

# Chico Nord Ave (SR 32) Corridor Plan



**Sponsored by:** *Butte County Association of Governments, Butte County, City of Chico and California Department of Transportation (Caltrans)*

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# Table of Contents

<b>Overview</b>	<b>1</b>
The Design Workshop Process.....	2
Existing conditions .....	5
<b>Recommendations</b>	<b>11</b>
<b>Implementation</b>	<b>21</b>
Short Term Projects .....	23
Mid Term Projects .....	27
Long Term Projects.....	31
Goals and Policies .....	37
<b>Complete Streets</b>	<b>41</b>
What is Walkability .....	42
Walkability and the Success of Place.....	43
Walkability Principles .....	46
Street Design Features .....	48
Pedestrian Levels of Quality.....	53
Bicycle Friendly Streets.....	58
<b>Livable Streets Toolbox</b>	<b>57</b>
Connectivity.....	58
Roadway Dimensions .....	60
Benefits of Narrower Lanes.....	63
Crossings .....	64
Crosswalk Tools.....	67
Driveways.....	68
Parking .....	70
Intersections.....	74
Streetscapes .....	82
<b>Appendices</b>	
Notes from Focus Group Meetings .....	A-1
Definitions/Glossary .....	B-1
Federal Programs, Funds .....	C-1
Principles for CSS in Walkable Communities .....	D-1
Crash Typing .....	E-1
Street Trees .....	F-1
22 Benefits for Highway Shoulders (and Bike Lanes).....	G-1
22 Benefits of Urban Street Trees.....	H-1

## Design Team

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**Nord Avenue (SR 32) in Chico, California** was evaluated and analyzed for improvements in safety and congestion through an extensive site and technical analysis in June 2006 by stakeholders from the community along with a team of transportation and urban design specialists. The series of week-long events involved more than 100 participants and were sponsored by the Butte County Association of Governments (BCAG), Butte County, the City of Chico and Caltrans.

This report is a summary of the concepts and ideas discussed at the various workshops and presentations in June. It is intended to communicate the same ideas presented to workshop participants in an effort to enrich community understanding of concepts and tools for making Nord Avenue a more efficient and attractive roadway that is comfortable for all users including motorists, transit vehicles, bicyclists and pedestrians.

**Plan Approach.** Key components of this plan include: (1) improving physical street, walking/sidewalks and pedestrian networks, (2) the management of the quantity and quality of walking, bicycling and transit facilities and services, (3) improved connectivity to isolated neighborhood areas, (4) increasing the efficiency and safety of intersections, (5) providing a set of mixed-use centers, (6) creating a strong, compelling set of incentives to encourage more sustainable and healthy non-motorized travel.

**Transportation Vision.** The project team estimates that as much as 15-20% of current traffic can be shifted to other modes — walking, bicycling or transit use — under an ideal “complete streets” and “complete village” scenario. To fulfill this potential will require significant collaboration, engagement and involvement of the City, County, transit agencies and Chico State University. The revitalization of Nord Avenue should be viewed as a regional model that benefits the quality of life of all who live in and near this corridor; as well as serve as an example to other neighborhoods and areas that can benefit from similar urban design and transportation approaches.

### The Project Team

**Dan Burden, Director, Walkable Communities, Partner/Senior Urban Designer, Glatting Jackson:** Burden is a nationally renowned expert on walking, bicycling and street design. Following a 16 year stint as bicycle and pedestrian coordinator for Florida's Department of Transportation, he founded Walkable Communities in 1996. Since then he has worked with over 2,000 communities across the U.S. on creating safe, walkable streets and neighborhoods. In 2001, *Time* magazine cited Burden as one of six international "civic innovators."

**Ian Lockwood, P.E., Senior Transportation Engineer, Glatting Jackson:** Lockwood is a Professional Engineer with Bachelor and Masters Degrees in Civil Engineering from Carleton University in Canada. He is a nationally recognized expert in the growing field of traffic calming. As a transportation planner and neighborhood traffic calming expert with the City of West Palm Beach during the late 1990s he played a key role in the city's revitalization.

**Raj Mohabeer, ASLA, AICP, Senior Associate, Glatting Jackson:** Mohabeer has worked at Glatting Jackson since 1996 and is currently part of the team working with the New Jersey Department of Transportation to replace NJ Route 29 with a walkable, complete street, urban boulevard, through the City of Trenton.

