CITY OF NORCO
2050 GENERAL PLAN

CIRCULATION AND MOBILITY ANALYSIS

NOVEMBER 13, 2023

FEHR & PEERS

SUMMARY

The purpose of this section is to review the current transportation landscape within the City of Norco and the associated policies, regulations, and agencies that support the mobility of residents, employees, and visitors. This includes reviewing the current regulatory environment, travel characteristics, the roadway network, public transit services, bicycle and pedestrian infrastructure, the City's equestrian trail network, safety concerns, and emerging trends. Through this process, the community can identify key issues and opportunities for potential policy response as part of the General Plan Update process.

KEY FINDINGS

- As part of a review of the current General Plan, City staff identified several critical problems facing the transportation system as follows:
    - Challenges with the existing roadway network accommodating regional commuter traffic passing through the community
    - Safety concerns, especially when different motorized transportation modes (i.e. vehicles, e-bikes) share the same space with vulnerable road users such as pedestrians and equestrians
    - Limited fixed-route public transportation coverage and poor service frequencies
    - Traffic queuing near freeway interchanges, specifically Sixth Street and Second Street
    - Traffic congestion and unsafe road conditions around schools, including a lack of a second access route to Norco College
    - Limited bicycle specific infrastructure and missing connections in the City's equestrian trail network
- The City is primarily responsible for planning and maintaining the local street grid and equestrian trail network. Additional transportation infrastructure and services, including Interstate 15 (I-15), public transit, and transportation financing are all managed by larger county or state agencies, which require coordinating resources and planning.
- Many transformative regulations have been enacted at the state level since the current General Plan was adopted in 2000, impacting how streets are designed and development projects are analyzed. These regulations will have a profound impact on the General Plan Update and require the City to align with state and regional sustainability, emergency preparedness, and congestion reduction goals.
- Most Norco residents work outside of City limits, with many commuting west an hour or more towards employment centers in Los Angeles and Orange Counties. Despite this outflow, Norco is home to many large employment and trip generators with

nearly 10,000 people commuting into the City daily, including workers at the Naval Sea Systems Command, the California Rehabilitation Center, and Norco College. This results in significant congestion during peak commuting periods. The General Plan should respond to this challenge by encouraging high-skilled employment opportunities within the City, reducing distances between places of work and where workers live, and promoting alternatives to driving.

- Norco maintains an extensive local street system that designates corridors based on their daily vehicle volumes and accommodations for equestrian use. Arterials generally serve regional and commercial traffic while collector and local streets serve residential traffic. The General Plan Update provides an opportunity to review the current way of organizing the network and consider a "layered network approach" that better supports alternative travel modes. Reclassifying streets and developing updated standards can help better manage regional traffic and support the City's efforts to expand the pedestrian, bicycle, and trail networks.
- The City maintains one of the largest equestrian trail networks in the country and proudly embodies the motto "Horsetown, USA." Enhancing this trail network should be a top priority of the General Plan Update, especially as the City experiences growth while retaining its rural character.
    - The Comprehensive Trail Master Plan adopted in 2018 is a good first step in preserving the trail network. Building on this, the General Plan should develop policies directly related to the equestrian network.
    - Safety on equestrian trails should be prioritized, with a focus on separating bicycle and equestrian uses and providing enhancements at intersections.
- Traffic collisions within City limits average around 100 per year, with most collisions clustered along the I-15 corridor, Hamner Avenue, and the City's southwest quadrant. Furthermore, an average of five pedestrian and three bicycle related collisions occur annually, primarily on roadways without dedicated pedestrian and bicycle infrastructure. Most collisions occurred because of high driver speeds, improper turning movements, and failure to yield to right-of-way.
- I-15 is a major regional truck route, resulting in high levels of truck traffic that spill over onto local streets. While the City has designated existing truck routes to limit local truck traffic, rising e-commerce sales and recent industrial development in the City requires a review of existing truck policies.
- The transportation sector is expected to change significantly by 2050, with the rise in electric vehicles, autonomous vehicles, micro transit, among others. The community should consider emerging trends and solutions when planning for the long-term, ensuring the transportation system is flexible and responsive to inevitable change.

TRANSPORTATION SYSTEM AND CONTEXT

As a relatively rural community immediately adjacent to more developed areas, the City of Norco maintains its rural character while also having convenient connections with regional freeways, arterial roadways, and public transportation. Many of the City's roads provide mobility for vehicles, active transportation uses, and freight, and the City is home to one of the largest networks of equestrian trails nationally. Additional rail and air transportation connections are provided in the nearby cities of Corona and Ontario. This section outlines the existing transportation system, highlighting current infrastructure, regulatory conditions, and planned development projects that impact the transportation network.

Key Transportation Agencies & Responsibilities

City of Norco Department of Public Works

The City's Department of Public Works is responsible for maintaining the local public roadway network, which totals 100 centerline miles and consists of traffic signals (except those operated by Caltrans), on street bicycle facilities, and sidewalks (primarily on Hamner Avenue). Moreover, the City plans and oversees construction of roadway capital improvement projects through the City's Capital Improvement Program, funded by developer fees (including TUMF[1]), state gas tax revenue, the City's Measure R, and Riverside County's Measure A. The City also maintains a set of design guidelines and approves all private development projects in accordance with these guidelines.

The City, through the Department of Public Works and Facilities & Maintenance Department, is also responsible for managing and improving the extensive network of trails in the City, both on- and off-street through the Comprehensive Trail Master Plan. This network totals 104 miles and complements the City's street system. Maintaining and enhancing this network of trails is a strong priority for the community.

County of Riverside Transportation Department

The County of Riverside Transportation Department partners with the City of Norco to deliver large capital improvement projects. Currently, the City and county are collaborating on the Hamner Avenue Bridge (Mayor Berwin Hanna Bridge) and Widening Project, widening the City's main arterial to six lanes, and replacing the bridge over the Santa Ana River.

[1] The Transportation Uniform Mitigation Fee (TUMF) Program is a developer-funded transportation mitigation program managed by the Western Riverside Council of Governments.

Riverside County Transportation Commission (RCTC)

The Riverside County Transportation Commission is a subdivision of the Southern California Association of Governments (SCAG). RCTC is responsible for distributing federal transportation dollars, programming regional transportation projects, and monitoring and reporting progress to SCAG for updating the Statewide Transportation Improvement Program (STIP) and ensuring federal air quality conformity. Riverside County is also a "self-help county" whereby the County's voters approved a sales tax measure, Measure A, to fund transportation improvements. This funding authority provides RCTC with the ability to lead major transportation projects that enhance freeway capacity and operations, provide funding for local road improvements, support transit operations and expansion, aid countywide transportation demand management programs, and manage sustainability programs to support climate impact reduction targets. RCTC develops short- and long-term plans in alignment with the Southern California Association of Governments (SCAG), including the Transit Oriented Communities Strategic Plan and the Inland Empire Comprehensive Multimodal Corridor Plan. RCTC is also responsible for managing the County's I-15 Express Lanes project, which is a key example of the agency's recent work that directly impacts the City's transportation system.

Southern California Association of Governments (SCAG)

SCAG is a joint-powers authority that acts as Southern California's Metropolitan Planning Organization (MPO). The agency prepares long-range transportation plans including the Sustainable Communities Strategy, growth forecasting, and regional transportation improvement programs, in accordance with state and federal laws. SCAG delegates the programming and implementation of transportation projects to affiliated county transportation commissions, including RCTC.

Western Riverside Council of Governments (WRCOG)

The City of Norco is one of 18 member cities of the Western Riverside Council of Governments (WRCOG), a regional agency that promotes collaboration across city and county governments in Western Riverside County. WRCOG works to develop common policies to address regional issues associated with transportation, environmental quality, and economic development. The organization manages several programs including the Transportation Uniform Mitigation Fee (TUMF) program that funds transportation projects in the region, a regional Active Transportation Plan, assistance with Senate Bill 743 (SB 743) implementation, and the Western Riverside Clean Cities Coalition which promotes alternative fuel vehicles.

California Department of Transportation (Caltrans)

As a state agency, Caltrans is responsible for planning, maintaining, and programming improvements for the state highway system, including freeways, associated interchanges, and arterial State routes. In the City of Norco, Caltrans District 8 (which serves Riverside and San Bernardino counties) manages the I-15 corridor.

Transit Operators

Riverside Transit Agency (RTA)

The Riverside Transit Agency (RTA) provides regional public transportation services for Western Riverside County through a network of 47 bus routes. The City of Norco is served by one bus line, providing connections to the neighboring cities of Corona and Eastvale. RTA also provides Dial-A-Ride paratransit services for the City and oversees the Short Range Transit Plan (SRTP) process for the County.

Metrolink

The Southern California Regional Rail Authority (SCRRA) provides commuter rail services for the Southern California region under the name Metrolink. While the City of Norco is not directly served by Metrolink commuter trains, the City is adjacent to the Corona-North Main station, which provides direct access to Riverside, Moreno Valley/Perris, Orange County, and Los Angeles Union Station.

Regulatory Setting

Since the last General Plan Update in 2000, many State and local regulations have changed. This section is intended to inform future decisions and goals/actions in the General Plan Update to ensure the City of Norco complies with current policies and laws.

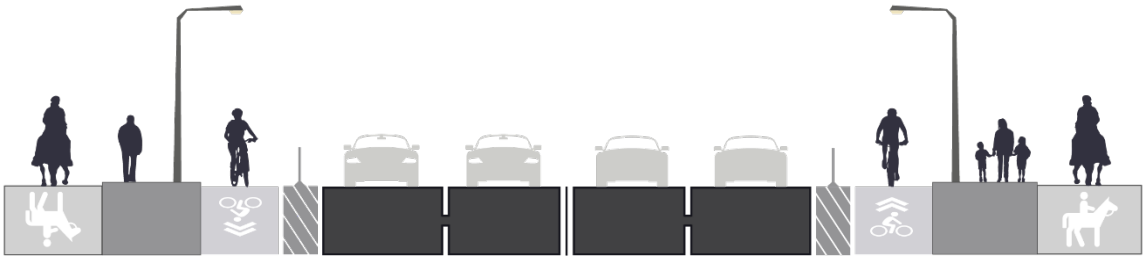
State Regulations

Assembly Bill 1358 (California Complete Streets Act)

The California Complete Streets Act, also known as Assembly Bill 1358 (AB 1358), was signed into law in 2008. Beginning in 2011, AB 1358 requires that city general plan circulation elements "include complete street policies…so that roadways are designed to safety accommodate all users, including bicyclists, pedestrians, transit riders, children, older people, and disabled people."[2] Complete streets seek to design roadways that fairly balance the needs of all users, not just motorists. By providing adequate sidewalk space, bicycle facilities, and enhanced transit, a traditional roadway can better serve non-auto users and provide transportation alternatives that are safe. The City is currently in the process of developing a Pedestrian and Bicycle Master Plan to expand the City's network of bike lanes and high-quality walk routes.[3]

As the City's General Plan has not been updated since 2000, the General Plan Update must account for this change and actively promote complete streets policies throughout the City, while considering the City's rural environment.

[2] http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1351-1400/ab_1358_bill_20080930_chaptered.pdf
[3] https://www.norco.ca.us/programs-services/improvement/pedestrian-and-bicycle-master-plan



Conceptual Street Cross-Section of a Complete Street. Source: Fehr & Peers

Assembly Bill 32 (Global Warming Solutions Act)

Assembly Bill 32 (AB 32), passed in 2006, requires California to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020 (approximately a 15% reduction) through regulations developed and enforced by the California Air Resources Board (CARB). Regulations are intended to mitigate the risks of climate change and promote renewable energy, clean transportation, and lower waste. AB 32 requires CARB to develop a Scoping Plan, updated every five years, which outlines the strategies and regulations to be used to achieve GHG reduction targets. The 2022 Scoping Plan[4] identifies multiple regulatory and market-incentive programs led at the State level and sees local action as key to supporting GHG reduction targets. Local governments are encouraged to develop sustainable transportation standards, such as establishing requirements for electric vehicle (EV) charging infrastructure and preparing for the impact of climate change through comprehensive climate action plans.

The current City of Norco General Plan was developed prior to the passage of AB 32; as such, the General Plan Update will need to reflect the presence of increased regulation and incentive programs for climate action. While the City of Norco currently has no locally adopted Climate Action Plan (CAP), it is a participating member of the Western Riverside Council of Governments (WRCOG) Subregional CAP which contains policies to promote electric vehicle adoption and increased public transportation service. As it relates to transportation, the City's current effort to develop a Pedestrian and Bicycle Master Plan is a major step toward promoting alternative transportation modes that can be further expanded upon in the General Plan Update.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

In response to AB 32's emissions reduction targets, the state legislature passed Senate Bill 375 (SB 375), or the Sustainable Communities and Climate Protection Act in 2008. This law established regional targets for reducing greenhouse gas emissions, which required cities and counties to develop and comply with reduction targets. Cities are encouraged to adopt land use policies that reduce travel distances between jobs and where workers live, and to focus development near transit corridors to help meet statewide goals set in AB 32.

[4] https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf

SB 375 requires each Metropolitan Planning Organization (MPO) to develop a "Sustainable Communities Strategy" (SCS) as a component of the Regional Transportation Plan (RTP), laying out ways to promote dense, integrated development and necessary transportation improvements to achieve proposed densities. Development consistent with the SCS is eligible for streamlined California Environmental Quality Act (CEQA) review. The current SCS for the Southern California region was last adopted in 2020 and focuses on promoting mixed use development, a variety of housing options, new efficient technologies, and non-vehicle transportation technologies.[5]

To align with the SCS, the General Plan Update should promote policies that:

- Increase the proximity of housing to job centers and community services;
- Encourage new compact development to increase walkability and reduce the need for short vehicle trips;
- Develop enhanced transportation infrastructure to better support high-quality transit services;
- Reduce the need for extensive parking requirements, and sharing parking spaces where appropriate;
- Apply Transportation Systems Management (TSM) and Complete Street policies to maximize the efficiency of arterial streets.

Senate Bill 743

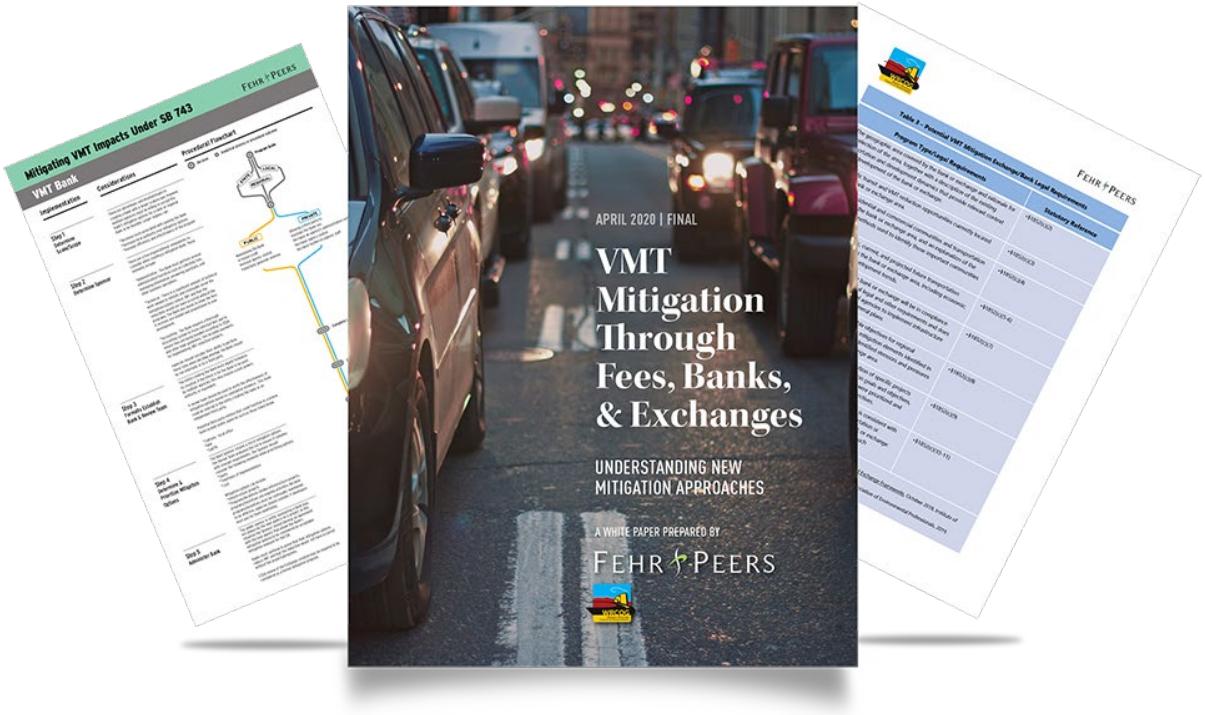
Adopted in 2013, Senate Bill 743 (SB 743) updates the way transportation impacts are measured for new development projects in California. The law replaces the former metrics for evaluating the impact of new developments such as auto delay, level of service (LOS), and other vehicle-based measures of capacity with an analysis of net vehicle miles traveled (VMT) and measures to determine if a project will promote alternative transportation methods. Additionally, the legislation works to promote sustainable development practices, such as infill development, the mixing of land uses, and transit-oriented development by making some development projects exempt from California Environmental Quality Act (CEQA) review.

The purpose of SB 743 is to help the State achieve climate goals, improve the health and safety of local communities, and grow the economy with sustainable development. Rather than addressing congestion management with roadway capacity additions, SB 743 encourages changes to land use and the promotion of alternative transportation modes.

