

Overview

The land use and circulation alternatives phase of work is intended to support thoughtful discussions among community members about how to achieve the community's vision, created in Spring 2021, by offering three tangible examples for initial consideration. To that end, the General Plan Update project team, composed of City staff and consultants, designed these example future scenarios to be meaningfully different from one another. We then performed a series of technical analyses to understand the implications of each alternative. Key findings from these analyses are highlighted in the alternatives workbook and summarized in greater detail in this appendix.

Following is a synopsis of the process of developing and analyzing the alternative scenarios, with references to the enclosed technical appendices.

Land Use and Circulation Alternatives Design

1. Each alternative starts with the potential for approximately 36,000 new housing units, equal to the number accommodated in the current General Plan.
2. A market assessment, summarized in **Appendix A**, determined the amount of non-residential growth that could be supported by that additional 36,000 housing units:
 - a. 1 million square feet of retail space
 - b. 2 million square feet of office space
 - c. 1.5 million square feet of industrial space
3. The General Plan Update project team designed three future alternatives for distributing the potential 36,000 housing units with the goals of creating scenarios that are distinct from each other while also supporting the community vision developed as part of an earlier phase of the General Plan Update.
 - a. **Alternative 1: Central Corridors** concentrates housing near Downtown.
 - b. **Alternative 2: Neighborhood Main Streets** envisions a city of neighborhoods with new housing near small neighborhood centers.
 - c. **Alternative 3: Distributed Growth** builds on what is already here, with future growth across the city in proportion to what is on the ground today.
4. The project team determined where future office and retail businesses would be in each alternative based on the location of future housing. Future industrial uses are in the same location across alternatives because their placement is primarily driven by land availability and proximity to the freeway.

Land Use and Circulation Alternatives Assessment

5. Once the number and location of residential and non-residential uses was established for each alternative, a follow up market assessment identified implications of the distinctions between alternatives from a market demand standpoint, summarized in **Appendix A**.
6. The geographic relationship between housing, jobs, and services informed a traffic model assessment, summarized in **Appendix B**, that estimated the resulting travel activity of residents, employees, and visitors under each future development scenario.

7. The future development and associated travel patterns of each alternative informed an assessment of community safety and resilience, summarized in **Appendix C**.
8. Finally, maps were created to help illustrate challenges that need to be addressed in “Equity Priority Communities” in Santa Rosa – areas of the city that have been historically underserved and that bear a disproportionate burden of environmental and health issues. Those maps are available in an interactive web platform [here](#).

Next Steps and Additional information

Community input gathered through the land use and circulation alternatives phase will shape the subsequent development of a “preferred alternative” that will serve as the foundation of the updated General Plan. This preferred scenario, created by the community, may include components from any or all example alternatives, plus new ideas that emerge during the Santa Rosa Forward conversations over the next few months. When the preferred alternative is developed, it will include more detailed land use and circulation plans as well as goals, policies, and actions. Additional analysis comparing the full implications of the updated General Plan compared to what is on the ground today and the existing general plan will be performed as part of the required environmental impact assessment that will begin in the summer of 2022.

Additional information on Santa Rosa Forward, including opportunities for involvement, is available on the project website, santarosaforward.com. For questions or comments, email info@santarosaforward.com.

Appendices

[Appendix A: Memo: Growth Alternatives Market Assessment](#)

[Appendix B: Memo: Transportation Modeling Findings](#)

[Appendix C: Alternatives Safety Matrix](#)

Appendix A

Memo: Growth Alternatives Market Assessment



MEMORANDUM

To: Charlie Knox and Andrea Howard, PlaceWorks
From: Derek Braun and Heather Bromfield, Strategic Economics
Date: October 29, 2021
Project: Santa Rosa General Plan Update
Subject: Growth Alternatives Market Assessment for Industrial, Office, and Retail Uses

This memo describes findings regarding the market viability of land uses included in three growth alternatives developed by PlaceWorks, MIG, and the City of Santa Rosa for the Santa Rosa General Plan Update. The General Plan growth alternatives lay out three different visions for residential, commercial, and industrial growth in Santa Rosa over the next 20 years. To inform PlaceWorks' distribution of growth in each alternative for further analysis, Strategic Economics assessed overall market support for industrial, office, and retail space in the alternatives, and then assessed how the different growth patterns specified in the alternatives would influence future development and business attraction potential for industrial, office, and retail space.

The analysis focused most heavily on the locations and quantity of retail space that new household growth would support because stores, restaurants, and personal service businesses are significantly more sensitive to proximity to households and competition with each other than office and industrial businesses. Additionally, out of the three alternatives, the analysis focused in greatest detail on Alternative 2 since the success of that alternative relies on ensuring sufficient market support exists to maintain a commercial node serving each neighborhood.

This memo provides a brief overview of conclusions from the market assessment, followed by an attachment consisting of PowerPoint slides describing methodology and detailed findings, as shared with PlaceWorks on October 11th. Attachment 2 shows allocations of office growth prepared by W-Trans based on the findings shown in Attachment 1.

Conclusions

INDUSTRIAL

The alternatives are likely to support the same amount and mix of businesses and jobs requiring manufacturing, distribution, warehouse, and “flex” space since the quantities and locations of future industrial building growth are the same in all three alternatives. Land availability and freeway access will primarily determine where and how these uses are built in the future.

OFFICE

The alternatives’ different distributions of office space across the city may influence the types of office-based businesses that locate in Santa Rosa. Alternative 1 includes a concentrated cluster of office space in central locations featuring excellent freeway and transit access. This larger concentration of space and enhanced regional access to a diverse workforce may create greater opportunity to attract larger and “knowledge-based” professional services businesses. The larger concentration of businesses and workers may also create synergy between businesses in this central area, such as the presence of workers supporting spending at restaurants and driving demand for nearby housing.

In contrast, Alternatives 2 and 3 include a smaller amount of office space in Downtown Santa Rosa while distributing small increments of space throughout the city. These distributed nodes of office space are more likely to attract a mix of smaller office-based businesses, with a greater share of these businesses serving local households. Examples include insurance agents, accountants, realtors, attorneys, and medical offices.

RETAIL

The success of stores, restaurants, and personal services businesses within future retail space will largely depend on where residents and workers are located. Each of the alternatives aligns the locations of retail with those of future residents and workers. However, some differences in outcomes are still likely. Alternative 1 would create a large central concentration of retail space in Santa Rosa; while businesses located within this node would benefit from the concentration of residents and businesses in the area, the actual total amount of space—and businesses—required to serve residents and businesses may be lower citywide than in other alternatives since each business in the central area could readily serve a larger number of customers.

The distribution of smaller retail nodes in Alternative 2 and especially Alternative 3 may support a greater number of storefront businesses, but each would serve a smaller concentration of residents and workers and likely attract fewer customers. Some smaller retail nodes envisioned in Alternatives 2 and 3 may also struggle to attract any growth in retail space if residents in these areas could easily access larger retail nodes.

**Attachment 1: Market Assessment of Santa Rosa General Plan
Growth Alternatives: Detailed Methodology and Findings**

Market Assessment of Santa Rosa General Plan Growth Alternatives

Santa Rosa General Plan Update

Strategic Economics

October 11, 2021

About the Market Assessment

- This document describes the methodology and findings of Strategic Economics' market assessment of land uses included in growth alternatives developed by Placeworks and the City of Santa Rosa for the Santa Rosa General Plan update.
- The market assessment builds on Strategic Economics' economic and market analysis, previously described in the Santa Rosa Forward Existing Conditions Report (December 2020), Chapter 3, "Market Demand and Economic Opportunities."
- Key findings and conclusions are identified by **blue text** throughout this document.
- The goals of the market assessment were:
 - Assess whether there is overall market support for growth in the Alternatives
 - Provide an overview of where industrial, office, and retail space is likely to develop based on projected household growth patterns, with special focus on Alternative 2
 - Provide guidance to inform work by Placeworks and W-Trans to distribute industrial, office, and retail growth allocations within subareas and "traffic analysis zones" in Santa Rosa

Methodology and Approach

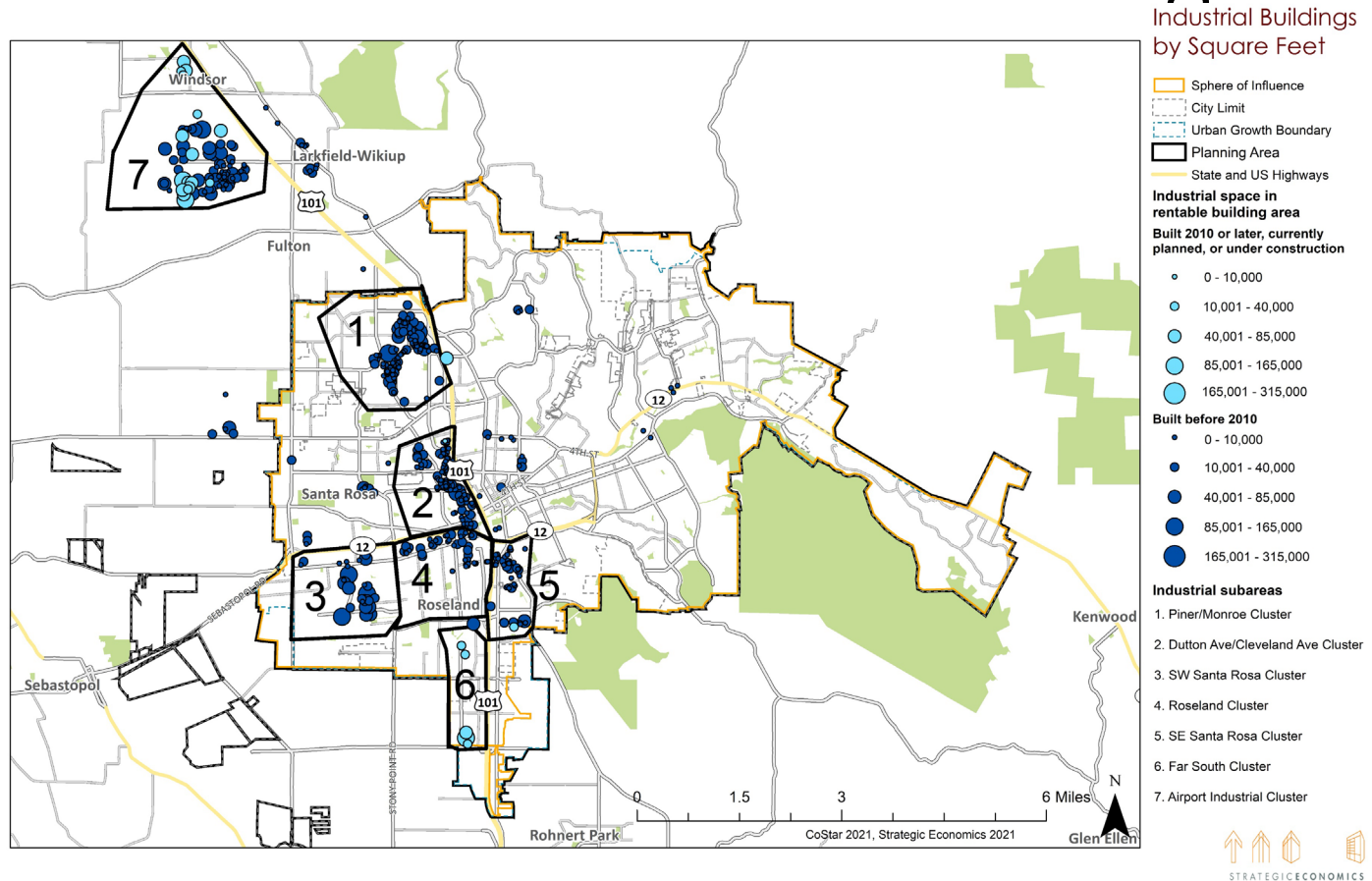
- Office and Industrial:
 - Incorporated market analysis findings regarding drivers of demand for space, total future growth in demand
 - Assessed location-specific demand and development opportunity based on:
 - Review of recent development activity
 - Review of rental rates across geographic clusters of industrial and office space
- Retail:
 - Analysis focused on Alternative 2 (“Neighborhood Main Streets”)
 - Verified overall market support for proposed new Alternative 2 neighborhood and shopping centers by comparing demand projections with implied square feet of new centers
 - Scored specific existing and future centers for potential to function as current or future retail nodes, as specified in Alternative 2
 - Developed estimates of maximum supportable retail growth at selected new/emerging commercial nodes identified under Alternative 2