**Fabian de la Espriella, Urban Designer, Glatting Jackson:** De la Espriella has a Master of Arts in Urban and Regional Planning, University of Florida in Gainesville and a Professional Degree in Architecture from the Pontificia Universidad Javeriana, Bogotá, Colombia. He has worked at Glatting Jackson since 2005.

**Paul Zykofsky, AICP, BArch, MUP, Program Director, Local Government Commission:** Zykofsky has directed the Commission's Center for Livable Communities and its programs on land use and transportation since 1995. He is an expert on smart growth, infill development and the connections between health and community design and is a frequent presenter at local and regional conferences.

**Josh Meyer, Project Manager, Local Government Commission:** Meyer has worked at the Commission since 1999 and during the last few years has assembled and directed community design teams in several cities in the San Joaquin Valley.

**Steve Price, Principal, Urban Advantage:** Price co-founded Urban Advantage in 1997 to communicate the principles of Smart Growth to non-professional audiences through photo-realistic illustration. His clients have included cities, community development corporations, transportation agencies, environmental groups, foundations, universities, and neighborhood groups.

**Michael Sweeney, Landscape Architect:** Sweeney has over 30 years of experience in project management, public involvement workshops, concept feasibility studies, master planning, project design development and permitting, and environmental impact assessment.

The design workshop process involves an intensive period of design based on the conditions at hand and the ideas that the public shares with the project team. Design workshops involve and engage participants from the public in identifying what they like about their communities, what they would like to enhance or improve, and what new additions might benefit their communities' various users.

The design workshop for the Nord Avenue Community Plan included focus groups involving staff of the City of Chico, Butte County Association of Governments, Butte County, and other entities involved in planning



*Focus group meetings provide an opportunity for different stakeholder groups to express their views in a comfortable environment and allows the project team to quickly learn about the key concerns and issues.*

and development. In addition to this, the project team also met with local business owners, emergency responders, apartment managers, and 5th grade students from Emma Wilson Elementary in order to gain in-depth knowledge about community concerns and needs.

The larger public workshops held on Thursday evening, Saturday and Wednesday evening provided an opportunity to develop and refine the design ideas with input from residents. During the opening Thursday evening workshop participants were asked to identify their “values” and to identify “priority” issues along Nord Avenue. At the Saturday workshop participants walked the corridor, learned about tools and techniques to redesign streets and worked in groups to develop design recommendations. The closing workshop on Wednesday night was used to present the project team’s draft recommendations and to get feedback on whether they correctly captured the views expressed by participants throughout the process.

The focus groups and public workshops allow the project team to quickly learn about the major issues and concerns while giving an opportunity to residents to express their views and provide their input. This iterative process results in a plan that is based on the knowledge and wisdom of the residents.



*Involving children in the process often provides different perceptions of the study area and complements the views expressed by adult participants.*



*During the opening workshop, participants were asked to identify some of the key community values and to discuss and prioritize some of the critical issues that needed to be addressed along the Nord Avenue corridor.*

### Community Values

- Safety
- Beauty (landscape, trees)
- Easy Access (stores, town, parks)
- Environment (soil, air, climate)
- Rural Character (uncrowded, low density)

### Nord Avenue Priorities

- 1) Larger selection of stores
- 2) Eliminate blight
- 3) Bike-friendly
- 4) Slow traffic speeds
- 4) Improve left turn to Oak Way
- 4) Better traffic flow
- 4) Complete sidewalks
- 5) Improved access from west — Glenwood and Oak Way
- 6) Move driveways away from intersections
- 6) Add preserve street trees
- 7) Eliminate back up caused by trains
- 7) More visible crosswalks
- 7) Safe left turns



*The bus tour with transportation agencies and the walkability audit allowed workshop participants to survey the conditions along the corridor and to provide a “real-time” response to the issues and principles presented.*



*Participants in the Saturday Design Workshop were able to develop a consensus — and sketch out their ideas — for*

The Public Process

The design workshop process engaged residents and stakeholders through a variety of events over a 7-day period from June 15 to 21, 2006. Following is a list of the focus group meetings and workshops:

June 15, 2006, 9 – 11am

Focus Group Meeting and Bus Tour of Corridor with Transportation Agencies

June 15, 2006, 1 – 2pm

Focus Group Meeting with Emergency Responders

June 15, 2006, 2 – 3pm

Focus Group Meeting with Apartment Owners/Managers

June 15, 2006, 6:30 – 8:30pm

Opening Public Workshop  
Presentation on Complete Streets and Creating Walkable Communities, Prioritization Exercise

June 16, 2006, 12 – 1:30pm

Focus Group Meeting with Business Representatives

June 16, 2006, 11 – 12pm

Focus Group Meeting with PTA, School and University Officials

June 16, 2006, 2 – 3pm

Focus Group Meeting with Pedestrian, Bicycle and Universal Access Group

June 17, 2006, 9am – 2:30pm

Design Workshop

- Neighborhood Walkability Audit
- Presentation on Technical Tools
- Group Design Tables

June 21, 2006, 6:30 – 8:30pm

Closing Workshop



*making Nord Avenue a safer, friendlier street for all users.*



Background information on the existing conditions along Nord Avenue was obtained by reviewing planning and environmental review documents and studies of projects prepared during the last few years. According to these documents, the Nord Avenue corridor is home to more than 11,000 people. Many of these people leave the corridor area at least two times per day. According to Caltrans counts from 2004, traffic volumes range from 16,000 at East Avenue to 23,000 at West Sacramento to 19,000 at West First Street. In addition, Nord Avenue is used by thousands of bicyclists and pedestrians each day. Approximately 4,000 people each weekday begin or end a public transportation trip along Nord Avenue.

However, walking conditions along Nord Avenue are unpleasant due to high traffic volumes, speeding along some segments, missing or broken sidewalks, numerous curb cuts and difficult crossings. Bicyclists face similar challenges. A bicycle path on the northeast side of the railroad tracks has very limited access and passes through unsafe and poorly monitored areas.

**Limited Street Network.** One of Nord Avenue’s transportation challenges is that it is parallel to and separated from many land uses to the northeast — including California State University, Chico High School, Chico Middle School and downtown — by the Union Pacific Railroad. On the southwest side of the tracks two elementary schools (Emma Wilson and Rosedale) have attendance areas that include students northeast of the tracks. There are only four at-grade crossings of these tracks in the 2.8 long mile long study area. Over 24 trains travel along these tracks every day, some at very slow speeds.

**Land Uses.** The corridor includes a large number of apartments housing approximately 7,000 college students, and many others from the service industry, a diverse mix of service shops, industrial and retail uses. The majority of apartments are in the eastern portion of the corridor. A few blocks south of the apartments are single-family suburban neighborhoods that include many dead-end cul de sac streets. Nord Avenue (SR 32) has long served as a regional trunk road and is part of the State Route system.

*Nord Avenue’s conceptual community plan*

*Existing Network*



*Effective Network*



*The number of street connections has important ramifications for how well a community’s residents can move around on foot, on bicycle or even by vehicle. The diagrams above show connectivity in the areas surrounding Nord Avenue. The uppermost diagram shows all existing streets while the diagram below shows only those streets that have a direct connection to other streets. To the northeast of Nord Avenue the railroad tracks are a significant barrier. To the southwest many of the existing streets are dead-end streets that only have one connection to another street; many of these are in subdivisions with single points of entry. This pattern increases the distance from one place to another and requires travelers to take longer routes to reach many destinations.*



*At the closing workshop participants were able to review the recommendations and designs prepared by the project team.*

Although only 20-30% of the traffic volume on Nord Avenue is regional in nature, there are no current alternative routes for many trips. This type of poorly networked suburban development pattern often results in making cars the primary, and in many cases only, transportation alternative. Urban models for transportation typically include a more diverse array of transportation opportunities that serve housing and commercial areas.

**Shopping.** There are a number of stores and services in the corridor. Stakeholders pointed out the need for additional retail stores and other services. Current stores include student focused eateries, a medium sized Safeway, Walgreens, Starbucks, gas stations, and a dozen or so other small retail outlets.

**Schools.** Emma Wilson and Rosedale Elementary schools are both located approximately 500 feet to the southwest of Nord Avenue. Both schools require students that live to the northeast to cross Nord Avenue. The high traffic volumes and speeds along Nord make crossings difficult. Students at Emma Wilson can cross Nord Avenue with support of a traffic signal at W. 8th Avenue but must contend with right and left turning vehicles. At Rosedale, students can cross at signalized intersections at W. 2nd and 3rd Streets but must contend with a 5-lane street with no curb extensions or crossing islands to help cross over 65 feet. Chico High School, which draws students from the Nord Avenue Corridor, is less than a mile to the northeast. California State University Chico is located just a few hundred feet from Nord Avenue on the northeast side of the tracks east of West Sacramento. As noted earlier, thousands of students live in apartments along Nord Avenue.

