



FUTURE CONDITIONS REPORT

West Route 66 Operational Assessment

DRAFT: FOR TAC APPROVAL

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MetroPlan is conducting this Operational Assessment on behalf our partners, the City of Flagstaff, Mountain Line, Coconino County, and the Arizona Department of Transportation (ADOT) to determine multi-jurisdictional solutions and projects to support the growth of the region.

INTRODUCTION

The Future Conditions Report relies on both the current Regional Plan 2030: Place Matters and the Regional Plan update as it relates to scenario A (or business as usual), a projection to 2045. While the update to the regional plan is concurrent with the Operational Assessment process, as more current information becomes available, it will be incorporated into the overall operational analysis. The following will review our *known* future growth and impacts on transportation systems, as identified in the current regional plan.

Through previous plans and studies, W. Route 66 has been identified as a key corridor for future growth, development, and network connectivity. Through the Regional Plan 2030, the corridor has been identified with the following policy objectives:

- **Great Street:** W. Route 66 has been identified as having potential for reinvestment, retrofit, and revitalization to make it more appealing to pedestrians (and shoppers), enhance transit potential, and make them safer.
- **Gateway:** Gateways provide the first impression people have as they enter the region and thus warrant special design considerations to reflect community pride and local design traditions. A Gateway Corridor has been identified for W. Route 66. However, a Corridor Master Plan has not been completed for this area.
- **Activity Center:** A mixed-use center that varies by scale and activity mix depending on location. Includes commercial, retail, offices, residential, shared parking, and public spaces. The below intersections have been identified as future activity centers.
 - Flagstaff Ranch Rd – *Future* Suburban Neighborhood Node.
 - Woody Mountain Rd – *Future* Urban Neighborhood Node.
- **Transition Area:** From Milton Rd to Woody Mountain Rd. has been identified as a transition area to improve and evolve through Great Streets and Activity Centers.

W. Route 66 provides a direct route to/from I-40, connects industry to the west, retail to the south, NAU and downtown to the east, and the community of Belmont to the west. Additionally, W. Route 66 supports trucking services that frequently deliver to the surrounding industrial sites and provides an emergency or alternate route when I-40 is closed.

Methodology

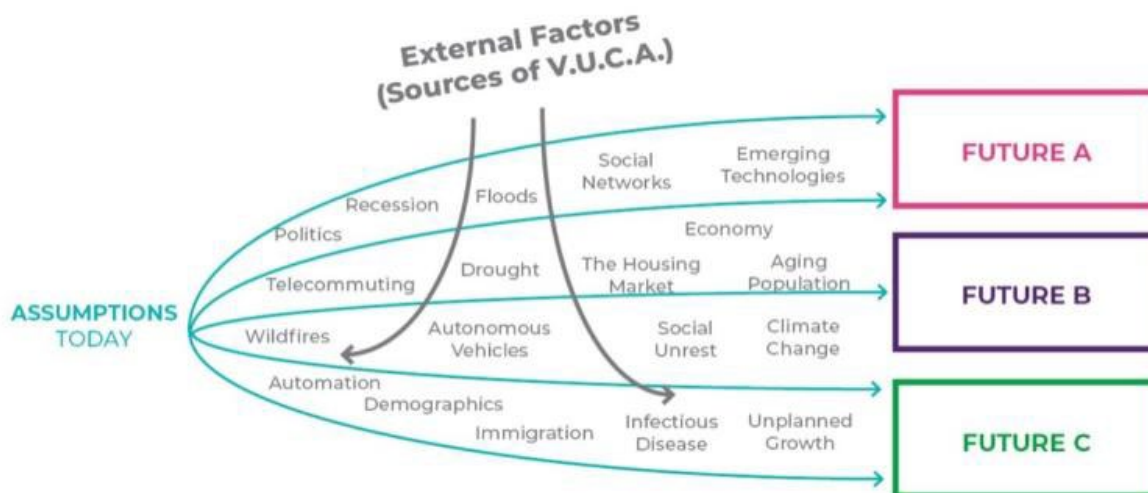
The operational assessment aims to work in tandem with the 2045 Regional Plan, which is currently being updated by the City of Flagstaff. This updated plan takes an approach of scenario planning, which analyzes multiple possible futures to meet some of the most pressing challenges of our time related to climate change, transportation, infrastructure, technology, economic development, and housing. This method is increasingly being used in urban planning projects because of its usefulness in times of uncertainty and complexity.

The regional plan update focuses on four distinct scenarios:

- *Scenario A – Business as Usual*
 - Development patterns and growth follow current trends with relatively low-density, single-family development throughout most of the city. New jobs and housing occur in rural and suburban areas on the outskirts of town, like the Airport/Fort Tuthill.
- *Scenario B – Complete Communities*
 - Moderate growth occurs outside of the central city by adding housing and jobs to undeveloped sites in rural and suburban neighborhoods. New roads, water, and sewer lines are added as well.
- *Scenario C – Urban Centers and Corridors,*
 - Development is focused in downtown and along major corridors like Rt. 66, Milton Rd, and 4th St. at higher densities than exist today. More concentrated development allows for improved transit service and safer options for walking and biking in areas where growth is occurring.
- *Scenario D – Neighborhood Infill.*
 - More compact housing types—such as Accessory Dwelling Units, duplexes, townhomes, and quadplexes are woven into existing residential areas, expanding housing options and affordability throughout the region.

While conducting the Operational Assessment, the Region Plan 2045 update identified **Scenario E** as the preferred moving forward in the Regional Plan development. Scenario E is a combination of the above scenarios with a more focus on scenarios C and D. Corridor solutions that perform better for Scenario E will be favored. However, the intent remains to find a solution that performs reasonably well in a variety of scenarios as the future remains uncertain.

FIGURE 1: REGIONAL PLAN 2045 - SCENARIO PLANNING DESCRIPTION



Scenario A: Business as Usual

Due to the complex nature of the currently updated Regional Plan, **these future conditions overviews will focus on the “Business as Usual” scenario.** This scenario sees development patterns and growth follow current trends with low-density, single-family development throughout most of the city. This scenario assumes no changes to what current zoning in the City of Flagstaff and Coconino County allow.

While the overview will only analyze Scenario A: Business as Usual. Traffic analysis for the full assessment will be applied for all four scenario conditions and the Preferred Scenario, E. This will ensure that all discussed futures are accounted for. (Appendix X – in progress)

COMMUNITY CONDITIONS

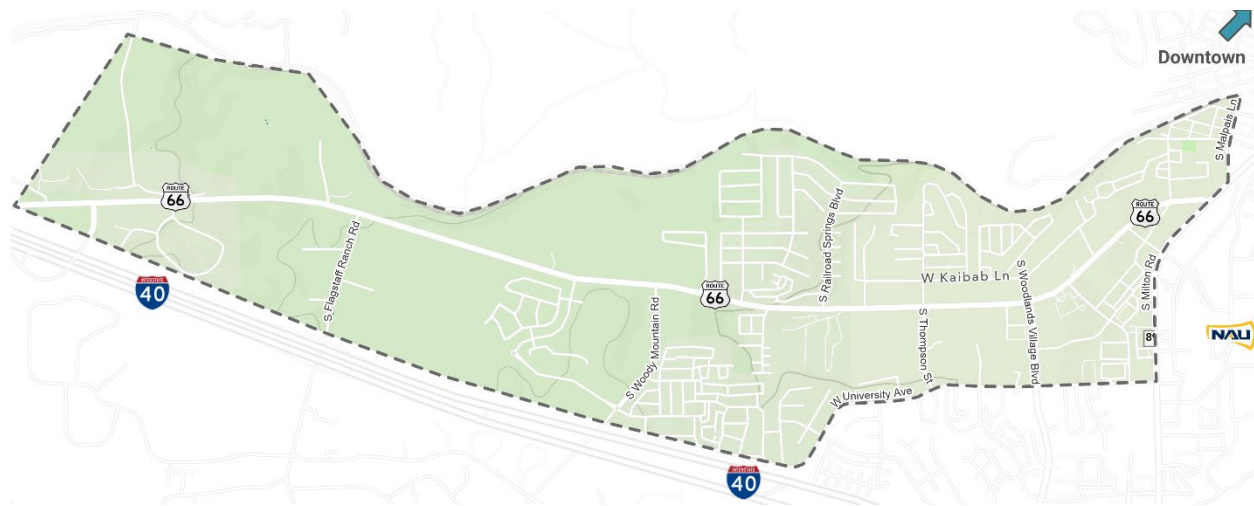
Review of community conditions involves identifying potential areas of population and employment growth, understanding the probable future of land uses along the corridor and the impact these factors have on the corridor and surrounding roadway system. A comprehensive understanding of growth is paramount for determining the need for improved access to new communities, jobs, education, healthcare, and so on. These aspects may help to guide future infrastructure needs, opportunities, and investments.

A well-rounded understanding of community conditions aims to:

- Integrate the surrounding street contexts into the corridor.
- Identify modal variables such as demand and capacity, the potential for crashes or conflict points due to demand, and access needs for all as the region continues to grow.
- Help the community see the larger picture of the corridor and determine a holistic approach to future transportation investment to support and balance all modes.
- Support employment opportunities along the corridor and understand the needs that come with such activities.
- Demonstrate the importance of complete access and networks for all modes.

Study Area

FIGURE 2: OPERATIONAL ASSESSMENT STUDY AREA



The study area is 4 miles in length from Interstate 40 (I-40) to Milton Road (Figure 2). The study area comprises the area based on Census Tracts surrounding West Route 66. The study area follows the BNSF train tracks as the northern boundary, moving south to I-40 on the west extent until meeting University Ave. The area then follows University Ave eastward to Milton Rd, and continues northward on Milton to Malpais Road, until it meets the BNSF train tracks. This study area attempts to capture areas most directly reliant on West Route 66 for accessing origins and destinations.

Future Land Use

FIGURE 3: FUTURE LAND USES: 2030 REGIONAL PLAN

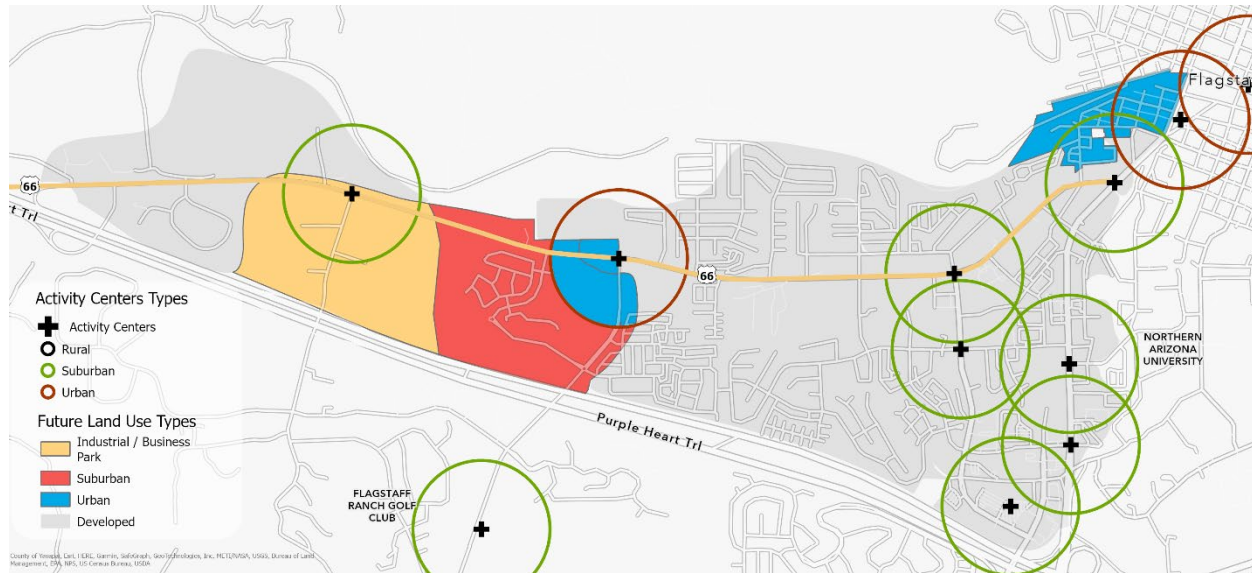
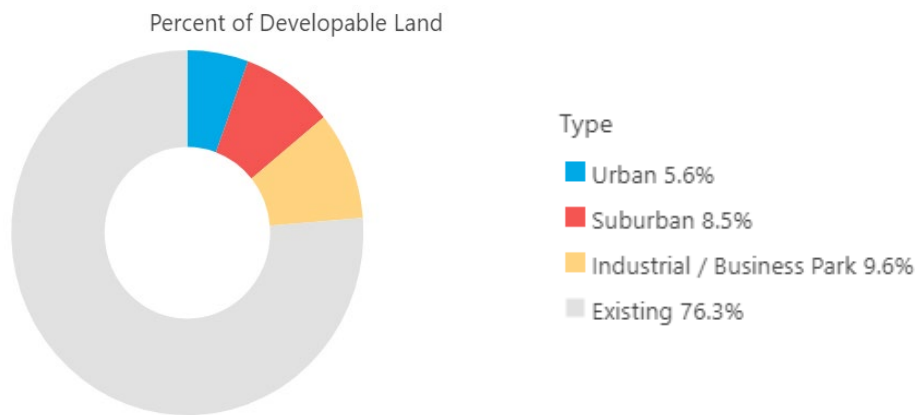


FIGURE 4: REGIONAL PLAN 2030: PERCENT OF DEVELOPABLE LAND



Numbers are approximate from the 2014 Regional Plan, and may not reflect ongoing development, infill development, or redevelopment.