Industrial

Industrial – Background and Context

- Strategic Economics' 2020 market report estimated potential for Santa Rosa to capture between 570,000 and 1.5 million square feet of new industrial space by 2050
 - The Airport Industrial Area north of Santa Rosa also competes for this demand
- Demand for industrial space in the Santa Rosa area is primarily for warehouse/distribution space from businesses in the 1) food/wine, cannabis, and logistics industries, 2) production space related to food/wine, and 3) flex space with connections to life sciences and varied other uses
 - Primary concerns for these users are (a) proximity to freeway; and (b) affordability of space
 - Developers are most likely to pursue projects in areas where rents are highest and/or land is available near highways and major arterial roads
- Vast majority of recently developed (2010 onward) and pipeline properties are warehouse/distribution

Industrial Subareas and Buildings



Assessment of Industrial Subareas

- Industrial development activity has been concentrated in southern Santa Rosa due to land availability and freeway access; development activity on greenfield sites is likely to continue in this area
- Overall industrial rents are highest in the Piner/Monroe Cluster (Subarea #1) due to this area having more service and manufacturing properties
- Warehouse/distribution and manufacturing rents are highest in the Dutton Avenue/Cleveland Avenue Cluster (Subarea #2)
- To the extent that *redevelopment* of existing warehouses may occur, this will most likely occur in these two areas
- However, redevelopment alone is unlikely to result in a significant net growth in industrial space

Industrial Conclusions for the Alternatives

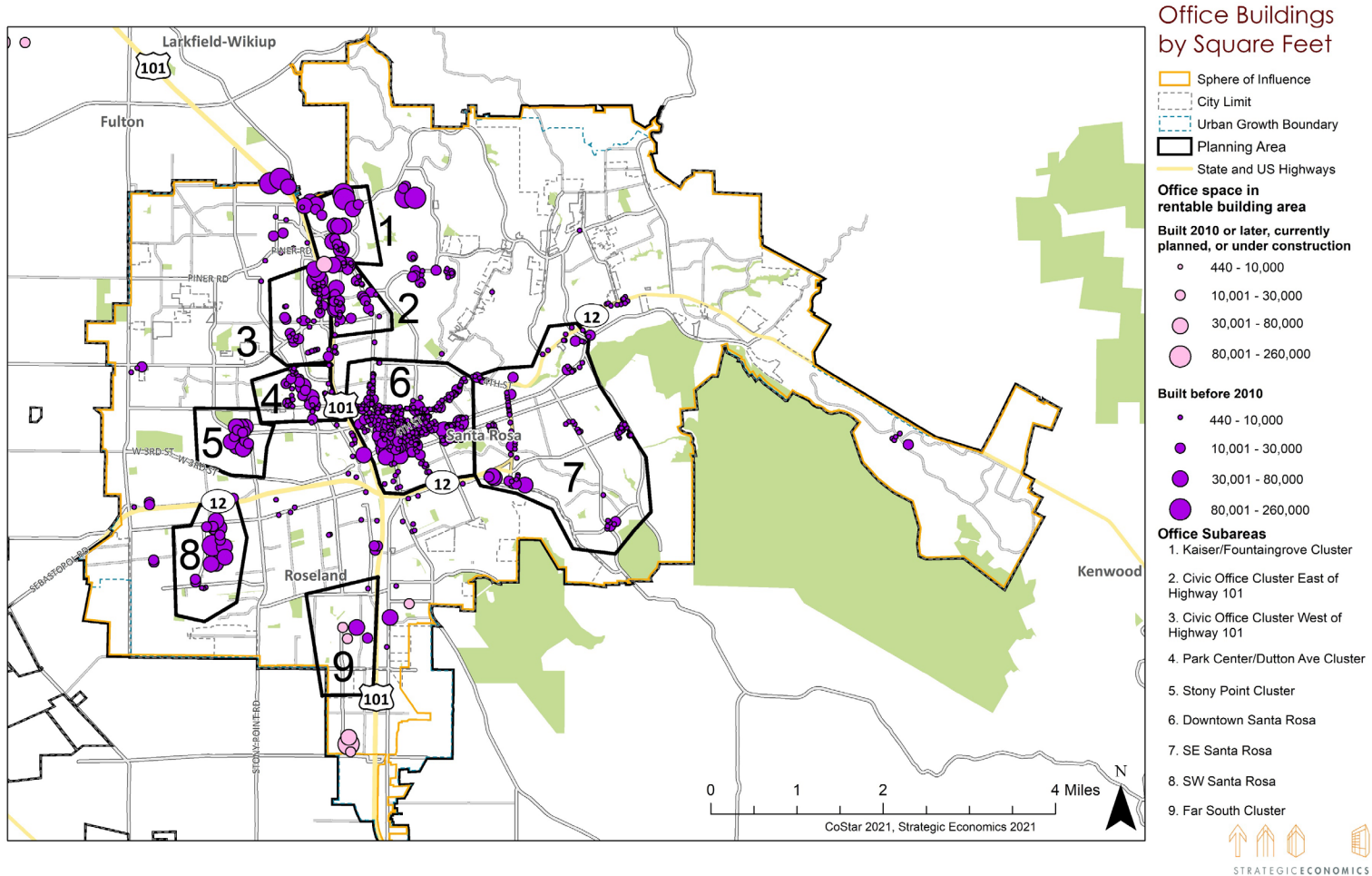
- Location of future industrial development is unlikely to vary between the development alternatives
- Land availability and highway access will primarily determine future growth in industrial space
 - Most recent development has occurred in southern Santa Rosa within ½ mile of Highway 101
- **Industrial development is likely to continue primarily in areas with strong freeway access and land availability, primarily in southwestern Santa Rosa**
 - The Airport Industrial Area in unincorporated Sonoma County also offers greenfield sites and freeway access, will continue to compete for demand
 - Modest amount of redevelopment may occur in Piner/Monroe and Dutton/Cleveland clusters, but total net industrial growth via redevelopment will likely be limited

Office

Office – Background and Context

- Based on Strategic Economics' market analysis, Santa Rosa could potentially capture demand for between 1.1 million and 2.1 million square feet of office space by 2050
 - The Airport Industrial Area will also compete for this demand
 - SMART and completion of the Marin-Sonoma Narrows project could enhance Santa Rosa's competitive position
- Growth in demand will likely be driven by tenants in health care, government, and smaller professional service companies
- Tenants prefer sites with convenient freeway access to access workers and customers/clients
- Little recent development activity has occurred, with most close to Highway 101 and/or close to new industrial developments in southern Santa Rosa (see next slide)

Office Subareas and Buildings



Assessment of Office Subareas

- Rents highest in the Kaiser/Fountaingrove area (Subarea #1), Civic Office Cluster West of 101 (Subarea #3), and SW Santa Rosa (Subarea #8)
- As with industrial, recent development activity focused on areas with land availability and convenient freeway access (especially in southwest and southern Santa Rosa)
- Northern Santa Rosa is also positioned to attract infill and redevelopment projects near Highway 101

Office Conclusions for the Alternatives

- As with industrial, the location of future industrial development is unlikely to vary between the development alternatives
- Most new development in the short term is likely to occur in areas with significant land availability—especially in southern and southwestern Santa Rosa
- Downtown could potentially attract smaller increments of office space over time to serve medical office and professional services tenants
- Northern Santa Rosa near Highway 101 is also positioned to attract infill and redevelopment activity

Retail Analysis of Alternative 2

Analysis background and context

Retail – Background and Context

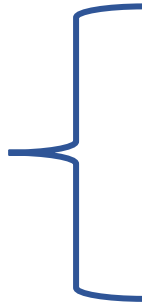
- Supportable future retail development will be tied to household growth, which creates demand for additional store-bought goods, services, and activities
- Strategic Economics' retail analysis consisted of 3 parts:
 1. Comparison of total estimates of citywide retail demand from future households with total growth implied by proposed shopping centers under Alternative 2
 2. Assessment of existing shopping centers identified in Alternative 2 to determine viability of these existing centers to continue or emerge as viable commercial nodes/shopping centers/neighborhood commercial
 3. Spatial and site-specific analysis to recommend maximum growth potential (in square feet) applicable to shopping centers included in Alternative 2 that are not currently serving as major shopping centers or neighborhood commercial
- Note: While this analysis analyzed potential retail growth based on standard increments of retail within single-use shopping center formats (convenience/strip centers, neighborhood, and community centers – see next slide), future retail growth could potentially be captured in a variety of mixed-use or single-use formats

Retail Analysis of Alternative 2

*Part 1: Comparison of citywide retail demand estimate
vs. planned retail included in Alternative 2*

Definitions: Typical U.S. Shopping Center Types and Characteristics

These standard increments of retail space were applied in this analysis to assess potential household support for retail nodes identified in Alternative 2



