



# Middlefield Road Redesign

## Background and Additional Information

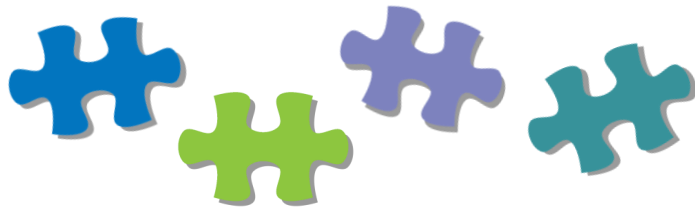


Prepared for The North Fair Oaks Community Council

August 15, 2014

---

# INTRODUCTION



The project under consideration by the Council is the redesign of Middlefield Road between Pacific Avenue on the north and Fifth Avenue on the south. In connection with the planned undergrounding of utility wires, this section of Middlefield Road will be reconfigured to better address the interests and priorities of the residents and businesses in the community. The Middlefield Road Redesign Project is being financed by San Mateo County's Measure A Funds. The development of a road design is the first step in what is anticipated to be a four to five year project.

Since early 2014, the North Fair Oaks Forward Team has been working closely with the North Fair Oaks Community Council to inform the community about the redesign of Middlefield Road and gather their comments and suggestions. Over the last six months, through surveys, community meetings and council meetings, comments from over 2,100 people have been received, summarized and presented to the Council. The Council has also received reports from County staff and has requested case studies and other information related to the street design options.

This agenda packet includes summaries of all the information that has been presented to the Council to date, along with the additional information that has been requested. The information that has already been presented to the Council is organized in four sections:

1. North Fair Oaks Community Plan excerpts that relate to the Middlefield Road design including land use, traffic and circulation and health and wellness goals and policies
2. Street Design Options
3. Traffic Analysis
4. Summary of community comments and suggestions

Complete summaries of data and community input are available on the North Fair Oaks Forward website: [www.nfoforward.org](http://www.nfoforward.org).

Three items of new information are included as attachments: the requested case studies, a summary report on suggestions for the design of Middlefield Road prepared by the National Association of City Transportation Officials (NACTO), and the small group comments from the July 24, 2014 community meeting.

This informational packet is being presented to the Council in preparation for the study session on Thursday, August 21, 2014 where the Council will begin to formulate the language of a recommendation to be presented to the Board of Supervisors on Tuesday, October 21<sup>st</sup>. The Council will take action on the recommendation at its regular meeting on Thursday, August 28, 2014.

In considering the recommendation to the Board the Supervisors regarding Middlefield Road, it is suggested that Council members keep the following points in mind:

- It's the North Fair Oaks Community Council's responsibility to consider its recommendation using information and data from multiple sources including:
  - the vision and policies in the North Fair Oaks Community Plan
  - community input gathered during the past few months
  - road design options provided by the Department of Public Works
  - data gathered in the Traffic Analysis
- In addition, Council members should use their knowledge of the community in their roles as representatives of the entire community to reach a conclusion about the redesign approach that will promote the best results now and in the future.
- Council members should share their thinking with each other and with their constituents as they move toward a decision, so that their Council colleagues and constituents will know that the community engagement process has been respected and valued.
- The Council should acknowledge some areas of consensus and some continuing differences in preferences in this complex situation. The decision it reaches as a body will represent its effort to address multiple interests and priorities with the intention of achieving the best outcome for all.



## Table of Contents

Community Plan.....	5
Street Design Options.....	15
Traffic Analysis.....	17
Community Comments.....	19
Attachments.....	24



## SECTION 1: NFO COMMUNITY PLAN

The North Fair Oaks Community Plan was adopted by the County Board of Supervisors in November of 2011. The Plan created a vision for the future of North Fair Oaks. The introduction to the Plan outlines both the purpose the vision of the document:

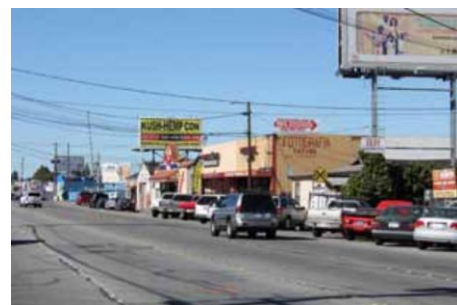
*The North Fair Oaks Community Plan is a long-range policy document that establishes goals and policies for land use, housing, health and wellness, parks and recreation, circulation and infrastructure for North Fair Oaks. The plan supports the community's vision of North Fair Oaks as a complete and vital community with an appropriate mix of housing, employment and services to meet the needs of North Fair Oaks residents. The Plan also envisions a community that is safe and accessible for pedestrians and bicyclists, has access to open space and recreational opportunities, is connected by transit within the community and to the greater region and fosters healthy living for all community members. The Plan establishes the framework for the future development and improvements to achieve this vision, meet the needs of current and future residents, and maintain and improve the livability of North Fair Oaks.*

Goals and policies from the Plan related to land use, traffic and circulation and health and wellness, which are particularly relevant to the redesign of Middlefield Road, are presented below.

### **Chapter 2: Land Use**

#### **Circulation and Connectivity**

Existing deficiencies and the proposed improvements related to circulation and overall multi-modal connectivity in North Fair Oaks are described in detail in Chapter 4: Circulation and Parking.



In this chapter, Middlefield Road is identified as a “Destination Street.” Middlefield Road is recognized as the heart of North Fair Oaks, where a locally-oriented mix of uses and community amenities currently exists and will be supported and enhanced.

### **Chapter 3: Traffic and Circulation**

**Goal 3.1: Improve overall neighborhood connectivity throughout North Fair Oaks.**

Policy 1C: Implement the intersection capacity improvements identified in the Community Plan traffic analysis to provide acceptable traffic operations in conjunction with new development contemplated as part of the Plan. However, avoid improvements that provide additional vehicular capacity while degrading pedestrian, bicycle or transit access and mobility.

Policy 1D: Re-evaluate auto-oriented Level of Service (LOS) policies for certain roadways and intersections within North Fair Oaks, such as the Middlefield Road commercial corridor, to ensure a balance of mobility for all modes of travel. Develop a new LOS policy that includes an emphasis on pedestrian, bicycle and transit access and circulation and maintenance of emergency vehicle response times, and does not rely on auto congestion as the only indicator of a significant traffic impact.

**Goal 3.2: Improve existing pedestrian facilities (sidewalks, sidewalk furniture, trees, paths, and other facilities), and provide new facilities throughout North Fair Oaks.**

Policy 2A: Improve and enhance pedestrian facilities along key streets that connect to destinations throughout North Fair Oaks to prioritize “complete streets” design standards that give equal space to pedestrians, bicyclists, public transit, and cars. The design standards and guidelines in Chapter 7.

Policy 2B: Modify road standards as presented in Chapter 7: Design Standards and Guidelines particularly along destination streets such as Middlefield Road and major corridors including El Camino Real and 5th Avenue, to achieve a safe and inviting pedestrian environment. Improvements should include the use of elements such as wider sidewalks, mid-block crosswalks, street trees, planting strips, and curb extensions for urban commercial corridors or residential street improvements.

Policy 2C: In conjunction with street improvements, implement sidewalk improvements to achieve a continuous ADA-accessible sidewalk that is a minimum of five feet wide along all streets. Provide eight-foot sidewalks on pedestrian-oriented commercial corridors such as Middlefield Road and El Camino Real.

Policy 2E: Evaluate the feasibility of implementing a lane reduction, or “road diet” for Middlefield Road between Douglas Avenue and 8th Avenue. By reducing the number of travel lanes, the roadway width can be reallocated to provide bike lanes, widened sidewalks, crosswalk curb extensions (bulbouts), and other streetscape improvements.

Policy 2K: Allow use of mid-block crossings at locations with high pedestrian activity between intersections. Ensure that all mid-block crossings include high-

visibility, 10-foot wide crosswalks, advanced warning signage, and flashing beacons or in-pavement flashers where possible.

Policy 2M: Explore the use of special paving materials for crosswalks to heighten visibility and lend identity to the area.

**Goal 3.3: Improve bicycle connectivity throughout North Fair Oaks by providing additional designated bicycle facilities such as bike lanes and paths and by improving the safety of existing infrastructure.**

Policy 3A: Complete the bicycle facility improvements identified in this Plan (See Appendix C) as well as in the San Mateo County Bicycle Route Plan (2011) and Redwood City General Plan (2010) to create a network of well-connected primary bicycle facilities along contiguous sections of Middlefield Road and El Camino Real and secondary facilities along 5th Avenue, Fair Oaks Avenue, Douglass Street, Dumbarton Avenue, 2nd Avenue, and 8th Avenue. Ensure that these improvements are identified, supported, and coordinated in future local and regional plan updates.

Policy 3B: Provide safe, secure bicycle parking in commercial areas, along designated bike routes and transit corridors, and at parks and schools.

Policy 3C: Designate “bicycle boulevards” that emphasize shared-use between vehicles and bicyclists on streets that are not main streets, but that provide equivalent connectivity.

Policy 3E: Upgrade traffic signal equipment to ensure that adequate bicycle detection is provided.

Policy 3F: Explore the implementation of way-finding signs to guide bicyclists and pedestrians to recommended travel routes and destinations throughout the community.