As identified in the Regional Plan 2030, the land on the east end of the WR66 region has been developed. Development has begun in some areas of identified developable land, such as the Timber Sky development near the urban activity center at Woody Mountain Road, which is expected to be completed in various phases by 2030.

Urban Growth

Urban growth is expected north of the W Route 66 / Milton intersection, within the La Plaza Vieja Neighborhood, as well as within the activity center walkshed at W Route 66 and Woody Mountain.

The 2030 Regional Plan defines urban areas as having a higher density of people, residences, jobs, and activities. Buildings are typically taller and close to the street, streets and sidewalks are in a grid pattern

of relatively small blocks, the area is walkable, and a variety of services and goods are available. These areas are served by public transportation and with various forms of shared parking (lots, garages, etc.) and street parking.

As per the 2030 Regional Plan, new development should be built to appropriate scale and design, perpetuating a unique sense of place. Moderate increases in density and intensity within activity centers and pedestrian sheds of urban designated neighborhoods are appropriate.

Urban activity centers may include a mix of uses, a mix of housing types, mixed price ranges, walkable, transit-oriented designs, and may include regional commercial or neighborhood commercial designations.

Suburban Growth

Suburban growth is concentrated to the Southwest of W Route 66 / Woody Mountain. Much of this growth is currently under development as Timber Sky.

As per the 2030 Regional Plan, new development of suburban areas should have medium to low densities of people, residences, jobs, and activities. The streets and sidewalks should vary in pattern, the area is drivable to access homes and jobs, yet walkable by special pedestrian facilities like the Flagstaff Urban Trail System (FUTS). Additionally, some services and goods are available to the residents, and the area may have access to public transportation.

Suburban activity centers may include vertical or horizontal mixed-use with a mix of any businesses, retail, residential, offices, medical services, etc. These activity centers should serve the surrounding neighborhoods. A suburban activity center may serve a Regional Commercial or Neighborhood Commercial scale.

Industrial / Business Park growth

Industrial/ Business Park growth is concentrated adjacent to Flagstaff Ranch Road. Currently, sparse industrial facilities such as Bimbo Bakeries and Swire Coca-Cola exist in this region. This area is expected to see an increase in industrial facilities.

As per the 2030 Regional Plan, **Light Industrial/Business Park** development is intended to provide locations for a variety of workplaces that develop as a business park setting or integrated into a commercial mixed-use project as part of an activity center. These projects are to be designed and developed as buildings with attractively landscaped outdoor spaces and continue the vitality and quality of life in adjacent residential neighborhoods. Other supporting uses can be included that complement the primary workplace uses, such as restaurants, hotels, childcare, and convenience shopping if included as part of an overall planned development. Sites designated for this category should have good access to existing or planned transportation facilities and be compatible with adjacent land uses.

Additionally, **Light-Medium Industrial** is intended to provide a location for a variety of work processes and workplaces such as light industrial uses; manufacturing, warehousing, and distributing; indoor and outdoor storage; and a wide variety of heavy commercial and industrial operations. Uses in this category are typically involved in the secondary processing of materials into components, the assembly of components into finished products, transportation, communication and utilities, wholesaling, and warehousing. Transportation requirements are usually met by truck, although rail and air transportation may be utilized as well. These facilities need to be developed with viewsheds in mind.

Activity Centers

Numerous **activity centers** have been designated, where most growth is expected to take place. As defined in the Regional Plan, activity centers are mixed-use areas where there is a concentration of commercial and other land uses typically defined by a pedestrian shed. Activity centers are the appropriate locations for higher-density residential development, such as mid-rise and apartment buildings. They include a high degree of pedestrian and bicycle connectivity.

Land Availability and Suitability Study (LASS)

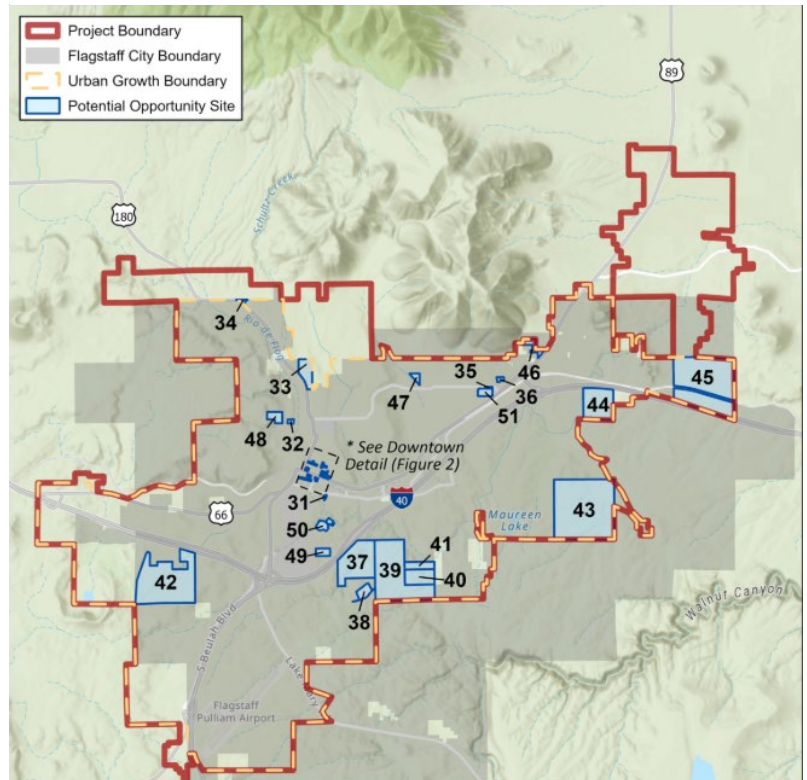
The LASS is a land inventory study to identify what lands are left to develop or redevelop as residential. Additionally, the study will determine what opportunities and/or barriers are for development or redevelopment. The finding of this study is identifying and assessing “opportunity sites” from the resulting net buildable land inventory. These are sites that present unique opportunities for the creation of housing.

(Note that the LASS is currently in *draft form*)

The LASS identified vacant and underused parcels along W. Route 66 and analyzed access to water and sewer, storm infrastructure, road access, transit, and active modes to determine if any residential opportunity site presented itself. No opportunity sites were identified in the study (Figure 5).

The study does provide an inventory of vacant or underused lands for residential, commercial, and industrial lands. While no opportunity sites are listed along the corridor, the underutilization of these lands may be invested in the future as growth continues.

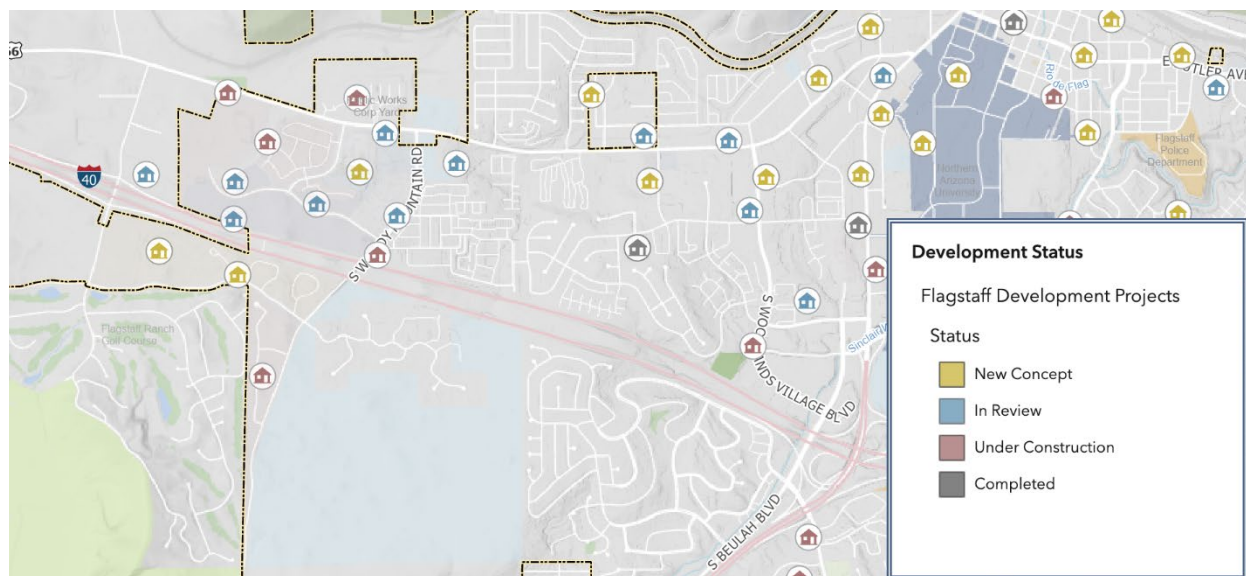
FIGURE 5: LASS OPPORTUNITY SITES MAP



Future Developments

City of Flagstaff Developments

FIGURE 6: DEVELOPMENT STATUS WITHIN THE CITY OF FLAGSTAFF



SOURCE: [HTTPS://GIS.FLAGSTAFFAZ.GOV/PORTAL/APPS/SITES/#/OPENDATA/APPS/0502DBAE9B7340AFA3D24F18A16EB0EE/EXPLORE](https://gis.flagstaffaz.gov/portal/apps/sites/#/opendata/apps/0502DBAE9B7340AFA3D24F18A16EB0EE/EXPLORE)

Future development may utilize many development types, including multiple types of housing, industrial, commercial, and other facilities. This type of development will inform the look and feel of the corridor and its transportation impacts. Certain land use types, such as apartments, contribute to density which can make them easier to serve by transit. Other types, such as Hotels, may serve more auto-centric uses. A mix of uses may contribute to a more pedestrian-friendly environment and may encourage alternate transportation modes. As previously identified, population impacts will also contribute to demand in the region. The following development information has been provided by the [City of Flagstaff’s Development Status GIS Portal](#).

For the corridor, there are currently 514 residential units, including both single-family and multi-family dwellings that are under construction. Under development review are several developments that include housing, affordable housing, industrial, and commercial, for a total of 512 housing units, 3 commercial properties, 2 subdivisions, and a 248-room hotel.

The corridor is divided into four distinct segments along the roadway based on the rural, suburban, and urban nature of each (Figure 7).