Type of Shopping Center	Typical Size (sq ft)	Acres	Typical Anchors	Trade Area Size/ Drive-time	Examples
Regional and Super Regional Malls	400,000 to 800,000	40 to 100	General merchandise or fashion-oriented anchors, may include department stores, mass merchants, and/or fashion apparel	5-15 miles/ 15-20 minutes	Santa Rosa Plaza; Coddington Mall
Lifestyle Centers	150,000 to 500,000	10 to 40	Large format upscale specialty stores	8-12 miles/ 15-20 minutes	Montgomery Village, Petaluma Village Premium Outlets
Power Centers	250,000 to 600,000	25 to 80	Category-dominant anchors, often in more than one freestanding structures, with only a few small tenants	5-10 miles/ 15-20 minutes	Santa Rosa Marketplace, Rohnert Park Expressway Center
Community Center	125,000 to 400,000	10 to 40	General merchandise or convenience-oriented anchors, may include discount stores, grocery stores, drug stores, and/or large specialty stores (home improvement/ furnishings, sporting goods, etc.)	3-6 miles/ 10-15 minutes	Marlow Center; Stony Point Plaza
Neighborhood Center	30,000 to 125,000	3 to 5	Convenience-oriented, typically anchored by a grocery and/or drug store	3 miles/ 5-10 minutes	Roseland Village Shopping Center; Fulton Market Place
Strip or Convenience Center	Less than 30,000	Less than 3	Un-anchored, or anchored by a small convenience store (e.g. 7-Eleven)	<1 mile/ < 5 minutes	Various along Sebastopol Road

Sources: International Council of Shopping Centers, 2017; CoStar, 2017; Strategic Economics 2020.

Retail Analysis, Part 1: Comparison of Citywide Retail Demand Estimate vs. Planned Retail Included in Alternative 2

- Strategic Economics previously estimated that each new household in Santa Rosa could support demand for 27 square feet of retail space
 - Figure is based on household spending patterns within retail categories & spending per square foot of retail space
 - The estimate was already conservative to account for e-commerce trends, but may still be viewed as a high-end estimate given the presence of existing retail supply in Santa Rosa and acceleration of e-commerce spending
- Housing growth in the Alternatives translates to growth in retail demand of 930k to 945k square feet
- There are now currently 1.3 million square feet of vacant retail space (up from 380,000 vacant square feet since SE wrote the Existing Conditions report in July 2020).
 - Some of this space (estimated at 270,000 sq ft) will need to be absorbed before new households will generate demand for additional space

Retail Analysis, Part 1 (cont'd): Comparison of Citywide Retail Demand Estimate vs. Planned Retail Included in Alternative 2

- As a check on the overall growth of additional retail space implied in Alternative 2, total citywide potential retail demand in square feet was converted into a maximum number of grocery-anchored retail centers supportable by future household growth
 - Each potential grocery-anchored shopping center assumed to have, on average, 90,000 square feet of retail
- This maximum number of retail centers was compared with number of potential future shopping centers under Alternative 2 to determine whether Alternative 2 implies retail growth in excess of supportable demand
- **Conclusion: The number of shopping centers identified in Alternative 2 could reasonably be supported by total citywide future demand**

Retail Analysis, Part 1 Details and Results

	Potential New Dwelling Units			Retail Demand [1]			Estimated Vacant Space to be Absorbed [2]	Maximum Number of Supportable New Retail Centers [3]	Additional Planned Retail Centers, Alternative 2	
	In Focus Area	Outside Focus Area	Citywide	In Focus Area	Outside Focus Area	Citywide	Citywide	Citywide	"Neighborhood Centers"	"Shopping Centers"
Alternative 1	19,600	17,000	36,600	502,740	436,050	938,790	270,000	7	--	--
Alternative 2	19,800	16,500	36,300	507,870	423,225	931,095	270,000	7	7	0
Alternative 3	3,700	33,100	36,800	94,905	849,015	943,920	270,000	7	--	--

[1] Assumes a 5% vacancy rate for new dwelling units built

[2] Assumes that vacancy rate will decrease from current rate of 7.5% as of September 2021 to 5% before new retail space will be constructed.

[3] Assumes that all retail demand is captured in grocery-anchored neighborhood and community centers, and that these centers have on average about 90,000 square feet of space based on a review of the average size of existing neighborhood and community centers in Santa Rosa.

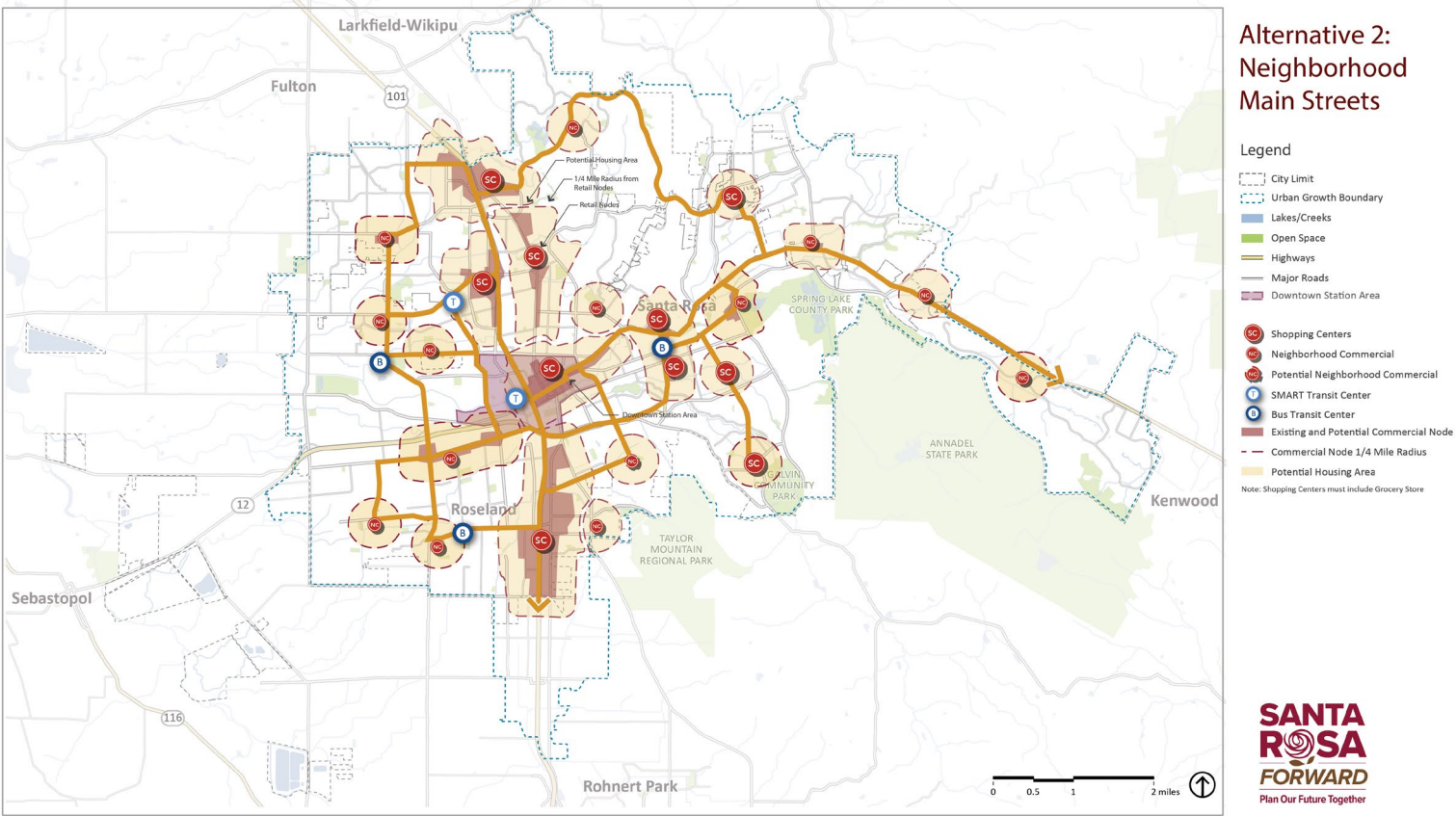
Retail Analysis of Alternative 2

*Part 2: Location-specific screening process for
Alternative 2 retail locations*

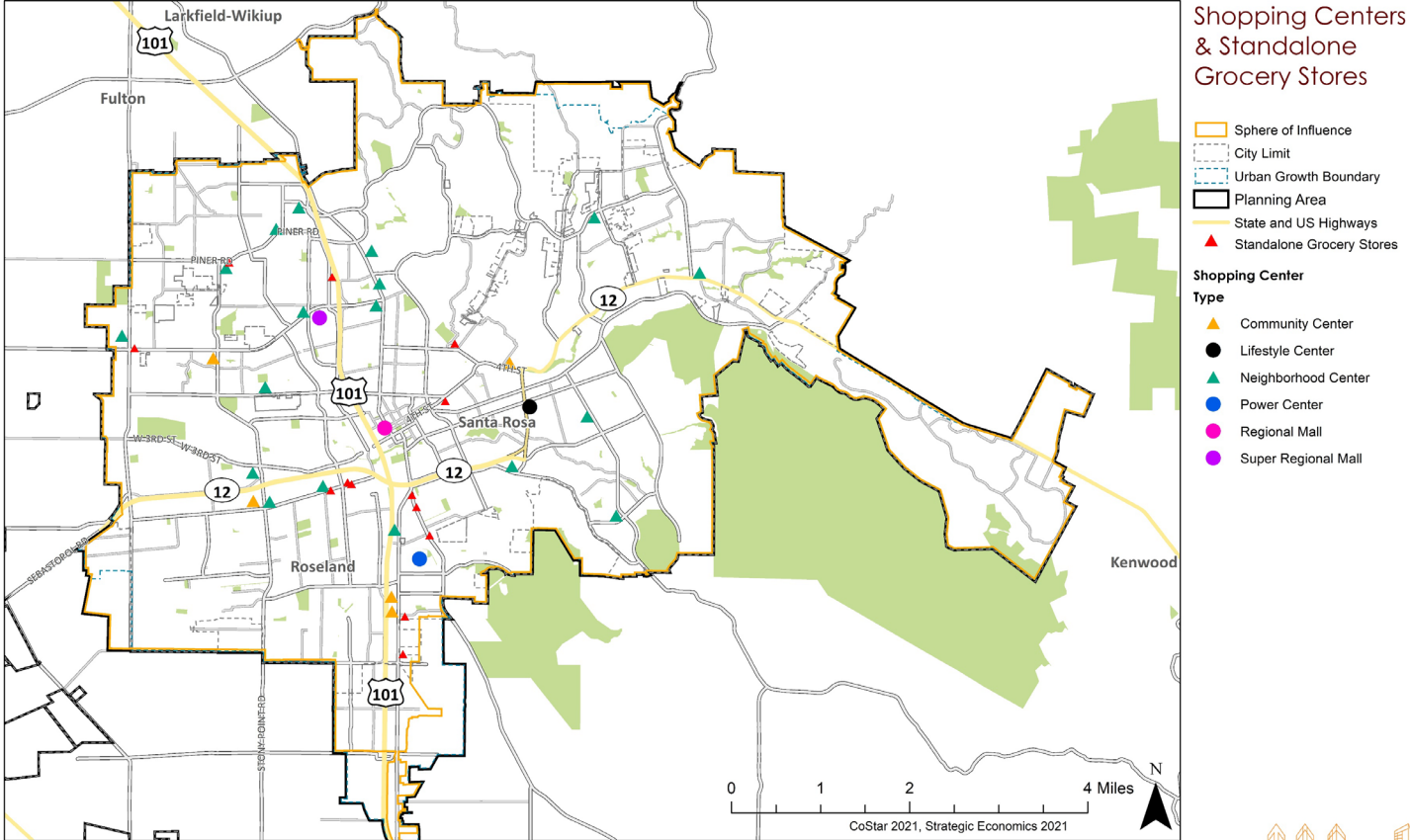
Overview of Location-Specific Retail Screening Process