WRCOG, in collaboration with state agencies including Caltrans, CARB, and the Governor's Office of Planning and Research (OPR), assists cities by developing SB 743 implementation guidance and a VMT impact screening tool that can be used to evaluate the impacts of proposed development projects in the region. In accordance with state law, Norco requires VMT analysis for all projects requiring a CEQA analysis. Moreover, an LOS analysis is still required as part of the land use application process, according to the City's current General

[5] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_sustainable-communities-strategy.pdf?1606002097

Plan. As such, the General Plan Update presents an opportunity to support VMT reduction policies, promote alternative transportation modes, and leverage the tools developed by WRCOG.



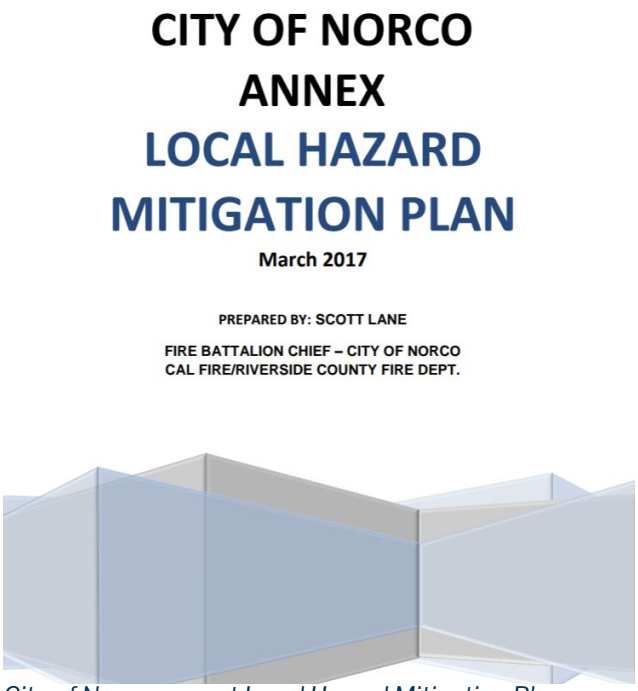
SB 743 Implementation Guide Materials for WRCOG . Source: Fehr & Peers.

Senate Bill 99

This regulation relates to the Safety Element of the General Plan, requiring the review and identification of residential developments in hazard areas that do not have at least two emergency evacuation routes. In the City of Norco, all neighborhoods have at least two emergency evacuation routes; however, perimeter neighborhoods including Norco Hills, Norco Ridge Ranch, and Northeast Norco may experience challenges during evacuations due to limited roadway capacity. Additionally, Norco College currently only has one full-time access road (Third Street) which could limit evacuation capacity before the emergency access connection to Belgian Drive is utilized.

Assembly Bill 747

This legislation requires that the Safety Element be reviewed and updated to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. Additionally, the law encourages cities to develop a local hazard mitigation plan that details safety procedures in the event of various emergency scenarios and acts as a supplement to the Safety Element. The City of Norco currently has a Local Hazard Mitigation Plan that was adopted in 2017 and is currently in the process of updating the document, as of 2023.



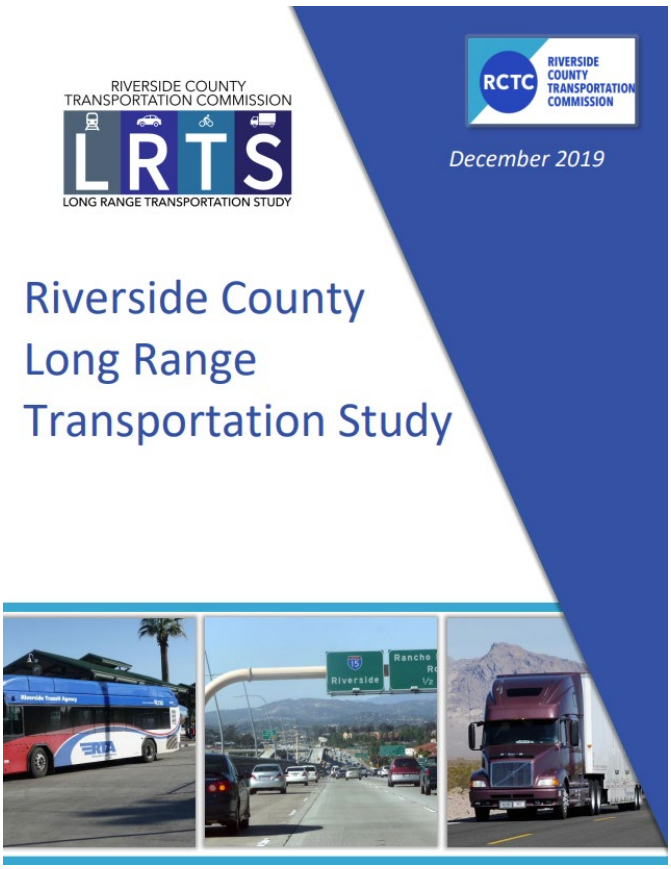
City of Norco current Local Hazard Mitigation Plan, Adopted 2017 . Source: City of Norco

Assembly Bill 1409

Complementing AB 747, Assembly Bill 1409 requires the safety element to be reviewed and updated to identify evacuation locations. Furthermore, these routes must be evaluated by their capacity, safety, and viability, ensuring there are high-quality evacuation routes available for small- and large-scaled evacuations.

Caltrans Transportation Impact Study Guide

To aid in the transition towards evaluating transportation impacts of new development projects requiring a CEQA analysis by their projected vehicle miles traveled (VMT), Caltrans has prepared the Transportation Impact Study Guide (TISG) for local governments to use in collaboration with the State as part of the Local Development-Intergovernmental Review program. The guide is nonbinding but provides guidance for determining what projects require a CEQA analysis (and are not exempt from VMT analysis), what mitigation measures need to be added to counter rising VMT, and how development projects can support statewide land use goals. Projects that impact the State transportation system are subject to State review, making it critical for the City of Norco to update its General Plan to reflect this change in how transportation impacts are analyzed.



Riverside County 2019 Long Range Transportation Study. Source: Riverside County Transportation Commission.

Regional Regulations

Riverside County Long Range Transportation Study (LRTS) & Congestion Management Program (CMP)

The LRTS serves as the guiding document for transportation planning and programming in Riverside County through 2040, overseen by the Riverside County Transportation Commission (RCTC). The study complements the Regional Transportation Plan (RTP) adopted by SCAG and develops a list of high priority projects and strategies for the region. The current LRTS was adopted in 2019 and is driven by four key policy goals: improving the quality of life for Riverside County residents, improving the operational performance of the transportation system, connecting the economy, and forging strong partnerships between relevant state, local, and county agencies.

The plan identifies several road and transit improvement projects that impact Norco, including express toll lanes on I-15 (which were recently completed), widening on SR-91, and interchange improvements along I-15. Additionally, the LRTS includes the County's Congestion Management Program (CMP) as required by State law, which monitors congestion conditions on the transportation system and targets improvements outlined in the LRTS to best address transportation challenges given limited funding.

Riverside County Regional Transportation Improvement Program (RTIP)

The Riverside County RTIP complements the LRTS by providing a shorter-term action plan for implementing transportation improvements in the region. The program is developed every other year and was last updated in December 2021. Unlike the LRTS which provides an unconstrained list of projects, the RTIP lists projects and programs that can be implemented based on all reasonably anticipated funding over the next 4-5 years. Currently, no major projects are programmed in the 2021 RTIP that impact the City of Norco.

Western Riverside Council of Governments TUMF Program Nexus Study

WRCOG manages the Transportation Uniform Mitigation Fee (TUMF) program which collects impact fees from new developments and funds important transportation projects in Western Riverside County in response to growth. From FY 2015/2016 to FY 2021/2022,

TUMF revenues in the City of Norco totaled $4.492 million dollars, which go towards improvements to the regional highway and arterial system, transit services, and open space preservation. Nearly half of all TUMF funds go directly towards local projects, such as the Hamner Avenue Bridge (Mayor Berwin Hanna Bridge) Replacement Project and planning for the eventual widening of Hamner Avenue to six lanes. The remaining TUMF funding is allocated to RCTC freeway and transit projects throughout the region. TUMF funding will continue to assist the City with improving its transportation system to accommodate new development.

Construction progress on the Hamner Ave Bridge Project. Image Source: City of Norco.

To help inform the fee structure for the TUMF program, WRCOG commissions a Nexus Study periodically to review planned project costs, needed improvements, growth forecasts, and travel demand forecasts. This results in updated impact fees, ensuring that each new dwelling unit and commercial development project pays their fair share. The most recent Nexus Study was conducted in 2016, and WRCOG recently indexed impact fees to the Construction Cost Index (CCI) to ensure fees keep up with rising construction costs.

Inland Empire Comprehensive Multimodal Corridor Plan

Together with Caltrans, the Southern California Association of Governments (SCAG), and the San Bernardino County Transportation Authority (SBCTA), RCTC developed the Inland Empire Comprehensive Multimodal Corridor Plan (IECMCP) in 2020 to better understand and plan for regional transportation needs in the Inland Empire region. The goal of the IECMCP is to review key regional transportation corridors and develop multimodal solutions for managing growing population and commerce by promoting active transportation,

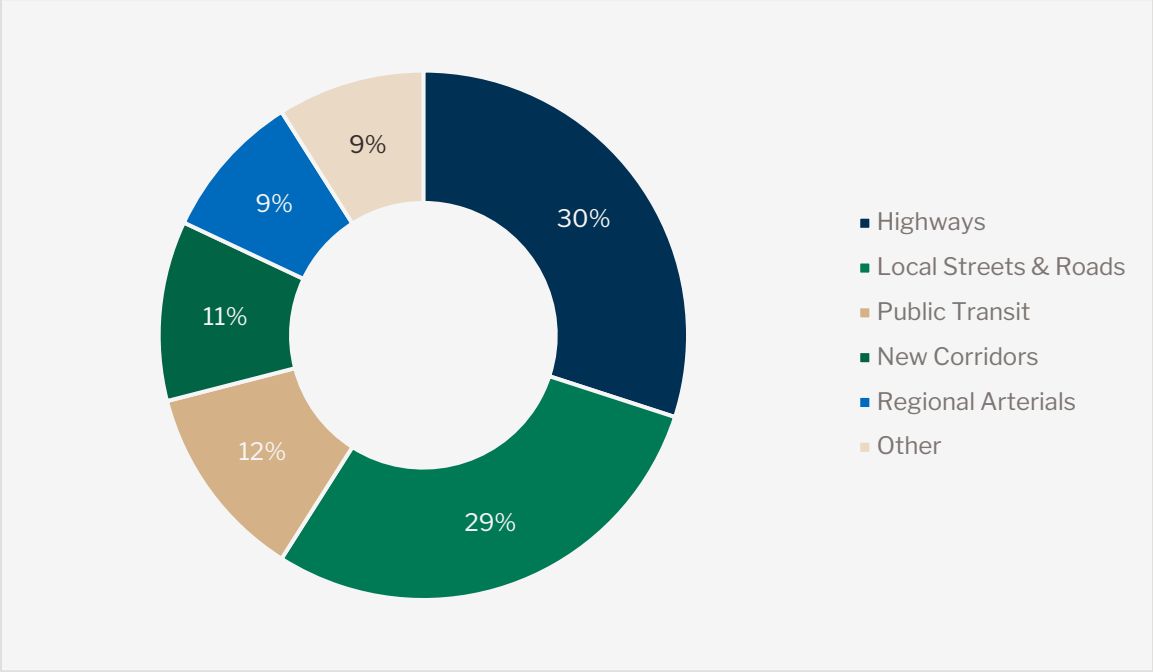
leveraging technology and travel demand management, focusing on safety, and exploring ways to expand rail, bus, and zero-emission vehicles.

Norco is included in the Cajon Pass to Eastvale, Riverside to Temecula, and Riverside to Orange County Line Sub-Corridors, with several proposed projects on these corridors, such as accelerating the transition to clean truck fleets, expanding managed lane/express toll lane infrastructure, and implementing first/last mile transit connections to improve Metrolink access.

Riverside County Measure A

Initially approved by voters in 1988 and extended in 2002, RCTC's Measure A is a half-cent sales tax that provides direct funding for county and local transportation improvement projects. Funding provides improvements for regional highways, local streets, public transportation, new corridors, regional arterials, and economic development incentives **(Figure 1)**. Between 1990 and 2020, Western Riverside County cities have received over $870 million dollars in Measure A funds for road improvements and preservation projects. Measure A provides a critical local source of transportation funding that is often used to leverage additional State and federal grant opportunities for transportation projects. The current Measure A funding expires in 2039.

Figure 1 Distribution of Measure A Funding for Western Riverside County



Source: Riverside County Transportation Commission Measure A

SCAG Connect SoCal Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

Connect SoCal is the region's long range land use and transportation plan that outlines strategies and projects to increase overall mobility and achieve sustainable development

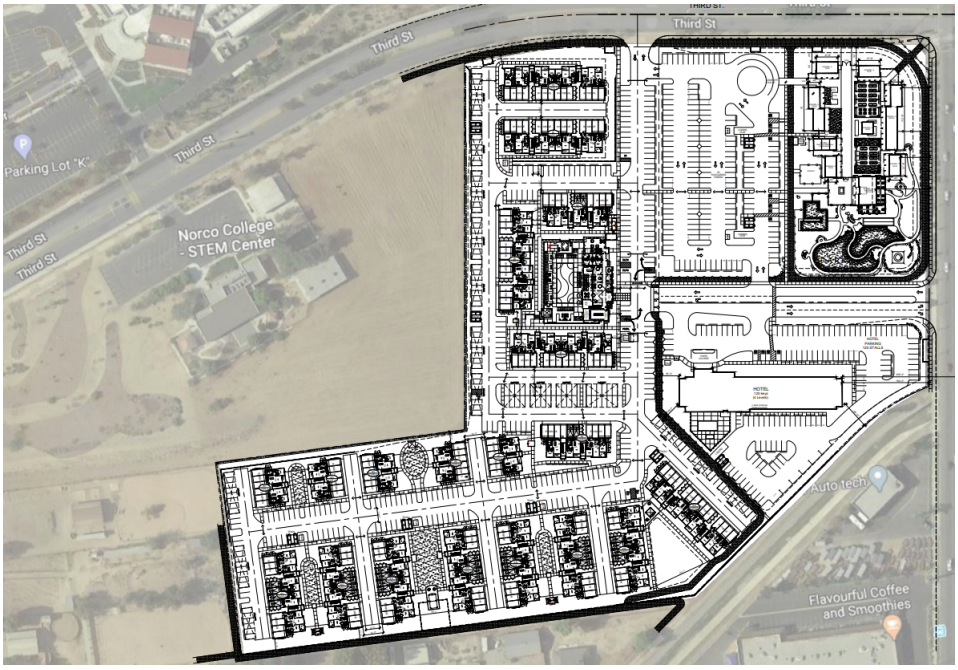
targets. This document is the region's Regional Transportation Plan (RTP), a federal requirement that identifies transit infrastructure, needed improvements, and a financing plan for accomplishing those improvements. Connect SoCal also includes Southern California's Sustainable Communities Strategy, which is an additional component required by State law that provides strategies for managing land use and reducing greenhouse gas emissions from cars and light duty trucks.

The current Connect SoCal Plan was adopted in 2020 and is in the process of being updated in 2024. The plan outlines $638 billion dollars in transportation investments (including operations and maintenance of transit services) through 2045. These projects were developed following a long collaborative process involving county transportation commissions, local governments, and residents in the region. Projects outlined in the Riverside County LRTS are directly incorporated into the Connect SoCal plan. Planning over the long-term allows projects to be coordinated and prioritized, while also ensuring projects work together towards achieving broader sustainability and system efficiency goals.