**Goal 3.5: Improve the efficiency of the existing parking system, provide sufficient parking to support future development without creating significant excess supply, and reduce overall parking demand by leveraging diverse parking management strategies.**

Policy 5A: Support the use of transportation modes other than the automobile to reduce the need for additional parking.

Policy 5B: Support the use of parking supply control and pricing as a strategy to encourage use of non-automobile travel modes where feasible.

Policy 5C: Develop a parking management plan for North Fair Oaks, which could include permit parking, meters, restrictions, and other programs, and ensure enforcement of programs and policies. Designate appropriate areas in which all parking is fee-for-use or time-limited, particularly in commercial areas.

Policy 5D: Implement the reduced parking standards presented in this Plan for development within the proposed mixed-use, transit-oriented development areas concentrated along the Middlefield Road and El Camino Real corridors, as well as within the vicinity of the proposed multi-modal transit hub.

Policy 5L: Explore opportunities to expand off- street parking supply by providing County- or privately-owned public parking lots or structures near areas of concentrated parking demand. This could include new surface parking lots or structured parking in commercial districts, or small neighborhood parking lots in residential areas with high parking demand.

Policy 5P: Require effective and meaningful Transportation Demand Management (TDM) programs for new higher intensity development. Monitor effectiveness of required TDM programs and modify requirements as needed to ensure that demand management is achieving goals, including potential performance standards to help achieve real results.

Policy 5Q: Consider the implementation of Residential Parking Permit (RPP) districts or Residential Parking Benefit (RPB) districts to manage parking utilization and limit spillover in residential neighborhoods.

Policy 5R: Provide sufficient parking enforcement to consistently support parking regulations in residential and commercial areas. Explore funding mechanisms, subsidies, or partnerships with adjacent jurisdictions to overcome current challenges with providing sufficient parking enforcement personnel in North Fair Oaks.

## **Chapter 5: Health and Wellness**

**Goal 5.8: Enhance access for all North Fair Oaks residents and employees, especially the most vulnerable, to local public transit, regional public transit, and active transportation modes throughout the community.**

Policy 8E: Create “complete streets” that balance all modes of travel and provide a safe and comfortable pedestrian environment along commercial corridors, major arterials, and appropriate residential streets.

Policy 8F: Adopt new level of service standards for local streets that consider all modes of travel when assessing street performance, while still ensuring that



streets and intersections meet minimum emergency response standards. Current level of service standards evaluate street performance based on automobile speed, volume and delay time, but do not consider safety or mobility of pedestrians and bicyclists.

Policy 8G: Address access for people with disabilities and special needs in all transportation improvements.

**Goal 5.10: Provide safe, accessible, and convenient pedestrian routes throughout North Fair Oaks.**

Policy 10A: Assess and address pedestrian barriers such as narrow or blocked sidewalks that prevent residents from walking to schools and other amenities in the neighborhood.

Policy 10D: Ensure that there are safe pedestrian paths or sidewalks along all streets in North Fair Oaks, and improve crosswalks, signage, and signals at key intersections.

Policy 10E: Where pedestrian crossings are signalized, ensure that the crossing time is sufficient for all residents to cross safely, and install pedestrian countdown signals wherever feasible.

Policy 10F: Install signal loop detectors (detectors that sense the presence of vehicles at intersections and trigger appropriate signal changes) that are sensitive to bicycles at signalized intersections.

**Goal 5.11: Provide safe and convenient bicycle routes throughout North Fair Oaks, and encourage and facilitate bicycle usage by area residents.**

Policy 11A: Expand the North Fair Oaks bicycle network through the use of bicycle lanes, signage, wide paved shoulders, “sharrows” (lanes shared by bicycles and automobiles), and bicycle paths, with prominent signage that directs bicyclists to paths and bicycle routes. Wherever possible, create protected—or physically separated—bicycle lanes.



Policy 11C: Improve bicycle facilities such as secure storage lockers, bicycle racks, and other amenities throughout all neighborhoods.

Policy 11D: Partner with business owners to install bicycle racks in front of businesses along major roadways including Middlefield Road, 5th Avenue, Edison

Way, and Spring Street.

Policy 11E: Improve bicycle safety at major intersections and along key corridors.

**Goal 5.12: Foster “complete streets” that balance auto, transit, pedestrian, and bicycle uses on key streets in North Fair Oaks.**

Policy 12A: Ensure that major corridors in North Fair Oaks such as Middlefield Road and 5th Avenue include sidewalks; bike lanes or wide paved shoulders; prominent signage; dedicated bus lanes if appropriate; accessible, sheltered bus stops; frequent and safe crossing opportunities; medians or islands to serve as resting points mid-crossing where needed; accessible pedestrian signals; and narrower auto travel lanes to create a balance between auto, transit, bicycle and pedestrian modes.

**Goal 5.13: Encourage and provide space for public amenities and daily goods and services within walking distance of a majority of residential areas while reducing physical barriers that limit access to these uses.**

Policy 13C: Improve bicycle and pedestrian access to all neighborhood services, including clinics, to ensure that residents have safe and convenient access to these facilities.

**Goal 5.15: Provide safe and convenient pedestrian and bicycle routes to essential neighborhood destinations.**



Policy 15A: Address physical barriers that prevent residents, visitors and workers from walking or bicycling safely and conveniently to public amenities and retail services in and around North Fair Oaks.

**Goal 5.17: Provide pedestrian-scale street lighting along all streets in North Fair Oaks.**

Policy 17A: Provide pedestrian-scale lighting throughout North Fair Oaks, and especially in the neighborhoods north of the Southern Pacific railroad spur.

Policy 17B: Encourage building owners along major corridors such as Middlefield Road to install and turn on outdoor lighting to light entries to their buildings.

**Goal 5.18: Create safer environments for pedestrians and bicyclists, by clearly delineating bicycle and pedestrian routes and crossings, installing pedestrian**

**and bicycle safety improvements, and decreasing speeds of vehicular traffic near pedestrian crossings and along residential streets.**

Policy 18A: Ensure that all crosswalks are clearly visible and, where necessary, install signalized pedestrian crossings. Install pedestrian countdown signals at signalized intersections, and install bicycle-sensitive signal loop detectors where feasible.

Policy 18C: Where appropriate, reduce the number of travel lanes on streets in North Fair Oaks to slow traffic speeds and allow bicyclists and pedestrians to travel more safely.

Policy 18D: Clearly designate and demarcate bicycle paths with signage and other indicators to ensure that both bicyclists and drivers are aware of the areas designated for and most likely to be used by bicyclists.

**Goal 5.21: Ensure that North Fair Oaks has clean, healthy air and water.**

Policy 21D: Reduce storm water runoff and seasonal flooding in North Fair Oaks to protect water quality in nearby bodies of water through the use of sustainable and green infrastructure design, construction and maintenance techniques.

Policy 21L: Encourage, as part of new development projects, and as part of public and private right-of-way improvements, installation of electrical vehicle (EV) charging stations, and/or provisions of infrastructure (including appropriate conduit) for future installation of EV charging stations, to provide opportunities for future EV charging without requiring retrofitting of existing facilities.



**Chapter 7: Design Standards and Guidelines**

**7.1 Design of the Public Realm**

**The public realm—composed of the community’s streets, sidewalks, and public open spaces—plays a crucial role in the vitality and livability of an area. As noted above, the standards and guidelines provide guidance for public improvements led by either the County or private developers, and provide guidance for the County in the review of improvements to the public realm.**

The public realm standards and guidelines are intended to:

- Enhance the quality of public open spaces and recreational areas, such as neighborhood parks, pocket parks, plazas, pathways, and other spaces, and ensure that these spaces are designed to meet the specific needs of the community.
- Enhance the multi-modal pedestrian and bicycle environment throughout the North Fair Oaks. While some streets in North Fair Oaks such as 5th and 9th Avenues and Edison Way have a distinct shared road character where the roadway provides adequate circulation for all modes of transportation, most streets in North Fair Oaks are auto-oriented. By redesigning and enhancing the public realm along the street public right-of-way, residents, workers and commuters will be more likely to walk, bike and take transit rather than drive to parks, schools and retail destinations. This will also help set the stage for additional transit-oriented facilities in North Fair Oaks, including a potential multi-modal transit hub. Public realm improvements will also make the area safer by incorporating traffic calming elements to slow vehicles traveling through the area.
- Support the community's identity through application of consistent, high quality public realm design standards and guidelines area-wide, while respecting the distinct needs and types of development in different parts of North Fair Oaks. The public realm in North Fair Oaks includes the "destination" or "main street" of Middlefield Road; the "regional connectors" and arterials including El Camino Real and Bay Street; entry streets and primary and secondary collectors such as 5th Avenue; and local streets including 40, 50 and 60-foot-wide streets such as Fair Oaks Avenue, Edison Way, 2nd Avenue and 8th Avenue.

#### A: Overarching Standards and Guidelines for Streetscape Design

##### **A1 Roadways**

- A1-1 Provide 11-foot-wide travel lanes for arterial streets.
- A1-2 Allow 10-foot-wide turn lanes in areas where right of way is constrained.
- A1-3 Provide 10-foot wide travel lanes for local streets.
- A1-4 Provide 8-foot-wide parallel parking lanes along arterials for on-street parallel parking. Allow 7-foot-wide parking when adjacent to Class II bike lanes that are 6 feet or wider.
- A1-8 Explore 6-foot wide dedicated on-street bicycle lanes. Provide 5-foot-wide bike lanes when the right-of-way (ROW) is constrained.

