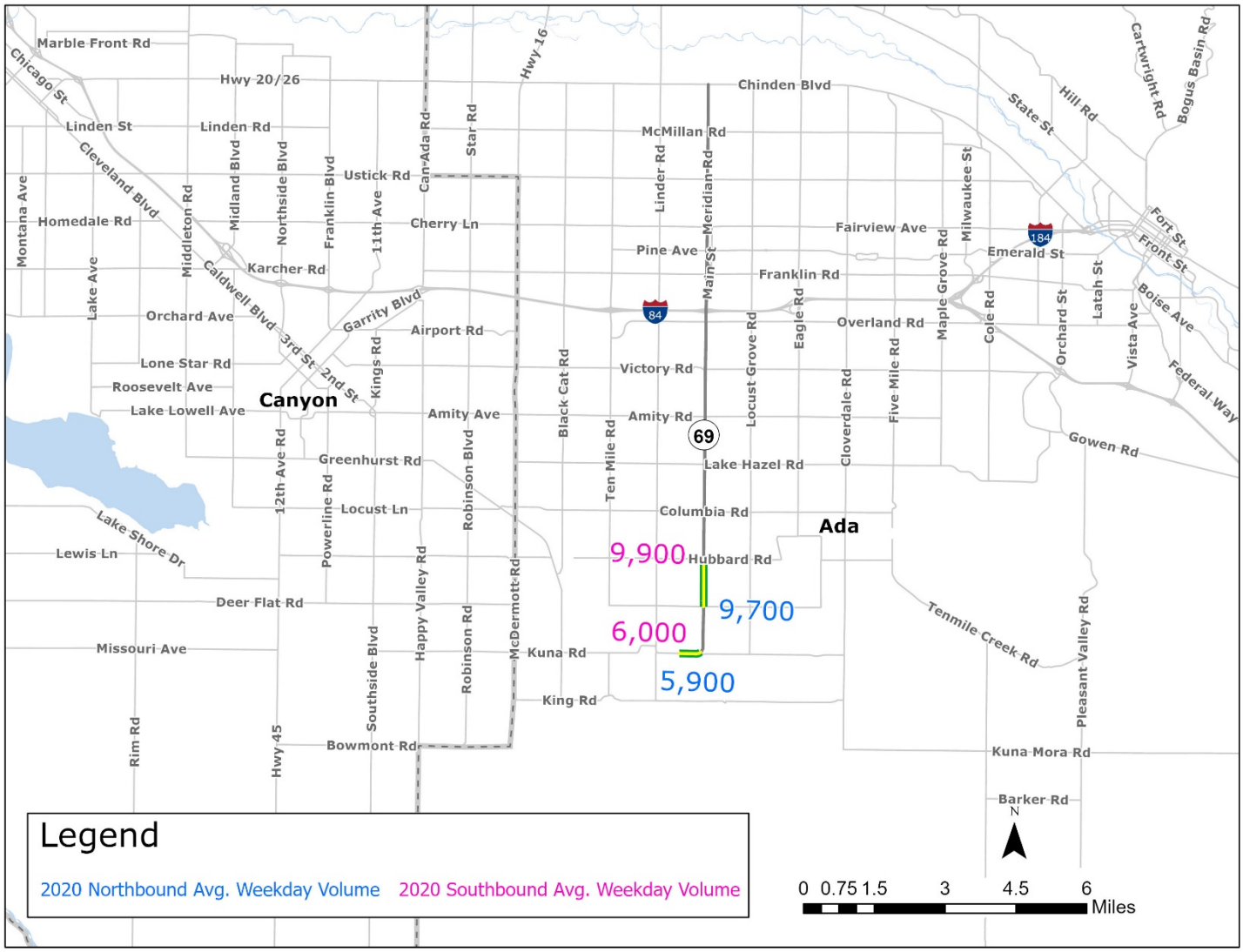

Figure 51: State Highway 69 (Kuna/Meridian Road) Annual Average Weekday Volumes (2020)

Table 21: State Highway 69 (Kuna/Meridian Road) Average Annual Weekday Traffic Volumes (2016-2020)