City Projects of Significance

Norco Valley Square (Frontier Communities)

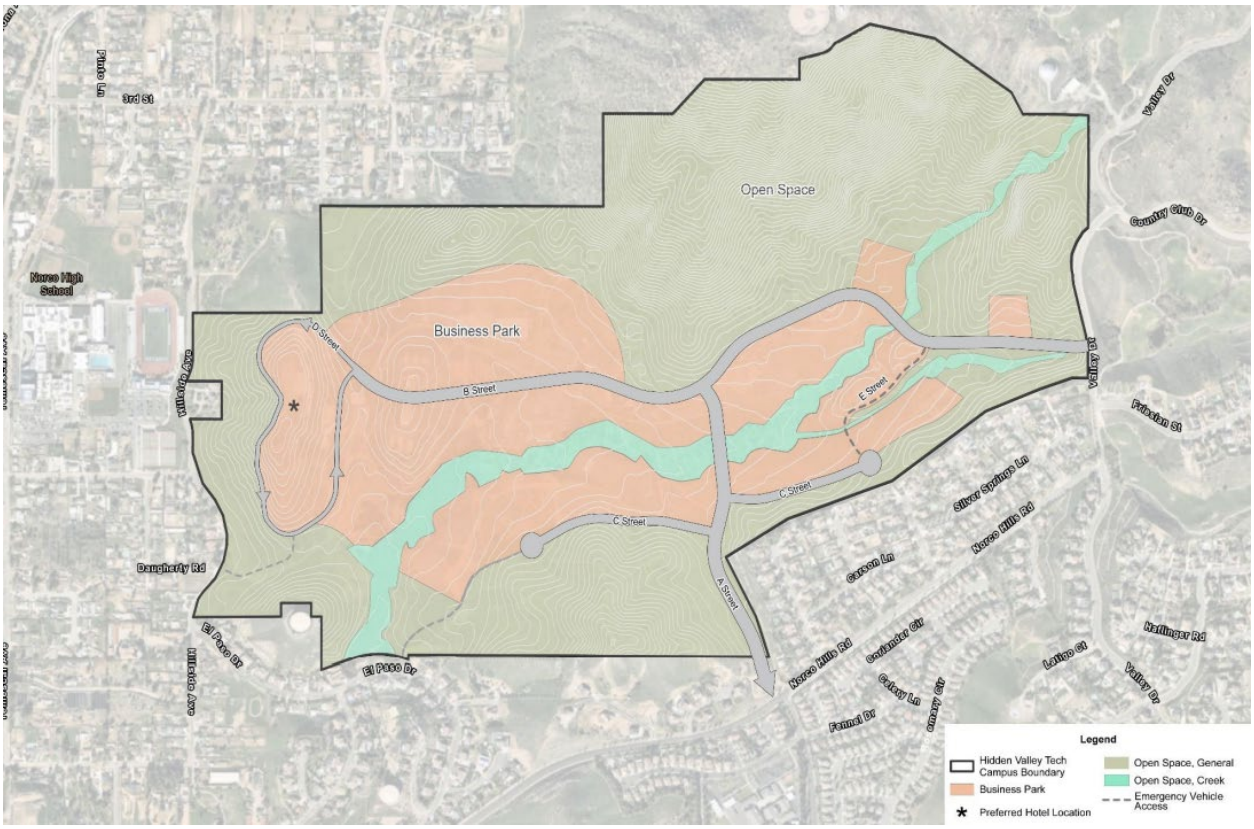
Norco Valley Square is a mixed-use development project consisting of 8,700 square feet of retail, a 120-room hotel, and a 320-unit multifamily housing development with a community clubhouse. The project is located at the intersection of Hamner Avenue and Third Street near Norco College. The project is being developed by Frontier Communities and was approved by the City Council in 2021. As of August 2023, the project has not yet broken ground.



Proposed site plan for Norco Valley Square development. Image source: City of Norco.

Hidden Valley Tech Campus (Lansing Companies)

Located in the southeast corner of the City of Norco, the Hidden Valley Tech Campus is a large, master planned proposed development totaling 428.2 acres. A central component of the project is an approximately 120-acre business park development. Developers envision the office park will consist of research and development facilities, professional offices, and low-impact manufacturing, enabling the creation of high skilled jobs for the City. To preserve the natural beauty of the Norco Hills, 287 acres is proposed as open space, including the Canyon Creek Riparian corridor. This project is in the early planning stages with entitlements submitted for a proposed specific plan and has not yet been approved by the Planning Commission..



Proposed land use plan for Hidden Valley Tech Campus development. Image source: City of Norco.

JD Ranch Subdivision

The JD Ranch subdivision is a proposed 69 single-family home residential community located in Northwest Norco at the southeast corner of River Road and Bluff Street. The project is proposed to consist of lots with a minimum size of 10,000 square feet, with every property having animal keeping areas and direct access to the City's equestrian trail system. The project will also close a major gap in the equestrian network by linking the Bluff Street and River Road trails while also installing a new traffic signal at Trail Street and River Road.

The project is currently in the planning phase and has yet to be reviewed by the Planning Commission.

Proposed site plan for JD Ranch subdivision. Image source: City of Norco.

Norco Apartment (Second and River Development)

A 455 unit multi-family residential development is proposed for the southeast corner of River Road and Second Street, which is currently the site of a large vacant lot and small retail strip plaza. The project is currently in the early entitlement phase with no hearing date or final site plan established.

TRAVEL CHARACTERISTICS

Housing-Employment Dynamics

According to the 2021 American Community Survey (ACS) and the 2020 Longitudinal Employer-Household Dynamics (LEHD) Origin Destination Employment Statistics, just over seven percent (7%) of Norco's working population is employed within City limits, while 93 percent of the working residents are employed elsewhere. Given the City's location between multiple major job hubs (Riverside, Inland Empire/Ontario, Orange County, and Los Angeles), many workers must travel long distances. In fact, nearly 43 percent of working residents worked outside of Riverside County with a mean travel time to work of 34.5 minutes in 2021.[6] **Table 1** lists the top workplace destinations of Norco residents in 2020, with most workers traveling southwest, northwest, and east.

Table 1 Top Workplace Destinations of Norco Residents (2020)

City	Share	Approximate Distance from Norco
Corona, CA	9.0%	6 miles
Norco, CA	7.4%	0 miles
Riverside, CA	7.0%	18 miles
Los Angeles, CA	4.8%	50 miles
Ontario, CA	4.1%	16 miles
Anaheim, CA	3.7%	29 miles
Irvine, CA	3.3%	35 miles
Santa Ana, CA	2.8%	31 miles
Orange, CA	2.5%	28 miles
Chino, CA	2.3%	16 miles
All Other Locations	53.1%	N/A

Source: US Census Bureau. 2020. OnTheMap Application. Longitudinal Employer-Household Dynamics Program. https://onthemap.ces.census.gov/

U.S. Census data also shows a balance between jobs and employed residents, with 12,495 primary jobs and 10,514 employed residents within the City limits (for a job to employed residents' ratio of 1.18). Despite this balance, 2020 employment data from the U.S. Census Bureau shows only 777 of the City's workforce resides in City limits (6.2%) (**Figure 2**). This suggests that there is a large jobs/worker mismatch and that the City's available jobs do not align with resident's skills and/or salary expectations.

[6] https://data.census.gov/table?t=Commuting&g=160XX00US0651560&tid=ACSST5Y2021.S0801

Figure 2 Inflow and Outflow of Jobs and Employed Residents

Source: US Census Bureau. 2020. OnTheMap Application. Longitudinal Employer-Household Dynamics Program. https://onthemap.ces.census.gov/

The City should explore ways to shorten commute distances by promoting a diverse local economy, expanding home-based businesses, increasing reliable commuting alternatives to driving, and enhancing the performance of key roads and freeways during commute hours to maximize their efficiency. Additionally, with the rise in remote work, City policies should promote high-speed internet access to enable teleworking and reduce commute trips.

Commute Distance and Patterns

Amongst employed residents in the City:

- 29% travel less than 10 miles to reach their place of employment
- 39% travel between 10 and 24 miles to reach their place of employment
- 20% travel between 25 and 50 miles to reach their place of employment
- 12% travel 50 miles or more to reach their place of employment

These long commute distances support the previous findings that few residents work within the City limits and further explains their dominant reliance on personal auto vehicles for travel to and from work (see section on mode choice). **Figure 3** shows that most workers traveling long distances (>25 miles) are traveling to the west and southwest (towards Los Angeles and Orange counties). These regions are home to diverse and robust job opportunities and generally provide higher salaries than industrial employment found east and north of the City. As such, many of Norco's commuting residents experience long commutes in exchange for benefiting from the City's relatively affordable housing costs and rural character.

Amongst those commuting into Norco for work:

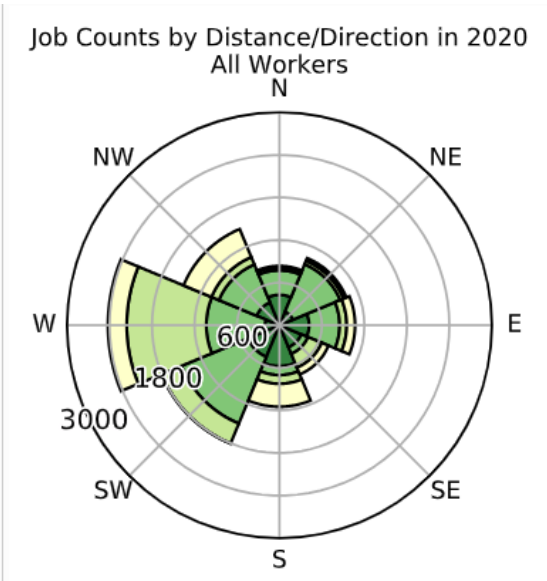
- 38% travel less than 10 miles from their place of residence
- 35% travel between 10 and 24 miles from their place of residence
- 17% travel between 25 and 50 miles from their place of residence

- 10% travel 50 miles or more from their place of residence

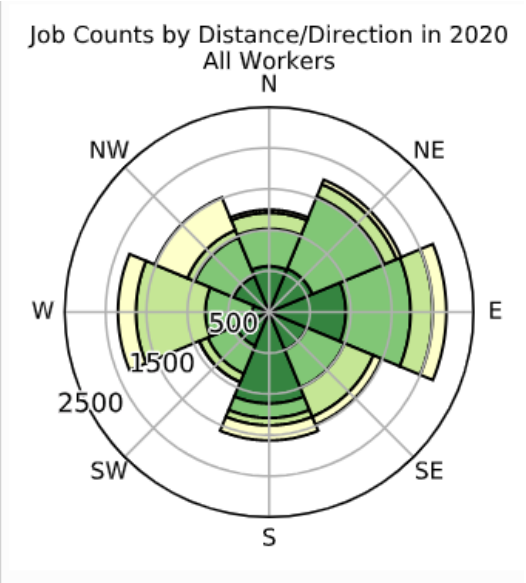
Notably, inflow commuters experience shorter travel distances than outflow commuters and primarily originate from the Inland Empire (south, east, and northeast; see **Figure 3**).

Figure 3 Commute Distance and Direction (2020)

City Residents Traveling to Work



Workers Traveling into the City



Jobs by Distance - Home Census Block to Work Census Block

	2020 Count	Share
Total Primary Jobs	10,514	100.0%
Less than 10 miles	3,003	28.6%
10 to 24 miles	4,146	39.4%
25 to 50 miles	2,068	19.7%
Greater than 50 miles	1,297	12.3%

Jobs by Distance - Work Census Block to Home Census Block

	2020 Count	Share
Total Primary Jobs	12,495	100.0%
Less than 10 miles	4,804	38.4%
10 to 24 miles	4,330	34.7%
25 to 50 miles	2,157	17.3%
Greater than 50 miles	1,204	9.6%

Source: US Census Bureau. 2020. OnTheMap Application. Longitudinal Employer-Household Dynamics Program. https://onthemap.ces.census.gov/

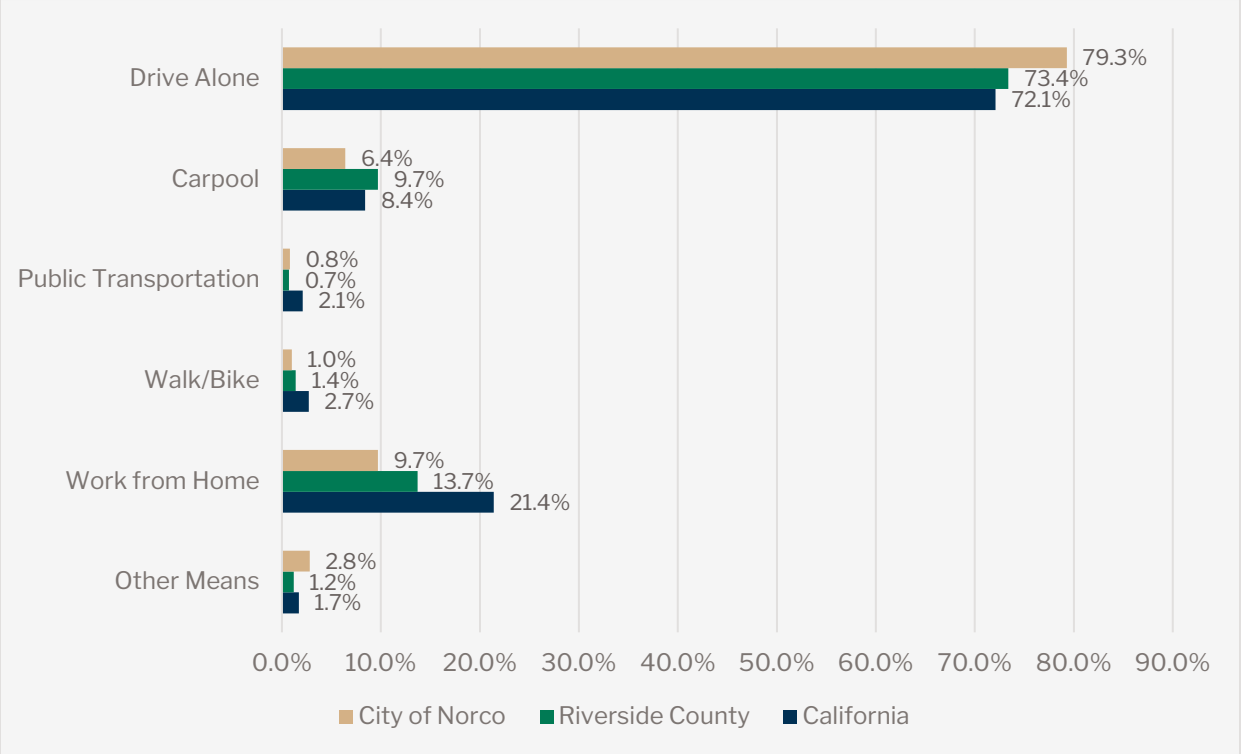
Mode Choice

Figure 4 shows the mode split for commuters from the City of Norco, Riverside County, and California, according to 2021 American Community Survey data. Driving (both driving alone and carpooling) makes up over 85 percent of the mode split for commuters in the City of Norco, slightly higher than the rates in Riverside County (83%) and California (80%).

Non-auto modes are less common in Norco compared to the county and state. Less than one percent (1%) of City commuters use public transportation for their commute, which is aligned with the County rate but below the State rate of two percent (2%). Walking and biking is also less common, given the City's rural character and significant segregation of land uses. Nearly ten percent (10%) of workers work from home, which has increased

significantly since the COVID-19 Pandemic. Finally, nearly three percent (3%) of commuters rely on other transportation methods, including taxicabs and (in the case of Norco) and horseback riding, which is significantly higher than the State and County rates of one percent (1%).

Figure 4 Mode Share for Commute Trips (2021)

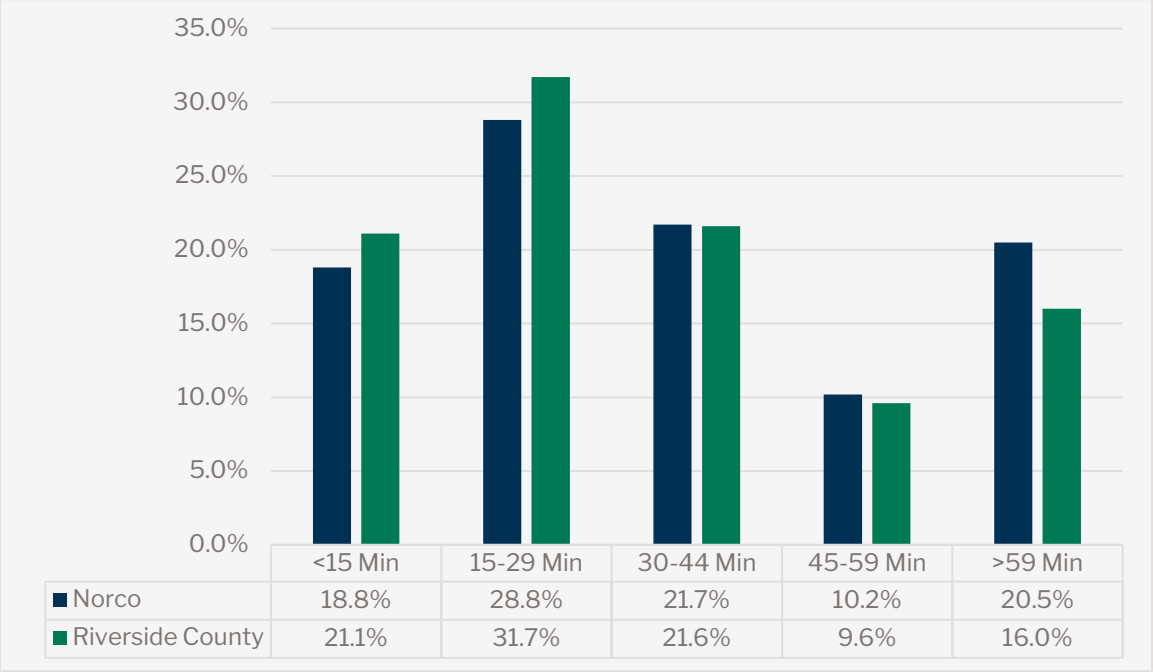


Source: US Census Bureau, 2021 American Community Survey 1-Year Estimates, Table S0801

Travel Time to Work

The mean travel time to work in the City of Norco is 34.5 minutes, compared to 32.1 minutes for Riverside County and 27.6 minutes for California. This supports the past findings that employed residents experience higher-than-average commuting distances and a high rate of worker outflow and commutes. The variation of travel time for both the City and Riverside County is provided in **Figure 5.** Notably, 20.5 percent of Norco commuters travel more than 60 minutes, 4.5 percentage points higher than the rate for Riverside County.