##### **A2 Sidewalks and Landscaping**

- A2-1 Incorporate creation of continuous ADA accessible paths throughout the

community in all street improvement projects.

- A2-2 Provide 8-foot-wide sidewalks on key pedestrian-oriented commercial corridors with heavy foot traffic, such as Middlefield Road, so that two or three people can walk together comfortably.
- A2-3 Allow sidewalks in commercial and mixed- use areas to be used as a place of temporary commerce as long as there is a minimum 4-foot-wide contiguous ADA accessible path at all times.

### **A3 Crosswalks and Bulbouts**

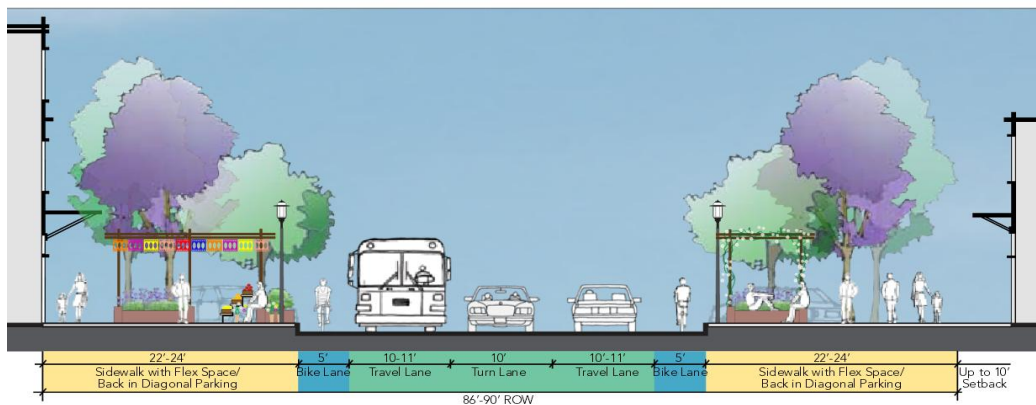
- A3-1 Provide clearly marked minimum 10-foot-wide crosswalks at all controlled intersections where either stop signs or stoplights are present. Ensure that sidewalks at all intersections are ADA accessible.
- A3-2 Create pedestrian refuge islands at intersections, where possible, to allow pedestrians a safe mid-street waiting spot between crossing cycles.
- A3-3 Explore 10-foot wide mid-block crosswalks on long blocks along corridors such as 5th Avenue.
- A3-4 Where possible, provide bulbouts at intersections and mid-block crossings to minimize crossing distance and increase pedestrian visibility.
- A3-6 At key intersections along corridors with on-street bike lanes, explore creation of bike boxes. Mark bike routes through these intersections with dashed lines or color to strengthen bike safety and connectivity.

### **B1 Middlefield Road**

The policies in this section focus on Middlefield Road between Garfield School (at 8th Avenue) and Douglas Avenue. Middlefield Road is a primary access road in North Fair Oaks for all modes of transportation including pedestrians, bicyclists, transit users and drivers. However, the street currently provides an unfriendly pedestrian and bicycle environment with narrow sidewalks, no bike lanes, and front-in diagonal parking that is dangerous for pedestrians and bicyclists. In addition, Middlefield Road lacks street amenities such as trees, landscaping, communal open space, and other beneficial streetscape elements. Improvements to Middlefield Road can increase overall street safety and access to local business, services, and other destinations, while improving the overall design and character of the street, helping Middlefield Road fulfill its function as the “Main Street” or “Destination Street” in North Fair Oaks.

## Roadway

- B1-1 Reconfigure Middlefield Road to provide one 11-foot-wide travel lane in both directions and a continuous 10-foot-wide left turn center lane.
- B1-2 Provide 14-foot-wide on-street reverse/ back-in diagonal parking on both sides of the street. Where ROW is constrained, explore parallel parking. Any space gained in the conversion of diagonal to parallel parking should be devoted to sidewalk space and bicycle facilities.
- B1-3 Provide 5-foot-wide bike lanes on both sides of the street. Ultimately, provide protected bike lanes that are separated from automobile lanes on both sides of the street.
- B1-4 Provide well-defined crosswalks at all intersections of Middlefield Road including 8th, 5th, 2nd and Douglas Avenues.



- B1-5 On blocks with diagonal parking, use the unused triangle of space between the last parking space and the sidewalk end for the installation of additional sidewalk space, trees, street furniture and lighting.

## Pedestrian Realm

- B1-6 Create 10-foot-wide sidewalks with an unobstructed contiguous 4-foot-wide path for pedestrian travel.
- B1-7 Locate bulbouts at key intersections than can be designed for multiple uses including temporary plazas, outdoor dining, bus stops, and other uses.
- B1-8 Install pedestrian-scale lighting (approximately 12 feet high) along Middlefield Road to provide a safe and inviting environment.
- B1-9 Install benches, trash receptacles and other streetscape amenities at key nodes along the entire length of Middlefield Road.





## SECTION 2: STREET DESIGN OPTIONS

Middlefield Road has 86 feet of public right away available, from one store front to the other. Based on community input gathered during the outreach process, the amount of available right away space and the recommended measurements from Department of Public Works, the following conceptual street designs have been created.



The chart below highlights the differences between both the 3 lane and 4 lane configurations.

Street Elements	4 Lanes	3 Lanes	Difference
<b>Traffic Lanes</b>	Middle: 11' to 12' Outside: 12' to 13'	Center: 14' Outside 12' to 13'	<b>Wider Center Lane</b>
<b>Parallel Parking</b>	8' each side	8' each side	None
<b>Bike Lanes</b>	4' each side	5' each side	<b>1' wider</b>
<b>Sidewalks</b>	6' to 8' each side	10' to 11' each side	<b>2' to 5' wider</b>

The following chart describes the benefits of each lane configuration in regards to safety and other uses of the street. The 3 lane configuration provides more space and safety for pedestrians and bicyclists. Due to the lack of supporting data, it cannot be determined which lane configuration would best accommodate emergency vehicles, delivery trucks, and side street congestion.

Issue	4 Lanes	3 Lanes	Comments
<b>Pedestrian Safety</b>		<b>X</b>	Wider sidewalks, shorter crossing distances
<b>Bike Safety</b>		<b>X</b>	Wider bike lane, potential buffer zone, possible door zone separation
<b>Emergency Vehicles</b>			CHP and Sheriff say they can work with either lane configuration
<b>Delivery Trucks</b>			Site specific solutions such as times loading zones
<b>Side Street Congestion</b>			Impact of 3 lanes on side streets to be studied further



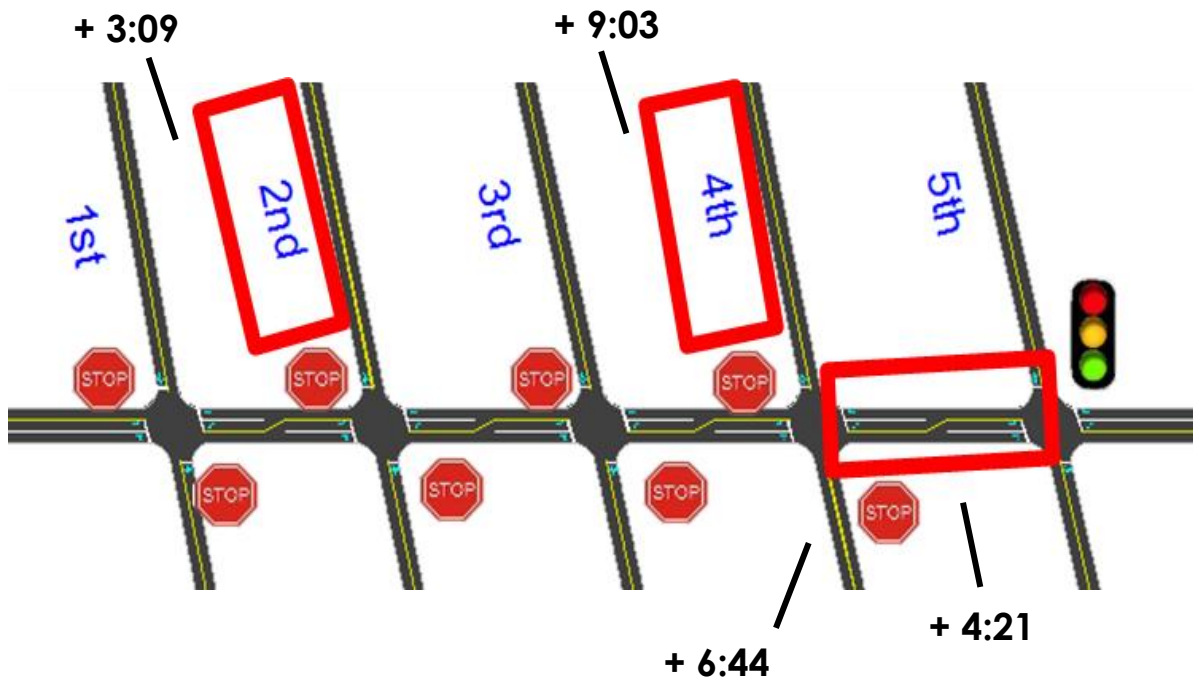


## SECTION 3: TRAFFIC ANALYSIS

Based on the traffic volume counts from 2012, during the peak weekday travel from 4pm to 6pm, the average traffic wait times at key intersections for the 4 lane and 3 lane configurations are listed below.