FIGURE 7: CORRIDOR BY SEGMENT



Segment 1: I-40 to Flagstaff Ranch Rd. (*Rural*)

Segment 2: Flagstaff Ranch Rd. to Woody Mountain Rd. (*Transitioning from Rural to Suburban*)

Segment 3: Woody Mountain Rd. to Woodlands Village Blvd. (*Suburban*)

Segment 4: Woodlands Village Blvd. to Milton Rd. (*Urban*)

The following provides an overview of current and anticipated development by segment.

Segment 1 | Development Jurisdiction - Coconino County

Along West Route 66:

- 21,000 SF Grace Community Church

Along Flagstaff Ranch Road:

- A battery storage facility associated with an APS substation. No size information is available, the site plan shows approximately 5 parking spaces.
- A 25,000 SF distribution center/office project
- A 5,000 SF commercial showroom/office project
- A 44,000 SF RV storage project
- A 90,000 SF self-storage project
- A 5,000 SF warehouse project

Segment 2 | Development Jurisdiction - City of Flagstaff & Coconino County

Table 1 summarizes the development status of Segment 2. This area is transitioning from a rural character to a suburban character as demonstrated by the abundance of new single-family housing.

TABLE 1: SEGMENT 2 DEVELOPMENT STATUS

STATUS	DEVELOPMENTS	TYPE	UNITS
UNDER CONSTRUCTION	Orion at Timber Sky	Single-Family	89
	Aries at Timber Sky	Single-Family	35
	Adora at Timber Sky	Single-Family	35
	Adora 2	Single-Family	39
	Sirius at Timber Sky	Single-Family	63
	Timber Sky – Block 5	Single-Family	101
	Timber Sky – Block 6	Subdivision	50
	Aries at Timber Sky – Block 7B	Single-Family	16
	Presidio Tract M	Condos	39
	The Wedge	Single-Family	47
IN REVIEW	Timber Sky -Block 2	Subdivision	2
	Woody Mountain Apartments	Apartments (Affordable)	221
	Sky Cottages	Multi-Family	202
	Liv Timber Sky	Single-Family	89
NEW CONCEPT	Gore Kendrick Peak Parking Expansion	Additional Parking	

Segment 3 | Development Jurisdiction - City of Flagstaff

Segment 3 is identified as suburban in character but sits on the edge of the urban area to the east. This segment is experiencing some growth in the form of industrial and commercial along W. Route 66.

TABLE 2: SEGMENT 3 DEVELOPMENT STATUS

STATUS	DEVELOPMENTS	TYPE	UNITS
IN REVIEW	1683 Self Storage	Industrial	106,000 sq. ft. 3 Stories.
	Homewood Suites	Commercial	5-story, 154 rooms
NEW CONCEPT	KC HiLites	Commercial	
	Flagstaff Front Climbing Club	Fitness Facility	
	Federal Courthouse	Office	

Segment 4 | Development Jurisdiction City of Flagstaff

Segment 4 is well developed with long-standing businesses and shopping centers. Development is focused on commercial with potential for some residential and mixed-use just off the corridor.

STATUS	DEVELOPMENTS	TYPE	UNITS
IN REVIEW	Hyatt House	Commercial	4-story, 94 rooms
	Route 66 Auto Plaza	Commercial	5000 sq. ft.
NEW CONCEPT	Oxendale Kia Addition	Renovate and addition	9,061 sq. ft. addition
	Arrowhead Village	Residential (Mobile Homes)	33
	Flagtown Grounds	Mixed-use	

Anticipated Developments:

The following developments are preliminary in nature. Below is a brief description of the known uses of the developments. As of the writing of this report, no formal developer applications/transportation impact analyses have been submitted for these development projects.

Carson Park is a mixed-use project on 34 acres of land, split into 2 phases, including a 19,000 sq Ft commercial development with 22 apartments and 20 townhomes. Additionally, the second phase will include 205 homesites. The site is proposed to be accessed by two driveways on Route 66. A TIA is required and is expected to be completed soon.

McCallister Ranch is a City of Flagstaff Sustainability Office development. The Office of Sustainability plans to license a portion of the McCallister Ranch site for 12 years as part of their [Urban Farm Incubator program](#). This program is anticipated to launch in Fall of 2024. The Urban Farm Incubator program seeks to increase the availability of accessible land for urban agricultural use. The licensee will be required to engage the public with the space through food systems-focused educational workshops, tours, and

volunteer days. Further development may include the following. However, no funding or timelines have been determined.

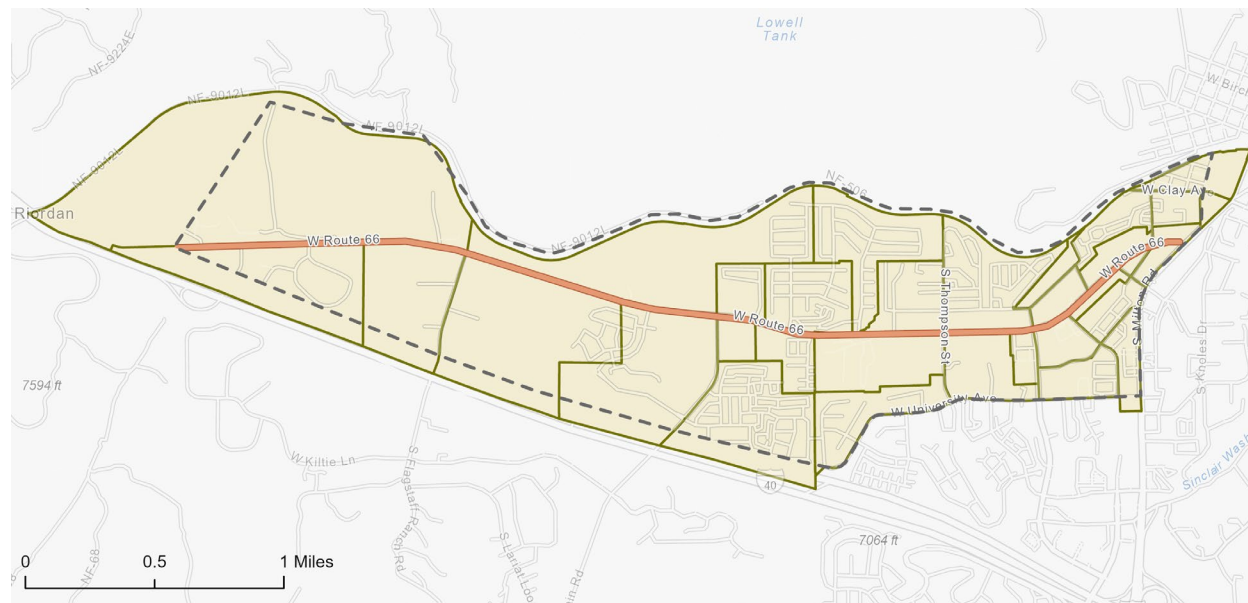
- The City's Beautification, Arts, & Sciences team has plans to implement parking spaces and interpretive signage in the next few years to develop the space for further engagement.
- Historic Preservation is advocating for the old foreman's house to be used as an educational center in the future.
- The City's Parks, Recreation, Open Space and Events (PROSE) has a park planned for the adjacent property. However, this park is not expected for another 10 years.

United States Federal Courthouse this project is in Concept Plan Review by the City and will occupy two parcels at 1535 and 1609 W. Route 66. It is anticipated to be 6,597 sf courthouse and adjacent parking lot.

Population and Employment Projections

Traffic Analysis Zones (TAZ)

FIGURE 8: TAZ (GREEN OUTLINE) ON TOP OF THE STUDY AREA (DASHED GREY LINE)



Traffic Analysis Zones (TAZs) are geographical areas used in transportation planning and traffic engineering to analyze and model transportation patterns. These zones are typically delineated based on several factors such as land use, traffic flow, and other relevant considerations. TAZs play a useful role in predicting future population and employment trends. TAZs facilitate spatial analysis by breaking down a region into manageable units for understanding existing land use patterns.

TAZs form the basis for transportation models, enabling the simulation and prediction of future traffic patterns and travel behavior. By incorporating factors like population growth and employment trends within each zone, we can better estimate the impacts of future transportation infrastructure.

It is important to note that due to the complex nature of the Regional Plan being currently updated, population and employment TAZ projection overviews will only analyze Scenario A: Business as Usual of the 2045 Regional Plan. This scenario assumes decisions in the future will follow current trends as identified in both the Regional Plan 2030 and the Regional Transportation Plan (Stride Forward). While the overview will only analyze Scenario A: Business as Usual, traffic analysis will be applied for all scenario conditions. This will ensure that all discussed futures are accounted for.

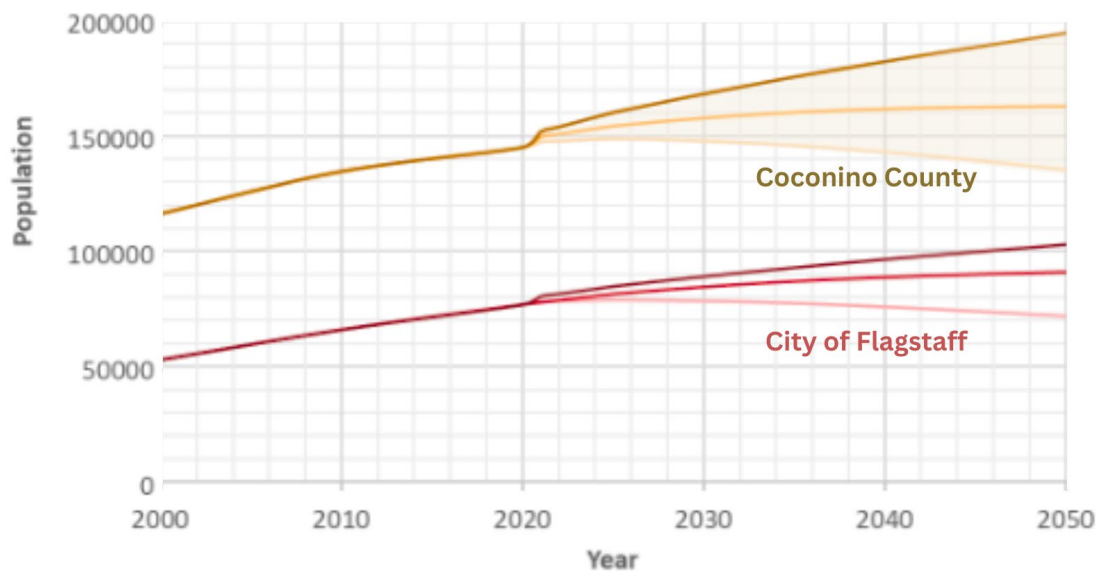
Population

Population projections are a key element of understanding variables for the corridor. Population projections help assess the future demand for transportation services and infrastructure within the corridor and any anticipated changes in travel patterns, commuting behaviors, and overall transportation needs. Given the amount of residential and commercial development along the corridor, we can expect an increase in population that will impact travel needs and behaviors. This proactive approach helps ensure that the roadway can efficiently serve the evolving needs of the community.

As of the 2020 United States census, the population of the City of Flagstaff was 76,831.