**Corridor.** For study purposes, Nord Avenue was analyzed in four sections: **1) W. East Avenue to W. 8th**

**W. East Avenue.** This large signalized intersection retains its efficiency all hours of the day. There is a combination of paved shoulders and designated bike lanes. Sidewalks are narrow. Turning speeds are high on some approaches. There are no medians on any of the four approaches. Knowledgeable motorists traveling to SR99 north usually turn here.



**W. Lindo and Glenwood Avenues.** This two-way stop controlled intersection is supported by a left turn lane in each direction. There are no marked crosswalks on any of the four approaches. Nord Avenue has paved shoulders through this intersection but no sidewalks. A new mixed-use development to the southeast will provide a frontage road and sidewalks along Nord.



**W. 8th Avenue.** This signal controlled intersection has crosswalks on the north, south and west approaches. There is no crosswalk on the eastern side. A combination of paved shoulders and bike lanes are used. 4-foot sidewalks are found along the park on the southwest and gas station on the northwest only.



**W. Sacramento Avenue.** This was once a diagonally skewed rural intersection that was redesigned in the early 1980s into a split T-intersection. Today the intersection is supported by two sets of signals spaced 300 feet apart. Most legs of the intersection have crosswalks but sidewalks are intermittent and attached to the curb.



**W. First Street.** This intersection is located near Rosedale Elementary School to the southwest. It also functions as the southern gateway to CSU Chico. The roadway widens to 5 lanes at this intersection and vehicles traveling northwest tend to accelerate as they approach the 2-lane bridge over Big Chico Creek. The crossing provides little support for pedestrians who have to cross five lanes with no refuge or median. Sight distances are poor due to the nearby bridge just a few hundred feet away.



Avenue, **2)** W. 8th Avenue to W. Sacramento Avenue, **3)** the W. Sacramento Avenue area, and **4)** W. Sacramento Avenue to West 1st Street. Speeds and volumes in these sections vary to some extent but the problems and overall character of this road as it transitions from a rural to urban section of Chico are consistent.

**Signalized Intersections.** There are four signalized intersections along the corridor at W. East Avenue, W. 8th Avenue and at two legs of W. Sacramento Avenue.

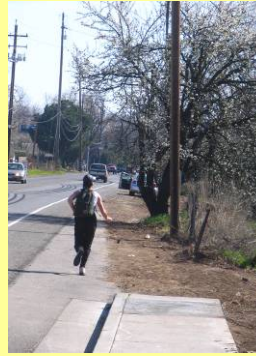
**California State University Chico (CSU Chico).** The University is located within an easy walking and bicycling distance of many of the apartments along Nord Avenue. However, there are only three access points to the bicycle trail along the railroad (W. 8th Avenue, W. Sacramento Avenue, and a connector trail in the eastern segment of Nord Ave. near Stewart Ave.). Students and police noted that extremely poor surveillance, blight, graffiti and crime near W. Sacramento make bicycling along the trail a hazardous and unpleasant activity. The campus has good connectivity, compact form and services, but could provide better con-



The posted travel speeds along Nord Avenue should be consistent with the physical design of the road. Drivers can't be expected to drive at 25mph when the road itself encourages them to go faster than that.

Section A (W. East Avenue to West 8th Avenue)

- Sidewalks, curb and gutter missing in most locations
- Street posted for 45 mph speeds
- Some shoulders are wide, others are not
- Rural, orchards and some mix of auto-focused businesses
- Poor access control
- No gateway or sense of arrival
- No street trees, streetscape or identity to area
- Transitions from low density/orchard to urban



Section B (W. 8th Avenue to West Sacramento Avenue)

- Lack of identity
- High speeds reported
- Street posted for 35 mph speeds
- Mix of sidewalks and missing sidewalks (4 feet wide)
- Lack of cohesive type of sidewalks (some detached) interrupted by multiple driveways
- Sight distance problems at some driveways
- Some rural, some apartments, personal storage facilities
- Few street trees, streetscape or identity to area
- Insufficient retail for nearby neighborhoods