<b>Intersection</b>	<b>Existing Conditions with 4 Lanes</b> (min: sec wait time)	<b>3 Lanes</b> (min: sec wait time)	<b>Increase in Wait Time with 3 Traffic Lanes</b>
<b>Hurlingame - southbound</b>	0:24	1:36	1:12
<b>2<sup>nd</sup> Avenue - southbound</b>	1:06	4:15	3:09
<b>2<sup>nd</sup> Avenue - northbound</b>	1:20	3:19	1:59
<b>4<sup>th</sup> Avenue - southbound</b>	1:06	7:50	6:44
<b>4<sup>th</sup> Avenue - northbound</b>	2:27	11:30	9:03
<b>5<sup>th</sup> Avenue - southbound</b>	1:33	2:03	:30
<b>5<sup>th</sup> Avenue - northbound</b>	10:46	13:29	2:43
<b>Middlefield Road – eastbound between 4<sup>th</sup> and 4<sup>th</sup></b>	0:27	4:48	4:21

The diagram below highlights the significant increases of vehicle wait times that would occur with the 3 lane configuration, at four intersections on Middlefield Road.





## **SECTION 4: INPUT FROM THE NORTH FAIR OAKS COMMUNITY**

### **The North Fair Oaks Forward Outreach and Engagement Team**

Peggy Jensen, Deputy County Manager, Team Leader

- Patricia Brown, Consultant
- Lilia Ledezma, Consultant
- Elizabeth Dallman, Outreach Coordinator
- Ashley Quintana, Outreach Coordinator

### **working closely with Supervisor Warren Slocum and the District 4 staff members**

- Carol Marks, Chief of Staff, District 4
- Marci Dracun
- Irving Torres
- Maya Perkins

### **and advised by the Outreach and Community Engagement Workgroup**

- Jana Kiser, Redwood City 2020
- Naomi Hunter, Director of Communications, Redwood City School District
- Carol Marks, District 4, Office of Supervisor Warren Slocum
- Carmela Meehan, Coordinator, North Fair Oaks Youth Initiative
- Shireen Malekafzali, SMC Health System Policy and Planning
- Deputy Pedro Miqueo, Sheriff's Office, Director of CARON
- Priscilla Padilla Romero, Fair Oaks Health Center
- Connie Paniagua, San Mateo Credit Union
- Renee Zimmerman, Family Connections

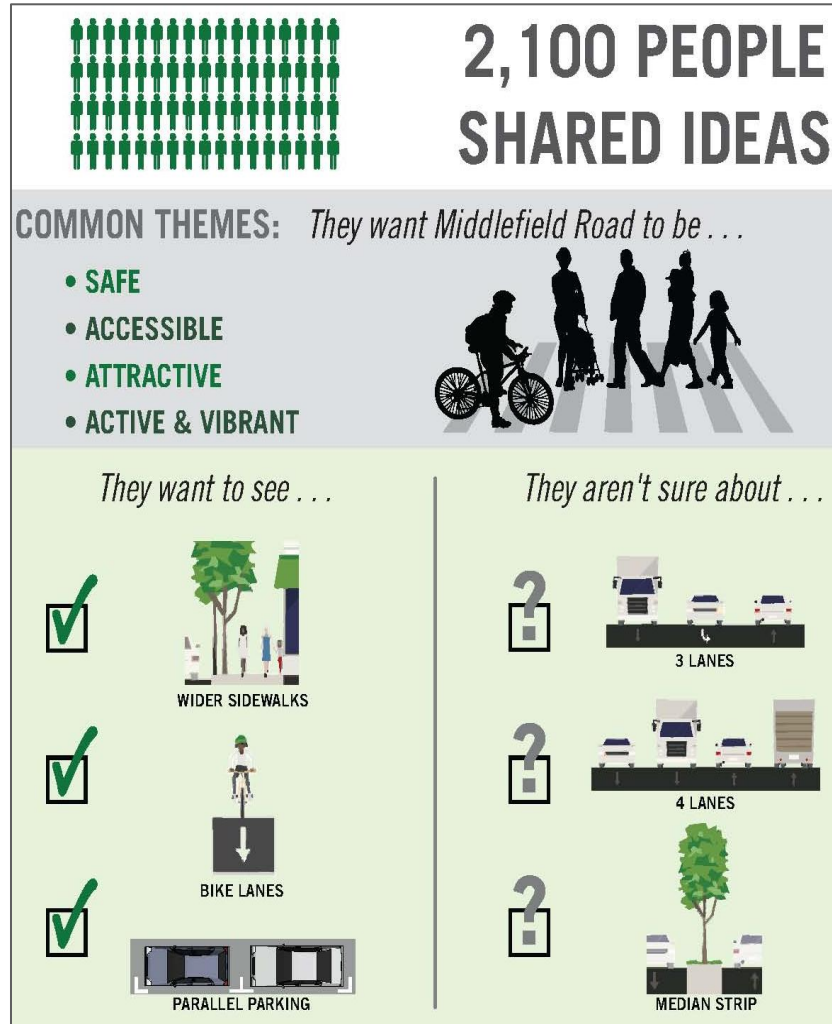
### **engaged in the following outreach activities to promote community involvement In planning the Middlefield Road Redesign.**

- Two dedicated issues of the NFO Forward Newsletter (online - 700 recipients - and in hard copy – 2,000 copies – available in English and Spanish)
- Walked the neighborhoods and the business district with flyers, door hangers and posters
- Surveys – collected over 1,300 surveys regarding the Middlefield Road Redesign project
- Conducted meetings with key stakeholder groups (March and April 2014) prior to large community meetings (April 2014)
- Sent notifications and invitations to community stakeholders to encourage participation in meetings and presentations
- Made informational presentations to target community groups

- Maintained a website ([www.nfoforward.org](http://www.nfoforward.org)) and Social Media (Facebook, Twitter, and Instagram)
- Provided monthly updates to the North Fair Oaks Community Council

### Summary of Community Feedback

Throughout the outreach process over the past 6 months, about 2,100 people shared their ideas through surveys and community meetings.



There was consensus around the following:

**Four main priorities** for the Middlefield Road Redesign Project:

- Safety for all users
  - For pedestrians, there is a desire for shorter crossing distance, reduced vehicle speeds, and more street lights
  - For bicyclists, there is a desire for clearly marked bicycle lanes and appropriate signage

- For drivers, there is a desire for increased visibility, safer on-street parking, speed control and safer turning onto and off of Middlefield Road
- Access for all users
  - Wide and clean sidewalks for pedestrians, and clearly marked crossings
  - Safe and convenient bike access, including marked lanes and bicycle racks
  - More parking for drivers, more parking time limits, and the inclusion of handicapped parking spots
- Creation of an attractive "main street" through improvements of the streetscape including more vegetation, cleanliness, and zoning and building design
- Creation of an active and vibrant space through community gathering spaces and by bringing public art to the community

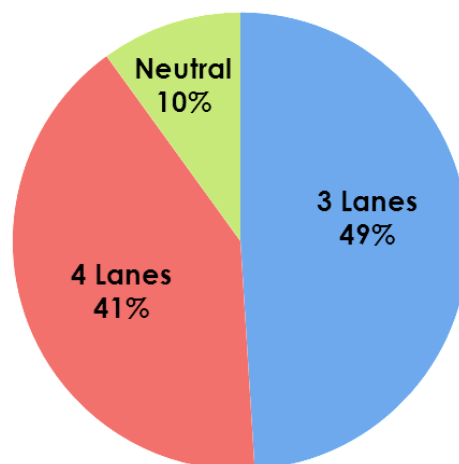
There was also consensus around the **inclusion of the following elements** in the street redesign:

- Wider sidewalks
- Bike lanes
- Parallel parking

**There was no consensus around the number of traffic lanes.**

Of those who participated in either the survey or community meetings in April, about 49% supported the 3 lane configuration, 41% supported the 4 lane configuration, and 10% had no opinion.

**3 Lanes versus 4 Lanes**



**Following the April Community Meetings, the Outreach and Engagement Team has shared community input regarding Middlefield Road Design with the following stakeholders:**

- Reports to North Fair Oaks Community Council and Board of Supervisors
- Presentation/information to adjacent city councils (Redwood City, Atherton, East Palo Alto and Menlo Park), school districts (Redwood City School District and Sequoia Union High School District), civic groups (Redwood City 2020)
- Posted data on the NFOForward website ([www.NFOForward.org](http://www.NFOForward.org))
- Conducted a “media walk” with nine media representatives on Middlefield Road to highlight the redesign project
- Updated community partners helping with outreach
  - Outreach and Engagement Workgroup
  - Churches (St. Anthony’s, Verbo)
- Youth Groups: (North Fair Oaks Youth Initiative, Siena Center)
- Shared feedback with Middlefield Road businesses and the Zoning/Parking Workgroup
- Updated the Silicon Valley Bicycle Coalition
- Provided summaries to community members through banners and input summary posters placed strategically around North Fair Oaks.