Coconino County expects populations between 130,000 and nearly 200,000 residents, whereas the City of Flagstaff may see populations between 70,000 to 100,000 residents (*Arizona Office of Economic Opportunity (OEO)*)

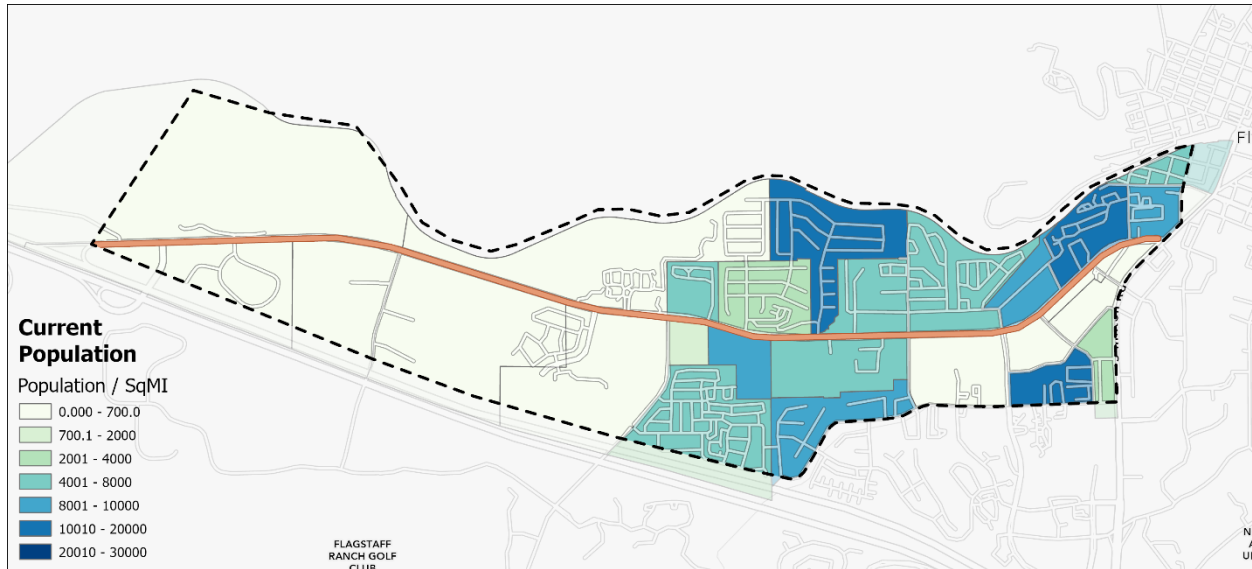
FIGURE 9: POPULATION PROJECTIONS THROUGH 2050 FOR COCONINO COUNTY AND CITY OF FLAGSTAFF – REGIONAL PLAN 2045 GROWTH REGIONAL SNAPSHOT



The following maps provide a comparison of the current population density for the TAZ versus the Scenario A projected population. Figures 9 and 10 provide current and Scenario A, while Figure 11 demonstrates the differences between these scenarios.

Current Population Density

FIGURE 10: CURRENT POPULATION DENSITY BY TAZ



Future Population Density (Scenario A)

FIGURE 11: FUTURE POPULATION DENSITY BY TAZ

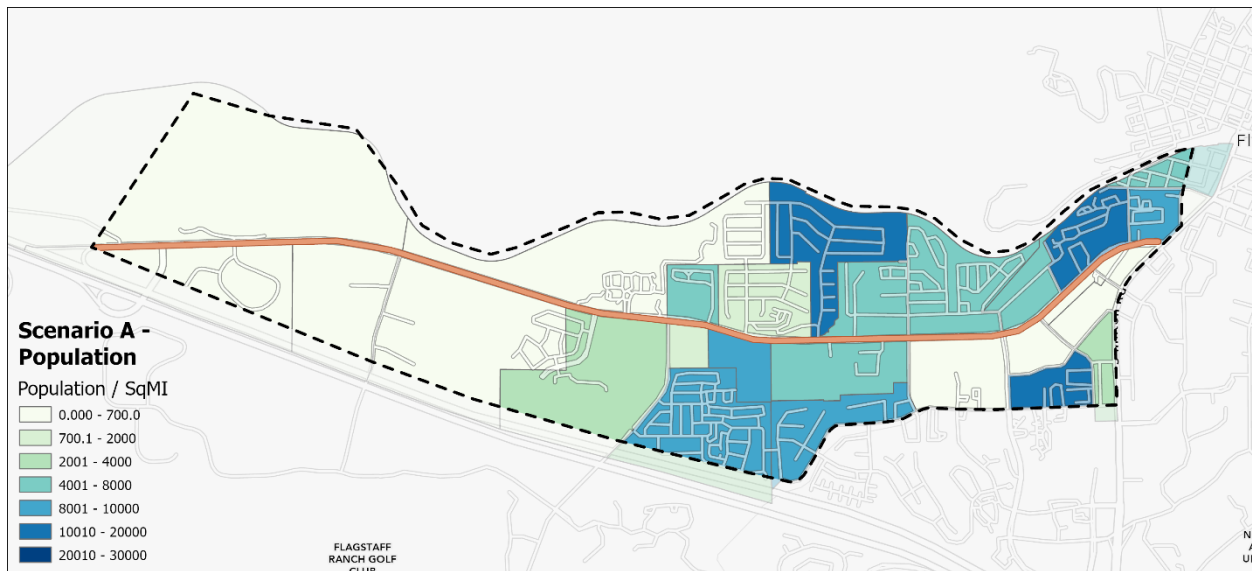
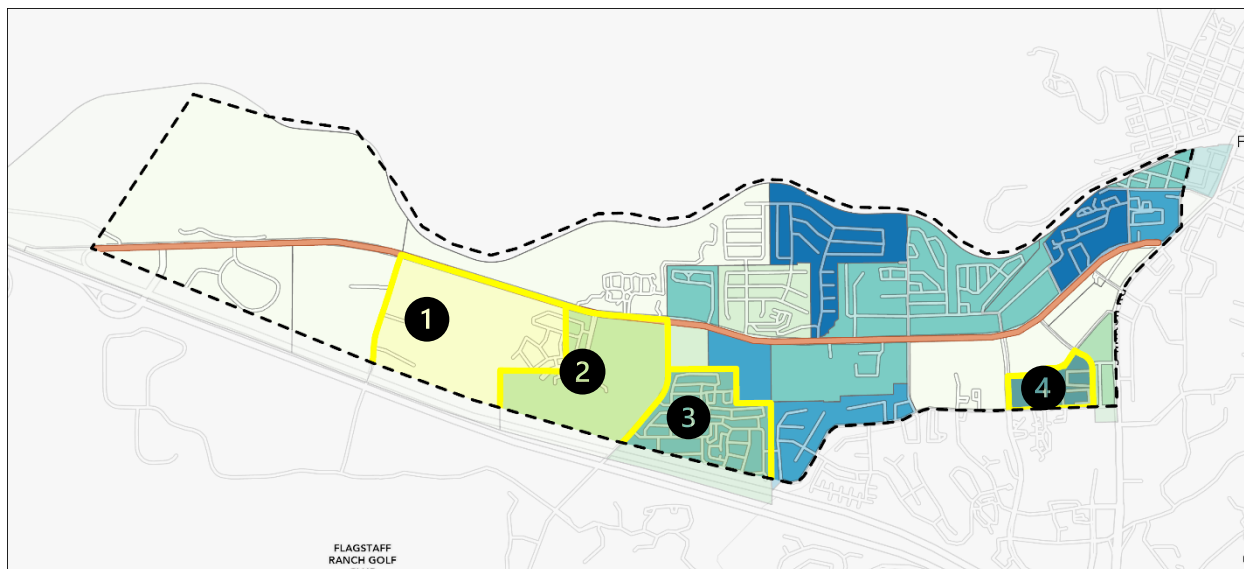


Figure 11 references areas of significant projected population density difference between the above current conditions and Scenario A (Business as Usual). Highlighted are areas of predicted significant population density differences between current conditions and Scenario A. The areas numbered 1, 2, and 3 and 4 are currently in development and will support a mix of housing, commercial, and industrial development, thus their population increase will be significant to the corridor.

Population Density Difference

FIGURE 12: POPULATION DENSITY DIFFERENCE BY TAZ



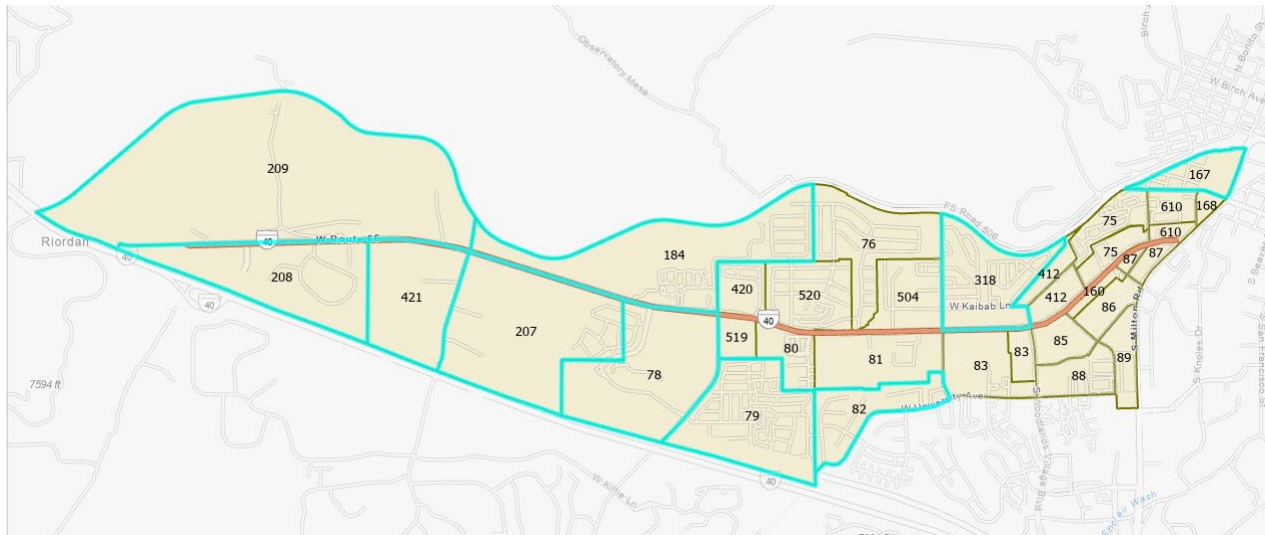
Housing

Scenario A assumes development patterns and growth follow current trends with relatively low-density, single-family development. This scenario assumes no changes to what current zoning in the City of Flagstaff and Coconino County allow. It is likely that in alternate future predictions, the distribution of housing stock could look vastly different, including higher percentages of single-family attached or multi-family dwellings.

Figure 12 demonstrates the predicted housing differences between the current conditions and Scenario A by TAZ. This comparison reveals most of the new housing stock may take the form of single-family detached.

Additionally, TAZ 79 and 318 are predicted to see single-family attached increases. Slight increases in multi-family dwellings in select areas are also predicted in TAZ 79 and 318. This scenario sees housing spread throughout the corridor, with greater concentrations of growth towards the west extent of the project area.

FIGURE 13: HOUSING BY TYPE – DIFFERENCE (CURRENT TO SCENARIO A)



In the following table, the “TAZ” column correlates to the labeled zones on the above map.

TAZ	Single Family Detached			Single Family Attached			Multi Family		
	Current	Scenario A	Difference	Current	Scenario A	Difference	Current	Scenario A	Difference
78	0	312	312	0	0		0	0	
79	323	576	253	11	15	4	0	2	2
82	185	191	6	166	166		0	0	
167	63	73	10	40	40		44	44	
184	0	2	2	6	6		0	0	
207	1	80	79	0	0		0	0	
208	7	20	13	0	0		0	0	
209	9	35	26	0	0		0	0	
318	5	8	3	0	23	23	0	2	2
421	0	24	24	0	0		0	0	
TOTAL	593	1406	728	223	250	27	44	48	4

Note: TAZs without changes were omitted to better represent areas of predicted change. TAZ 318, while does have permanent residents, is considered a mobile home park, and thus has few residences classified as Single Family. In TAZ 318, there are 384 units classified as mobile homes.

Employment

Economic Collaborative of Arizona, or ECoNA, created a 5-year Strategic Plan for economic growth in Northern Arizona, including a SWOT analysis, a method for identifying and analyzing internal strengths and weaknesses and external opportunities and threats that shape current and future conditions and help develop strategic goals. The ECoNA region covers Coconino County, including the City of Flagstaff, Winslow, Camp Verde, and Sedona. Their most recent plan ‘Forging the Future: An Economic Development Roadmap for Northern Arizona,’ published in July 2023, provides forecasted employment increase in the Northern Arizona region.