- Locations and characteristics of existing shopping centers were analyzed to determine the likelihood that existing Alt 2 “shopping centers,” “neighborhood commercial,” and “commercial nodes” will be supported by future market conditions
- Screening criteria included:
 - Total current+future households in surrounding area
 - Presence of grocery store in or near center
 - Presence of other nearby retail/centers to form a larger functional “commercial node,” **including retail/centers not identified on Alt 2 map**
 - Size (as indicator of potential to become a commercial node with full-service grocery, drug store)
 - Condition (vacancy, reinvestment)

Starting Point: Alternative 2 Map of Shopping Centers & Neighborhood Commercial



Translation of Alternative 2 Shopping Centers & Neighborhood Commercial to Existing Retail/Shopping Centers



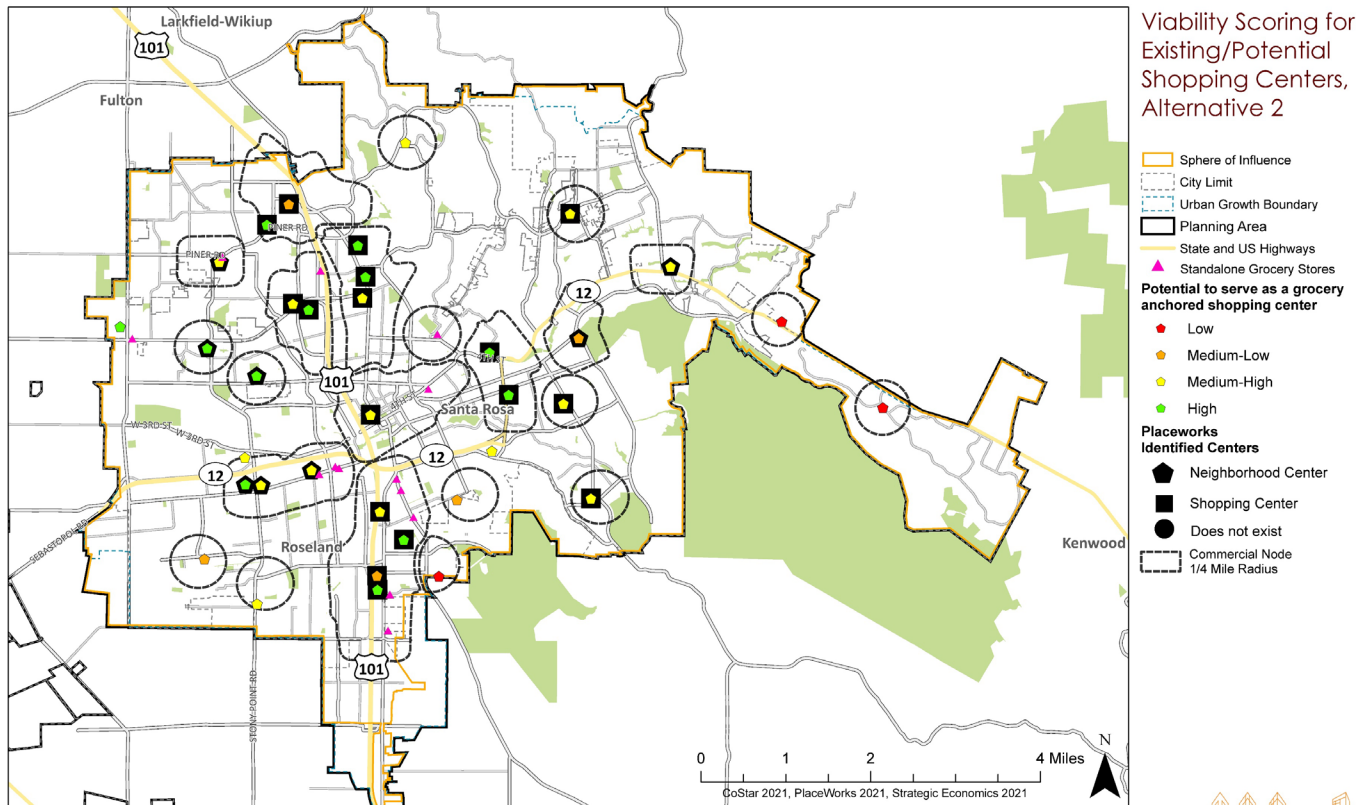
Example of Process: Analysis of Support for Existing Retail Centers

- North Santa Rosa Center
 - Current anchor tenant: **JoAnn Fabrics**
 - Year built: **1978 (no recent renovations)**
 - Current vacancy rate as of August, 2021: **19.6%**
 - Est. household growth within 1 mile radius under Alt. 2: **283 households**
- Guerneville Road Plaza
 - No anchor space in Center (but Center is adjacent to Coddington Mall)
 - Year built: **1985 (no recent renovations)**
 - Current vacancy rate as of August, 2021: **17.7%**
 - Est. household growth within 1 mile radius under Alt. 2: **3,187 households**
- **Takeaways:** Although these two centers currently generate low scores, the commercial nodes in which they are grouped under Alternative 2 encompass multiple shopping centers, including others which are performing well
- Put in other words, there appears to be significant market support for the commercial nodes in which these lower-scoring centers are located

Conclusions: Determination of Market Support for Grocery-Anchored Neighborhood Commercial / Shopping Centers

- The map on the following slide indicates the results of screening shopping centers for their “potential to serve as a grocery anchored shopping center.” In some instances the shopping centers themselves may not score well, but a cluster of shopping centers and grocery stores within a “Commercial Node ¼ Mile Radius” (specified by Placeworks for Alternative 2) would collectively contribute to a functional commercial node. Generally, growth should be allocated to existing shopping centers or commercial nodes based on their relative scoring.
 - While a small number of existing shopping centers have some conditions that suggest they may struggle in the future, existing commercial nodes generally consist of multiple shopping centers and include centers that are performing well, implying that the nodes should be viable in the future.
- The points identified as “Does not exist” (indicated by a black circle) are locations in which minimal/no retail or only a strip center with no major anchor tenant currently exist. These points will require more significant growth to emerge as a “commercial node” in Alternative 2. An additional level of more detailed screening is provided in the following slides in order to identify those centers’ likely magnitude of potential to emerge as commercial nodes.

Conclusions: Determination of Market Support for Grocery-Anchored Neighborhood Commercial / Shopping Centers

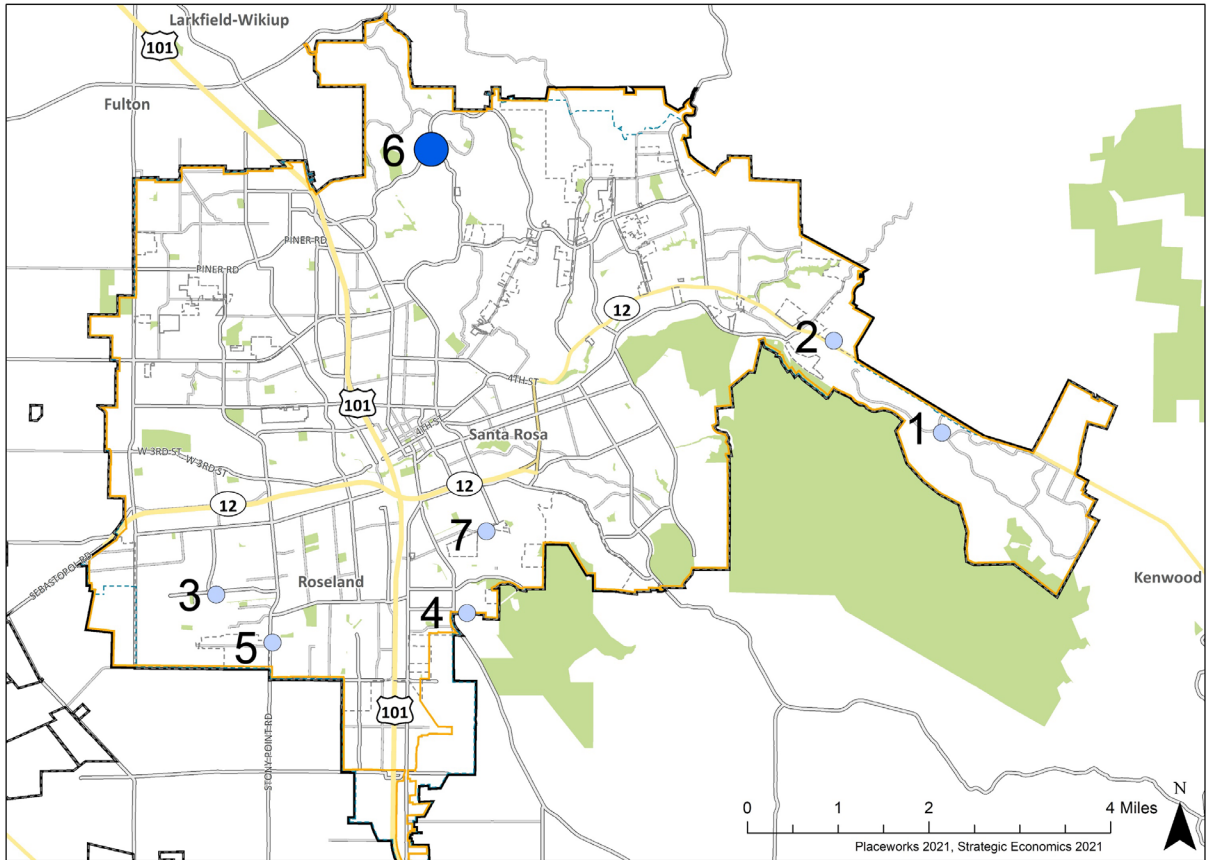


Retail Analysis of Alternative 2

Part 3: Recommended maximum growth potential applicable to Alternative 2 commercial nodes that do not currently serve as major shopping centers or neighborhood commercial