Location	Direction	2016	2017	2018	2019	2020	Annual Growth Rate
South of Hubbard Rd	South	8,232	8,607	9,307	9,965	9,920	5%
South of Hubbard Rd	North	8,091	8,554	9,150	9,773	9,742	5%
East of Sailer Pl (Kuna)	West	5,029	5,477	5,778	5,962	5,965	4%
East of Sailer Pl (Kuna)	East	5,001	5,452	5,778	5,871	5,885	4%

Source: Automatic Traffic Recorders maintained by ITD

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

On State Highway 69 (Kuna/Meridian Road), speeds decrease during both the morning and evening peak hours. The most significant drop in speed occurs during the morning peak in both directions (Figures 52 and 53). Evening delay doesn't seem to impact this corridors as much as other included in this report. No data for this corridor were provided in the in the NPMRDS data set for 2016-2018.

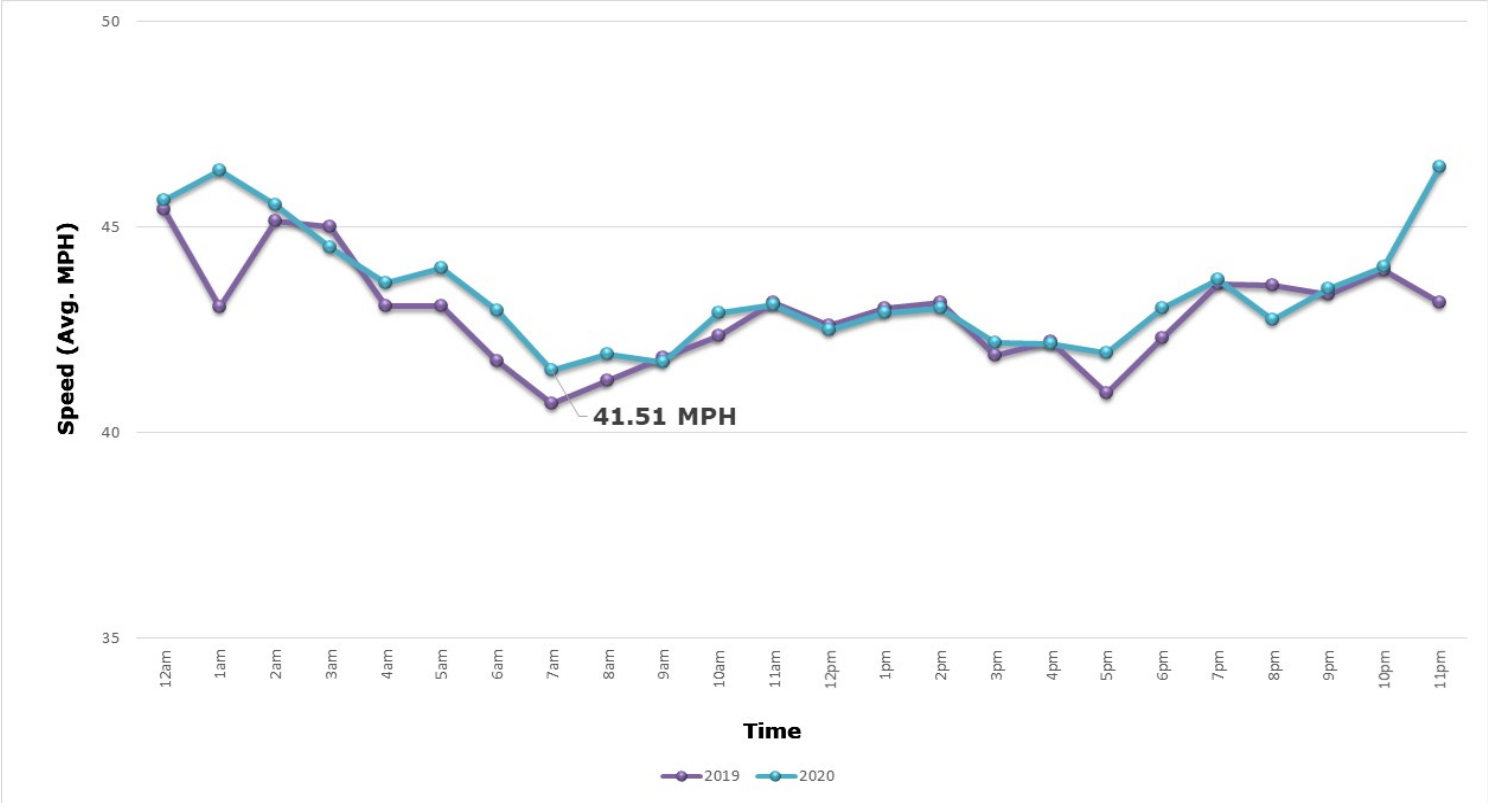

Figure 52: State Highway 69 (Kuna/Meridian Road) Northbound, Average Weekday Speeds (2019-2020)