Employment in the ECoNA region is expected to continue to grow over the next ten years. Employment is forecasted to increase from 71,500 jobs in 2023 to 79,900 jobs by 2033, an increase of approximately 8,400 jobs (forecast from Lightcast Q2 2023). 60% of these new jobs are forecasted to be in Flagstaff.

Flagstaff is the only urban center within Coconino County and is expected to account for nearly 90% of all of Coconino County’s employment growth (ECoNA, 2023).

West Route 66 will be impacted by this employment increase. As discussed, the Flagstaff Ranch Road area should continue to see increased industrial activity. The area will also see increased hospitality and other commercial-related services, as designated activity centers and current zoning.

FIGURE 14: CURRENT EMPLOYMENT DENSITY – TRAFFIC ANALYSIS ZONES

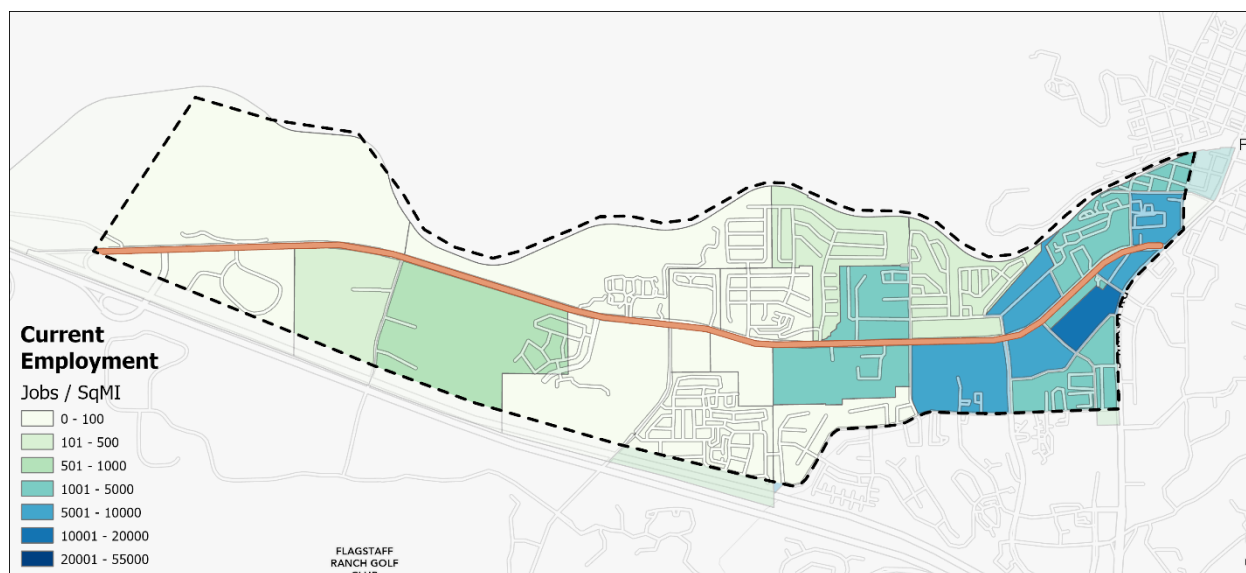


FIGURE 15: FUTURE EMPLOYMENT DENSITY (SCENARIO A) – TRAFFIC ANALYSIS ZONES

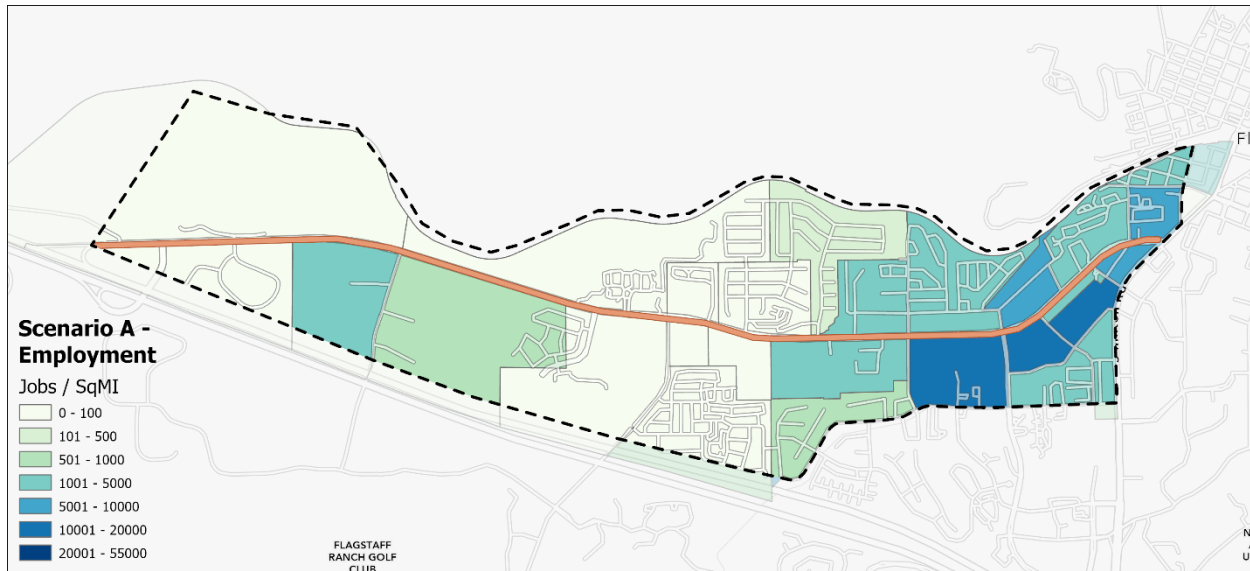


Figure 15 references areas of significant projected employment density differences between current conditions and Scenario A (Business as Usual). Highlighted are significant employment density differences between current conditions and Scenario A. The areas numbered 1 to 3 capture where noticeable employment changes will occur.

Area 1 is predicted to grow with increased industry plus the addition of office and retail, while Area 2 will incorporate more industrial uses, and Area 3 will provide a mix of employment opportunities (Figure 15). Table 3 provides further employment details by sector.

FIGURE 16: EMPLOYMENT DIFFERENCE

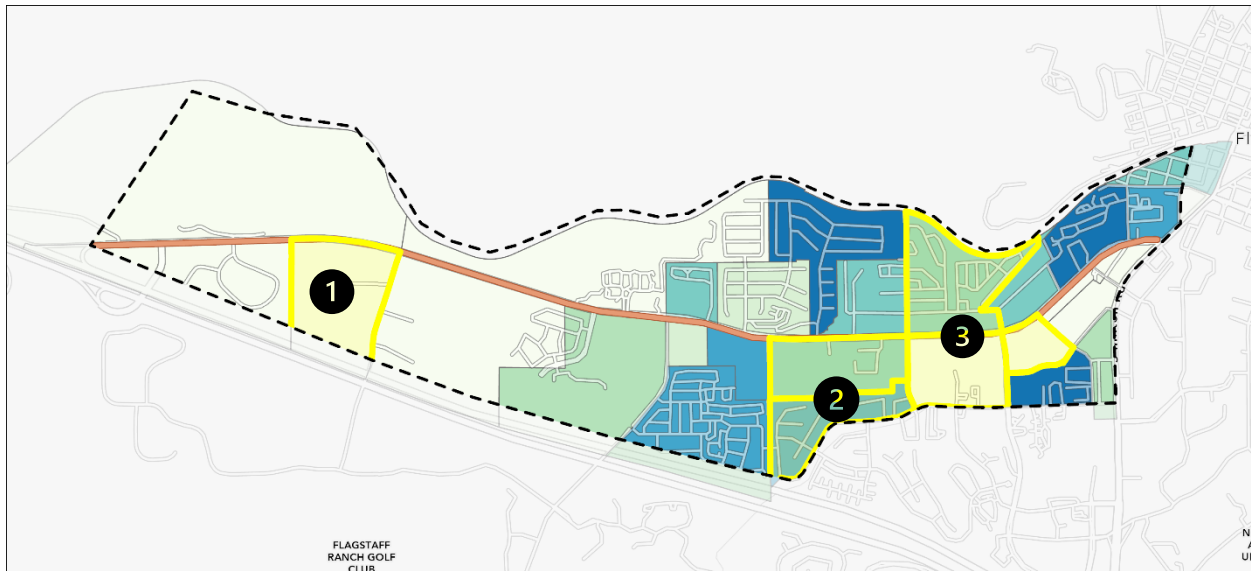


FIGURE 17: EMPLOYEES BY SECTOR – DIFFERENCE (CURRENT TO SCENARIO A)

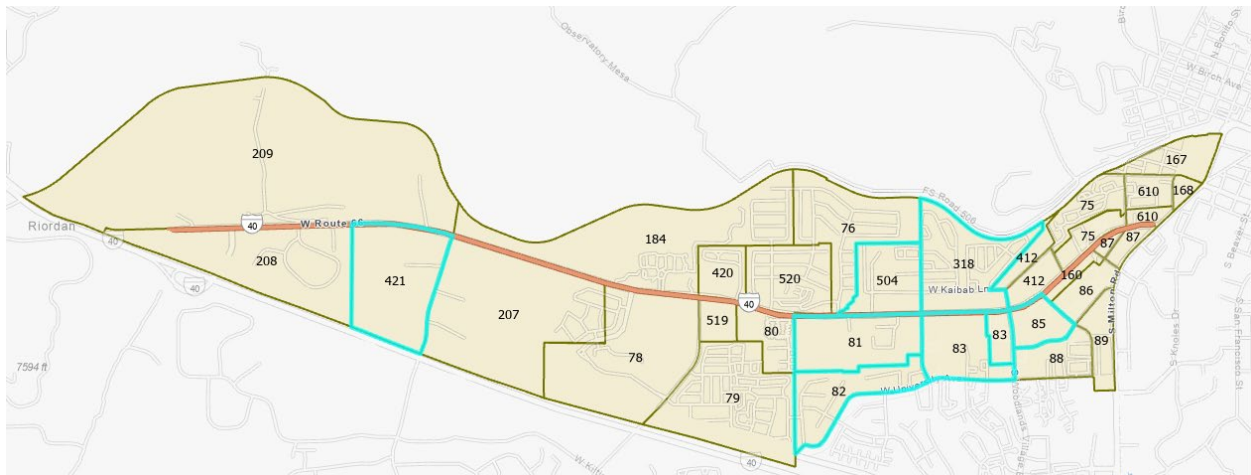


TABLE 3: CHANGE IN EMPLOYEES BY SECTOR

TAZ	Retail			Office			Industrial			Public		
	Current	Scenario A	Change	Current	Scenario A	Change	Current	Scenario A	Change	Current	Scenario A	Change
81	-	2	2	-	2	2	303	355	52	-	4	4
82	-	2	2	-	2	2	-	51	51	-	4	4
83	290	315	25	462	521	59	130	178	48	-	14	14
85	265	268	3	47	50	3	35	124	89	-	6	6
318	-	84	84	-	200	200	-	2	2	-	14	14
421	-	35	35	-	56	56	23	607	584	-	46	46
504	57	66	9	155	171	16	29	31	2	-	2	2
TO TAL	612	772	158	664	1002	338	520	1348	828	0	90	90

Note: TAZs without changes were omitted to better represent areas of predicted change.

Predicted Employment differences between current conditions and Scenario A reveal most of the job growth in this region may be in the industrial and office sectors. Specifically, most of the industrial increase may take place along Flagstaff Ranch Road, in TAZ tract 421, as well as dispersed industrial activity moving east along the corridor. Office job growth is predicted most in TAZ 318, near the current Westglen Mobile Home Park. Additionally, notable growth may take place directly south of the mobile home park, as well as along Flagstaff Ranch Road. Retail job growth roughly follows office job growth areas. Public sector growth is most predicted in TAZ 421, along Flagstaff Ranch Road. Scenario A assumes development patterns and growth follow current trends. This scenario assumes no changes to what current zoning in the City of Flagstaff and Coconino County allows. It is likely that in alternate future predictions, the distribution of jobs across sectors may look different.