Figure 5 Average Travel Times to Work in Norco and Riverside County (2016-2021)



	<15 Min	15-29 Min	30-44 Min	45-59 Min	>59 Min
Norco	18.8%	28.8%	21.7%	10.2%	20.5%
Riverside County	21.1%	31.7%	21.6%	9.6%	16.0%

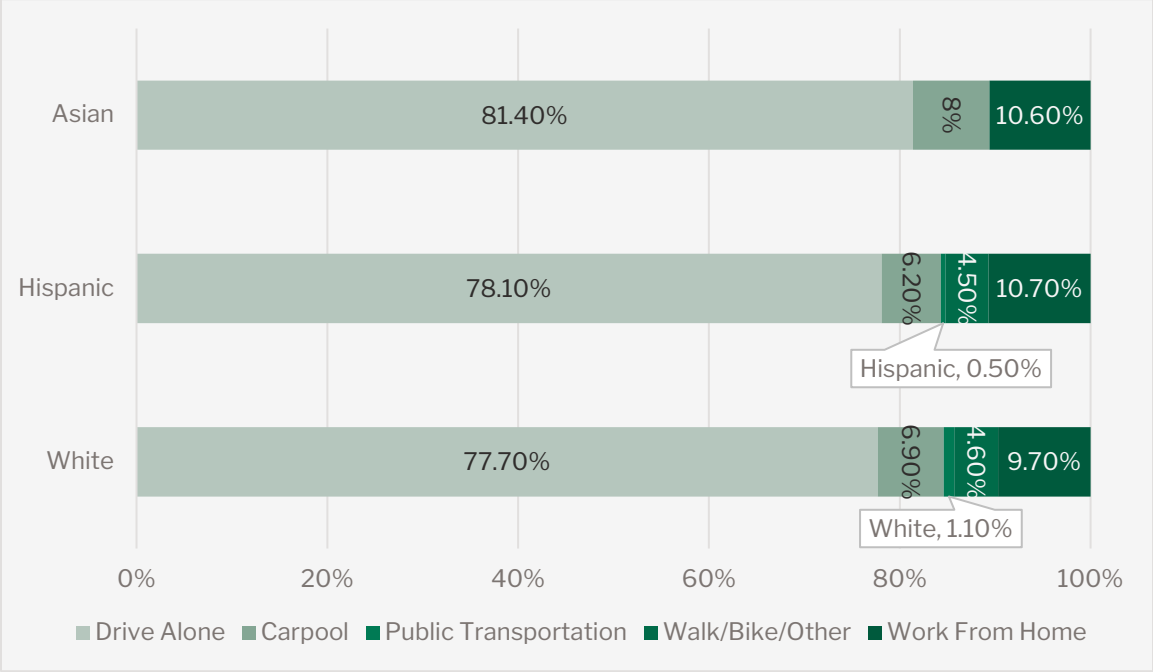
Source: U.S. Census Bureau, 2021 American Community Survey 1-Year Estimates, Table S0801

Commuting Characteristics by Race and Income

Mode choice for commuters is relatively consistent across race and ethnicity in the City of Norco. Three out of every four commuters drive alone, as shown in **Figure 6**, and this varies little between racial groups. Notably, public transportation use varies slightly between White and Hispanic groups, with 1.1 percent and 0.5 percent of commuters using public transit, respectively.

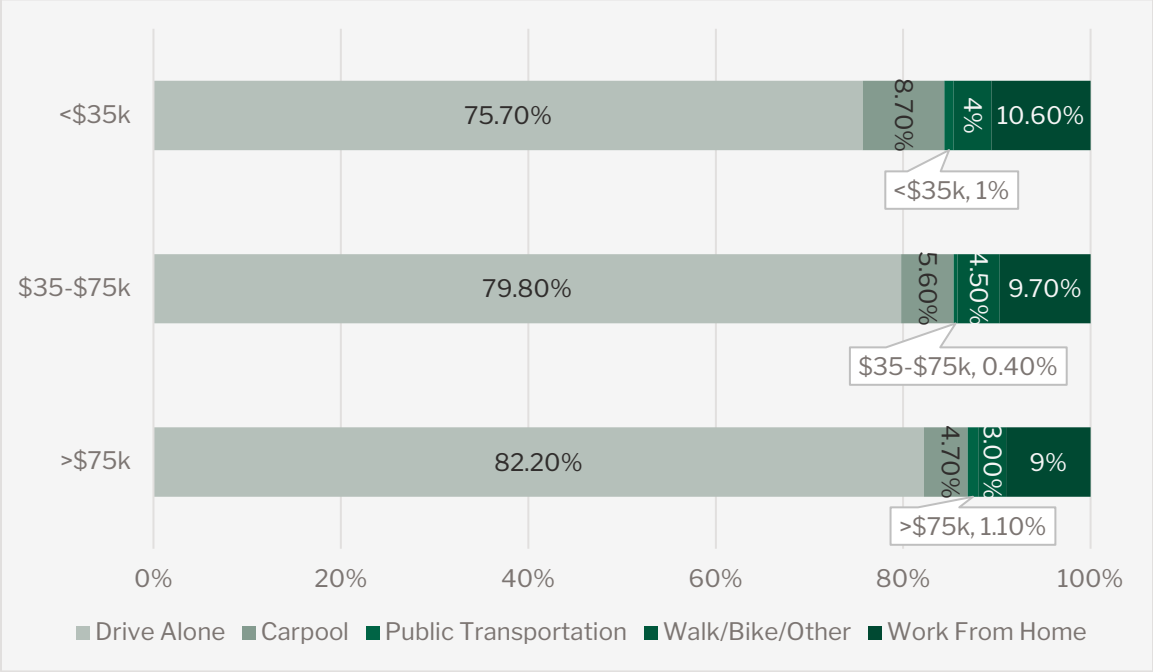
Across incomes, the dominant mode of travel is driving alone, with a slightly larger share of higher income residents using personal vehicles over other travel modes. Lower income households have significantly higher rates of carpooling, compared to middle- and higher-income residents, serving as a replacement for the limited public transportation services in the City. Public transportation use is consistent across all incomes at around one percent (1%). Finally, the share of workers working from home is roughly similar across income groups, with slightly higher rates of teleworking amongst lower income households. The complete breakdown of mode choice by income group is presented in **Figure 7**.

Figure 6 Mode Choice to Work, Percent By Race/Ethnicity (2021)



Source: U.S. Census Bureau, 2016-2021 American Community Survey 5-Year Estimates, Table B08105A-B08105I.

Figure 7 Mode Choice to Work, Percent By Income Level (2021)



Source: U.S. Census Bureau, 2016-2021 American Community Survey 5-Year Estimates, Table B08119.

EXISTING STREET SYSTEM

This section reviews the current street system in the City of Norco, including roadway classifications, pavement conditions, and current operational performance of the street network. Additionally, this section discusses existing bicycle, pedestrian, equestrian, and transit networks within the City, programmed capital improvement projects, and current safety data. This information will inform General Plan Update discussions, including which mobility issues to prioritize.

Roadway System

Regional Highways

Interstate 15

I-15 directly bisects the City of Norco, serving as the main regional transportation link for City residents and visitors. The City is served by several direct access interchanges including Sixth Street, Second Street, and Hidden Valley Parkway. The corridor is operated and maintained by the California Department of Transportation (Caltrans). In addition to 3-4 general purpose lanes in each direction, I-15 also has two express lanes operated by the Riverside County Transportation Commission (RCTC) that opened in 2021.

State Route 91

Immediately south of the City limits, SR-91 provides additional regional connections, including to Orange County and other regions of Riverside County (Riverside, Moreno Valley, Coachella Valley). A major freeway interchange between I-15 and SR-91 also provides direct connections between express lanes on I-15 and those on SR-91. Due to the regional significance of this interchange, congestion is frequent during peak travel periods, extending north along I-15 in the AM peak period.

Local Circulation

The City of Norco currently manages a total of 100 miles of public roadways, including a mix of regional arterials and local streets. The City also oversees the development of private streets by enforcing City design standards.

Roadway Classifications

The City of Norco, like most cities, organizes its roadways into “functional classifications” to categorize them based on purpose, location, adjacent land uses, and relative number of driveways. This form of classification is increasingly becoming obsolete as it fails to consider broader travel characteristics and concerns for non-motorized uses (pedestrians, bicyclists, horses, transit users). When evaluating changes to the current functional classifications, State laws SB 743 and AB 1358 recommend that street networks should

take a “layered network approach” where different streets are given preferred travel modes based on their characteristics and connectivity. The General Plan Update allows the City to reconsider its existing classification system and develop a new system that limits conflict between competing modes (e.g. pedestrians and heavy freight traffic) and considers adjacent land use.

The current 2000 City of Norco General Plan identifies six public roadway types that together function as a broader transportation network (see **Table 2** for overview of roadway classifications and general characteristics and **Figure 8** for a map of streets and their classification).

Arterials, or major streets, are divided into four types, depending on their regional significance, required right-of-way (ROW) and number of lanes. Moreover, Norco’s extensive equestrian culture also influences the roadway classification system, as arterials are further divided into “equestrian” (designated with an E) and “non-equestrian” corridors. Equestrian designated arterials provide horseback riding trails on both sides of the street and connect to the City’s extensive grid of equestrian trails.

Hamner Avenue, the only urban arterial in the City, exclusively serves commercial land uses and acts as a regional connector between the neighboring cities of Corona and Eastvale. Currently with five lanes (two lanes in each direction and a center turn lane), the corridor under the 2000 General Plan has a buildout assumption of six lanes and is in the process of being widened to this final state (primarily on the northern end of the corridor). Major arterials, including Sixth Street, North Drive, and River Road serve as important City connectors between local streets, Hammer Avenue, and I-15. These corridors have a full buildout ROW of 100 feet and provide either equestrian trails (Major Arterial 4E) or on-street parking (Major Arterial 4). Major Arterial 2E streets have a build out design of two lanes (one in each direction) with equestrian trails on both sides. Currently, the only street with this classification is California Avenue, from North Drive to Sixth Street. This street acts as a regional connector, offering another critical route to Riverside.

Collector and local streets make up the remainder of the street network. The former provides important connections between residential neighborhoods and the City’s arterial system and at build out have two to four lanes (one to two in each direction), an equestrian trail on one side, and a typical ROW of 88 feet. Local streets provide direct connections to residential properties and include equestrian trails that link into the City’s network. Except near major trip generators like schools, traffic volumes on these streets are low and non-local cut-through traffic is actively discouraged under the City’s current general plan by minimizing the linking of local streets.

Table 2 Current Roadway Classification System (2000 General Plan)

Classification	Description	Features	Streets
Urban Arterial	Buildout of 6 lanes (3 in each direction) with center median; designed to accommodate regional through traffic and connect to major commercial destinations	ROW: 110' Pavement Width: 86' No. of Lanes: 6 Equestrian Trail: No	Hamner Avenue
Major Arterial 4E	Buildout of 4 lanes (2 in each direction) with equestrian trails; designed to connect I-15 access ramps to Hamner Ave and destinations with regional significance	ROW: 100' Pavement Width: 64' No. of Lanes: 4 Equestrian Trail: Both Sides	Sixth Street (Hamner to California Avenues)
Major Arterial 4	Buildout of 4 lanes (2 in each direction) with parking lanes in place of equestrian trails; provide connections from other arterials to residential areas	ROW: 100' Pavement Width: 80' No. of Lanes: 4 Equestrian Trail: No	North Drive River Road Hidden Valley Pkwy
Major Arterial 2E	Buildout of 2 lanes (1 in each direction) with equestrian trails on both sides; serves residential areas and connects 6th street commercial area to neighboring cities	ROW: varies Pavement Width: 36' No. of Lanes: 2 Equestrian Trail: Both Sides	California Avenue (North Drive to Sixth Street)
Collector	Buildout of 4 lanes with equestrian trail on one side; designed to connect local streets to City arterial system	ROW: 88' Pavement Width: 64' No. of Lanes: 4 Equestrian Trail: One Side	Croydon Avenue Fifth Street First Street Norco Drive Parkridge Avenue Second Street Third Street
Local	Buildout of 2 lanes (1 in each direction) with equestrian trail on one side;[7] provide direct access to residential properties and commercial areas when arterials do not directly serve these uses	ROW: 60' Pavement Width: Varies (typically 36') No. of Lanes: 2 Equestrian Trail: One Side	Any street not classified in the arterial/collector system
Source: 2000 City of Norco General Plan Circulation Element			

[7] Note: Norco Ridge Ranch Specific Plan area has local streets with equestrian trails on both sides of the street.

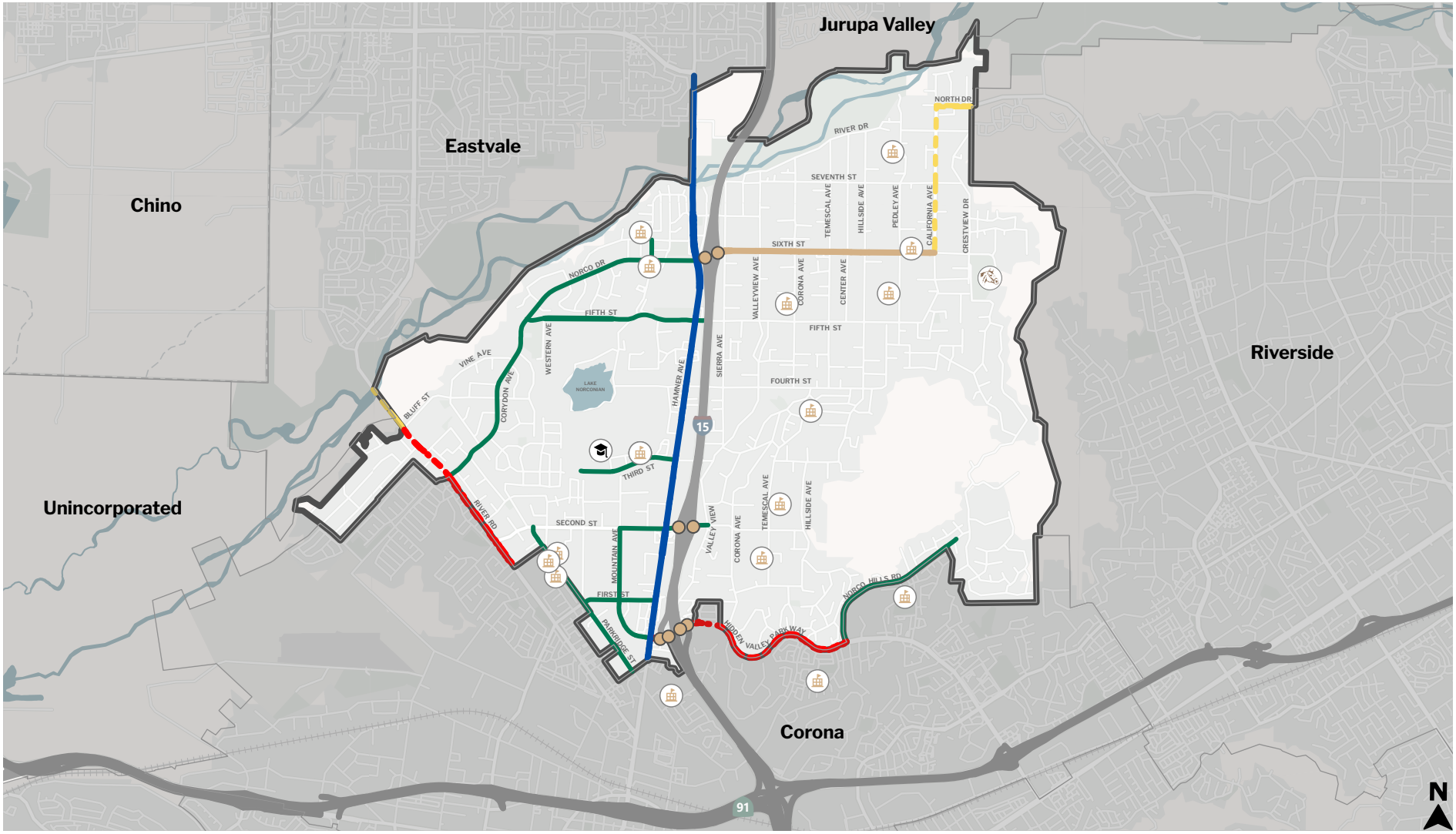


Figure 8

Roadway Classifications (2000 General Plan)

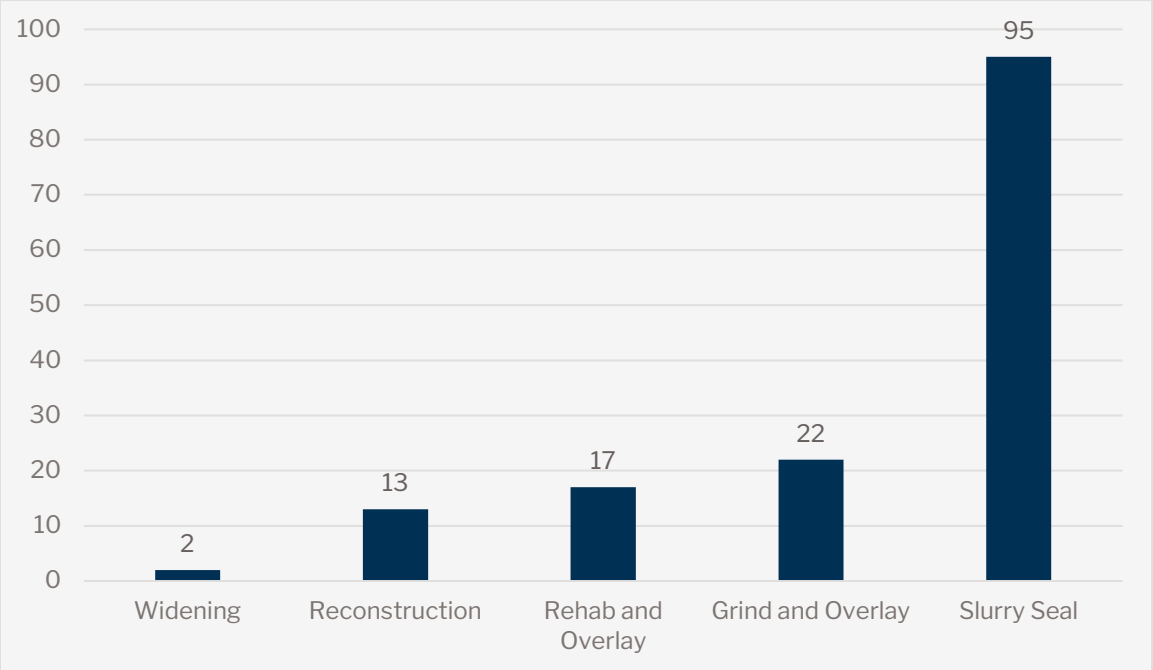
Roadway Design Standards

The City of Norco has adopted roadway design standards for each of the roadway classifications outlined in the 2000 General Plan. These guidelines are intended to standardize the design of new streets and as street upgrades occur, ensuring infrastructure is well-maintained and can adequately handle traffic volumes. Citywide design standards have also been adopted for the equestrian trail network, providing guidance on trail widths, intersection treatments, and aesthetics.