Determination of Market Support for New/Emerging Commercial Activity Nodes

- Certain shopping centers identified under Alternative 2 as potential commercial nodes do not currently meet criteria as neighborhood or community shopping centers, either because:
 - They are currently convenience centers, with too few square feet to be classified as neighborhood/community shopping centers
 - They represent vacant or underutilized sites that could potentially develop as shopping centers
- For these 7 shopping centers, Strategic Economics analyzed the potential for development as **either** grocery-anchored shopping centers (up to 125,000 square feet) **or** as smaller convenience/strip centers (up to 30,000 square feet)
 - Considerations included: anchor tenant space size, current number of households to support demand, projected number of future households, and location within an area under-served by existing grocery stores.
- The findings and analytical considerations are shown on the next three slides



Potential Retail Growth for Areas Identified as Future Commercial Nodes, Alternative 2

- Sphere of Influence
- City Limit
- Urban Growth Boundary
- Planning Area
- State and US Highways

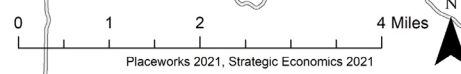
Center Name

1. Oakmont Village Market
2. Valley of the Moon Plaza, East Santa Rosa
3. Parking Lot, SW Santa Rosa
4. Open Space, SE Santa Rosa
- * 5. 2770 Stony Point Road - Bellevue Plaza
6. Fountaingrove Village Rebuild
7. Sonoma County Fairgrounds RV Park

Range of Recommended Total Retail Square Feet to Assign

- Up to 30,000
- Up to 125,000

* No development possible at the center itself. Possible potential for up to 30,000 square feet nearby if a site is available.



Potential Retail Growth for Areas Identified as Future Commercial Nodes, Alternative 2

Center #	Center Name	Description	Anchor tenant space size (or potential size)	Current household demand	Future household demand Alternative 2	In underserved shopping/ grocery area	Likelihood of developing as grocery or pharmacy- anchored shopping center	Likelihood of Developing as Small Commercial Node [1]	Range of Recommended Total Retail Square Feet to Assign [2]
1	Oakmont Village Market	Currently includes a convenience center of about 4,000 square feet; some adjacent vacant parcels could potentially support modest amount of new retail development if appropriate zoning is in place	-	-	+	+	Low	Strong	Up to 30,000
2	Valley of the Moon Plaza, East Santa Rosa	Small, built-out convenience center adjacent to small parcels that may be developable as retail if appropriate zoning is in place. Vacancy rate in this plaza was relatively high (20%) as of Fall 2021.	-	-	+	+	Low	Moderate	Up to 30,000
3	Parking Lot, SW Santa Rosa	Parcel is partially occupied by parking lot and is directly adjacent to Northpoint Commerce Center	+	-	/	+	Low	Strong	Up to 30,000
4	Open space, SE Santa Rosa	Undeveloped land within close proximity to a power center and several ethnic or speciality grocery stores	+	/	/	-	Low	Moderate	Up to 30,000
5	2770 Stony Point Road - Bellevue Plaza	Convenience center featuring small offices and restaurants; building format seems unlikely to allow for redevelopment as a grocery-anchored center; already includes 48,000+ sq ft. Some growth potential to serve additional households, but only if another site is available. Already served by grocery stores within a very short drive.	-	+	/	-	Low	Strong	No development possible at the center itself. Possible potential for up to 30,000 square feet nearby if a site is available.
6	Fountaingrove Village Rebuild	Site of the Fountaingrove Village Center that burned down in the Tubbs Fire. Total retail building area of the original center was approximately 20,000 square feet. Growth opportunity due to projected housing growth, larger site, few competing centers nearby.	/	-	+	+	Medium-High	Strong	Up to 125,000

Center #	Center Name	Description	Anchor tenant space size (or potential size)	Current household demand	Future household demand under Alternative 2	In underserved shopping/grocery area	Likelihood of developing as grocery or pharmacy-anchored shopping center	Likelihood of Developing as Small Commercial Node [1]	Range of Recommended Total Retail Square Feet to Assign [2]
7	Sonoma County Fairgrounds RV Park	Current site of the Santa Rosa Fairgrounds RV Park. Modest additional housing growth suggests potential, but proximity to existing stores/centers limits magnitude of growth opportunity.	+	-	+	/	Medium-High	Moderate	Up to 30,000

[1] Small commercial nodes are defined as convenience or strip centers.

[2] Figures reflect the maximum typical number of square feet in convenience centers (30,000 square feet) or neighborhood centers (125,000 square feet) according to real estate data analytics firm Costar.

Key:

+ Positive Attributes

/ Neutral Attributes

- Negative Attributes

Sources: Placeworks, 2021; Costar, 2021; Strategic Economics, 2021.

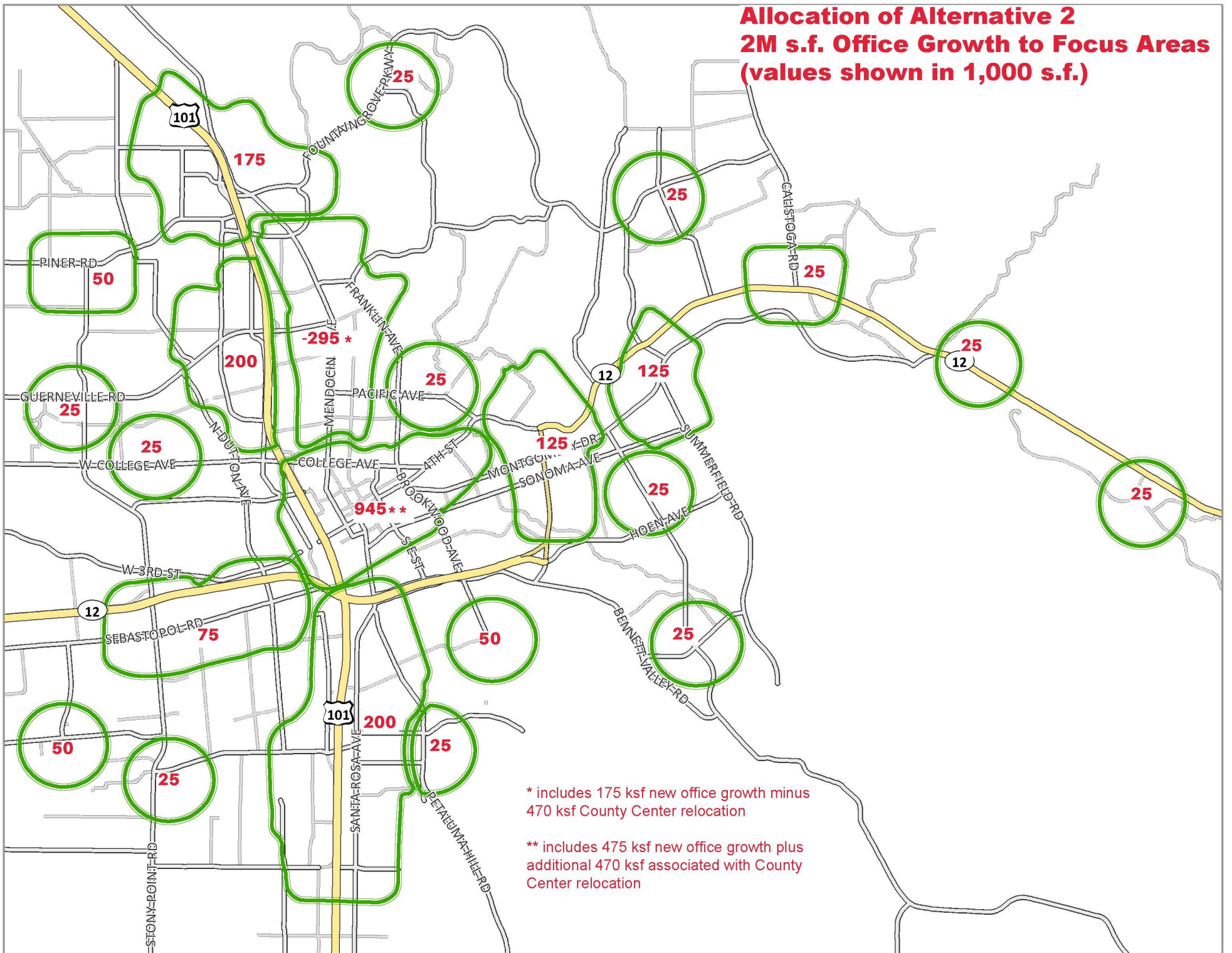
Key Takeaways for the New/Emerging Commercial Nodes Identified in Alternative 2

- The total number of planned “neighborhood commercial” & “shopping centers” under Alternative 2 is slightly high compared to estimated future demand if we assume that they will all develop as grocery- or pharmacy-anchored retail
- However, most sites identified as “potential commercial nodes” under Alternative 2 face significant constraints to becoming grocery-anchored centers and will be more appropriate as sites for smaller convenience stores or specialty markets with some limited services and dining
- One exception is the former Fountaingrove Village center (2097 Stagecoach Rd); this center has high potential to serve as a neighborhood center

Attachment 2: Allocation of Office Growth to Alternative 1 and Alternative 2 Focus Areas

W-Trans prepared the following allocations of new office growth based on the findings described in Attachment 1. The maps respectively show allocation of office growth to the focus area in Alternative 1 and to the focus areas in Alternative 2.

**Allocation of Alternative 2
2M s.f. Office Growth to Focus Areas
(values shown in 1,000 s.f.)**



* includes 175 ksf new office growth minus 470 ksf County Center relocation

** includes 475 ksf new office growth plus additional 470 ksf associated with County Center relocation

Appendix B

Memo: Transportation Modeling Findings



Memorandum

Date: October 26, 2021
To: Ms. Andrea Howard
Mr. Charlie Knox
Placeworks
Project: SRO457
From: Zack Matley
zmatley@w-trans.com
Subject: Santa Rosa General Plan Alternatives – Summary of Transportation Findings

Following is a summary of the key transportation findings resulting from modeling and analysis of the three General Plan land use alternatives developed by Placeworks and the City. Modeling of the alternatives was completed within the Sonoma County Transportation Authority (SCTA) regional travel demand model.