TRANSPORTATION CONDITIONS

The Transportation Section serves as an exploration into the future of this corridor. Anticipating the evolving needs of our community, this section is dedicated to analyzing key factors that could significantly influence the corridor in the years to come.

Why Are We Reviewing This?

This assessment is crucial for several reasons:

Anticipating Integration of Surrounding Street Context:

By proactively considering the integration of the surrounding street context, we aim to anticipate the interactions and reliance of surrounding areas on West Route 66. This foresight ensures that our transportation solutions are not just reactive but seamlessly adapt to the evolving needs of the community.

Future Population Changes and Modal Variables:

As we look to the future, understanding how population changes will shape modal demand is paramount. We strive to identify potential shifts in volume-to-capacity ratios, foresee conflict points, and proactively address safety concerns to create a resilient and adaptive transportation infrastructure.

Holistic Vision for Future Transportation Investment:

The assessment enables the community to envision a future where transportation planning is comprehensive and holistic. By factoring in future projections, we can articulate a strategic and balanced approach to future transportation investments which includes encouraging the use of walking, biking, and public transit by creating safe and complete networks.

Supporting Future Jobs and Access:

We look ahead, envisioning the demands and requirements of West Route 66 to facilitate the support of jobs along the corridor. Access is evaluated with a future-oriented perspective, ensuring that the transportation infrastructure aligns with the evolving requirements of employers, including access to employees, customers, and goods.

Dynamic Community Conditions Shaping Future Investments:

Acknowledging the dynamic nature of our community, this assessment recognizes that future transportation investments are tied to evolving community conditions. By identifying these variables, we set the stage for adaptive and responsive solutions that align with the unique characteristics of our community.

Fostering Complete Networks for Future Modes:

Emphasizing the importance of complete networks, our focus extends beyond the present to ensure that all modes can access the corridor effectively in the future. This anticipatory approach aims to enhance connectivity, accessibility, and functionality.

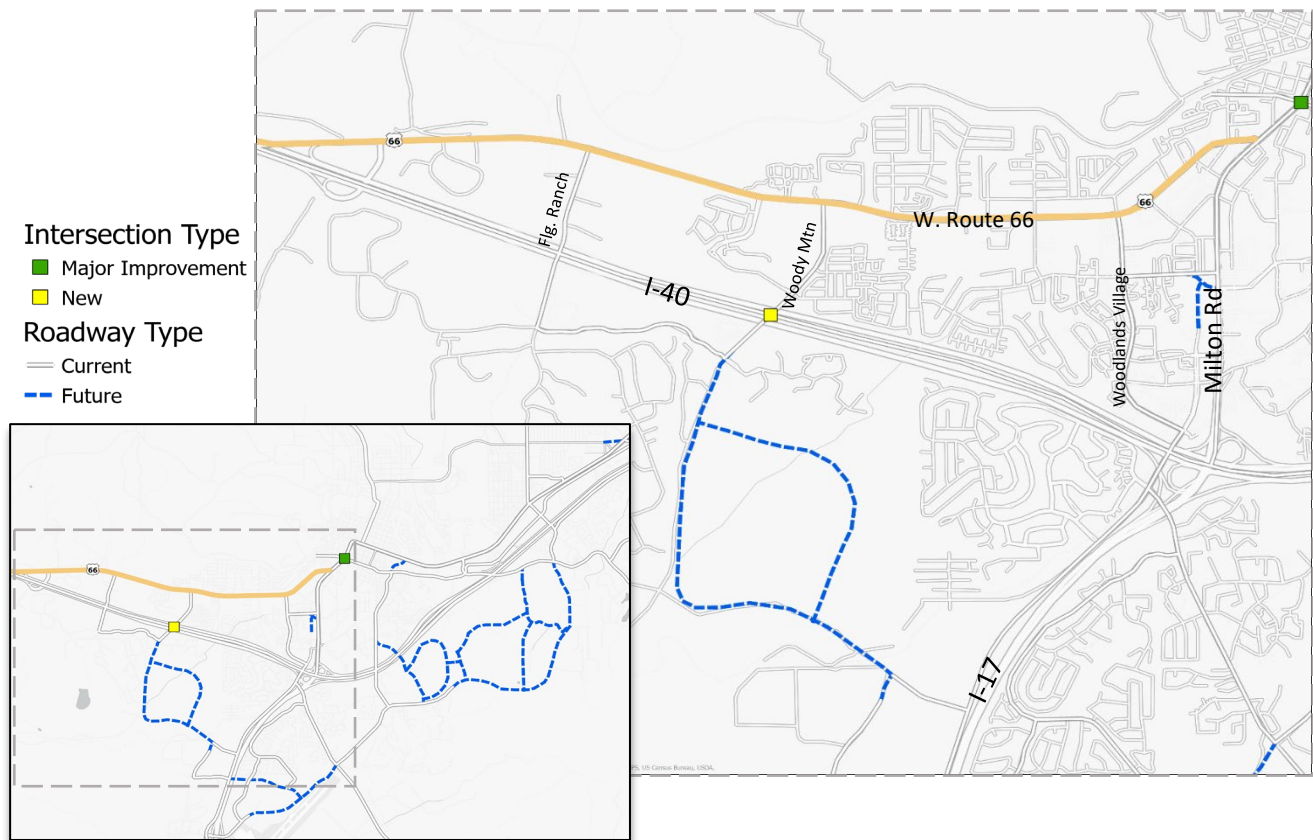
Roadway Buildout Plan

Through previous plans and studies, the roadway buildout plan has identified new roadways to support future growth and improve circulation throughout the city (Figure 17). The overarching goal is to establish a southern loop around the city with improved north-south connections to improve the lack of arterial connectivity in the region.

The connection of Woody Mountain Road to Beulah and the planned extensions to JW Powell with connections to I-40, Lake Mary Road, Lone Tree Road, and Fourth Street aim to address this lack of connections, by providing greater system resiliency, and supporting new communities under development.

The new connections to I-40 and Woody Mountain Road will significantly impact access to and from the W. Route 66 corridor. Additionally, this new connection can work as a bypass should Interstate 17 not be accessible due to major incidents or congestion.

FIGURE 18: ROADWAY BUILDOUT PLAN: 2030 REGIONAL PLAN



Traffic Impact Analyses

Traffic Impact Analysis (TIA) is the evaluation of a proposed land development or public transportation investment on surrounding traffic patterns and transportation infrastructure. Across the corridor, six TIAs have been completed. A majority of the active TIAs are residential, mixed-use, or hospitality related.

TIA's are required by the City of Flagstaff and ADOT, the West Route 66 jurisdictional roadway owner. The TIA study areas and boundaries are defined by these agencies based on the development type and size. The TIA process involves a comprehensive evaluation of several factors:

Traffic Volume and Patterns:

Evaluate the anticipated increase in traffic volume and changes in traffic patterns. These influence the design and capacity requirements for on-site and off-site transportation infrastructure for the developer.

Capacity Analysis:

Assess the capacity of existing roadways and intersections to manage additional traffic generated by the development. For the developer, it may necessitate modifications to the project design to align with transportation capacity requirements. For communities, it identifies areas where infrastructure improvements are needed to accommodate increased demand.

Safety Assessment:

Identify potential safety hazards and assess crash risks. Developers may be required to implement safety measures to mitigate identified risks. For communities, it aims to enhance overall road safety, minimizing the likelihood of crashes and associated community concerns.

Infrastructure Planning:

Inform the design of transportation infrastructure, including roads, intersections, and traffic control systems. The developer's project design must align with local and state transportation planning goals. The developer is further responsible for a financial contribution toward identified and City/State approved transportation improvements. Enhances overall infrastructure, improving traffic flow and accessibility for the community.

Regulatory Compliance:

Ensure compliance with local and state regulations and standards. Adherence to regulations is essential for developers to obtain permits and approvals. Ensures that the development meets established standards, contributing to the overall well-being of the community.

Alternative Transportation Options:

Explore options beyond private vehicle use, such as public transit, cycling, and pedestrian infrastructure. May influence developers to include alternative transportation amenities such as sidewalks, bike lanes, and connections to the FUTS system. These improvements can be mandatory both on and off the development site. Enhances community accessibility and promotes sustainable transportation options.

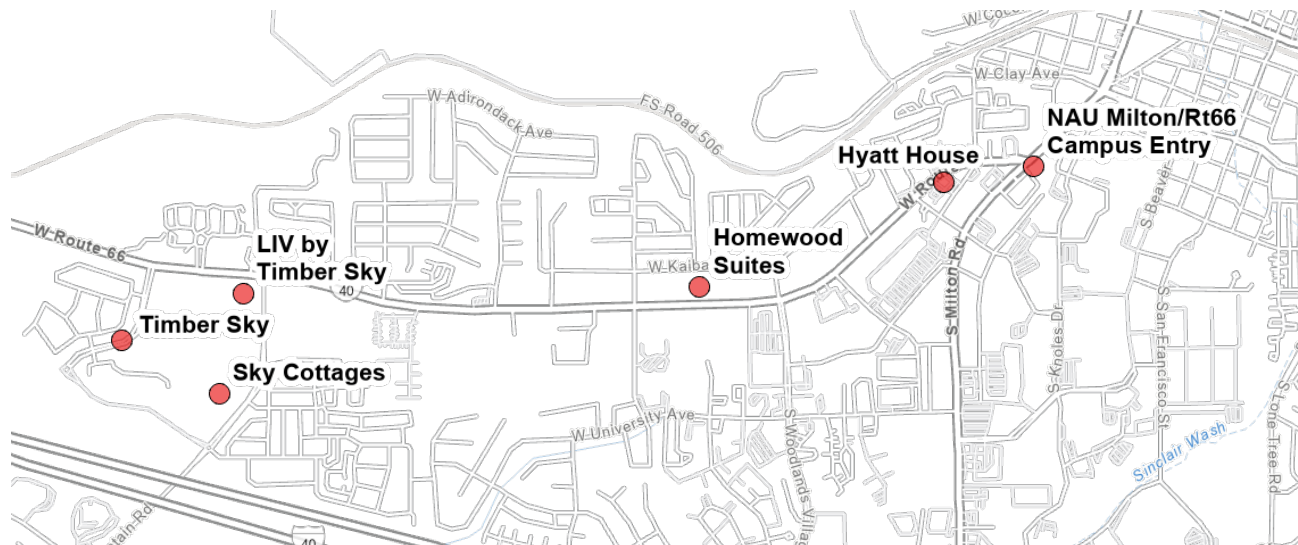
For transit, within the TIA process, there are no formal requirements. However, when applicable a TIA may identify site access to bus ops and reference the Mountain Line's 5-Year plan.

The above captures the primary elements of the City’s TIA process. Some processes can include the following.

Environmental Impact:

Evaluate the environmental consequences of increased traffic, such as air pollution and noise, and identify measures to mitigate environmental impacts. This ensures that the community is not adversely affected.

TIA & Pre-Scoping Overview



Future Developments	Type	Location	Rooms/Units
Homewood Suites	Hotel	North between Thompson and Woodlands Village	140
Hyatt House	Hotel	Southwest corner of Riordan	94
LIV by Timber Sky	Multi-Family	Southwest corner at Woody Mtn Rd	214
Sky Cottages	Multi-Family	Southwest corner at Woody Mtn Rd	200
Timber Sky	Residential Mixed	Southwest of Woody Mtn / Rt 66	655 Single Family 645 Multi-Family
NAU Milton/Rt 66 Campus Entry	Welcome Center, Retail, Office/Academic Space	Northeast corner at Milton Rd / Route 66 within the NAU campus	N/A

Homewood Suites

This site is expected to have minimal impact on traffic in the area. No changes are needed for the roads or the site itself to manage the traffic from the proposed development. The analysis shows that the site driveway will operate with satisfactory condition during peak hours.