Pavement Conditions

Improving pavement quality is a top priority for the City's Public Works Department. The City's October 2022 Pavement Progress Update shows that between 2016 and 2022, 37 percent of City streets have received pavement improvement treatments, with most of these projects (95 of 149) being slurry seal treatments on local streets (**Figure 9**).[8] Arterials and collectors have received a range of treatments from grind and overlay to complete reconstruction. The City, through its Capital Improvement Program, has invested over $29 million dollars since 2016 on pavement improvements, largely funded through Measure R.

Figure 9 Completed Pavement Preservation Projects, 2016-2022



Source: City of Norco Department of Public Works

An inventory of roadway conditions in summer 2023 reveals that the overall average pavement quality, measured by Pavement Condition Index (PCI), is rated at Good. Streets with significant pavement deterioration tend to be concentrated in older areas. While

[8] https://www.norco.ca.us/home/showpublisheddocument/1365/638011091943370000

pavement quality for residential roads varies significantly, it is generally consistent on arterial and collector streets. **Table 3** provides PCI by functional classification.

Table 3 Average Pavement Condition Index (PCI) by Roadway Type, 2023

Functional Class	Centerline Mileage	Pavement Area (SF)	Average PCI
Arterials	8.32	2,569,541	74
Collectors	9.39	2,041,353	71
Residential/Local	82.87	13,262,258	72
Source: City of Norco Department of Public Works, 2023. (Excludes dirt roads).			

Roadway Operations Analysis

Average daily traffic volumes (ADT) on the City's major roadways were collected in 2019. This information (see **Table 4**) provides important context for the City's current roadway conditions and will inform the development of the City's updated roadway classification system as part of the General Plan Update.

Road segments with the highest traffic volumes include:

- Alhambra Street (from River Ridge Dr to Acacia Ave) – 15,740 vehicles
- Hamner Avenue, in its entirety – 20,000-30,000 vehicles
- Hidden Valley Parkway, in its entirety - ~20,000 vehicles
- River Road, in its entirety – 24,000-27,000 vehicles
- Sixth Street (from Hamner Ave to California Ave) – 15,000-22,000 vehicles

Table 4 2019 Roadway Average Daily Volumes

Street	No.	Location	ADT (2019)
Alhambra Street	1	Norco Dr. to River Ridge Dr.	598
	2	River Ridge Dr. to Acacia Ave.	15,740
Bluff Street	3	River Rd. to Vine St.	2,288
	4	Vine St. to Corydon Ave.	1,197
Branding Iron Lane	5	Dapplegray Ln. to Wild Horse Ln.	1,872
California Avenue	6	Fifth St. to Sixth St.	1,881
	7	Sixth St. to Seventh St.	10,452
	8	Seventh St. to North Dr.	11,660
Corydon Avenue	9	Fifth St. to Bluff St.	8,186
	10	Bluff St. to River Rd.	5,721
Crestview Drive	11	Arlington Ave. to Seventh St.	1,881
	12	Seventh St. to Sixth St.	1,435
	13	Sixth St. to East St.	979
	14	East St. to Wild Horse Ln.	609
	15	Wild Horse Ln. to Valley Dr.	1,194
Detroit Street	16	Valley View Ave. to Hamner Ave.	7,143
El Paso Drive	17	Hillside Ave. to Dogwood Way.	2,919
	18	Dogwood Way. to Hidden Valley Pkwy.	1,346
Fifth Street	19	Corydon Ave. to Norconian Dr.	7,667
	20	Norconian Dr. to Hamner Ave.	2,680

Street	No.	Location	ADT (2019)
	21	Hamner Ave. to Corona Ave.	4,735
	22	Corona Ave. to Hillside Ave.	2,988
	23	Hillside Ave. to California Ave.	2,584
First Street	24	Parkridge Ave. to Hamner Ave.	9,230
	25	Valley View Ave. to Corona Ave.	321
	26	Corona Ave. to Hillside Ave.	2,411
Fourth Street	27	Clark Ave. to Valley View Ave.	5,291
	28	Valley View Ave. to Hillside Ave.	2,594
Hamner Avenue	29	North City Limit to Sixth St.	27,940
	30	Sixth St. to Fifth St.	26,728
	31	Fifth St. to Fourth St.	27,250
	32	Fourth St. to Second St.	30,011
	33	Second St. to First St.	23,780
	34	First St. to South City Limit	21,959
Hidden Valley Parkway	35	Hamner Ave. to 4000' East of I-15	19,478
	36	4000' East of I-15 to El Paso Dr.	21,457
	37	El Paso Dr. to Norco Hills Rd.	22,144
Hillside Avenue	38	First St. to Second St.	4,191
	39	Second St. to Third St.	2,668
	40	Third St. to Fourth St.	2,421
	41	Fourth St. to Fifth St.	2,738
	42	Fifth St. to Sixth St.	1,897
Mountain Avenue	43	Hamner Ave. to First St.	8,264
	44	First St. to Second St.	3,866
Norco Drive	45	Hamner Ave. to Alhambra St.	3,869
	46	Alhambra St. to Fifth St.	3,420
Norco Hills Road	47	Hidden Valley Pkwy. to Valley Dr.	3,405
Norconian Drive	48	Fifth St. to Norco Dr.	155
North Drive	49	California Ave. to East City Limit	12,439
Parkridge Avenue	50	Second St. to South City Limit	4,023
Pedley Avenue	51	Seventh St. to Sixth St.	1,363
	52	Sixth St. to Fifth St.	1,743
River Road	53	North City Limit to Corydon Ave.	27,101
	54	Corydon Ave. to Second St. (So. City Limit)	24,890
Rock Springs Avenue	55	First St. to Thoroughbred Ln.	2,652
Second Street	56	River Rd. to Mountain Ave.	9,513
	57	Mountain Ave. to Hamner Ave.	13,184
	58	Hamner Ave. to Corona Ave.	9,127
	59	Corona Ave. to Hillside Ave.	7,886
Seventh Street	60	Valley View Ave. to Corona Ave.	3,082
	61	Corona Ave. to Hillside Ave.	3,196
	62	Hillside Ave. to California Ave.	3,047
Sierra Avenue	63	Fifth St. to Sixth St.	4,369
Sixth Street	64	Hamner Ave. to Valley View Ave.	22,036
	65	Valley View Ave. to Hillside Ave.	19,364
	66	Hillside Ave. to California Ave.	15,740
	67	California Ave. to Crestview Ave.	2,792
Third Street	68	Valley View Ave. to Hamner Ave.	3,758
	69	Hamner Ave. to Campus Ave.	13,931
	70	Campus Ave. to 2700' West	3,584

Street	No.	Location	ADT (2019)
Thoroughbred Lane	71	El Paso Dr. to Sedona Ln.	550
Valley Drive	72	Country Club Dr. to Fresian St.	1,873
Valley View Avenue	73	Detroit St. to Seventh St.	5,296
	74	Fifth St. to Detroit St.	2,740
	75	Third St. to Second St.	4,906
Vine Street	76	Corydon Ave. (N) to Bluff St.	439
	77	Bluff St. to Corydon Ave. (S)	1,241
Wild Horse Lane	78	Branding Iron Ln. to Cavaletti Ln.	1,364
	79	Cavaletti Ln. to Crestview Dr.	1,197
Source: City of Norco, 2019 Speed Zone Survey			

Active & Equestrian Transportation

Complementing the City's roadway network is an extensive network of off-street trails and bike facilities that provide transportation alternatives for City residents and visitors. Providing infrastructure for non-vehicle transportation promotes a healthy population, economy, and environment. Active transportation alternatives also support the City's vision for preserving a rural atmosphere, which is why current City policy in the 2000 General Plan outlines efforts for trail system maintenance and expansion.

The City of Norco is actively developing the City's first Pedestrian and Bicycle Master Plan, with ongoing community engagement opportunities and planning efforts underway. This plan complements the Comprehensive Trails Master Plan, which was adopted in 2018 and outlines different policies, actions, and potential improvements to bike and pedestrian infrastructure in the City. Both of these plans will inform the development of active transportation policies in the General Plan Update.

Pedestrian Network

Outside of the trail network, paved sidewalk infrastructure in the City of Norco is currently limited to commercial areas along Hamner Avenue and Hidden Valley Parkway and a small stretch of Third Street adjacent to Norco College. Most streets lack dedicated pedestrian facilities, marked crosswalks, or curb ramps; instead, most pedestrians utilize multi-use trails, including along the historical Sixth Street commercial corridor. While this provides some benefit, pedestrians with mobility devices or walking during inclement weather may find these facilities challenging. As stated in the 2000 General Plan, this model of prioritizing equestrian trails over traditional sidewalks is designed to promote the City's rural and horse-centered character and is generally seen as a positive characteristic of the community that should be maintained.

Norco schools feature enhanced visibility crosswalks and school warning signs to promote a safe pedestrian environment for students. However, large sidewalk and trail gaps exist, making walking to school challenging for most. Outside of school zones, pedestrian crossings tend to be limited, with no high visibility crosswalks or enhanced crossing technology.

The updated General Plan should work to maintain the City's multi-use trails for pedestrians while providing enhanced and Americans with Disabilities Act (ADA) accessible pedestrian infrastructure at street crossings and important areas where pedestrian volumes are higher (i.e., schools and commercial areas).

Bicycle Network

Currently, the City's bikeway network totals 7 miles consisting of 3.5 miles of traditional on-street bike lanes (Class II) and 3.5 miles of designated bicycle routes (Class III). Bike lanes can be found on River Road, Corydon Avenue/Norco Drive, and Hidden Valley Parkway, while the City's bicycle routes are clustered in the northeast quadrant of the City. Due to the high speeds and traffic volumes on these roadways, cyclist comfort is low, deterring many

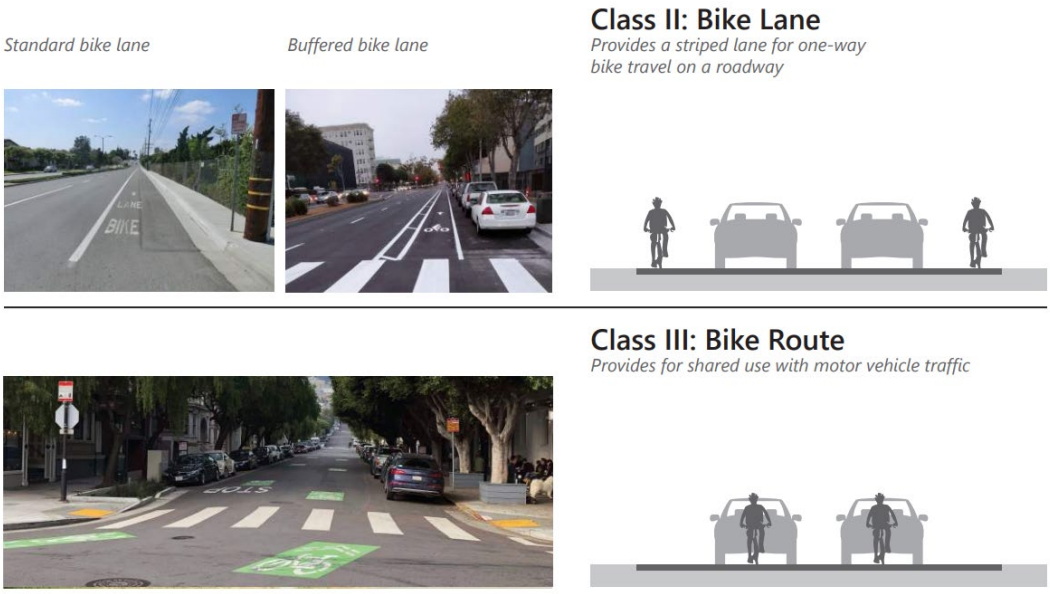
potential cyclists from utilizing current bike infrastructure. Despite its limited scale, the network is well connected, serving the southern and western City borders, and providing a complete connection from west to east along the northern edge of the City. The current Bicycle Network Map is depicted in **Figure 10**.

The City does not have off-street paved bicycle trails or facilities; however, cyclists are able to utilize the multi-use trail network, which may be preferred by cyclists compared to riding in the street, but the mixture of bicyclists and horses can create unsafe conditions when bicyclists startle horses on the trails. The City's current general plan has a general policy of "separat[ing] bicycle traffic from equestrian trails" by providing a system of bicycle facilities on City streets.

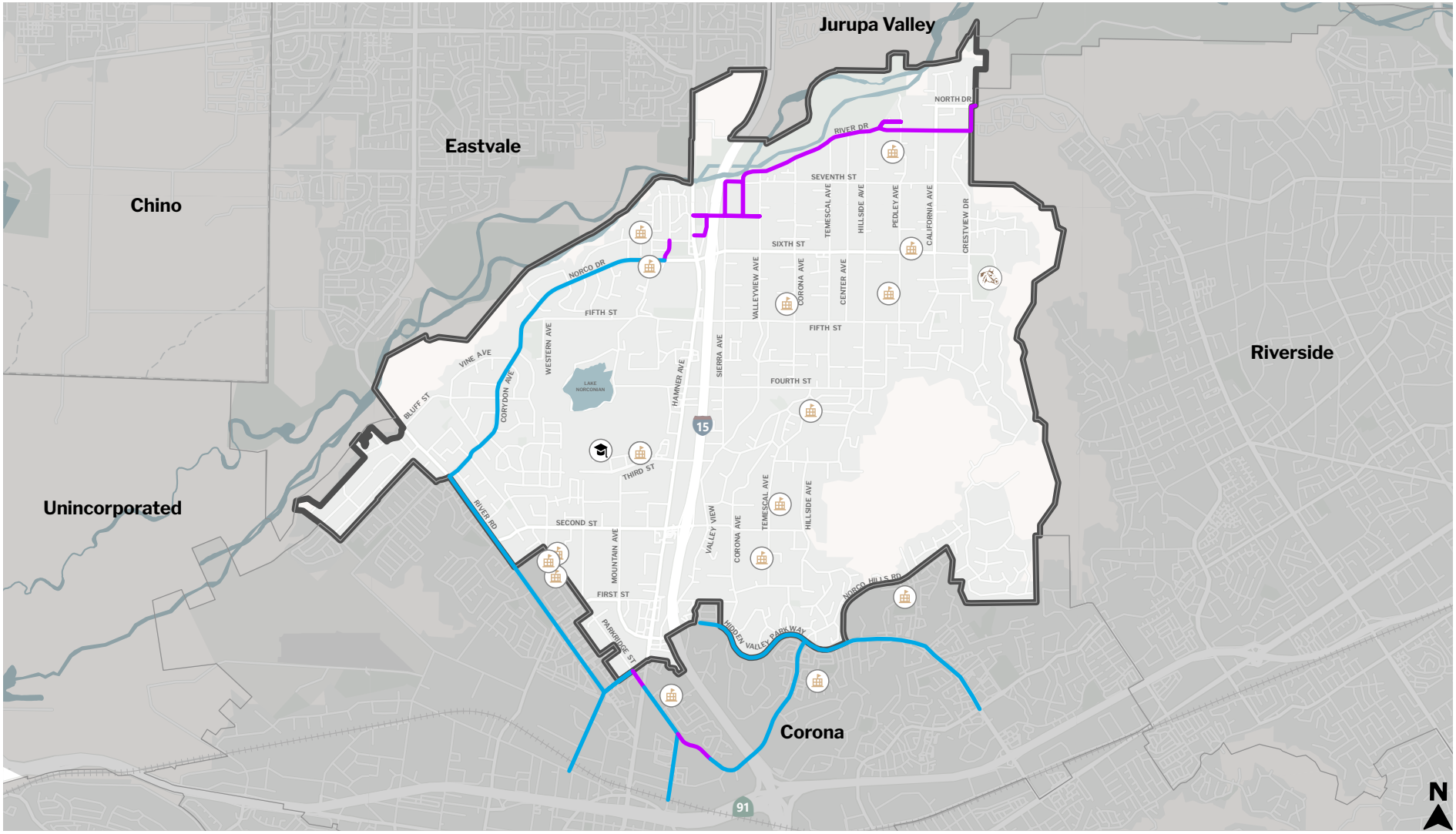
Updates to the General Plan should incorporate existing efforts underway as part of the Pedestrian & Bicycle Master Plan (see below), promote safe design for cyclists (including students to and from school), maintain the City's rural character, and expand on the City's bike infrastructure network to better connect key destinations and recreational sites.