Approach to Presenting Key Findings

Overall, the differences among alternatives are less pronounced than expected, but there are still some nuanced findings to discuss. We believe that the two most valuable findings to present are 1) the VMT per Service Population and 2) the share of non-auto trips. Total Citywide VMT is also useful in demonstrating how close the alternatives really are according to the modeling. Other specific topics, as described below, tend to either become overly complex to present to the broader community in a meaningful manner or have too little distinction among alternatives to be valuable from a decision-making standpoint for most people. These topics as well as the more detailed background data may, however, remain of interest to General Plan steering committees. Excerpts of spreadsheets containing data and charts from the modeling are attached to this memo.

One idiosyncrasy to keep in mind is that Alternative 3 ended up having a slightly smaller residential growth increment than the other two Alternatives (likely related to Assessor's data anomalies as previously discussed with Placeworks), which likely had some influence on the Alternative 3 results. The employment levels remain very close in all three Alternatives.

VMT per Service Population

While VMT per Service Population can be a problematic metric in project-level analyses, it can be useful when comparing the effects of programmatic land use changes like the Santa Rosa General Plan alternatives. VMT per Service Population is based on total VMT, which includes *all* types of vehicular travel including commute, school, shopping/errands, and recreation. The modeling results for VMT per Service Population show that all three alternatives would have a positive VMT effect, slightly reducing VMT compared to the current Citywide average and remaining well below the Countywide average. Alternative 1 performs best among the alternatives. Surprisingly, Alternative 3 comes in at a close second, and Alternative 2 comes in last (more on Alternative 3 performing better than expected is provided below). From a countywide perspective we believe it is safe to say that adding residential and employment in Santa Rosa is more VMT-efficient than other locations in the County. That may ultimately play a bigger role in the SCTA model than the actual development patterns within the City.

VMT per Capita and VMT per Employee

VMT per Capita increases compared to existing conditions for all alternatives. Surprisingly, Alternative 3 generates the lowest VMT per capita. There are likely several factors playing into this, but we believe the largest is

jobs/housing balance. All three alternatives add far more housing units and population than they do jobs. As a result, it is likely that the model is sending some Santa Rosa resident trips further away to work since there aren't enough jobs within the City. This theory is supported by the fact that under all three alternatives, average home-to-work trip lengths increase over existing levels; in other words, people are driving further to work. Why then is Alternative 3 performing best? We think it may be related to the "bug" of this Alternative having fewer new residential units, which translates to a slightly better jobs/housing balance and fewer exported work trips.

With VMT per Employee, the Alternatives 1 and 3 growth increments perform better than the current Citywide baseline, but the growth increment in Alternative 2 performs slightly worse. This makes some sense: Alternative 1 focuses employment downtown where employment VMT is already low, and Alternative 3 adds employment in areas where it already exists, increasing employment density which the model also treats positively. Alternative 2 is establishing new areas for employment growth which on its face seems like it should reduce VMT, but in reality, may not as much as one would think since people don't necessarily live and work in the same neighborhood. From a modeling perspective it is also adding employment in areas where current commute lengths are already a bit longer. The benefits associated with adding smaller neighborhood centers to the urban fabric will be better discerned using the VMT per Service Population metric than the VMT per Employee metric.

In summary, while the VMT per Capita and VMT per Employee metrics are interesting, for a high-level exercise like this they may paint less of a holistic picture than the VMT per Service Population and may be more confusing than beneficial to the broader community for the Alternatives Analysis.

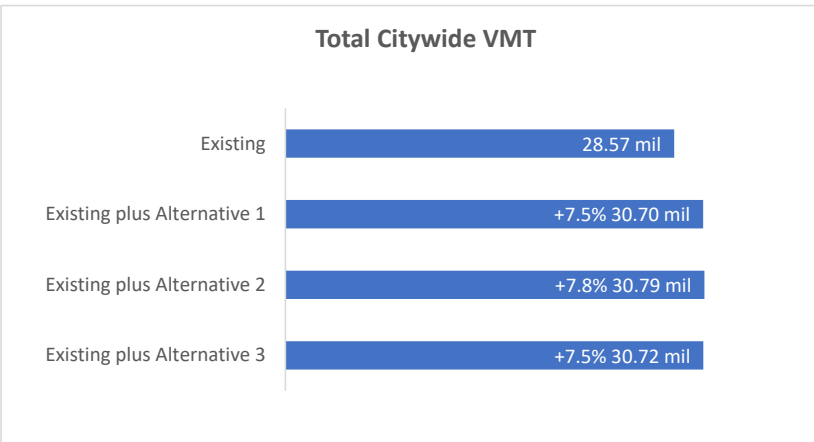
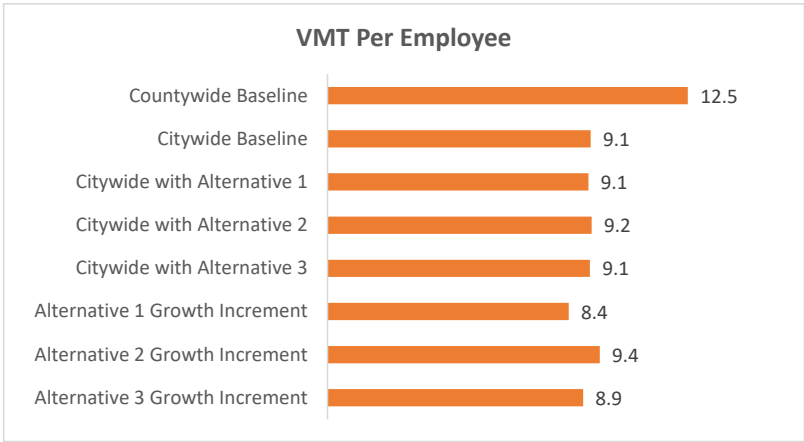
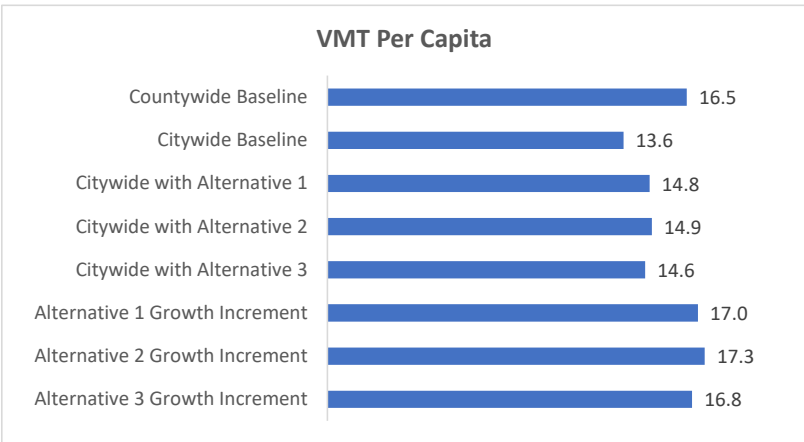
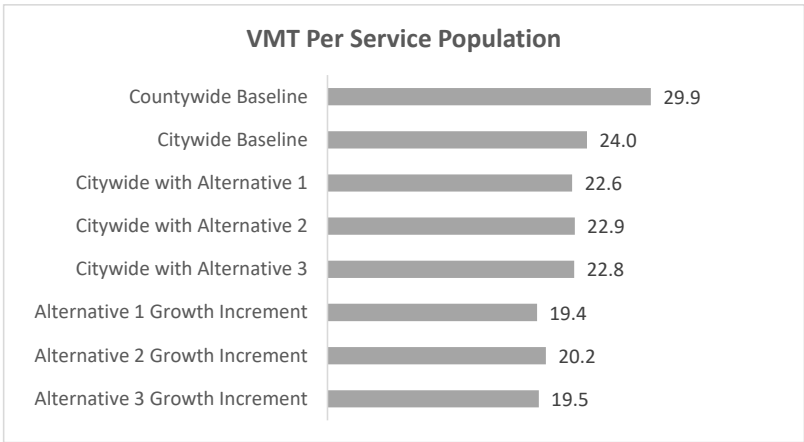
Share of Trips by Walking, Biking, or Transit

These outputs show the estimated share of travel made by non-auto modes for each alternatives' growth increment. Alternative 1 performs the best for all categories of trips and Alternative 3 performs the worst. We believe the relative differences among alternatives are more important than the actual percentages. Also keep in mind that the modeling assumes current non-auto facilities to remain unchanged... it does not include planned new bike facilities, new transit routes, or increased transit frequencies. It may be possible to flesh those out in the Preferred scenario, though admittedly traffic models aren't as sensitive as they could be when forecasting these modes.

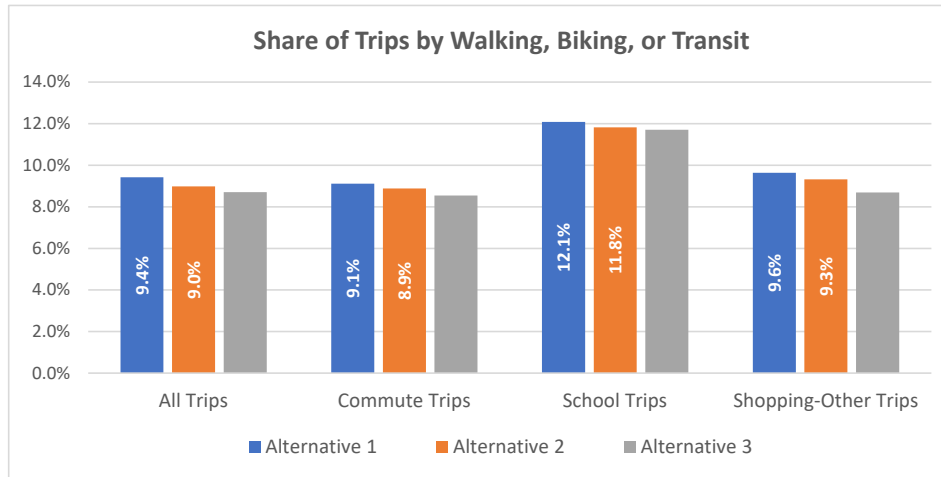
Congestion Hot Spot Maps

We created these diagrams to see if any appreciable differences among alternatives showed up. They did not. As such we don't think it makes sense to dedicate time in presenting these to the community at workshops. If anything, the one thing we would highlight is that the modeling continues to show a real trouble spot on the two-lane section of Highway 12 on the far east side of the City with all three Alternatives. The current General Plan calls for widening this segment to four lanes. While we are not always proponents of roadway widening, we believe this remains an area where some widening may truly be needed. Also, it bears reiterating that these congestion hot spot maps are very high-level estimates based on roadway daily volume-to-capacity ratios... they are not reflective of peak hours and don't take intersection operation into account. Their main utility is showing roadways that will be congested for a good part of the day (not just one or two hours of the day) and could potentially benefit from creating new routes or capacity. As a side note, the modeling does include the Farmers Lane extension and Bellevue overcrossing, consistent with the current General Plan, as they are both key linkages that help VMT, congestion, and multimodal connectivity.