Recommendations: To comply with ADOT’s request for limited driveway access, a physical device like a median island is recommended to prevent prohibited left-turn movements. Additionally, a right-turn deceleration lane is recommended based on ADOT criteria. The low

traffic from the site is not expected to necessitate signalization at the nearby intersection, as confirmed by both the August 2021 ADOT study and this current analysis.

Site Plan: W. Route 66 will be widened to the ultimate 5-lane cross section, with the addition of a right-turn lane into the site.

Hyatt House

The project site will be accessed from two existing driveways to the northeast (Metz Walk) and northwest (W. Route 66). A TIA is not deemed necessary as the peak hour trips will not surpass 100 additional trips. Results of the Level of Service (LOS) analysis for the driveway in both proposed morning and afternoon conditions indicate that the LOS will remain unchanged during peak travel hours.

Recommendations: None.

LIV Timber Sky (2023)

The development will not provide new external roads. Instead, the development must construct half-street improvements to Woody Mountain Road and Route 66 along its frontage.

Recommendation: A signal is deemed necessary at the intersection of Woody Mountain Road and Route 66 based on the warrant analysis. Existing underground equipment is in place for signal construction.

Site Plan: W. Route 66 will be widened to the ultimate 5-lane cross-section, with the addition of a right-turn lane into the site.

Sky Cottages

The development is anticipated to generate approximately 1,472 daily trips with 92 trips (21 in/71 out) generated during the AM peak hour and approximately 109 trips (69 in/40 out) generated during the PM peak hour.

Recommendation: The TIA recommends that sight visibility triangles be designated. Because of the recommendations from Timber Sky development for intersection improvements at Woody Mountain Rd. No additional recommendations were made to that intersection.

Timber Sky (2016)

This development is planned to be constructed over four phases. Access to the new community will be available at three locations: (1) will be to Woody Mountain, and (2) will be to W. Route 66.

Recommendations:

- It is recommended that the intersection of Woody Mountain Road and Route 66 be improved by signalization. A traffic signal needs assessment documented herein indicates that traffic volumes could warrant this signal as early as with completion of Phase 2 in 2022.
- The left turn area between the public works yard and Access B be stripped with a two-way left turn lane to maximize the storage available to each driveway meeting their needs during their peak hours.
- It is recommended that the intersection of Railroad Springs Boulevard and Route 66 be improved by signalization.

- It is recommended that the intersection of Woodlands Village Boulevard and Route 66 be improved with the installation of a second westbound through lane east of the intersection.

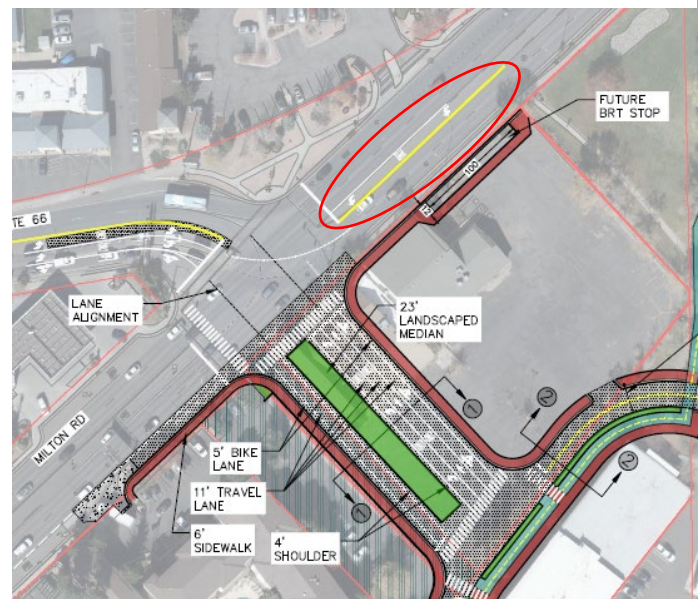
NAU Milton/Rte. 66 Campus Entry

This study examined the traffic impact of a new connection from Milton Road to the NAU campus, factoring in potential development. *This study is a preliminary document to support a future TIA process. No formal TIA has been submitted to the City of Flagstaff or ADOT.*

Traffic projections align with Milton Road corridor studies, maintaining acceptable service levels through 2027. The new connection will provide pedestrian, bicycle, and transit access to NAU, while not providing a significant direct connection for vehicular traffic, thereby minimizing the impact on the existing traffic operations of Milton Road. *Recommendation:* No off-site improvements are deemed necessary, but ADOT guidelines suggest considering a right-turn pocket from northbound Milton Road to the new connection and minor signalized intersection changes.

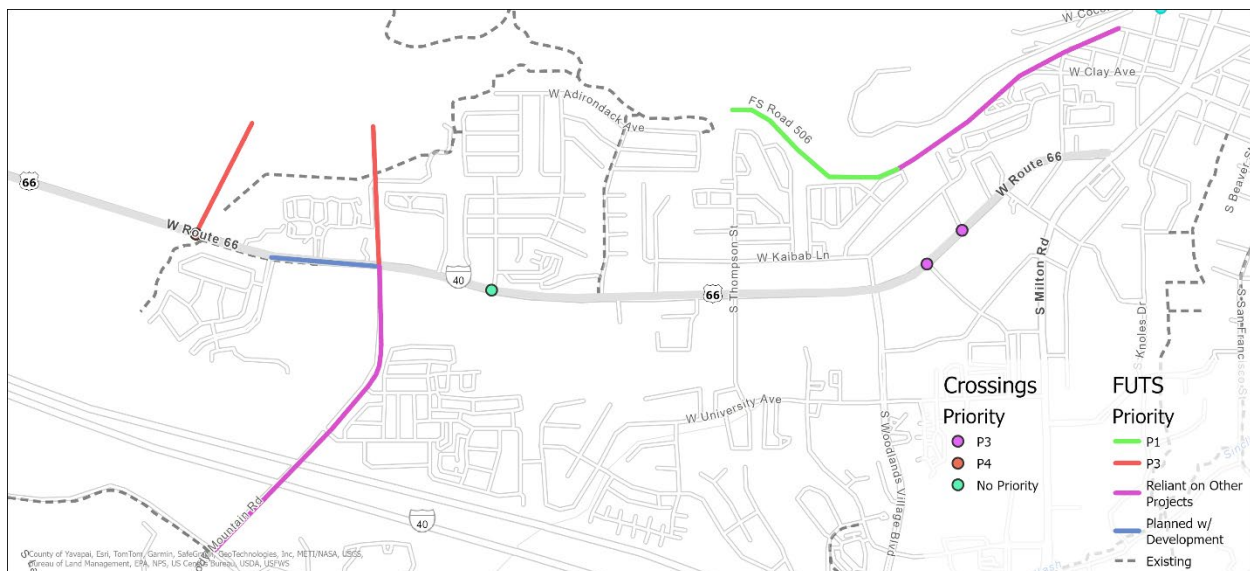
In addition to this study, NAU recently completed its Campus Master Plan. The plan calls for a fourth leg (left turn lane) on Milton Road heading south to allow vehicles to turn east into the campus. The TIA recommendations did not include this. It should be noted that this proposed infrastructure is not funded and would require NAU to coordinate with the City of Flagstaff and ADOT.

FIGURE 19: NAU CAMPUS MASTER PLAN AT MILTON RD.



Active Transportation, Trails, and Transit

FIGURE 20: FUTS/BIKE/PED INFRASTRUCTURE BUILDOUT PLAN



The expansion of the Flagstaff Urban Trail System (FUTS) and the implementation of pedestrian crossings on and around West Route 66 have a common goal: *to improve the mobility of pedestrians and cyclists throughout the corridor by providing alternate access and opportunities for recreation, supporting access to transit, and providing alternate routes based on comfort level.*

Presently, the FUTS is disjointed, lacking sufficient connections for cyclists and pedestrians within the corridor. This deficiency is compounded by the absence of cycling facilities and sidewalks along West Route 66, resulting in many dead-end networks with limited options for traversing the corridor.

To address these challenges, the proposed facilities aim to establish connections within the existing east-west network, extending from North of W Adirondack Ave to the La Plaza Vieja Neighborhood and subsequently to the downtown area. The Downtown Mile Project also envisions the creation of an additional pedestrian crossing tunnel beneath the BNSF train tracks in the La Plaza Vieja neighborhood.

For north-south connectivity, bike/ped enhancements are planned adjacent to Flagstaff Public Works, extending south on Woody Mountain Road, and linking to the existing FUTS on W Kiltie Ln. This extension will also serve the developing Timber Sky Neighborhood, enabling alternate access and opportunities for recreation, with some facilities already completed by the developer.

Furthermore, the plan identifies pedestrian crossings at Yale St, Pinnacle St, and Northwestern St to enhance pedestrian connectivity. Currently, pedestrians seeking to cross in these areas either face a substantial walk of nearly one mile to a traffic signal (as in the case of Northwestern St) or resort to illegal crossings. The proposed improvements aim to alleviate these challenges, providing safer accessibility to transit and more accessible options for pedestrians in the identified areas. Planned crossings will need to meet ADOT pedestrian crossing warrants to receive approval.

Development agreements often include the expansion of FUTS through new subdivisions. It should be noted that Timber Sky will be expanding access to the FUTS from Woody Mountain Rd. west.

Future Transit Service

Flagstaff in Motion is a Community Transit Plan that identifies how best to provide and fund Mountain Line transit services, captures known community transit needs for the next five years, and prioritizes them into a list with recommendations to fund and implement. Two main goals guided the improvements selected for the Plan. The first goal was to target areas with the highest ridership potential. The second goal was to support transit-dependent populations.

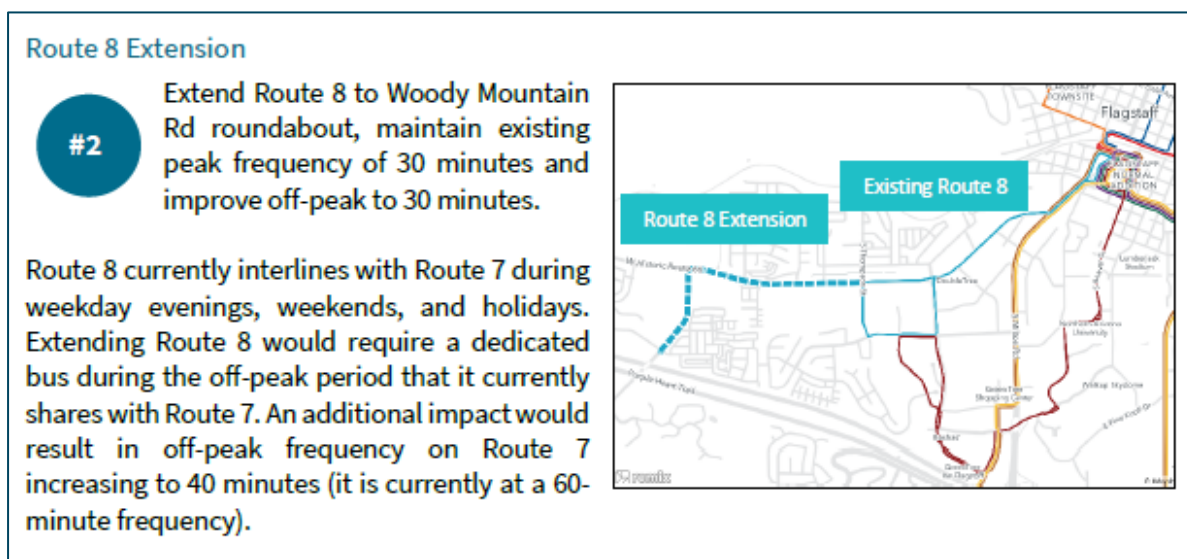
The extension of Route 8 (to the west past Thompson Rd.) Ranks #2 in the Prioritized Areas and Route for Transit Service.