Bicycle Master Plan

The Pedestrian & Bicycle Master Plan identifies several potential corridors for new bike lanes and routes, including along Fifth Street, Belgian Drive/Third Street, Sixth Street, and El Paso Drive. Rather than proposing bike lanes on every street, the plan looks to connect key neighborhood destinations on a safe local network and provide high-quality cross-City bicycle infrastructure for longer trips. Moreover, the plan outlines several potential strategies to enhance safety and connectivity including adding barrier separation between bike lanes and vehicle lanes, enhancing design standards for on street bike routes with improved signage and traffic calming tools, and improved intersection designs (e.g., refuge islands, green bike lanes). The plan has not yet been adopted by the City Council and is currently in the draft stage, as of August 2023.



Typical design standards and photo examples for Class II and Class III bike facilities. Image source: Fehr & Peers.



- Schools
- Norco College
- Ingalls Event Center
- City Limits
- Class II (Bike Lane)
- Class III (Bike Route)

Figure 10

Active Transportation Network

Trail Network

Proudly known as "Horsetown, USA," the City of Norco's extensive multi-use trail network is a central community fixture that draws many residents to the area. The City currently maintains a total of 104 miles of unpaved trails, both on and off street.[9] Through the Comprehensive Trail Master Plan (CTMP) adopted in 2018, the City has led many improvement projects to enhance trail conditions and preserve this key community asset. The CTMP outlines many goals and policies for ongoing trail maintenance and development, including enhancing trail-street crossings, improving trail fencing for safety, and ensuring private property trail access is maintained.

As the trail system is a key feature of the community, the General Plan Update should work to preserve and enhance this network for all trail users. This includes enhancing safety along trails and at intersections with streets, promoting the use of the trail system, and developing key connections to close gaps in the trail network.

Similar to street classifications, the City divides the trail network into four groups based on their primary purpose and adjacent land use. **Table 5** outlines the trail system classifications, which are also mapped in **Figure 11**.

Norco's extensive trail network includes signalized crossings at major streets. Image Source: City of Norco.

[9] Norco Comprehensive Trail Master Plan, Norco Circulation Trail Map

Table 5 Trail System Classification (2018 CTMP)

Classification	Description	Trails
Primary Access Trails	• Adjacent to major circulation routes • Wider trail sections to allow for separated uses between bikes/peds and horses • Buffer planting to separate trail from street • Enhanced intersection crossings	None currently Potential connections include Norco College, Norco Hills, and Santa Ana River
Secondary Trails	• Trails that connect to primary access trails and key City destinations • Bridle/soft shoulder • 12 feet width • Adjacent to streets with fencing and/or small buffer planting • Not primarily intended to accommodate bicycles • Intersection crossing treatments where needed	Sixth Street Norco Drive California Avenue Corydon Avenue
Tertiary Trails (Backyard Trails)	• Intended to provide local access to private property • Not adjacent to public ROW • Minimal surface planting	Chestnut Drive/Bluff Street Vine Avenue/Del Mar Road Pinto Place/California Avenue
Nature Trails	• Located away from street network (generally located on edges of City) • Direct connection to open space • Can serve as links to regional trail system and other trails • Also accommodate hikers with a marking system and rest stops	Pumpkin Rock Trail Bluff Trail

Source: City of Norco Comprehensive Trail Master Plan, 2018.

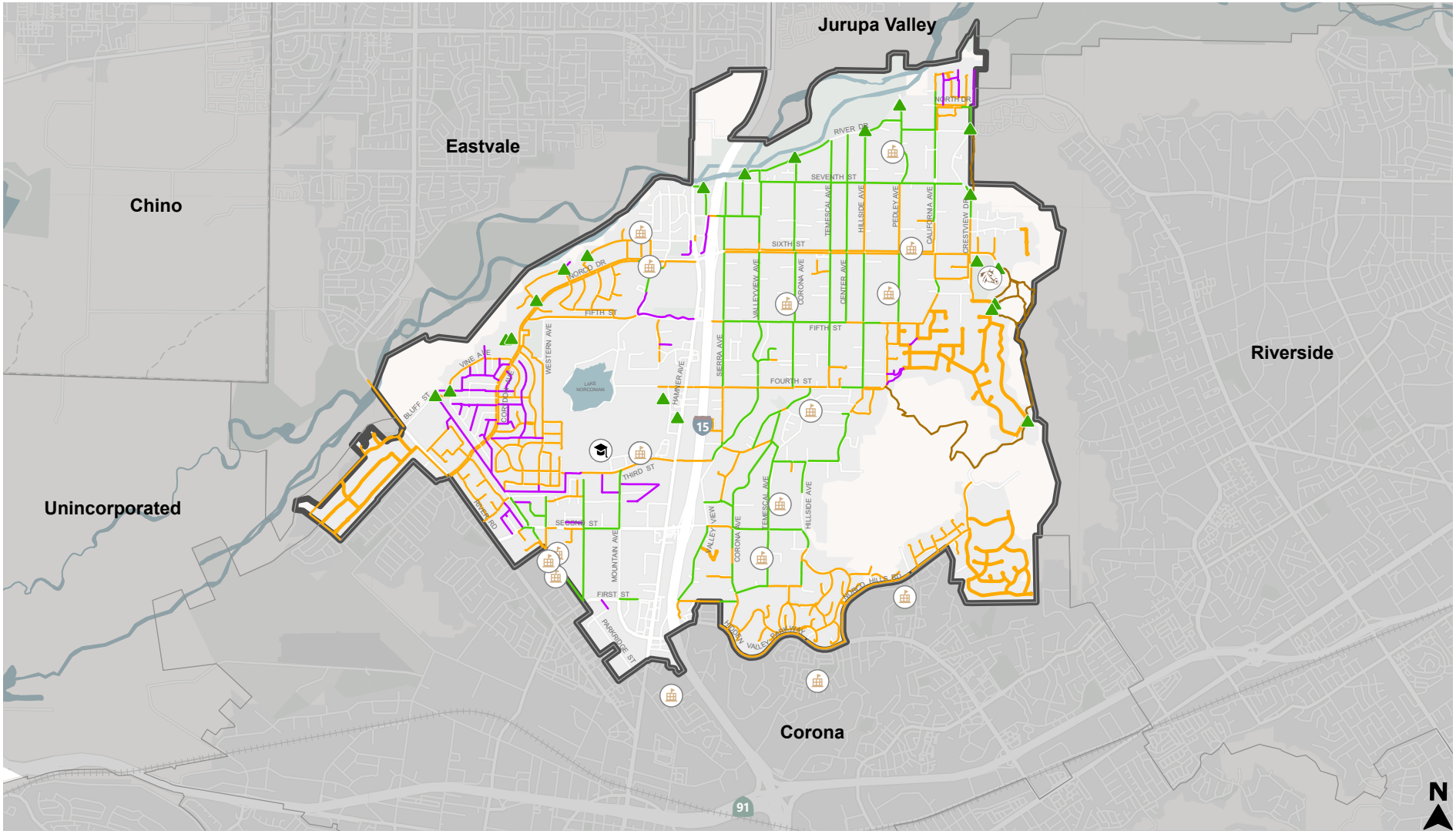


Figure 11

Equestrian Network

Public Transportation/Transit Facilities

Public transportation is relatively limited in the City of Norco, yet provides an essential service for those without access to a vehicle or who otherwise cannot drive (seniors, people with disabilities, etc.). **Figure 12** shows the current fixed-route transportation services provided in the City. While the City does not directly provide transportation services for the general public, it partners closely with the Riverside Transit Agency to deliver fixed route and paratransit services for residents.

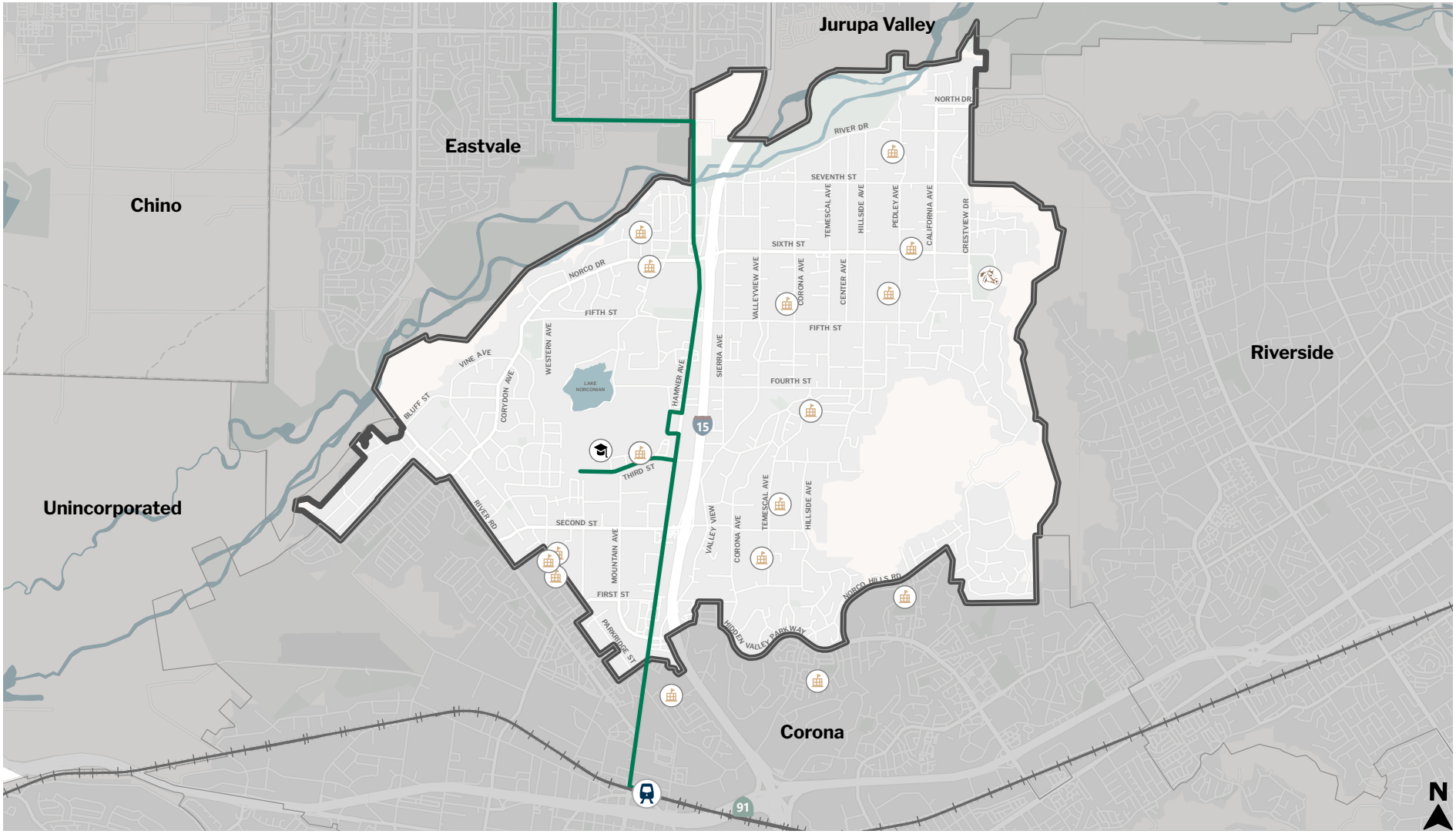
Fixed Route Transit (Riverside Transit Agency)

Norco is currently served by one Riverside Transit Agency (RTA) bus route connecting the City to the broader County transportation network and adjacent cities. As of August 2023, Route 3 runs from the Corona Transit Center in the south along Hamner Avenue to the Amazon Eastvale Fulfillment Center in the north. The route also serves key destinations to the west of Hamner Avenue, including Norco College on select trips, Norco Senior Center, and Norco City Hall. Connections at the Corona Transit Center can be made to Metrolink, as well as to routes that serve Orange County, Lake Elsinore, Temecula, and Riverside. Connections in the north provide access to Mira Loma, Jurupa Valley, and Riverside. Service on Route 3 currently runs every 70-80 minutes on weekdays from 6:20 a.m. to 11:00 p.m. and weekends every two hours from 6:15 a.m. to 8:00 p.m. Single ride fares are $1.75, with $5 day passes and $60 monthly passes available for frequent transit users. In fiscal year (FY) 2022-23, the route served 50,601 passengers (unlinked trips) and had operating expenses totaling $1.301 million.[10] 17.2 percent of Route 3 operating costs were covered by fares (also known as the farebox recover ratio), with the remaining 82.8 percent covered by a mix of federal, state, and local tax dollars.

Dial-A-Ride Services

RTA also provides dial-a-ride paratransit services for seniors and people with disabilities. Dial-a-Ride is a point-to-point transportation service that is requested in advance, helping people who cannot utilize traditional transit services access appointments, services, and their place of residence. In the City of Norco, the dial-a-ride service area extends three-quarters of a mile in either direction of Hamner Avenue; each trip provided by the Dial-a-Ride service must begin or end in this service area. Services are prioritized for those that are certified under the Americans with Disabilities Act (ADA), while seniors and others with disabilities are eligible, space permitting. Fares are $3.50 per passenger, per boarding.

[10] https://www.rctc.org/wp-content/uploads/2023/07/FY-24-26-Operators-SRTP.pdf, pg. 332



Schools
Norco College
Ingalls Event Center
City Limits
Corona Transit Center
Route 3 (RTA)
Metrolink Line

Figure 12

Transit Services

“Seniors on the Move” Program

In addition to the Dial-a-Ride program, the City of Norco Senior Center also operates the “Seniors on the Move” transportation program – a door to door service available for all Norco residents aged 50+, military veterans, and disabled Norco residents of any age. The service provides extensive coverage to destinations within a 30-mile radius outside of Norco City limits for medical appointments and other mobility needs. The service is reservation-based (with reservations scheduled 1-2 weeks in advance) and operates Monday through Thursday from 9:00 a.m. to 4:00 p.m.

Planned Transportation Improvements

At this time, there are no planned transportation improvements proposed in the City of Norco. The Riverside Transit Agency’s FY 2024-2026 Short Range Transit Plan (SRTP) identifies several planned systemwide improvements, including new mobility hubs across the system, bus stop improvements (i.e., new shelters, trash receptacles), and transitioning the bus fleet to sustainable fuel vehicles.

Metrolink/Regional Transportation Services

Norco is immediately adjacent to the Corona-North Main Metrolink station, providing convenient access to Southern California’s commuter rail system. Transit passengers can access Metrolink directly with RTA’s Route 3 or by utilizing the station’s park-and-ride facilities. The station is served by two lines: the 91/Perris Valley line which provides five trains on weekdays and two trains on weekends serving LA Union Station, North Orange County, Riverside, Moreno Valley, and Perris; and the Inland Empire/Orange County Line, which provides seven trains on weekdays and two trains on weekends in each direction to South Orange County, Riverside, and San Bernardino.

Metrolink Commuter Rail System Map. Source: Metrolink

Major Improvement Projects

The City's Capital Improvement Program (CIP) for 2023-2027 identifies several transportation improvement projects in the City ranging from pavement preservation to major street upgrades that have secured funding from the City's Measure R and/or state and local grants. Notable projects include:

- Various Pavement Preservation Projects on arterials, collectors, and local streets
    - Pavement overlay (new asphalt)
    - Slurry seal projects (coating applied to streets to extend pavement lifespan and provide smoother driving surface)
- Roadway Improvement Projects
    - Hamner Avenue Widening & Santa Ana River Bridge Replacement
    - Electronic Speed Feedback Signs
    - Sixth Street Decorative LED Light Pole Project
    - First Street Widening & Pavement Project
    - Pedley Avenue/Sixth Street and California Avenue/Seventh Street Roadway Improvements Project
    - Temescal Avenue Widening & Pavement Project
    - Hamner Avenue Traffic Signal at SilverLakes Northerly Exit (design work)
    - Mountain Avenue & First Street Traffic Signal
    - Mountain Avenue & Second Street Traffic Signal
- Bicycle/Pedestrian/Trail Projects
    - Santa Ana River Trail Assessments
    - Trail Fencing Replacement
    - Mountain Avenue Parkway & Trail Improvements
- Other
    - Parking Lot Reconstruction at Parmenter Park, Animal Control (complete), and Wayne Makin Park
    - Emergency Storm Drain Improvements

Parking

The City's current General Plan outlines several goals and policies for providing sufficient parking space for vehicles in the City. This includes mandating off-street parking for all new developments based on proposed land use and ensuring commercial and manufacturing areas have adequate loading areas. Along the historic Sixth Street corridor, the City's current General Plan states a goal of allowing reduced on-site parking requirements in exchange for improved pedestrian connections between buildings.[12] This is intended to create a walkable "downtown" where visitors can park once and encourage alternative transportation modes including horseback riding. The City reviews developments and ensures that they are in compliance with the City's off-street parking requirements, which vary based on a project's proposed uses.