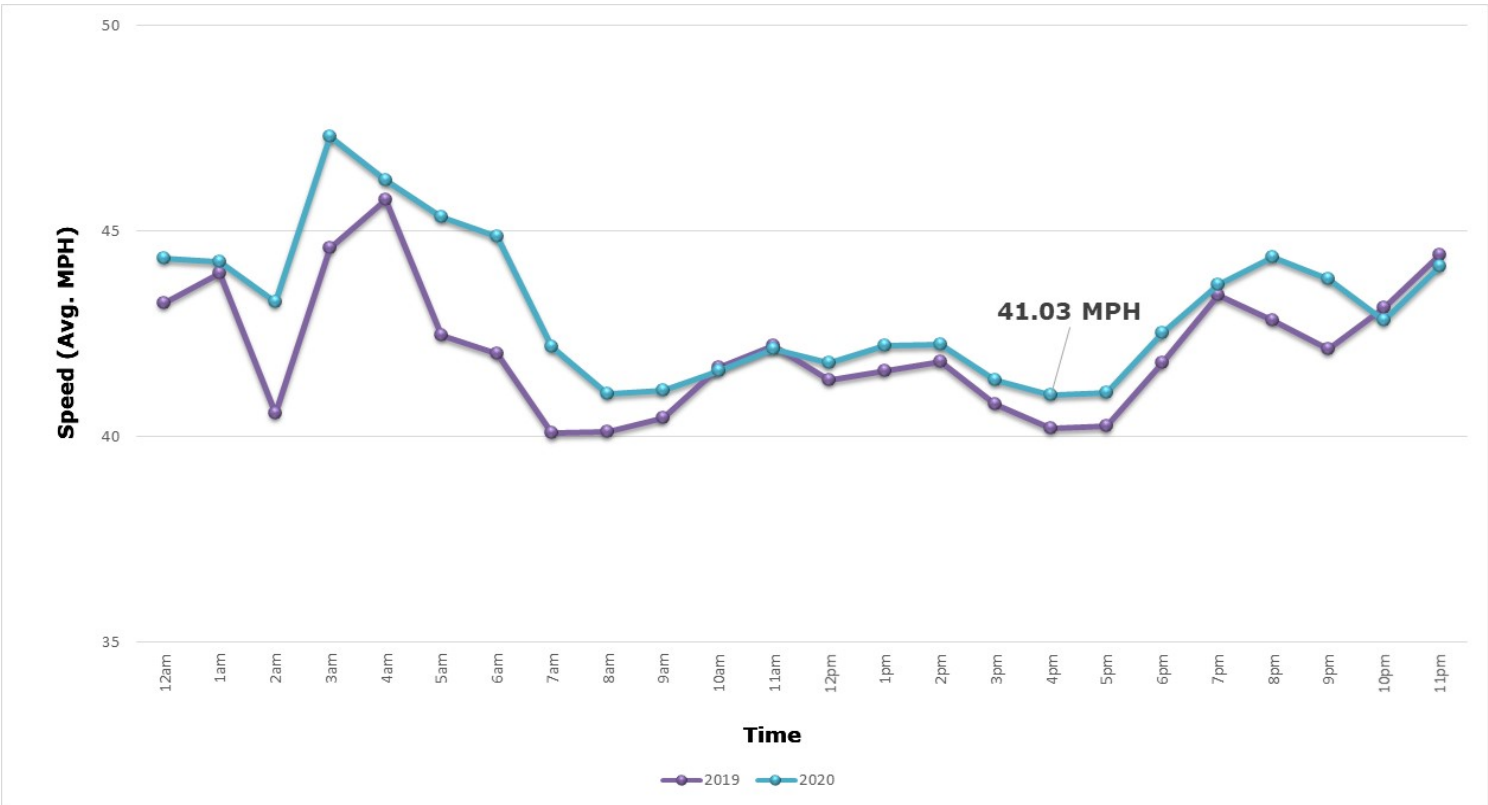

Figure 53: State Highway 69 (Kuna/Meridian Road) Southbound, Average Weekday Speeds (2019-2020)