The Council has seen the detailed results of the community input received through the end of May (also available online at [www.nfoforward.org](http://www.nfoforward.org)).

The input gathered at the Council’s special meeting on July 24<sup>th</sup> echoed the preferences and concerns that were identified in earlier community input sessions. Themes included:

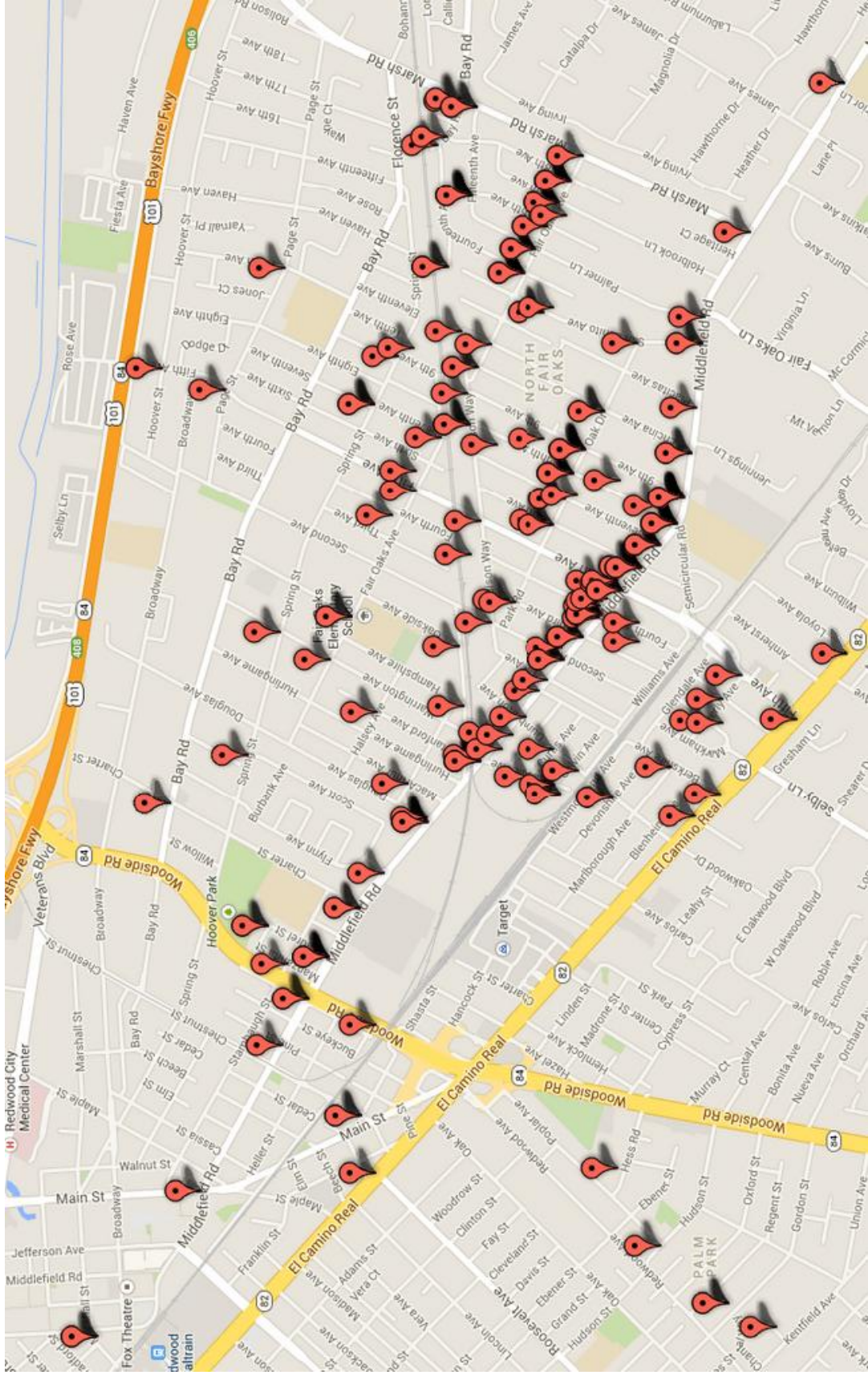
- Concern about the traffic impact on Middlefield Road and adjacent streets of current and future development
- Re-emphasizing the importance of safety for all users
- Questions about how the redesigned portion of Middlefield Road will connect with existing north and south sections of the road
- Continuing lack of consensus regarding the preferred lane configuration
- General appreciation for the efforts that have been made to inform and engage the community in preparation for this decision

**The Council has not yet received the compiled notes from the community meeting on July 24, 2014. A full copy of the notes is included as Attachment C to this packet and is also available online.**



# MAP OF COMMUNITY MEETING ATTENDEES AND SURVEY PARTICIPANTS

March – July 2014



\*Note: This map only represents about 10% of participants. Not all who participated provided their address or cross street.



## ATTACHMENTS

<b>A</b>	<b>ROAD DIET CASE STUDIES.....</b>	<b>25</b>
<b>B</b>	<b>NACTO RECOMMENDATIONS.....</b>	<b>29</b>
<b>C</b>	<b>NOTES FROM SMALL GROUP DISCUSSIONS ON JULY 24, 2014.....</b>	<b>36</b>



# ATTACHMENT A

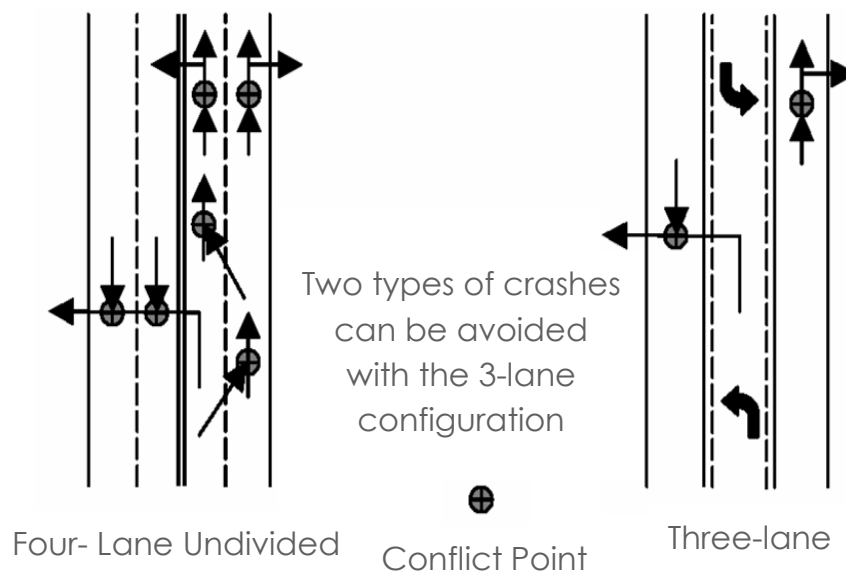
## CASE STUDIES

**NOTE:** Many road diet case studies provide insight into the effects of road diets on the users. However, we were not able to locate a case study in which the circumstances are completely comparable to Middlefield Road (density of driveways and intersections, delivery issues, and side street congestion). The selected studies may provide some helpful insights.

Some examples of case study information are included below, a study on collisions and injuries, information from a presentation sponsored by the Metropolitan Transportation Commission, as well as two local case studies prepared by Health Policy and Planning.

### 1. Less Conflict Points with 3 Lane Configuration

Below is a diagram that shows the number of collision points of a 4 lane roadway and a 3 lane roadway.



Source: PowerPoint on Road Diets sponsored by the Metropolitan Transportation Commission (MTC).

## 2. Changes in Collisions and Injuries

The table below shows the results of an evaluation of various road diet measures and comparison sites, specifically looking at the effects of a road diet on crashes and injuries. Study sites included Oakland, Mountain View, San Francisco, and Sunnyvale in California, as well as two cities in Washington: Bellevue and Seattle.

	<b>Road Diets Before and After</b>	<b>Comparison Sites Before and After</b>	<b>Before Period (Road Diets vs. Comp Sites)</b>	<b>After Period (Road Diets vs. Comp Sites)</b>
<b>Crash Frequency</b> (number of crashes for a given road segment or intersection over time)	Reduction in After Period	No Change	No Difference	Road Diets Lower
<b>Crash Rates</b> (normalizes the crash frequency based on volume of traffic for that road segment)	No Change	No Change	Road Diets Lower	Road Diets Lower
<b>Crash Severity</b>	No Change	No Change	No Difference	No Difference
<b>Crash Type</b>	No Change	No Change	-Road diets higher % of angle crashes -Road diets lower % of rear-end crashes	-Road diets higher % of angle crashes -Road diets lower % of rear-end crashes

“Road diets can offer potential benefits to both vehicles and pedestrians. On a four-lane street, drivers change lanes to pass slower vehicles (such as vehicles stopped in the left lane waiting to make a left turn). In contrast, drivers' speeds on two-lane streets are limited by the speed of the lead vehicle. Thus, road diets may reduce vehicle speeds and vehicle interactions during lane changes, which potentially could reduce the number and severity of vehicle-to-vehicle crashes. Pedestrians may benefit because they have fewer lanes of traffic to cross, and because motor vehicles are likely to be moving more slowly. The Federal Highway Administration (FHWA) report Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations found that pedestrian crash risk was reduced when pedestrians crossed two- and three-lane roads, compared to roads with four or more lanes.”