	VMT Per Capita	VMT Per Employee	VMT Per Service Population	Average Work Trip Length (mi)	Baseline VMT (million mi)	Total Added VMT with 110,000 Service Population (million mi)	
Countywide Baseline	16.5	12.5	29.9		28.57		
Citywide Baseline	13.6	9.1	24.0	8.5	6.42		
Citywide with Alternative 1	14.8	9.1	22.6	10.1		} these metrics apply to the entire City, both existing and new residents/workers	
Citywide with Alternative 2	14.9	9.2	22.9	10.1			
Citywide with Alternative 3	14.6	9.1	22.8	9.9			
Alternative 1 Growth Increment	17.0	8.4	19.4			2.13	} these metrics only apply to the new residents/workers
Alternative 2 Growth Increment	17.3	9.4	20.2			2.22	
Alternative 3 Growth Increment	16.8	8.9	19.5			2.15	

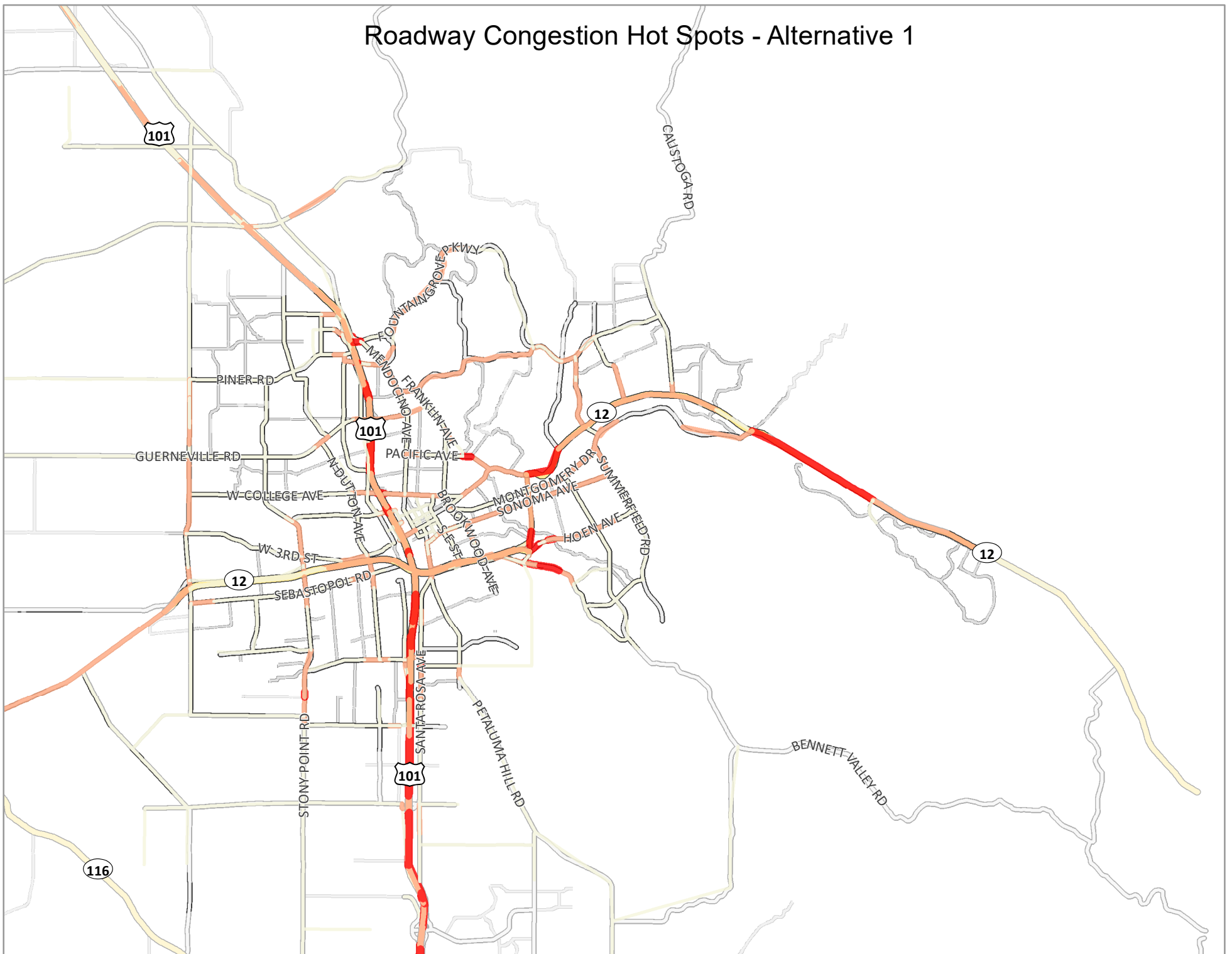


Travel by Walk/Bike/Transit	All Trips	Commute Trips	School Trips	Shopping-Other Trips
Baseline Citywide	8.5%	5.9%	14.7%	9.5%
Alternative 1	9.4%	9.1%	12.1%	9.6%
Alternative 2	9.0%	8.9%	11.8%	9.3%
Alternative 3	8.7%	8.5%	11.7%	8.7%

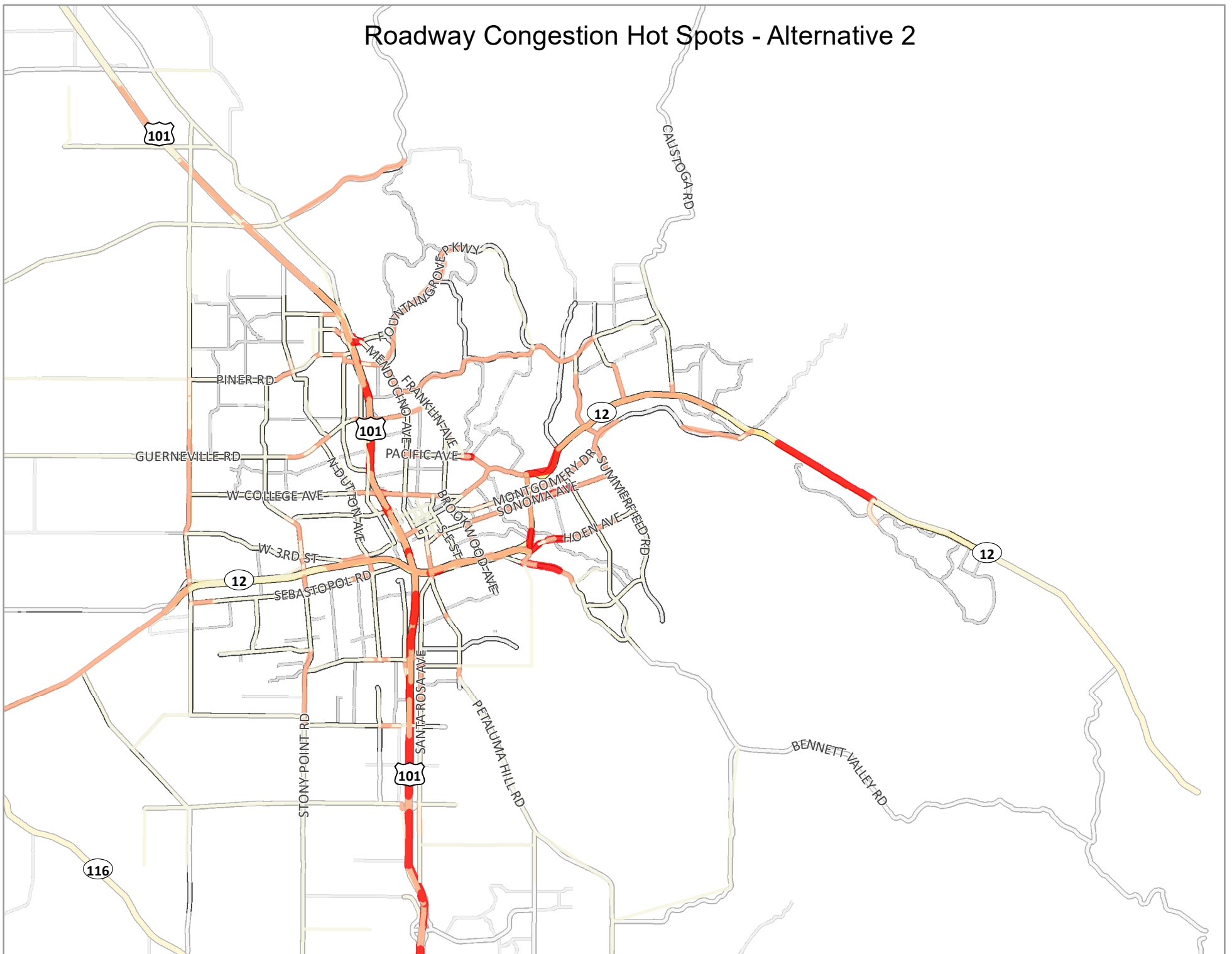


NOTE: These projections are based on existing facilities; i.e., they do not reflect new regional ped-bike linkages, new transit routes, or increases in transit frequency, so should be considered conservative