[12] https://www.norco.ca.us/home/showpublisheddocument/886/637731104197500000

The City also has one park-and-ride lot located at the Sixth Street/Norco Drive interchange with I-15. The park-and-ride lot is currently not served by public transit, but RTA Route 3 runs adjacent to the parking lot along Hamner Avenue so there may be an opportunity for it to be transit-served in the future. The park-and-ride lot has approximately 100 vehicle spaces and is used for commuters choosing to carpool. No bike parking is provided currently.

SAFETY

The City's current General Plan outlines several policies designed to promote a safe and efficient transportation system. This includes ensuring the City's trail system is separated from vehicle traffic and utilizes safety features at intersections, encouraging safe streets around schools, and requiring traffic studies to analyze safety impacts and identify improvements. Additionally, State and national goals aimed at eliminating traffic-related fatalities suggest that safer roads are a critical priority for community members and that resources are available to address concerns. The General Plan Update presents an opportunity to review current safety issues on the City's roadways and develop comprehensive strategies to address roadway safety concerns.

Collision Profile

Traffic collisions occur when a moving vehicle strikes any object. This could include another car, a pedestrian, equestrian, a cyclist, or a fixed object (such as a traffic light post). Collisions that cause damage or injury are typically recorded by local law enforcement and then added to the California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS), a statewide database that tracks roadway collisions and aggregates data to inform safety issues and trends.

From 2017-2021, there were a total of 489 recorded crashes in the City according to the SWITRS database, including 182 crashes that occurred on I-15. During the same period, there were a total of ten fatalities and 645 injuries. This includes 25 crashes involving pedestrians (including equestrians), 12 crashes involving bicyclists, and 46 crashes involving motorcyclists. The overall fatality rate was 2.04 percent during the time period, slightly lower than the county rate of 2.82 percent. A further 5.32 percent of crashes resulted in severe injuries for one or more victims.

The most common type of crash was a rear end crash representing 42 percent of all crashes. More severe crash types, such as head-on and broadside (T-bone), represented 6.5 percent and 18.8 percent of overall crash volume during the study period, respectively. Crashes were also clustered on weekday afternoons and evenings, corresponding with the busiest part of the day on City roadways.

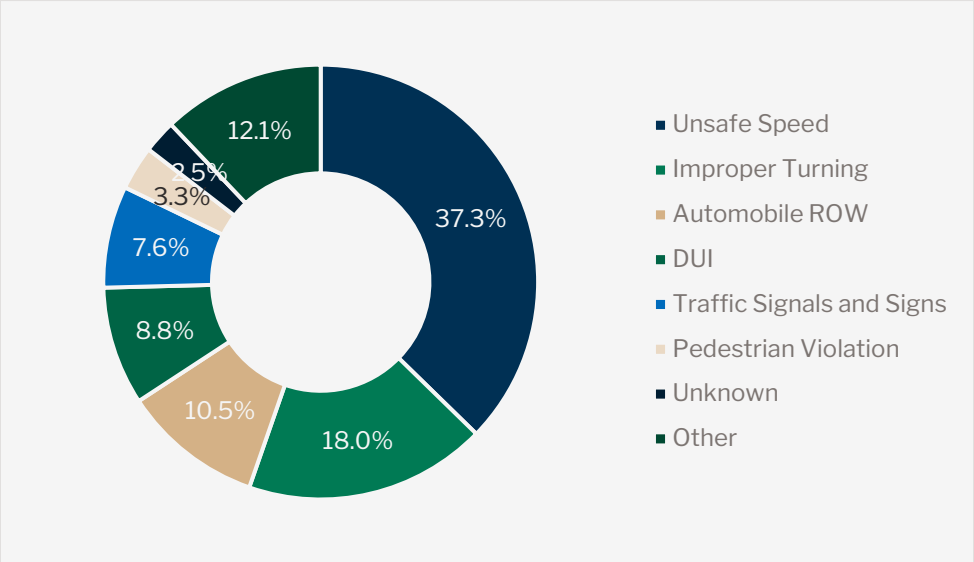
As shown in **Figure 13**, the top three primary crash factors behind the City's crashes were unsafe speed (37.3%), improper turning (18%), and right-of-way violations (10.5%). Nearly nine percent of crashes were a result of driving or bicycling while under the influence of alcohol or drugs. This matches the top factors for all of Riverside County.

Evaluating crash trends over time, **Figure 14** depicts the total number of crashes from 2017-2021. During this time period, roughly 100 crashes were observed annually in the City. Overall crash volume is trending down slightly; however, this may be a result of delayed data reporting and an overall reduction in vehicle miles traveled during the COVID-19 Pandemic.

For example, pedestrian collisions decreased from 2019-2021 with four crashes recorded annually as compared to eight in 2017. Collisions involving cyclists averaged three per year during this five-year period (**Figure 15**).

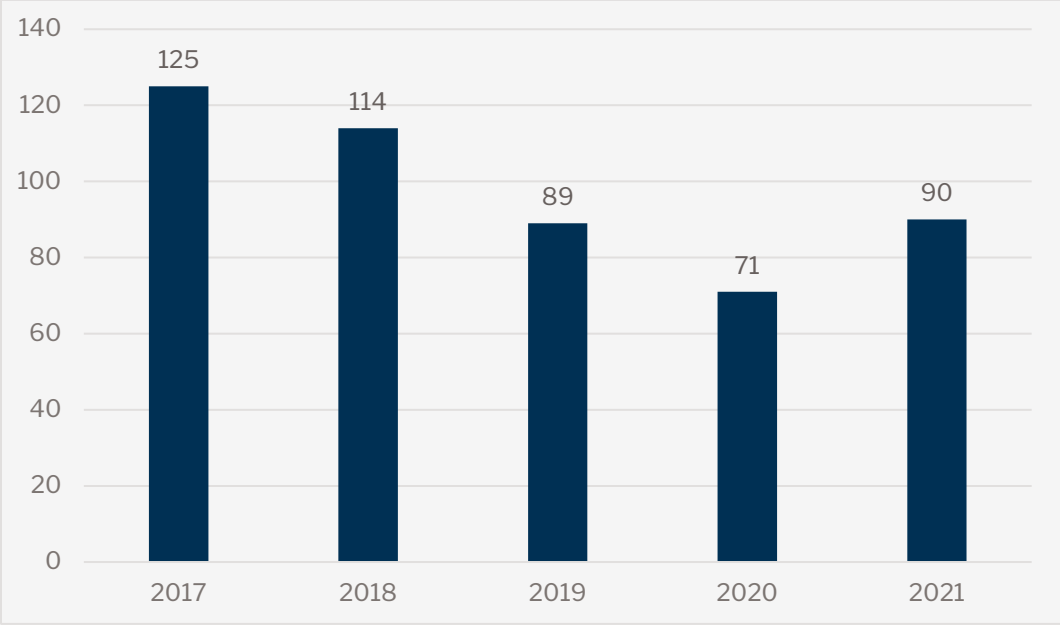
The aforementioned data considers only those collisions reported to law enforcement and recorded in the SWITRS system and may not represent the complete total of all crashes in the City as crashes may go unreported.

Figure 13 Primary Crash Factor for Collisions in Norco (2017-2021)



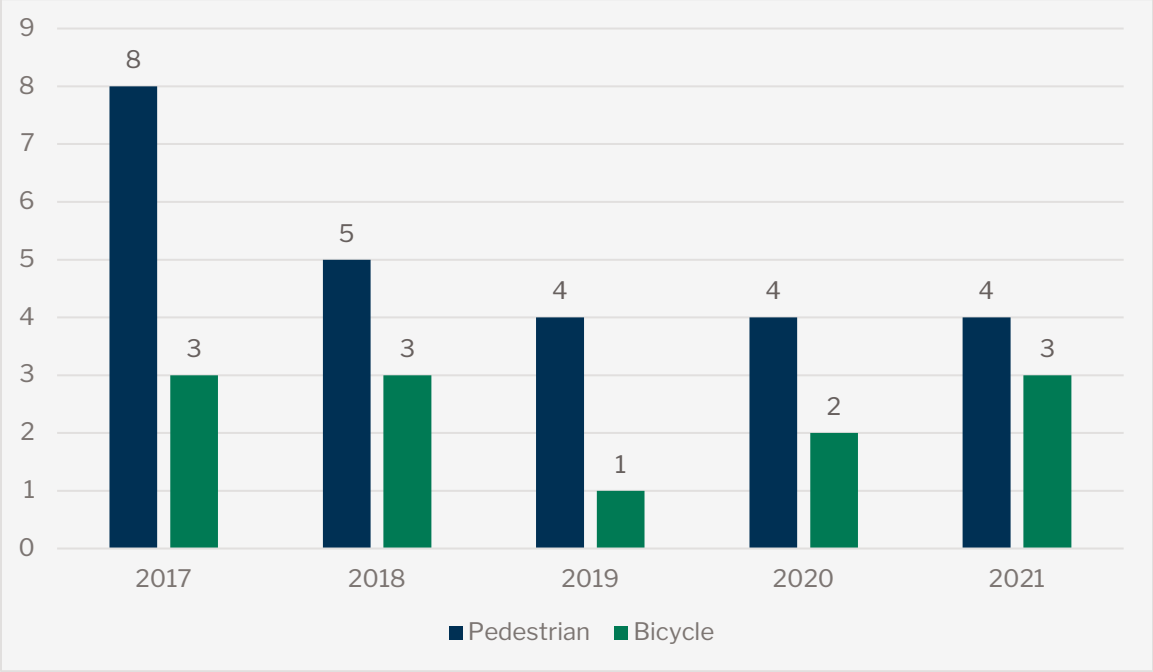
Source: UC Berkeley Transportation Injury Mapping System SWITRS (2017-2021)

Figure 14 Traffic Collisions by Year (2017-2021)



Source: UC Berkeley Transportation Injury Mapping System SWITRS (2017-2021)

Figure 15 Traffic Collisions Involving Pedestrians and/or Bicycles by Year (2017-2021)

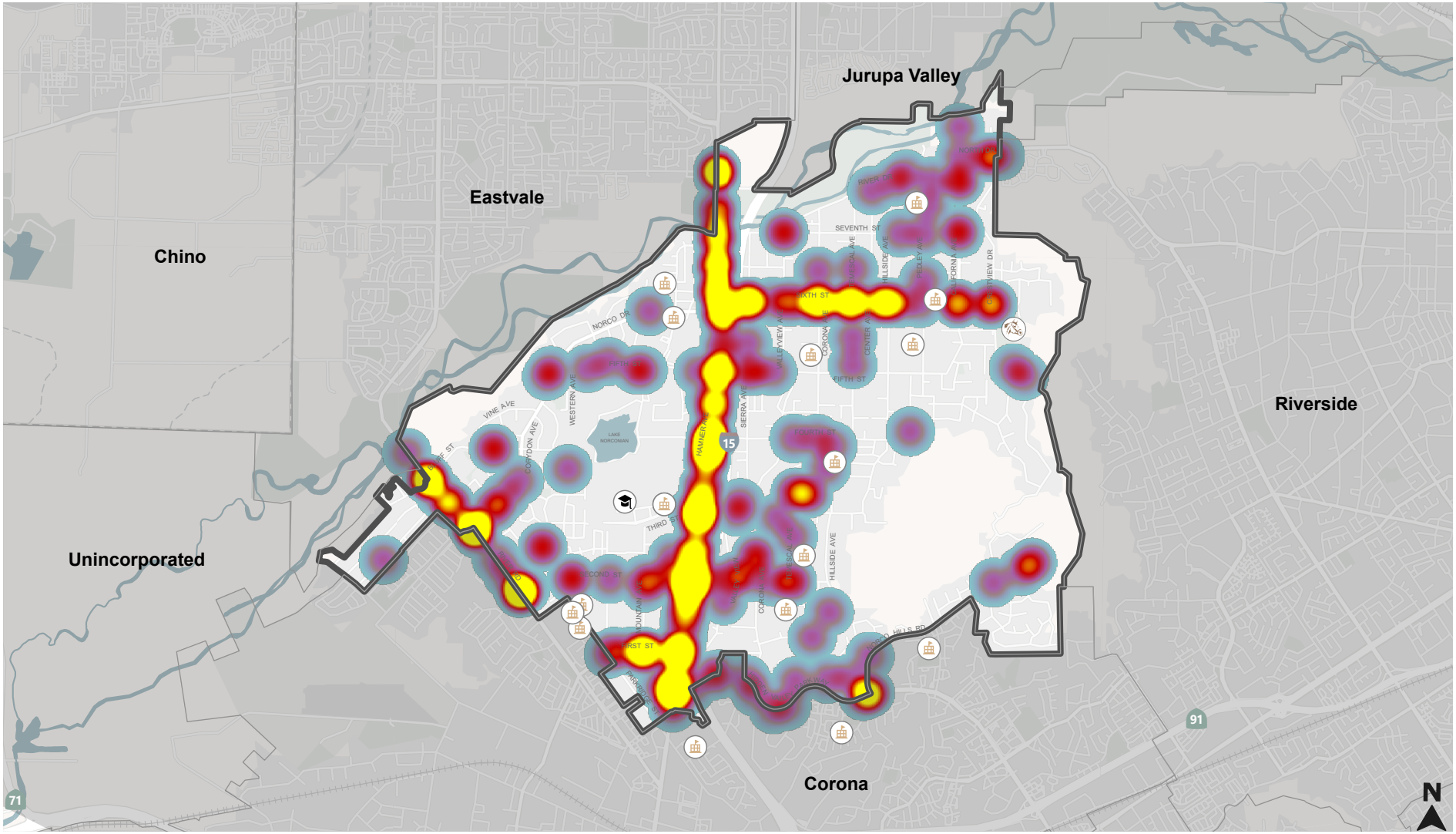


Source: UC Berkeley Transportation Injury Mapping System SWITRS (2017-2021)

Collision Density and Distribution

Collisions in the City of Norco are clustered along major arterials and at critical intersections in the Northeastern and Southwestern portions of the City. Most collisions occurred along the I-15 corridor at the Sixth Street, Second Street, and Hidden Valley Parkway interchanges, either on the freeway or at the adjacent access points. As the City considers upgrades for these interchanges, improvements should focus on addressing safety concerns and creating safe conditions for all road users.

Outside the I-15 corridor, collisions primarily occurred along Hamner Avenue, Sixth Street, and River Road. Hamner Avenue features multiple business access driveways, a two-way center left-turn lane, and long stretches between marked crosswalks. This creates significant opportunities for collisions and a generally unsafe environment as drivers must navigate high-speed traffic, a two-way center left-turn lane, and vehicles entering and exiting private driveways on both sides of the street. Additionally, the corridor lacks bike lanes and experiences high traffic volumes, creating challenges for non-vehicular traffic, namely bicyclists and pedestrians. The City should focus safety efforts on this corridor by updating policies in the General Plan to promote safe street design and operations. Collisions on River Road and Sixth Street occur primarily at intersections; as such, safety improvements at these key conflict points can help enhance safety. **Figure 16** shows the overall collision density throughout city limits, excluding collisions on I-15.



Schools
Norco College
Ingalls Event Center
City Limits

Fewer Collisions
More Collisions

Figure 16

Note: Collisions along Interstate 15 are excluded from this map.

Collision Density (2017-2021)

Pedestrian and Bicycle Collisions

There were 25 pedestrian-related collisions from 2017-2021 in the City of Norco, resulting in three fatalities and 26 injuries (including six severe injuries). Pedestrian crashes were far more common at night and were geographically clustered in the center of the City along Hamner Avenue and at the I-15 interchanges. The high travel speeds and limited pedestrian infrastructure on Hamner Avenue creates challenges for pedestrians traversing this corridor. SWITRS data does not distinguish between pedestrian and equestrian collisions, with equestrians being grouped into the pedestrian category for analysis purposes.

During the same five-year period, there were 12 reported bicycle collisions within the city limits, according to the SWITRS database. Of the 12 collisions, none of them resulted in fatalities; however, one resulted in severe injury. Collisions were primarily found on major arterial roads linking River Road, Hamner Avenue, Fifth Street, and Sixth Street; these streets lack bicycle infrastructure such as bike lanes or designated bicycle routes. Twenty-five percent of bicycle-related collisions were the result of the person biking on the wrong side of the road, while an additional 25 percent were caused by a driver completing an improper turning movement.

Evacuation Planning

With the growing threat of wildfires and other natural disasters, planning for an emergency evacuation is critical to ensuring the safety of the community. Furthermore, new State regulations described previously in this section (SB 99, AB 747, and AB 1409) require cities to review their evacuation plans and provide multiple evacuation alternatives for their communities. In response, the City of Norco relies on the Local Hazard Mitigation Plan (LHMP) to understand potential risks and plan for evacuation in the event of severe conditions. The plan currently ranks wildfire as a critically severe and likely hazard to the City. The eastern portion of the City ranks high or very high fire hazard. Flood risk in the City also ranks critically severe and likely, with potential for flash flood conditions in the City's creeks, washes, and channels. Most properties adjacent to the Santa Ana River are located within the 100-year flood plain, while properties adjacent to the City's network of channels have less than a one percent risk of catastrophic flooding each year, according to the Federal Emergency Management Agency (FEMA). The City has also developed an Emergency Operations Plan that includes community support from the Community Emergency Response Team (CERT) Program and resources for evacuating households with large animals.

There are a few constraints in the City that may limit evacuation capacity. Most notably, the City is bounded by the Santa Ana River to the north and only three bridges provide access to cross over the river (I-15, Hamner Avenue, and River Road). Residents, particularly in the eastern portion of the City, may experience evacuation challenges if they need to evacuate north due to limited roadway capacity. Southern and western evacuation routes are plentiful as Norco's street grid integrates directly with the street grid in Corona. Easterly evacuation is limited by the Norco Hills and topographic barriers.