Source: Summary Report: Evaluation of Lane Reduction “Road Diet” Measures and Their Effects on Crashes and Injuries; U.S. Department of Transportation, Federal Highway Administration FHWA-HRT-04-082.

### 3. Case Studies from the San Mateo County Health System

#### First Street, Livermore, CA

##### Background

Prime segments of First Street were redesigned as part of a citywide effort to increase economic vitality, create a pedestrian-friendly area, and make Livermore's downtown a vibrant destination. Four lanes of traffic were converted to two—one in each direction. First Street is Livermore's only East/West through street. Before redesign First Street had 20,000 vehicles per day. Now it is estimated at about half that number. The firm Freedman, Tung and Bottomley (now Freedman, Tung and Sasaki) did the design.



*First Street before redesign, photo C. Toocheck*

##### Economic Impacts

The redesign has contributed to making First Street an economically vibrant corridor.

- In 1986, at the peak of vacancy along First Street, 26% of storefronts were empty. After the redesign in 2008, that rate dropped to 9%.<sup>i</sup>
- The redesigned downtown now draws residents and visitors to frequent community events, festivals, and celebrations.
- 114 businesses on or near First Street in the downtown core are currently listed as business partners in the Partners in Main Street organization.<sup>ii</sup>
- Downtown Livermore was recognized with a 2009 Great American Main Street award by the National Trust for Historic Preservation. The award is given to cities that have successfully revitalized their downtowns, creating new vitality in the urban core.<sup>iii</sup>

##### Pedestrian Environment

Reclaimed roadway was transformed into wider sidewalks, creating a safe, inviting pedestrian environment.

- Pocket parks and plazas at Livermore Avenue and First Street were created from former slip lanes and are the focal point of outdoor events and festivals.
- Outdoor dining is possible because of the street's wide sidewalks. This feature has been a draw to the vibrant downtown restaurant scene. One restaurant owner saw a 20% increase in business because of the increased capacity and pleasant experience afforded by outdoor dining.<sup>iv</sup>
- Traffic speeds have reduced to approximately 20mph, creating a safe pedestrian atmosphere where residents and visitors can linger and enjoy public space.



*First Street after redesign, photo C. Toocheck*

## University Avenue, Palo Alto, CA

### Background

In 1974, city officials reduced the number of automobile traffic lanes on University Ave in Palo Alto from four to two—one in each direction. The former right of way is now extensive sidewalk, curb extensions, and tree wells for the street's numerous street trees. The Average Daily Traffic count (ADT) today is approximately between 17,000 and 25,700.<sup>v</sup> Middlefield road has approximately 14,000 to 17,000 ADT.<sup>vi</sup>



University Avenue, Circa 1960



University Avenue, 2007

*University Ave, Palo Alto in 1960 and 2007, photo via paloaltohistory.com*

The pedestrian environment in Palo Alto is one of the most vibrant on the peninsula, and contributes to a strong economic base for downtown Palo Alto.

- Sidewalks in Palo Alto are divided into “zones” to allow pedestrians a clear and unobstructed travel path. Amenities such as benches, street furniture and trees, are grouped on either side of the pedestrian travel zone.
- Street trees are planted in reclaimed right-of-way in “tree pits”. Their location off the sidewalk allows for more pedestrian space. Tree pits also reduce installation costs as stormwater infrastructure can stay in place.
- Despite relatively high average daily car traffic numbers (17,000 to 25,700 ADT), downtown Palo Alto remains a popular pedestrian destination with pedestrian amenities



*University Ave, Palo Alto now, photo via Flickr via Nelson Nygaard*

<sup>i</sup> Toocheck, Craig. “The Redesign of Livermore’s First Street and its Effects on Development”, 2013.

<sup>ii</sup> <http://www.livermoredowntown.com/partners.main.st/>

<sup>iii</sup> [http://www.ftscities.com/Livermore\\_Downtown\\_Specific\\_Plan](http://www.ftscities.com/Livermore_Downtown_Specific_Plan)

<sup>iv</sup> Toocheck, Craig.

<sup>v</sup> Designing City Streets: NACTO Guidelines Training for San Mateo County, unreleased, 2014.

<sup>vi</sup> San Mateo County Public Works Middlefield Road Traffic Count data, 2012.

---

## ATTACHMENT B

### NACTO RECOMMENDATIONS ON MIDDLEFIELD ROAD

**Note:** The National Association of City Transportation Officials (NACTO) is a non-profit that represents large cities on transportation issues of local, regional and national significance. NACTO is a coalition of city transportation departments that facilitates the exchange of transportation ideas, insights and best practices among large cities.

The following recommendations were released on August 5, 2014 as a result of a design charrette held at the conclusion of a training session in San Mateo County with local planners, engineers and policy makers. The recommendations were put together by NACTO and build upon suggestions recommended by the design charrette participants.



## **SUMMARY OF NACTO RECOMMENDATIONS ON MIDDLEFIELD ROAD REDESIGN: BASED ON DESIGN CHARRETTE**

The National Association of City Transportation Officials (NACTO) and Nelson\Nygaard Associates conducted an applied street design charrette with forty public officials and city staff from around San Mateo County focused on Middlefield Road in unincorporated North Fair Oaks. In this memo, the NACTO team builds upon the suggestions of the charrette participants (see appendix A) and offers best practice design recommendations. These recommendations seek to maximize implementation of safe, multi-modal street design and guidelines in the North Fair Oaks Community.

### **Middlefield Road in North Fair Oaks**

Middlefield Road is identified as the most important street in the North Fair Oaks Community Plan. The neighborhood is ethnically diverse, predominantly low-income and home to a high number of Latinos, youth and elderly. It is a corridor that possesses many of the hallmarks of a traditional main street and serves pedestrians, bicyclists, transit users, and automobile drivers. The strong entrepreneurial spirit of the North Fair Oaks community is visible in the range of locally-owned ethnically diverse retail and service businesses along Middlefield Road and residents have expressed a strong interest in building on and expanding these business opportunities.

The streetscape redesign project is expected to improve the economy of the North Fair Oaks Community through new retail, increased foot traffic to existing retail, and more office and housing developments. In addition, the improved circulation and connectivity for all modes of travel, especially pedestrian, bicycle and public transit, will increase safe physical activity and social interactions through the use of the corridor as a public space.

### **There are many opportunities to redesign Middlefield Road and make it better for everyone: Recommendations based on NACTO guidelines**

*Figures 1 and 2 provide two design options showing the cross-sections of the redesigned Middlefield Road with the design recommendations described below.*

**Sidewalks:** The absolute minimum functional width for retail sidewalk is 10', though 12' is a better minimum, and 15' is a preferred dimension. The street cross sections below provide 12' - 15' sidewalks as the starting point for good design. This dimension accommodates healthy canopy trees sufficient to create continuous shade along the sidewalks.

- ~ Enough space for two people to walk side-by-side. Six feet of continuous clear zone is needed.
- ~ Room for street trees, street lights, utility boxes, signal poles, and other utilities. This "furnishings" zone typically requires 3' - 5'.

- ~ An edge zone to accommodate car doors opening and other street furniture. This area needs about 18" and can overlap somewhat with the furnishings zone.
- ~ Some space in front of businesses for café seating, sandwich board signs, and door swing. As little as 2' accommodates a café table.

**Parking:** Diagonal parking should be converted to parallel. 8' is a comfortable dimension, particularly next to a bike lane.

**Bikeway:** Parking-protected bikeways are the ideal solution for these types of corridors, yet on Middlefield Road, wider sidewalks are a higher priority because of the existing pedestrian volumes and lack of public space. Moreover, this stretch of Middlefield Road connects to conventional bike lanes at either end. A 6' striped bike lane with a 1'—2' buffer may be appropriate in this context.

**Travel lanes:** Middlefield Road is a significant truck and bus route, so travel lanes between 10 ½'—11' wide, one in each direction, are recommended. This decreases speeds, increases safety, and allows important street real estate for adequate sidewalks, bike lanes and design elements discussed in this section.

**Median and turn pockets:** A planted center median with left turn pockets at intersections may be a positive application for this corridor. This median should be planted with large-caliper canopy trees.

**Corner bulbouts:** Most intersections should be rebuilt with corner bulbouts to shorten pedestrian crossing distances. Further traffic analysis may suggest some intersections may need right turn pockets, in which case the bulbouts would be modified to accommodate. On 5th Avenue, it may be useful to stripe additional lanes at Middlefield in order to expand motor vehicle capacity.

**Signals:** Additional traffic analysis should be undertaken with an eye towards installing more closely-spaced traffic signals to make it easier for pedestrians to cross Middlefield Road, and to facilitate left turns from the cross streets.

**Off-street parking:** Most of the businesses along Middlefield have small areas of parking in the back, but fences separate these lots, and spaces are reserved for customers of individual businesses. The County should

- ~Work with business owners to create shared parking agreements among neighboring businesses, taking advantage of how different businesses have peak parking demand at different times of day.
- ~Where feasible, establish alleyways behind businesses by removing the fences that separate their back parking lots.