Recommendations for W. Route 66 include:

Transit	Bike/Ped
<ul style="list-style-type: none"> • Kiss-in-Ride near Woody Mountain Rd. • Bus stop locations (existing) <ul style="list-style-type: none"> ○ near Woodlands Village Rd (1) ○ near Thompson St (1) • Bus stop locations (extended route 8) <ul style="list-style-type: none"> ○ near Thompson (1) ○ near Railroad Springs (2) ○ near S. Northwestern St (2) ○ near Woody Mountain Rd (1) 	<ul style="list-style-type: none"> • Enhanced pedestrian crossings (Near): <ul style="list-style-type: none"> ○ Railroad Springs ○ Northwestern ○ Woody Mountain

The Route 8 extension interlinks with a much larger network spanning nine routes across the city. This enables transit access to jobs, education, services and more.

FIGURE 21: MOUNTAIN LINE ROUTE 8 EXTENSION



These combined recommendations aim to enhance transportation along the corridor. Some goals of these recommendations are to:

- Improve connectivity and mobility.
- Create an inclusive multimodal transportation system that provides access, mobility, and efficient transportation options for people of all ages and abilities. (ATMP)
- Provide crossings where they are needed and useful, and avoid building streets that function as barriers, in recognition of the essential need for pedestrians and bicyclists to cross streets. (ATMP)
- Invest in active transportation projects to support the Climate Action goals.
- Infrastructure investments to support and encourage growth along the corridor.
- Provide accessible first-last-mile connection to transit and services.

CORRIDOR TRANSPORTATION ANALYSIS

For this “Future Conditions” analysis a comparison is made between the Current Condition (FY 2021) and Future Scenario A – Business as Usual (FY 2045). The corridor condition is “No Build” assuming no roadway improvements are made, and no additional pedestrian, bicycle, and transit investments are made. Though somewhat artificial, it provides a starting point for evaluating the impact of different improvement packages.

In the next iteration, a comparison of No Build conditions and the different packages for all scenarios (B, C,D & E) will be made. Evaluation will largely be relative – how each alternative corridor solution ranks against the others. There will be ADOT, City, and industry standards and benchmarks in the forthcoming Basis of Design Report to assess performance (Appendix X – in progress).

A simple summary of the preceding sections provides context for the analysis. Scenario A results in this level and location of growth in the study area:

- Housing: 66%
- Employment: 57%
- More than ½ employment growth is in Segment 1 and more than 2/3 housing growth is in Segment 2.

Table 4 at the end of this analysis shows comparative statistics referenced in the following key findings. Yellow highlights in the table indicate notable differences.

Highway Level of Service (LOS): Miles in LOS F are up almost 300% (.14 to .54 miles of the 3.82 miles). Miles in LOS E are up 23% (.69 to .85 miles) occurring mostly at the east end of the corridor.

Lane capacity is at or beyond a tipping point. Solutions may include additional lane capacity, peak hour spreading, mode shift, land use reduction, or tolerance of higher congestion and delay levels.

Traffic volumes: Volumes on West 66 are up 1% and 5% at Woodlands Village and Riordan, respectively. They are up 233% and 99% at Flagstaff Ranch and Thompson.

Traffic is “escaping” the corridor via Flagstaff Ranch to I-40 and Thompson to Woodlands Village. Traffic actually drops on Riordan, suggesting it is increasingly difficult to access.

Vehicle Miles Travelled (VMT): VMT on the corridor is up 21% with the greater increases on easterly Segments 1 and 2. VMT leaving the study area is up 304%.

Most of the employment and housing growth is in the westerly part of the corridor with easier access to the interstate. The cross-town routes of E Route 66 and Butler are forecast to operate at LOS E and F. Alternatively, Interstate 40, operating at LOS A&B west of I-17, D between 17 and Butler, and C to Country Club, offers a faster choice even though it is considerably longer distance for many east-west trips.

Vehicle Hours of Travel (VHT): VHT in the study area is up 66%. This tracks relatively closely to internal VMT (98%), housing (66%), and employment (57%).

Trips leaving the study area reduce growth in VHT and the alternative routes permit the system to reach equilibrium across a greater network.

Corridor Travel Time: Travel time is up 19%. Most of the increase is experienced in westerly Segments 3 and 4.

These segments are over capacity where the delay curve drops disproportionately faster (more delay for each car added).

Lane Mile: “No Build” includes no change in lane miles. Lane miles will be an early proxy for right-of-way needs in the early rounds of comparison.

Mode Share, Mode Shift, and Internal Capture: Internal automobile trips (those with both origin and destination within the study area) are up 82%.

The trips are commensurate with the growth in population and employment. Internal person trips are now a slightly higher percentage of all trips. The higher growth rate in employment versus population should account for this.

Combined walk/bike and transit trips increased only 38% and 45%, respectively, and non-auto mode share decreased from 42% to 36%.

The pedestrian, bicycle, and transit levels of service were not increased – see no change in transit stop frequency for instance. With development occurring primarily in the more distant and less connected west end of the corridor, these results are to be expected.

TABLE 4: COMPARATIVE STATISTICS OF CURRENT CONDITIONS VS. SCENARIO A

Measure	Units	Current 2021	Scenario A 2045	
Level of Service (Link)	Miles	3.82	3.82	Change
A & B		2.17	1.88	-13%
C		0.27	0.29	7%
D		0.55	0.12	-78%
E		0.69	0.85	23%
F		0.14	0.54	286%
G		0	0.14	
Vehicle Miles of Travel	Miles			
Internal Trips		5,593	9,880	77%
External Trips		32,812	54,461	66%
Area Internal VMT		7,691	15,244	98%
Area External VMT		45,670	184,681	304%
W Route 66		46,539	56,409	21%
Segment 1		3,937	4,940	25%
Segment 2		5,920	10,547	78%

W. ROUTE 66 OPERATIONAL ASSESSMENT

Future Conditions Report

Segment 3		17,463	20,198	16%
Segment 4		19,218	20,723	8%
Vehicle Hours of Travel	Hours			
Study Area		26,796	44,427	66%
Corridor Travel Time				
W Route 66		6.07	7.23	19%
Segment 1		1.07	1.08	1%
Segment 2		1.24	1.31	6%
Segment 3		2.29	3.11	36%
Segment 4		1.47	1.72	17%
Internal Capture (persons)	Percent Trips			
Total Trips		58,795	85,676	46%
Internal Trips		13,463	21,943	63%
Mode Share (internal)	Percent Trips			
Total Trips		13,463	21,943	63%
Pedestrian Trips		5,693	7,839	38%
Bicycle Trips		-	-	
Transit Trips		42	61	45%
Auto Trips		7,728	14,043	82%
Pedestrian Level of Service*	Avg. LOS	Max 3.50		
Study Area		0.82	0.82	0%
Segment 1		0.00	0	
Segment 2		0.00	0	
Segment 3		0.73	0.73	0%
Segment 4		1.18	1.18	0%
Bicycle Level of Service**		Max 3.00		
Study Area		0.75	0.75	0%
Segment 1		0.00	0	
Segment 2		0.00	0	
Segment 3		0.73	0.73	0%
Segment 4		1.09	1.09	0%
Transit Level of Service***		Max 6.00		
Study Area		1.07	1.07	0%
Segment 1		0.00	0	
Segment 2		0.00	0	
Segment 3		0.68	0.68	0%
Segment 4		2.00	2	0%
Transit Stop Frequency				
		2.40	2.40	0%
		10.50	10.50	0%
Lane Miles	Miles			
		9.97	9.97	0%

W. ROUTE 66 OPERATIONAL ASSESSMENT

Future Conditions Report

Intersection Density				
		12.70	12.70	0%
		25.20	25.20	0%
		143.90	143.90	0%
		97.60	97.60	0%
Select Link Volumes				
W66 w/o Woodlands		16,417	16,663	1%
W66 w/o Riordan		27,844	29,307	5%
Flagstaff Ranch		1,341	4,460	233%
Woody Mountain		1,951	2,836	45%
Thompson		3,182	6,169	94%
Woodlands Village		19,644	22,909	17%
Yale		4,324	6,094	41%
Riordan		4,412	3,581	-19%

* Pedestrian Level of Service (PLOS) is an index for a traffic analysis zone (TAZ) comprised of intersection density, TAZ porosity, crossing frequency and quality, and system completeness within a TAZ. It is used with other factors to estimate pedestrian activity in and between TAZs.

** Bicycle LOS is similar to PLOS except system completeness also applies to the district in which the TAZ is located. It is used with other factors to estimate bicycle activity in and between TAZs.

*** Transit LOS is a function of distance to transit stops via walking distance route frequency, and the number of routes serving the TAZ. It is used with other factors to estimate transit activity in and between TAZs.

FIGURE 22: 2021 LEVEL OF SERVICE (PEAK HOURS)

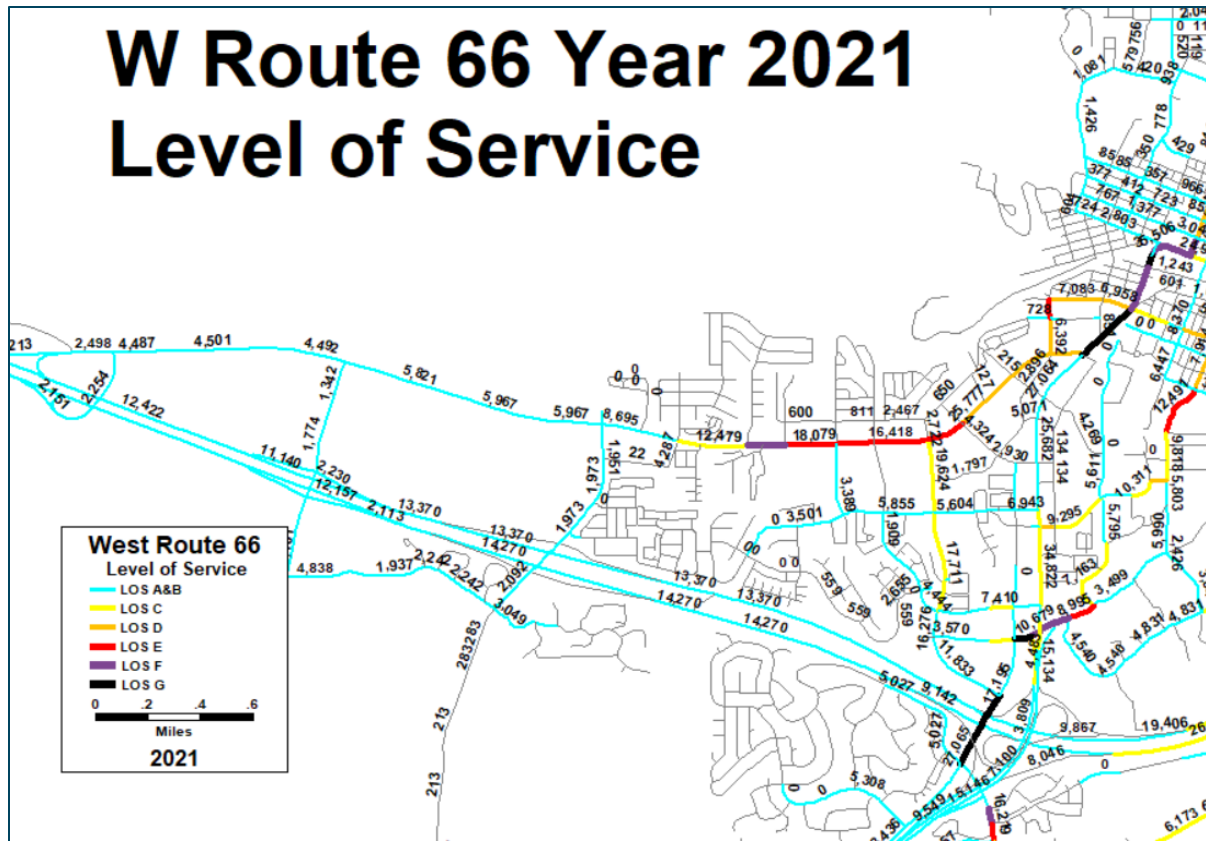


FIGURE 23: 2045 LEVEL OF SERVICE (PEAK HOURS)