Section C (West Sacramento Area)

- Highly congested traffic (2-4 hours) when College in session
- Walking difficult due to numerous curb cuts, poor sidewalks
- Street posted for 35 mph speeds
- No edges, poor access controls
- Mix of older, small, local retail with newer strip franchise
- Insufficient variety of retail and services, minimal amenities
- Disorganized, chaotic, lack of pride or identity
- High levels of conflict for street crossings
- Extensive jaywalking and wrong-way bicycling
- Bicycling is challenging to many



Section D (West Sacramento Area to W. First Street)

- Lack of gateway from southeast
- Road narrows to two lanes at Big Chico Creek Bridge, widens to 5 lanes southeast of West First Street
- Sidewalks missing in many locations
- Street posted for 35 mph speeds
- Skewed intersection at Stewart, no infrastructure, drainage
- Several poorly marked, poorly lit crosswalks
- Difficult sight lines at many driveways
- High traffic counts, difficult to make left turns
- Many apartment buildings, low surveillance
- Transit waiting locations are uncomfortable



**Union Pacific Railroad**

- Over 22 freight trains daily, some at slow speeds
- Operations create significant delay and traffic pulsing on Nord Avenue
- Runs parallel, 500 to 700 feet to the northeast of Nord Avenue
- Average of one death per year
- Class 1 bicycle path (12' wide) on north side of tracks, few access points
- Fencing is broken through on regular basis, vandalism
- Too few crossings for pedestrians and bicyclists
- Some areas next to tracks are blighted, feel unsafe
- Reports of criminal activity near W. Sacramento
- Very poor surveillance, no uses face railroad right-of-way



**California State University Chico**

- Compact campus, walkable at core
- Low speed traffic near center
- Poor connectivity to Nord Avenue
- Low level of support for bicycle/pedestrian planning
- Insufficient bicycle parking
- Bicycling not permitted across campus, no paths through center
- Higher priority in master plan for parking than transit or bicycle/pedestrian access
- Low priority for non-motorized transportation
- Low price parking rates and other auto incentives dominate choice



**Residential Areas near Nord Avenue**

- Streets are poorly connected, culs-de-sac are common
- Streets are wide, vehicle speeds high
- Attached, rolled curb, narrow sidewalks
- Streets are uninviting for walking
- Trees in front lawns too far back to shade street, slow speeds
- Density is low (3-4 u/a)
- Mix of mostly suburban, some rural housing stock
- Recreational walking, not walk to school, work or retail
- Poor or no support for bicycling



**West Sacramento shopping area**

- No cohesiveness
- Large portion of area is covered in asphalt parking lots
- Intermittent, poorly maintained sidewalks
- No significant green or landscaping
- No sense of place, no identity, gaudy signs
- Few historic or landmark buildings
- Poor building placement set back from street
- Poor access control, residents report that illegal turns are common
- Poor walking and bicycling conditions
- No transit center or hub



West East Avenue

- Area transitioning from rural/orchard to more urban, suburban
- Access to Nord is currently signal controlled with left turn lanes
- Significant traffic uses 4-lanes of East Avenue to access the Esplanade and SR 99 (freeway).
- Intermittent bicycle and pedestrian facilities
- Good lighting, poor surveillance
- Transit service with pullouts along corridor
- Moderate commercial development, no mixed use



West Lindo Avenue and Glenwood Avenue

- Area transitioning from rural/orchard to urban
- Access to Nord is currently 2-way stop controlled
- Left turn lanes on Nord Avenue
- Includes left turn lanes onto Nord Avenue
- No bicycle/pedestrian facilities
- No lighting, poor surveillance
- Traffic volumes are moderate, but are expected to grow
- Limited transit service
- No retail at this time



West 8th Avenue

- Area includes industrial, rural/orchard, and some residential
- New residential under development nearby (Westside Place)
- Site for planned Fire Station on southwest corner
- Park and Emma Wilson Elementary School to southwest
- Suburban style housing, moderate surveillance
- No bicycle facilities near school, 4-foot wide sidewalks on both sides
- Wide streets, significant school traffic
- Poor crossing conditions for school-aged children
- Parked vehicles on southwest corner of Oak Way block visibility
- High-speed travel around curve on Oak Way approaching Nord
- No significant retail at this time, no mixed use