**Public realm and Flexible Zones:** Plazas and well-designed private patios/sidewalk cafes are crucial to enhance the pedestrian environment. This can be made possible through "flexible zones", areas that can serve as tree-shaded curbside parking or as-needed outdoor seating at restaurants and cafes, sidewalk vendor activities, and locations for vendors or kiosks during special events. Coupled with custom furnishings, street-specific design elements and a variety of paving materials, such areas are able to accommodate a variety of different uses while lending a very distinct and unique district identity and creating a lively and thriving pedestrian environment.

**Trees Plantings:** Planting trees in the parking lane helps alleviate sidewalk crowding and maintain a clear



path of travel for pedestrians. It also reduces the actual and visual width of the roadways, thereby slowing traffic. Since the public realm on Middlefield already suffers from constrained dimensions and there is also a desire to slow traffic, trees and plantings should potentially be located in the parking lane.

**Lower speeds:** A road diet and signal timing can reduce speeds create a safe, appealing environment for bicyclists and pedestrians. Prioritize walking, bicycling and transit by adding leading pedestrian intervals, synchronized signals for bicycles, and transit signal priority. Shorter signal cycle lengths minimize delay and reduce wait times, creating more frequent crossing opportunities for pedestrians, and synchronizing signals at or below the target vehicle speed will discourage speeding. This is in addition to a road diet, which is critical to ensuring lower speeds.

## Steps towards implementation

**Interim Infrastructure:** Implementation of the road redesign will take several years to complete. Interim design strategies can realize results more quickly, building community support for a project and testing the new design before a full reconstruction. Sidewalks can be expanded using interim materials, such as epoxied gravel, planter beds, and bollards. Interim bulbouts can also use these temporary, low-cost materials to calm traffic in the near term, and a road diet may be applied solely with striping in the near term, before an eventual reconstruction with medians and plantings.

**Prevent displacement of current residents:** Investments in street design and neighborhood improvements in North Fair Oaks are critical. These types of improvements increase the desirability of neighborhoods and will likely drive interest in the neighborhood from higher income residents. Ensuring protection for existing residents, many of who are low-income and will not be able to absorb increased rents, will be imperative to limit involuntary displacement. This is also true for commercial properties where local small business owners currently rent space. Residential and commercial tenant protections should be put in place to discourage and minimize evictions that are not just-cause. Small businesses will also need financial support to weather the extensive construction period along Middlefield Road.

**Create an Appetite for Change:** A lack of willingness to remove parking, reduce travel lanes, and introduce more progressive transportation policies are a major deterrent to multimodal design. Middlefield Road has the public right of way to realize the aforementioned improvements and the NACTO guidelines provide the engineering guidance and practice that is technically required.

## Achieving the community vision

Collectively, the Middlefield Corridor improvements will be a big step towards fulfilling the vision of a vibrant North Fair Oaks Community that offers:

*“safety, adequate services, sufficient housing, recreational opportunities, access to jobs and healthy foods and provides opportunities for all residents to be healthy and have a high quality of life<sup>1</sup>.”*

<sup>1</sup> North Fair Oaks Community Plan, 2011

Delivering on this vision requires innovative street redesign, careful planning and attention to the vulnerabilities of the existing residents from the potential of residential and commercial displacement.



**Figure 1: Three Lane Roadway with Bike Lanes**



Source: Nelson\Nygaard

Option 1 shrinks the sidewalks to the functional minimum (12 1/2') in order to provide 11' travel lanes and 6' bike lanes, while presenting a three lane roadway with parallel parking on both sides. A three-lane cross-section would be sufficient to carry current Middlefield Road traffic volumes, i.e. 800 vehicles in the peak hour and approximately 10,000 all day.<sup>2</sup>

<sup>2</sup> North Fair Oaks Community Plan Update (Existing Traffic Conditions)

**Figure 2: Two Lane Roadway with Bike Lanes, Wider Sidewalks and Landscaped Median**



Source: Nelson\Nygaard

Option 2 shrinks the bike lanes (5') and travel lanes (10 1/2') to the functional minimum in order to provide a more preferred sidewalks width (14'), including room for outdoor restaurant seating. It accommodates flexible parking lanes that make room for parklets as well as vehicles.

## Appendix A: Summary of Current Challenges and Recommended Design Improvements Identified by Charrette Participants

The chart below synthesis the on-site observations and key takeaways from the Middlefield Road design charrette to inform the redesign process currently underway in North Fair Oaks.

### Challenges

#### *Pedestrians*

- ~ Narrow, constrained sidewalks makes walking abreast challenging.
- ~ Pedestrians squeezed between the diagonal parking and the storefronts.
- ~ Long pedestrian crossing distances.
- ~ Lack of pedestrian visibility at intersections.
- ~ Lack of shade, trees, or green infrastructure, amenities, seating, etc.

#### *Bicycle*

- ~ Lack of dedicated, marked bicycle infrastructure and lanes and poor pavement quality.
- ~ Conflicts between cyclists and diagonally-parked vehicles.

#### *Transit*

- ~ Buses were observed as a consistent presence on Middlefield, but few transit specific design accommodations are present - Inadequacies in design surrounding transit stops, including a lack of shelter, accessible boarding areas or safe pedestrian crossings.
- ~ Transit vehicle delays due to insufficient stop length and shallow bus stop design, exacerbated by illegally parked diagonal vehicles.
- ~ Transit delays due to signalization.

### Retrofit Opportunities

#### *Pedestrian*

- ~ Wider sidewalks and addition of sidewalk amenities including shade trees, seating, etc.
- ~ Addition of curb extensions, safety features, and shortening of crossing distances.

#### *Bicycle*

- ~ Fill gap in bikeway system on Middlefield Road in North Fair Oaks.
- ~ Designation of Protected or Conventional Bike Lanes.

#### *Transit*

- ~ Construction of bus bulbouts to minimize person-delay caused by bus delay when merging back into traffic.

### *Motor Vehicles*

#### *Travel Lanes*

- ~ Four travel lanes on Middlefield Road not consistent with travel lane patterns north and south of project area.
- ~ Motor vehicle operating speeds inappropriate for context.
- ~ Long distances between traffic signals, resulting in high speeds and long queues at 5th Avenue.
- ~ Intersection delay and long cycle lengths.
- ~ Disorganized roadway lanes and poor pavement quality.

#### *Parking*

- ~ Inefficient curbside management.
- ~ Diagonal parking egress encroaches on adjacent travel lane.
- ~ Loading vehicles parked at corners or in the travel lanes, obstructing the visibility of pedestrians.

### *Urban design and additional Challenges*

- ~ Current street conditions make it impossible to interact with businesses and active storefronts in a meaningful way.
- ~ Frequent parking lots and undefined space at corners i.e. poor street corner articulation with lack of public space
- ~ Façade obstruction due to diagonal parking and narrow sidewalks.
- ~ Lack of façade permeability.
- ~ Incompatible street furniture and lighting.

### *Motor Vehicles*

#### *Travel Lanes*

- ~ Road Diet and addition of center turn lane; reduction in number of overall travel lanes to a three lane cross-section and reduced travel lane widths.
- ~ Addition of new signals along the corridor and adjustment of signal timing at intersections to reduce the “platoon” effect i.e. dense clusters of cars followed by long gaps of little or no traffic.

#### *Parking*

- ~ Shift from diagonal to parallel parking.

### *Additional Recommendation*

- ~ Transform the geometry and configuration at intersections through enhanced pedestrian infrastructure and amenities, such as street trees, wider sidewalks, and curb extensions.
- ~ Form a Business Improvement District to manage and maintain the streetscape.
- ~ Consolidate poorly designed off-street parking lots into a single off-street parking location

---

# ATTACHMENT C

## NOTES FROM JULY 24TH COMMUNITY MEETING

### Middlefield Road Redesign Community Meeting

Thursday, July 24<sup>th</sup> 2014, 7pm-9pm, Fair Oaks Community Center

#### ***Compiled Notes from Small Group Discussions***

(X indicates support from more than one participant)

#### **1) What is your reaction to the data presented in the traffic analysis?**

- Unrealistic about 5% increase       XXXXXX
- I have a vision that NFO will be an urban gathering & like 3 lanes   XXX
- How is traffic redistributed → purpose of Middlefield   XXX
- I don't trust the analysis or numbers. How is it not going to affect traffic. Why can't we keep 4 lanes?   XX
- Make transition at 4<sup>th</sup> or 3<sup>rd</sup>   XX
- Great presentation (clear): Safety - Backing onto Middlefield   X
- Lack of pedestrian and bicycle data- volume
- Safety is a gap in the presentation
- Is this section of Middlefield Road a destination? What are the goals (of the redesign)?
- Pedestrian traffic is heavy now and would increase with wider sidewalks (same for bikers)
- Cross time is alarming
- More data for the schools
- Question about extending 8<sup>th</sup> over the tracks. How would it affect wait time?
- Bad news scenario rarely occurs

#### Comments on 4-lane configuration

- 4 lane – better flow → Deliveries/Garbage   XX
- Current 4 lane 5<sup>th</sup> - 9<sup>th</sup> avenues (with underground utilities) -Traffic is too fast
- Diagonal parking required for 4 lanes
- It feels like 4 lanes is too much, so many close calls for pedestrians
- 4 lanes help the businesses
- 4 lane increased some uncertainty with right and left turns
- Should take Sheriff's recommendation to keep 4 lanes

#### Comments on 3-lane configuration

- 3 lanes – slows traffic, safer   XX
- 3 lanes can cause traffic for pedestrians
- 3 lane - Not good for parallel parking

- 3 lanes -> property value goes up
- I wasn't surprised there would be more traffic with 3 lanes
- 3 lanes will create too much traffic
- There are no back alleys for business on Middlefield Road so how will they receive deliveries with 3 lanes?