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

State Highway 69 (Kuna/Meridian Road) experiences high peak hour congestion mainly near the busy signalized intersections with Overland Road and I-84 (Figure 54). Programmed and planned projects are highlighted in Table 22.

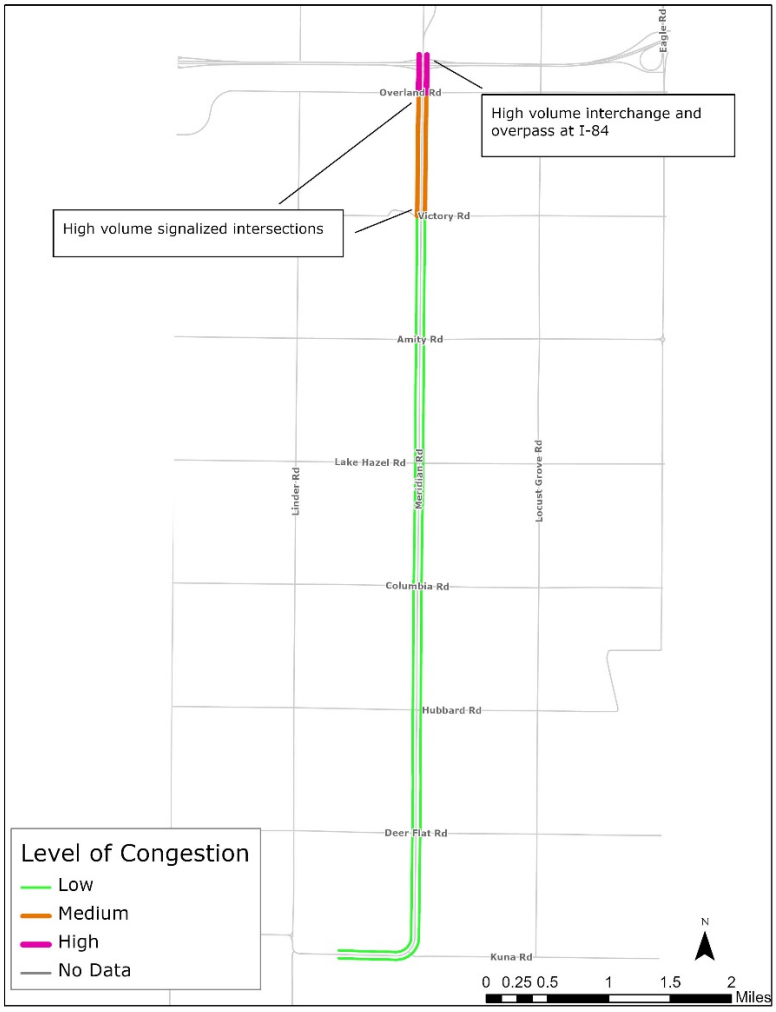

Figure 54: State Highway 69 (Kuna/Meridian Road) Levels of Peak Hour Congestion and Cause of Congestion (2020)

Table 22: State Highway 69 (Kuna/Meridian Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2021-2027)	Planned Funded Projects (FY2028-2040)	Planned Unfunded Projects
Transportation Demand Management			
TSMO/ITS	✓ Intersection improvements at Amity Rd and SH 69 and Deer Flat Rd and SH 69		
Transit Operations Improvements			✓ Planned services
Additional System Capacity			

[i] https://www.compassidaho.org/prodserv/demographics.htm
[ii] https://www.compassidaho.org/prodserv/gtsm-devmonitoring.htm
[iii] https://www.compassidaho.org/prodserv/gtsm-perfmonitoring.htm
[iv] https://www.fhwa.dot.gov/planning/congestion_management_process/cmp_guidebook/cmpguidebk.pdf