MOVEMENT OF GOODS & HEAVY TRUCK TRAFFIC

Current Industrial Context

Major private sector employment industries in the City of Norco consist of educational services/healthcare (21.2%), construction (10.2%), retail trade (9.4%), and manufacturing (7.6%).[13] Apart from educational services/healthcare, these industries rely on access for heavy vehicles and trucks. Moreover, the Inland Empire region serves as a national logistics hub for goods moving through the Ports of Los Angeles and Long Beach. As of 2014, SCAG's Industrial Warehousing Report identified over 34,000 industrial warehouses in the SCAG Region, including more than 3,000 warehouses representing over 123.7 million square feet in Riverside County with projections (which have been realized) for an additional 40 million square feet.[14] The demand pressure for industrial warehousing grew significantly during the Pandemic and continues to gain market share over traditional brick and mortar retail shops. With ecommerce on track to reach more than 23 percent of the retail market share in 2023 (as compared to less than 10% in 2014), strong demand for industrial warehousing development is anticipated to continue due in large part to ecommerce and consumer expectations for same-day delivery of a wide range of products. Ecommerce requires about 20 percent more warehouse space than traditional retail because of the variety of goods and speed of delivery expected by consumers[15].

Within Norco, warehousing and industrial land uses are concentrated in the southwestern portion of the City and along the western side of Hamner Avenue south of Fifth Street, providing for relatively convenient access to the regional freeway system. Over seven percent of the City's land area, or 656 acres, is zoned for industrial uses ranging from flexible commercial/industrial zones to heavy manufacturing. The Gateway Specific Plan, adopted in 1992, has spurred much of the recent industrial development in the City with over 180 acres of the specific plan area zoned for industrial or commercial land uses.

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[13] https://data.census.gov/table?t=Commuting&g=160XX00US0651560&tid=ACSST5Y2021.S0804

[14] SCAG, *Industrial Warehousing in the SCAG Region*. 2018. Accessed on the web on September 12, 2023 at https://scag.ca.gov/sites/main/files/file-attachments/industrial_warehousing_report_-_revised_2018.pdf

[15] Prologis Research, *What's Next: Four Fources Shaping the Logistics Real Estate Cycle*. September 11, 2023. Accessed on 9/14/2023 on the web at: https://www.prologis.com/news-research/global-insights/whats-next-four-forces-shaping-logistics-real-estate-cycle

As much of this growth has occurred since 2000, the General Plan Update should consider changes to traffic (both vehicle types and volumes) and ensure the City's roadway network can safely handle high truck volumes.

Truck Routes

With I-15 bisecting the City of Norco, a high volume of trucks pass through the City to access industrial and logistics hubs in the Inland Empire. Many trucks traveling from Orange County and Southern Riverside County utilize I-15 to access industrial warehouses located in the region, notably in Eastvale, Ontario, and Rancho Cucamonga. Thus, the segment of I-15 north of State Route 91 (SR-91) and south of State Route 60 (SR-60) carries over 17,000 trucks daily representing ten percent of the total traffic on this segment (**Table 7**).

Table 7 Truck Traffic Volumes on Freeways (2019)

Location	Total Annual Average Daily Traffic	Truck Average Daily Traffic	Truck % of Total
I-15 at SR-91	187,000	10,491	5.61%
I-15 at Fourth Street	152,000	17,419	11.46%
I-15 at SR-60	219,000	17,958	8.2%
Source: Caltrans, Annual Average Daily Truck Traffic on the California State Highway System, 2019			

Outside of I-15, truck traffic in the City of Norco is regulated by a series of designated truck routes that funnel truck traffic on major arterials and away from residential communities. These routes are established by the City and codified in the current General Plan to minimize local street traffic volumes and lower potential damage to roadways caused by heavier vehicles.

Currently, the City's truck routes are:

- Hamner Avenue (in its entirety through the City)
- Sixth Street (from Hamner Avenue to California Avenue)
- California Avenue (From Sixth Street to North Drive)
- North Drive (in its entirety)
- River Road (in its entirety)

There are no freight rail connections within the City of Norco. The closest rail yards are located in Bloomington (Union Pacific Railroad) and San Bernardino (BNSF Railway). The closest air cargo facilities are located at Ontario International Airport and San Bernardino International Airport. All freight traveling to or from Norco is moved by truck.

NOTABLE LAND USES

The City of Norco is home to several unique land uses that directly impact the transportation system. These sites are major destinations in the City that can generate a significant number of trips on the street system, especially during special events. The General Plan Update process can address concerns that arise from these land uses including increased congestion and access concerns.

Naval Sea Systems Command & Lake Norconian

This facility is home to the Naval Sea Systems Command (NSSC), the U.S. Navy's independent assessment agent. The command is responsible for gauging the Navy's warfighting capability and conducting research and development on emerging military technology. The site is home to four mission critical laboratories that develop and review warfare systems, missiles, and other classified military equipment. The NSSC also owns the adjacent Lake Norconian. More than 1,200 civilian personnel and 2,000 contractors are employed at the NSSC in Norco, making it the largest employer in the City.[16] The facility is located immediately west of Hamner Avenue; however, there is no direct access to I-15, resulting in a large amount of local trips.

California Rehabilitation Center

The California Rehabilitation Center is a medium security prison located in Western Norco that has a capacity of 2,491 inmates. The facility also employs just over 1,000 employees, making it another key trip generator in the City. The prison is accessible from Fifth Street, which is nearly two miles west of I-15 and not directly accessible from the freeway. While there are currently no official plans to close the prison, the ongoing consolidation of the California prison system and the efforts by the City to promote the closure of the prison may create a large opportunity for redevelopment.

Silverlakes Sports Complex

Located in the northern part of Norco, the SilverLakes Sports Complex is a large privately owned multipurpose event venue that includes 24 full size soccer fields, five equestrian arenas, and a 10,000-person capacity concert facility. The facility hosts major events throughout the year including athletic tournaments, concerts, and equestrian events. The complex also has two restaurants and a private banquet facility.

[16] City of Norco FY 2021-22 Annual Comprehensive Financial Report

Site map of Silverlakes Sports Complex. Image Source: Silverlakes Sports Complex.

SilverLakes Sports Complex is adjacent to I-15 and Hamner Avenue, with access provided at a signalized intersection at Hamner Avenue and Citrus Street, as well as an unsignalized driveway at the north end of the property. The facility is a major draw for regional visitors and experiences periods of heavy congestion during sporting tournaments and special events. The General Plan Update should recognize the major regional draw of this facility and work to manage event traffic with adjacent cities.

Ingalls Event Center

The City-owned Ingalls Event Center is a multi-purpose recreational and event facility that consists of four different event spaces: a large rodeo arena, a banquet hall, an adjacent park, and the Veteran's Memorial Plaza that host many important community events throughout the year, including the Norco Fair, festivals, and various rodeo competitions. The complex is located in East Norco at the intersection of Sixth Street and Crestview Drive. As this facility is a center point in the community, the General Plan Update should work to preserve and enhance access to this site by expanding parking capacity and adjacent street capacity.

Norco College

Norco College is a two-year community college overseen by the Riverside Community College District located in the City of Norco. The campus serves over 16,000 students annually consisting of Norco residents and others from neighboring cities, such as Corona, Eastvale, Jurupa Valley, and Temescal Valley. The college is a major trip generator of both passenger and transit vehicles. Riverside Transit Agency's Route 3 provides direct service to the college, connecting students from the broader region to the campus. While the COVID-19 pandemic has shifted enrollment towards more online classes, on-campus enrollment is still a large share of the overall campus population. The City should continue to work on enhancing multi-modal connections to the college, ensuring education is accessible for City and regional residents.

OTHER KEY ITEMS

Transportation Improvement Funding

City of Norco Measure R

Locally, the City of Norco manages funding from its municipal sales tax measure, Measure R. Approved by voters in 2018, the one-cent sales tax generates approximately $8 million dollars a year to improve City infrastructure and provide critical City services. Much of the revenue has been directed toward transportation infrastructure preservation projects, including street repairs on River Road and Valley View Avenue, trail system maintenance, and other projects.

Projects utilizing Measure R funding are reviewed by an independent citizen oversight committee before being added to the City's Capital Improvement Program.

Riverside County Measure A

Measure A is Riverside County's local transportation sales tax program, managed by the Riverside County Transportation Commission (RCTC). The half-cent sales tax provides funding for transportation projects of regional significance, as well as public transit operations support. Twenty-nine percent (29%) of all Measure A funding must be allocated to local street and road improvements amounting to $876 million dollars for Western Riverside County cities from 1990-2020. The Measure is currently set to expire in 2039.

Measure A is intended to fund larger projects, such as capacity enhancements and active transportation projects. Future Measure A allocations are anticipated to fund interchange improvements at I-15 and expansion projects for the City's bikeway network.

California Senate Bill 1

The California Legislature approved Senate Bill 1 (SB 1) in 2017, also known as the Road Repair and Accountability Act. Financed by a 12-cent increase to the State gas tax, over $5.4 billion of funding is allocated towards transportation repairs and improvements statewide. SB 1 employs a "fix it first" philosophy where funds are prioritized for roadway repairs and restoration over capacity enhancements and new infrastructure. Roughly half of all SB 1 funding flows to local agencies with allocations of $1.5 billion annually for road repairs, $25 million for local planning grants, and $100 million for bike and pedestrian projects.

In the City of Norco, several projects have benefited from SB 1 funding, such as pavement preservation projects on I-15, the widening of the I-15 Northbound Second Street offramp to two lanes, pavement preservation and widening work on River Road, Second Street, Sixth Street, and Hamner Avenue, and multiple pedestrian safety projects. Future funding can be leveraged for other pavement preservation projects in the City and combined with Measure R funding to maximize improvements.

California Active Transportation Program

Created by Senate Bill 99, the California Active Transportation Program (ATP) consolidates many former grant programs for bike and pedestrian projects into one fund that supports new active transportation improvements on local roadways. The program has funded over 800 projects across the State, including 400 projects adjacent to schools as part of the federal Safe Routes to School program. Funding is administered by SCAG as the federally designated metropolitan planning organization (MPO) for the region.

The City of Norco has not yet been awarded any funding from the Active Transportation Program. As the City works to expand its bicycle and trail infrastructure, this funding source may serve as a potential resource for future projects.

Bipartisan Infrastructure Investment and Jobs Act

The federal government passed the Infrastructure Investment and Jobs Act (IIJA) in 2021, providing federal support for transportation improvements nationwide. The State of California expects to receive a total of $41.9 billion dollars for transportation investments over the next five years, including funding for active transportation, electric vehicles, safety, and road repairs.

Emerging Technologies & Trends

Transportation is an ever-evolving sector that is poised to rapidly change over the next several decades. New innovations in the way transportation is powered and delivered will transform how people get around, necessitating changes to the transportation infrastructure that supports mobility. This section outlines some of the new technologies to consider in planning for mobility through 2050.

Electric Vehicles

Electric vehicles are becoming increasingly common due to their environmental benefits and gradually decreasing purchasing costs, making them comparable to traditional gas-powered vehicles. In 2022, nearly 19% of all new cars in California were electric, and the state plans to prohibit the sale of new gas-powered vehicles in 2035.[17] As electric vehicles become commonplace, the City of Norco should consider developing policies that provide for vehicle charging infrastructure as the City currently has eight publicly available charging stations, including two fast chargers at City Hall. Additional locations will certainly be needed as charging demand grows. Moreover, City owned vehicles including public works equipment will likely need to be replaced; as such, the City can leverage grant programs to replace equipment with cleaner alternatives.

Autonomous Vehicles

Alongside the transition in the way vehicles are powered, autonomous vehicle technology is seeking to disrupt the way vehicles are operated. While this technology has been under

[17] https://www.gov.ca.gov/2023/01/20/california-zev-sales-near-19-of-all-new-car-sales-in-2022/

development for many years, California is leading the way with permits granted to 65 firms allowing for the testing of autonomous vehicles. The California Public Utilities Commission also granted operating permits to two autonomous vehicle operators in August 2023, further cementing this shift in vehicle operations. The full benefits of autonomous vehicles are still unclear; however, industry leaders anticipate reductions in congestion, greater efficiency in vehicle operations, and potential safety improvements.

The transition to fully autonomous vehicles is expected to take several decades and will require careful planning as the road will be shared between conventional and autonomous vehicles. Developing strategies to plan for this future while ensuring safety for all road users is critical and should be included in the General Plan Update. Additionally, roadway designs may need to be altered to ensure the safety of vehicle and non-vehicle users by separating uses when possible and replacing traffic infrastructure (e.g., traffic lights) with connected alternatives that better respond to roadway conditions. Parking demand will also likely decrease as autonomous vehicles will enable vehicle sharing where vehicles are utilized by multiple people and rarely sit idle (unlike how Uber and Lyft operate today).

Many researchers to anticipate trucks, and in particular long-haul trucks, will be the first sector of vehicles to move to driverless technologies. While driverless trucks could solve some current problems, such as truck parking supply shortages, they could also introduce new challenges, such as where to locate truck "hand off" facilities. These facilities are envisioned to provide a place for a trailer connected to a driverless tractor to be picked up by a tractor with a driver who would then drive the "last mile" to the delivery destination. The City should ensure that policies and goals relating to trucks account for these trends by promoting future truck parking or "hand off" locations, truck charging infrastructure, and safe street design.

E-Commerce Deliveries

The recent rise in ecommerce delivery has implications for truck traffic as an increasing number of deliveries are made on City streets. Delivery vehicles (most typically commercial vans) must utilize neighborhood streets to complete their deliveries. Most of these deliveries are made outside of peak periods, but they still contribute to the overall daily traffic volumes and vehicle miles traveled within the City. City policies that promote lighter delivery vehicles and shared e-commerce package pick-up points can help reduce impact.

Transportation Network Companies

Transportation Network Companies (TNCs), such as Uber and Lyft, have emerged in recent years as a popular alternative to driving and even public transportation. TNCs utilize web-based applications and a fleet of rideshare vehicles that serve riders on trips reserved online. Vehicles are currently operated by human drivers but are expected to transition to autonomous operation as the technology becomes mainstream, reducing costs and increasing the appeal of the service.

TNCs tend to reduce parking demand in the areas they serve, as traditional car trips are replaced with rideshare trips. At the same time, demand for curb space to drop off and pick up passengers increases. TNCs also result in potential increases in vehicle miles traveled as

some vehicles operate empty when in between trips. The City should evaluate current parking requirements and consider adding curbside drop off/pick up requirements or zones to safely accommodate TNC vehicles without disrupting traffic flow.

Mobility Hubs

Mobility hubs allow for multiple transportation modes to seamlessly interconnect, facilitating multi-mode journeys and better redundancy in the transportation system. Mobility hubs can range from small neighborhood serving spaces (that include features such as rideshare or micro transit drop-off/pick-up areas, shared bike stations, and local bus services, etc.) to large regional hubs (that include connections to rail transit, bus transfer facilities, bike repair stations, etc.). Both the RCTC Long Range Transportation Study and Short-Range Transit Plan identify multiple mobility hubs throughout the county and promote the trend to expand the features available at traditional transit stops.

Rendering of Vine Street Mobility Hub in Riverside. Image Source: Riverside Transit Agency.

While no mobility hubs are currently planned for the City of Norco, Norco College and the existing Sixth Street Park-and-Ride serve as potential sites for mobility hubs given their current connectivity to the transit system and potential to draw additional transit ridership. As transit services change, the City should consider exploring other mobility hub locations in both residential and commercial neighborhoods.

Microtransit

Operating like TNCs, microtransit is a technology-enabled, demand-responsive transit service that offers a more flexible alternative to traditional fixed route transit. Microtransit is seen as an evolution to traditional dial-a-ride and paratransit services as trips can be scheduled in close to real time and are available to all passengers, not just seniors and people with disabilities. Microtransit operates with small-scale vehicles and typically serves point to point trips, rather than relying on a single route. Services are pooled, meaning that rides may be shared if two or more passengers are travelling in similar directions. Microtransit can be found in a variety of urban, suburban, and rural contexts, including in the Hemet area of Riverside County (operated by Riverside Transit Agency). Typically for suburban and rural areas, microtransit services replace poorly performing bus routes.

Existing Riverside Transit Agency operated microtransit in Hemet, CA. Image Source: Riverside County Transportation Commission.

Norco serves as a potential candidate for micro transit services given its relatively rural character and limited fixed route public transit services. Micro transit can often provide more frequent service than traditional fixed routes in low population areas as service better matches actual demand. In the General Plan Update process, the City should consider alternatives to traditional fixed-route transit to increase overall coverage and flexibility.

E-Bikes

Electric bicycles (E-bikes) combine the flexibility and accessibility of traditional bicycles with the power and range provided by an electric motor. Longer trips that previously were difficult on bikes suddenly become possible with e-bikes. E-bikes have been growing in popularity over the past few years, especially among young teenagers who lack access to a personal vehicle. There are many safety concerns surrounding e-bikes based on their high speeds, a lack of driver training, and their heavier weight than a traditional bike.

Planning for e-bikes in the City of Norco is critical, as e-bikes generally will not be able to use existing equestrian trails. The high speeds and dust may distract horses utilizing the trail network, posing safety concerns. Looking ahead, the City should strongly encourage separating mode uses between trails and on-street bike lanes to ensure the safety of e-bicyclists, pedestrians, and horses.