#### Comments on bike lanes

- What about bike lanes between sidewalk and parked cars, or consolidating bike lanes with pedestrians XX
- Bikes will be traveling fast
- Bike lane being more predominant / # of bikers
- Center lane will be chaotic
- Need 2 bike lanes
- What happens to bike lanes on other parts of Middlefield?
- What about curbs that separate bike lane and road
- Biking is fact but very scary, especially people crossing and cars turning left
- People who don't have cars bike
- Bike lanes between traffic/door zone is scary!

#### Comments on parking

- Parallel parking takes longer to park
- Parking in business area is a concern- what will the impact be on the busses?
- Parking strategies?
- How will parking be addressed and when?
- Parking accessibility/time limits
- County should purchase underutilized lots/land for off street parking

#### Comments on impact on side streets

- Traffic Study extension -> South - More data for residential side streets XX
- Cut- through street concerns
- Parking – impact on neighborhood streets
- Side street traffic is already an issue- what will happen after the project is done?

#### Other comments

- In America, roads are for cars (not pedestrians or bikers). In Europe, roads are equally for pedestrians, bicyclists and cars (pre-auto built environment- multi modal). Americans are only for autos (post-auto dominant development)
- Wide sidewalks & lots of trees
- Disagree with “no right or wrong” decision
- Median strip?

**2) What are your thoughts about which lane configuration would best meet the needs and identified priorities of this community and promote the vision in the North Fair Oaks Community Plan?**

- Not sure about the vision XXX
- Needs to balance between neighborhood destination and commercial district & thoroughfare XX
- Turning on 5<sup>th</sup> Avenue- need turn signals at 5th Avenue XX
- In favor of 3 lanes (total in all groups = 10)
- In favor of 4 lanes (total in all groups = 12)
- Undecided regarding 3 or 4 lanes in (total in all groups = 2)
- 3 lane is supported by community plan
- Center with 3 lane configuration will assist turning onto Middlefield
- Center lane would make turning a lot safer
- More lanes is not necessarily better- need to realize that times are changing and we need to make streets safer for pedestrians so people will leave their vehicles behind
- Not a downtown but a commercial area, balance between cars and neighborhood destination
- Need designated area for right turns on 5<sup>th</sup> and Middlefield

**3) Do you have any other comment/thought you want the NFOCC to consider as it decides on a recommendation?**

- On Dumbarton we want the railroad tracks fixed XXX
- Will there be condos? XXX
- Turn signals at Costco are very dangerous X
- Conspiracy to get rid of small businesses and get big businesses X
- Need extensive meeting for good feedback
- Online study was too broad, more concise
- "Sunday streets" – shut down one side for recreation
- Better utilities for town
- Nice to attract more businesses like Starbucks
- A lot of local traffic
- Giving priority to cars is not the best solution
- Disagree with notion of bringing big corporations (Ex. - McDonalds will raise the rent)
- Think about the neighborhoods west of Middlefield
- Parallel, 4 lanes, big bike lanes, small sidewalks
- Outreach has been very thoughtful and comprehensive
- Need more lighting for pedestrians
- Businesses park in the Avenues, such as employees and customers
- Already avoid Middlefield -> too congested
- Slower traffic = More business opportunity
- Need more ways to get to El Camino from Middlefield

- Earthquake issue- Middlefield was a nightmare during the quake of '89- by compressing another thoroughfare artery, it will become even worse
- Cars don't respect crosswalk- maybe install cameras to help enforce
- Is the public aware of all the development that is happening?? Like Facebook and all the apartments in Redwood City?
- Beautification will attract new businesses
- Keep area affordable for small businesses
- Other cities as case studies (Redwood City)
- Sidewalk seating
- Native vegetation – small, little water needed

### **OVERALL INPUT – reports from small groups to large group at end of group discussions**

#### Group 1:

- Concern that the projected growth is not valid
- Suspicion that there is an agenda- concern that chains will replace Mom and Pop stores (Starbucks vs. local)
- Need more time to decide
- Balance!

#### Group 2:

- Strong consideration to side street residents
- Data seems incomplete
- Group was split, some are not interested in wide sidewalks but others want more of a destination that 3 lanes would create

#### Group 3:

- 3 lane option provides more balance
- Value the outreach efforts and feel very engaged
- Parking strategies need to work for all

#### Group 4:

- Data is incomplete
- Concerned about impact on side streets
- What are the goals? The group is split on 3 vs. 4 lanes

#### Group 5:

- Concerned about increase in traffic that will come with high density development throughout the area
- Desire for left turn signal at 5<sup>th</sup> Avenue in all directions
- Would like to see bike lanes separated from the roadway, maybe combined with the sidewalk
- Concerned about emergency access with 3 lane option
- Concerned about delivery trucks

### **ADDITIONAL COMMENTS - Submitted via email**

- 1) I attended the meeting last Thursday night. I just wanted to make sure that you got my suggestion to have 4 lanes to 4<sup>th</sup> Avenue and start the 3 lanes at 4<sup>th</sup> Avenue. This would hopefully decrease the wait times on 5<sup>th</sup> Avenue associated with 3 lanes ---- but still allow 3 lanes further up on Middlefield. I also wonder whether it isn't going to be confusing to keep changing the lane configuration on Middlefield. As it is, the lanes go from 2 to 4 to 2. Do we want it to go from 2 to 4 to 3 to 4 to 2? Will this be confusing to drivers?
- 2) As you know parking is extremely difficult on our streets and once I get a place I hate to leave because I never know how far away I will need to put the car. I am so excited to think we may get residential parking permits.
- 3)
  - The traffic study, especially the anticipated impact on cross traffic, is a worst case scenario when traffic volumes are at their peak during the afternoon rush hour. I have traveled Middlefield Road many times during the PM rush (5 to 6PM), and other than the between Semi-circular and 5<sup>th</sup> Ave segment, I don't see the traffic volumes that would cause significant delays for cross traffic if a 3-lane configuration is adapted. Consequently, I hesitate to believe the accuracy of their model – has P.W. tried validating the prediction of the model for the four lane configuration by actually timing the wait-times at cross streets?
  - I really believe that the 3-lane configuration has potentially the best pay-back for the neighborhood because it provides space for other amenities including wider sidewalks and more appealing bike lanes.
  - By providing better opportunities for walking and cycling with the 3-lane option, Fair Oaks residents then have alternatives to get to shops and other activity centers along Middlefield without having to resort to the car. – This should lessen the demand for vehicles wishing to “cross Middlefield” (or making left turns).
  - P.W. needs to consider other metrics rather “level of service” which only measures or models motor vehicle traffic. Several comments were made at the July 17<sup>th</sup> meeting about other metrics, which although have not been vetted by the engineering community, are still worthwhile to pursue which can account for other modes and benefits.
  - I urge that the 3-lane configuration be installed and evaluated. Perhaps, the 3-lane configuration could be installed as a trial installation and if deemed unacceptable, then a 4-lane configuration could be installed. (If done “right” as a trial, then all it is “paint” to be removed and 4-lanes installed). If there are significant back-ups on cross streets, then traffic lights might need to be considered and installed at Dumbarton or 1<sup>st</sup> later in the project (There is already a light at Douglas which services the area N.E. of the tracks). The installation of a light was mentioned at the July 17<sup>th</sup> meeting but was dismissed by P.W. because the light might not meet minimal standards for justifying its installation. However, by providing a light at Dumbarton, those motorists who wish to “exit” at other streets would divert to Dumbarton as the light would provide a 'no-hassle' means



to either accessing Middlefield or crossing – the volume of cross traffic at Dumbarton could increase which justifies the installation of the traffic light.

- I believe that the 3-lane configuration is safer for pedestrians and easier for motorists to drive (less lane weaving avoiding turning motorists and better sight-lines for detecting cross traffic (including pedestrians.)

**4)** Are there more car crashes on four-lane roads than there are on three-lane roads? Are speed limits lower on three-lane roads nationwide and if so, does that help to make three-lane roads safer?

Do motorists automatically slow down on narrower roads, regardless of the posted speed limit?

What are the speed limit options the redesign can consider? Answers to those questions will help me, and maybe others, understand the options.

I was surprised that the study session I attended was so narrowly focused on four vs. three lanes. I was also puzzled at what seemed to me to be a disconnect between the prediction that we need to get more vehicles on the road, which was the only data presented, and the vision as expressed by you. If I remember correctly, you said the community's vision is for that section of road to serve as an attractive downtown. I don't understand how those two goals can coexist.

I've lived in Redwood City, 22 years, shop in NFO for gas, upholstery, food – takeout and restaurants, Boys and Girls Club, Fair Oaks Community Center, Costco, Sigona's, Chavez etc. I also bike through NFO on my way to the childcare facility at the USGS in Menlo Park, where my wife is a teacher. I'm a former member of Redwood City's library commission and currently serve on its senior affairs commission. I was a participant in the San Mateo County Citizens Academy and I'm enormously pleased the County has committed to making the kinds of changes to Middlefield we've hoped for, for years. I'm grateful to you and your colleagues for your dedication to public service.