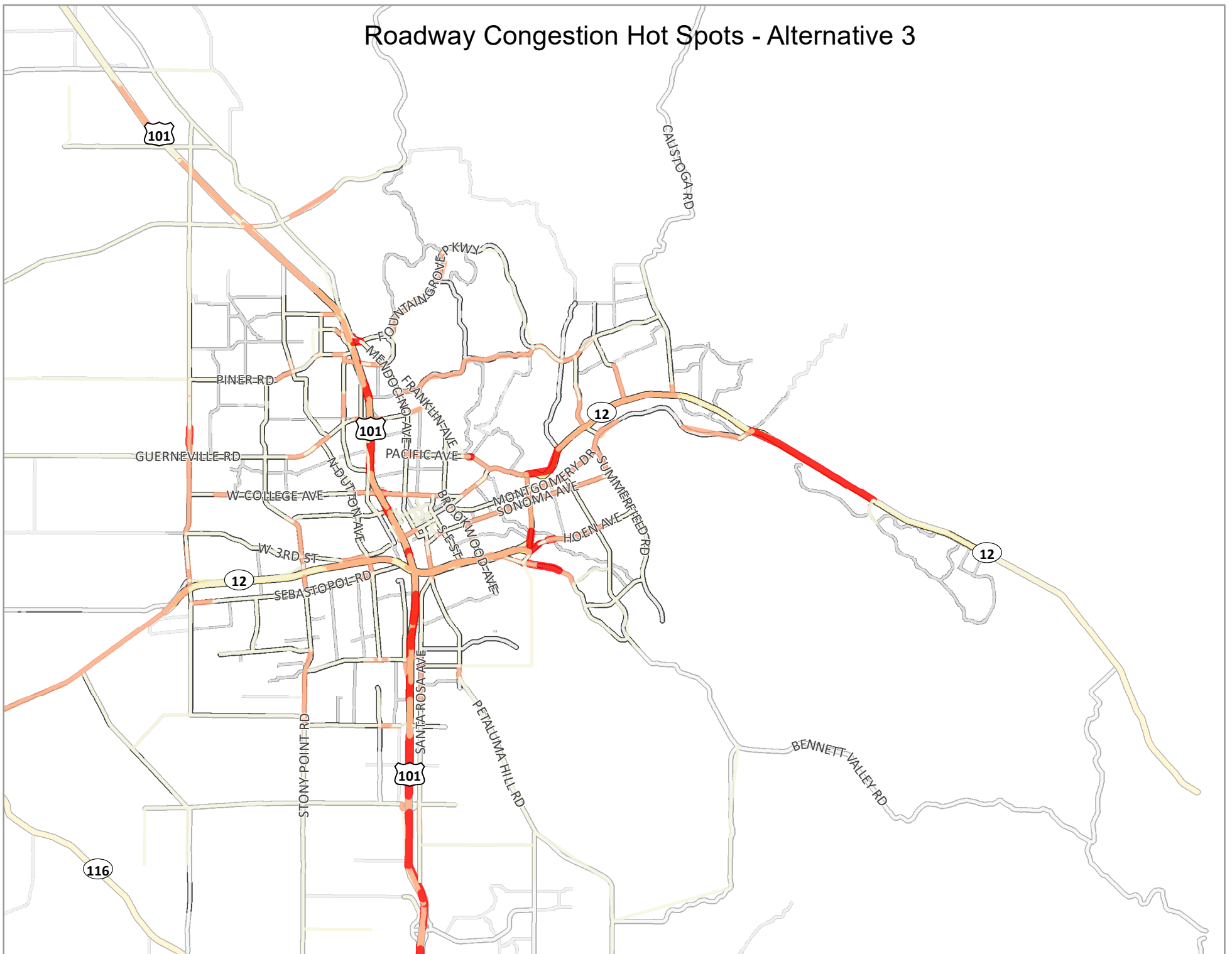
Roadway Congestion Hot Spots - Alternative 1



Roadway Congestion Hot Spots - Alternative 2



Roadway Congestion Hot Spots - Alternative 3



Appendix C

Alternatives Safety Matrix



October 29, 2021

TRANSMITTAL MEMORANDUM

To: Charlie Knox, Principal, and Andrea Howard, Senior Associate, PlaceWorks
From: Aaron Pfannenstiel, Atlas Planning Solutions
Laurie Johnson, PhD FAICP, Principal, Laurie Johnson Consulting | Research
Subject: Alternatives Matrix

Attached are the results of our safety/resilience assessment of the three Alternatives. The scoring indicates how alternatives perform with regards to each of the hazards considered in the assessment. The scoring is weighted for three hazards (wildfire, flood, earthquake); wildfire hazard is weighted by 3 (increasing scores by a factor of three) and flood and earthquake hazards are weighted by 2. All other hazards are weighted equally at 1. This weighting was done to reflect the importance of these three hazards to community resilience in Santa Rosa.

Aaron Pfannenstiel and Laurie Johnson



Santa Rosa Land Use and Circulation Alternatives Safety and Resilience Assessment

Updated October, 2021

Following are the results of our safety/resilience assessment of the three Alternatives. The scoring indicates how alternatives perform with regards to each of the hazards considered in the assessment. Higher scores indicated better performance. The scoring is weighted for three hazards (wildfire, flood, earthquake); wildfire hazard is weighted by 3 (increasing scores by a factor of three) and flood and earthquake hazards are weighted by 2. All other hazards are weighted equally at 1. This weighting was done to reflect the importance of these three hazards to community resilience in Santa Rosa.

Alternative	Central Corridors	Neighborhood Main Streets	Distributed Housing
Metric	Most commercial and residential growth occurs in and around downtown.	Housing and destinations are concentrated along and around key corridors and community nodes.	Duplexes, triplexes, courtyard, and similar dwelling types comprise most of the future housing growth.
Safety and Resilience	Comparatively safest for Wildfire, Flood, Landslide. Densification of downtown raises concerns: 1. concentration of older wood frame housing that can be shaken off their foundations and ignite post-EQ fires; 2. masonry infill and non-ductile concrete buildings and parking garages that are vulnerable to severe damage and even collapse (i.e. Surfside). Retrofit standards and financial incentives for all vulnerable buildings should be part of the planning so that the new development is protected from the hazards of the existing development. Also, consider infrastructure resiliency - esp for water and wastewater. Vulnerable piping and inadequate capacities. Densification in downtown needs to consider the risk with proximal exposure of new more resilient development to vulnerable older building stock.	Comparatively safest for Extreme Heat, Evacuation, and PSPS. Streets may be narrower, hampering efficiency for evacuation. A good mitigation could be advance planning for contraflows (designating streets for one way use in various evacuation scenarios). Wildfire, EQ, and flood risk needs to be considered in the land use design and density criteria. As with Central Corridors Alternative, Neighborhood Mainstreets presents a risk with proximal exposure of new more resilient development to vulnerable older building stock.	Comparatively safest Earthquake and Fire Caused by Earthquake. Evacuation traffic flow planning is needed and, as with other alternatives, planning must be mindful of proximal exposure of new more resilient development to vulnerable older building stock.
Wildfire* (3)	Centralized growth results in minimal expansion into WUI and less of an increase in wildfire risk. 9	Increased density within and along the current WUI boundary will increase the risks to property and people. Anticipated increases in the size of the WUI from Cal Fire mapping updates means additional people and properties will be exposed to wildfire risk. 3	This alternative has limited expansion into the WUI, which reduces future fire risks. Any increased density within the WUI will still require mitigation for construction, maintenance, and evacuation concerns. 6
Flood (2)	Limited flood risk in the downtown area. However Focus area is encroaching into flood prone areas in the southwest portion of the City. Risks likely could be mitigated with appropriate elevations and first floor uses in any new development. Adding drainage capacity and improvements is anticipated to be required. 6	Limited flood risk in potential hubs and nodes in the north and east parts of the City. Investments in the southwest portion of the city are most at risk. Risks likely could be mitigated with appropriate elevations and first floor uses in any new development. A comprehensive storm drain master plan and associated improvements would be recommended to ensure flood impacts can be effectively mitigated. 2	At the individual parcel level, it may have the greatest level of flood protection. But, it may not address larger neighborhood- or community-wide flood risk issues (such as in the southwestern part of the city). 4
Earthquake (2)	Proximity to Rogers Creek fault and poor soils that can amplify ground shaking to violent or severe levels. Older buildings and infrastructure within and surrounding downtown vulnerable to severe levels of damage and disruption. With density proposed in the focus area there may be an economy of scale for mitigating the geologic hazards. 4	Proximity to Rogers Creek fault and poor soils that can amplify ground shaking to violent or severe levels. Areas of potential development may be susceptible to liquefaction risk that can be mitigated, but not with the same economies of scale as Alt 1. 2	Proximity to Rogers Creek fault and poor soils that can amplify ground shaking to violent or severe levels. Additionally some areas may be susceptible to liquefaction risk that can be mitigated. There is the potential for more seismically-vulnerable housing to be upgraded or removed. 6
Fire caused by earthquake	Density of older, seismically vulnerable wood-frame structures and electric/gas ignitions in older buildings can lead to multiple fires. Older water infrastructure may not have capacity (or be too damaged) to fight multiple fires and/or large structure fires. 1	Older seismically vulnerable structures are likely in older, and currently underperforming, corridors and community nodes. New development can reduce these risks. However, buried infrastructure also needs to be improved to ensure damage does not displace residents and businesses. 2	Older seismically vulnerable structures are likely in older neighborhoods. New development can reduce these risks. However, buried infrastructure also needs to be improved to ensure adequate capacity for firefighting and also so that damage does not displace residents and businesses. 3
Landslides (EQ, rainfall, and post-fire)	No apparent risk. 3	Some nodes may be susceptible to landslide risk that can be mitigated at the individual parcel level. But, any area-wide landslide risk will still remain, now exposing more residents to it. For areas close to the WUI, post-wildfire risks may increase. 2	Some nodes may be susceptible to landslide risk that can be mitigated at the individual parcel level. But, any area-wide landslide risk will still remain, now exposing more residents to it. For areas close to the WUI, post-wildfire risks may increase. 1
Extreme heat	Building and street/sidewalk density and lack of greenspaces may increase heat exposure unless mitigated. Co-benefits could be realized for areas where natural drainage improvements expand green space and nature based infrastructure is installed. 2	Building and street/sidewalk density may increase but there is more opportunity to increase tree canopies and green space. Some co-benefits could be realized for some areas where natural drainage improvements expand green space and nature based infrastructure is installed. 3	Less possibility to mitigate risk in cohesive way as compared to corridors/nodes. 1
Evacuation	Increased density within a limited area will create evacuation challenges that must be addressed with appropriate planning and potential roadway modifications. A comprehensive evacuation plan will be necessary to ensure future growth is accommodated. 1	Pedestrian-friendly streets may not be as efficient for evacuation. But there are street designs that can still allow for evacuation use of predominantly pedestrian/bike areas. Corridors/nodes approach provides for a more system approach for circulation planning and design purposes. A comprehensive evacuation plan will be necessary to ensure future growth is accommodated. 3	While density changes may be more subtle, changes in overall traffic volume and patterns are less predictable. Mitigation may be difficult due to the dispersed nature of this primarily private-property led development alternative. 2
PSPS	Downtown was part of the 2019 PSPS area and on PG&E PSPS planning map. There is greater opportunity in this alternative for micro-gridding and other mitigations. 2	Corridors provide the opportunity for resilience hubs and new development can be required to have back-up power and other mitigations. 3	Less possibility to mitigate risk in cohesive way. 1
Avg total	3.5	2.5	3

*Comments are based on fire hazard severity mapping currently available. High and Very high fire hazard severity zones are likely to grow with the updated maps.