Why your input is so important.
1. Presentation

2. Handouts

3. Q&A
Berkeley Bike Bridge Will Soar Over I-80

Waterfront access for disabled, pedestrians

By Charles Burress
Chronicle Staff Writer

If ardent bicyclists have their way, Berkeley will soon build what could rank as the Golden Gate Bridge of pedestrian overpasses.

The dream is not just a highly visible, car-free bridge over the Bay Area's most congested river of traffic, Interstate 80, but a structure of simple and striking elegance that will win the admiration of generations to come.

The city has already decided to build a new "Berkeley Bike/Pedestrian Bridge" and secured nearly all the funding. The question is what kind of bridge it will be.

Berkeleyans have long nursed the hope of finding a way for bicyclists, people in wheelchairs and pedestrians to go safely across the daunting Eastshore Freeway, which divides the main part of the city from its waterfront parks, famous pier and marina.

The current route is "extremely unsafe and impossible for those with limited mobility," said Mark Litofsky, a bicyclist and president of Friends of Aquatic Park. The path requires climbing a set of narrow switchback stairs, walking along a narrow sidewalk on the University Avenue auto overpass and dashing across the busy freeway off-ramp and frontage road, where cars often speed.

"The real challenge is not to get to the marina but..."
The Bridge

The Bridge is located in the heart of downtown Midland, on the banks of the Tittabawassee River. The Bridge has become a popular gathering place for people of all ages. During the annual BridgeFest, the Bridge dresses up with lights and decorations, creating a festive atmosphere. The BridgeFest is held each year on the fourth Friday of June, and it features live music, food vendors, and a variety of activities. The location offers a unique perspective on the river and the city, making it a popular spot for tourists and locals alike. Check out the virtual tour of the Bridge next.
Eng. Robert Maillart
Salgin-Tobel Bridge, Switzerland
The idea that there is an independent art form of engineering structure has its origin in studies of Maillart’s work.

David P. Billington, The Tower and the Bridge, 1965
Section at Main Span of Bridge

Top of required 10’ high missile-proof fencing material.

Hangers from main cables at approximately 6” O.C. to provide human scale and rhythm and support framework for required missile-proof fencing material.

Galvanized metal light reflectors built into railing supports direct light onto pathway and avoids potentially night-blinding glare from overhead fixtures. Some light passing the reflectors will dramatically up-light the bridge structure.

Recessed Fixtures; avoids running conduit along cables.

Conduits for post-tensioning precast concrete segments.
Railing as Integral/Disappearing Element
Max-Eyth-See, Jurgend Schlaich
Clear mode separation features and indirect lighting help prevent conflicts between travelers.
The mere use of one's eyes in Venice is happiness enough.

—Henry James, Italian Hours, 1909
With a span of over 500 feet, a suspension structure provided the thinnest deck, allowing us to minimize impact on adjacent land uses.
For this project, railing supports, hanger cable connections, and pathway light reflectors are integrated into a single steel form.
Integrate structural elements with planting and landscape elements.
Cupertino Mary Avenue Bicycle Footbridge

Selected Suspension Structure

Birds-eye View
( Photo of Physical model )

Bridge Section & Tower Detail

14.035 m

6.585 m

0.68 m
Cupertino Mary Avenue Bicycle Footbridge

Physical Model of Selected Suspension Structure
BRIDGE LAMP, RAILING
GUARDWALL AND SIDEWALK  Scale: $\frac{1}{4}'' = 1' - 0''$
Santa Rosa 101 Overcrossing

Goals & Constraints

- Planning Context
  - Land Use & Transportation Plans

- Usage Context
  - Stakeholders (Vicinity Land Users, 101 Motorists, Cyclists & Pedestrians, Government & Agencies...)
  - Maintenance

- Physical Context
  - Topography, Existing Land Uses, Utilities...

- Internal Constraints
  - Fencing, ADA, Seismic...
Feasibility
Costs/Benefits

A. Impacts or Conflicts with Existing Uses
B. Complexity & Cost
C. Opportunity for Elegance & Simplicity
D. Potential Functional, Economic, Quality of Life Benefits
<table>
<thead>
<tr>
<th>Document Title</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Rosa Bike/Ped Master Plan (2001 Update)</td>
<td>“high priority project”, “more safe crossings of Highway 101 are needed” (E-2, E-4)</td>
</tr>
<tr>
<td>SRJC Settlement Agreement (March 2005)</td>
<td>“The District…commits to provide, at no cost, an easement on its campus property for the overcrossing at a location mutually agreeable to the District and the City.” (p. 2)</td>
</tr>
<tr>
<td>SCTA Countywide Bike/Ped Master Plan (May 2008)</td>
<td>“the barriers created by freeways are among the most difficult challenges for bicyclists and pedestrians in many locations”, “The major reconstruction of Highway 101 is presenting multiple opportunities to improve associated bicycle and pedestrian crossings” (12, 23)</td>
</tr>
<tr>
<td>Draft 2035 Santa Rosa General Plan (January 2009)</td>
<td>“Strengthen and expand east-west linkages across the Highway 101 corridor” (Sec 5-8)</td>
</tr>
<tr>
<td>Mendocino Ave Corridor Study (December 2008)</td>
<td>Bike lanes to be added to Mendocino Ave.</td>
</tr>
<tr>
<td>SRJC Parking &amp; Transportation Plan (Feb 2006)</td>
<td>“The District maintains its commitment to the construction of and access to a future publicly constructed pedestrian and bicycle overpass (Highway 101)” (Sec III)</td>
</tr>
<tr>
<td>SCTA Comprehensive Transportation Plan</td>
<td>One of objectives: “Create grade separated access across Highway 101”. Project listed as “Planned Bikeway” of the Santa Rosa area</td>
</tr>
<tr>
<td>Hwy 101 Widening EIR</td>
<td></td>
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<tr>
<td>Santa Rosa Bike/Ped Master Plan (2008 Update) – when available</td>
<td></td>
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<tr>
<td>SCTA Measure M Strategic Plan</td>
<td>Project #14: Access across Hwy 101</td>
</tr>
<tr>
<td>SMART White Paper No. 12: Station Planning (May 2008)</td>
<td>“The Jennings Avenue station site is adjacent to Range Avenue south of Jennings, which is just west of Highway 101 and south of the Coddingtown Shopping Center. Besides being the major park-and-ride facility for Santa Rosa with space for about 630 cars, this station will provide access to Santa Rosa Junior College with the city’s plan for a bicycle pedestrian bridge over Highway 101.”</td>
</tr>
<tr>
<td>SRJC 2005 Bicycle Survey</td>
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<tr>
<td>Coddingtown?</td>
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<tr>
<td>SRJC Measure A (June 2002)</td>
<td>“improve roadways and relieve traffic congestion at all locations”</td>
</tr>
</tbody>
</table>
Highway 101 creates a major barrier to bicycle transportation. Two major vehicle crossings at Steele Lane and College Avenue are extremely intimidating to even serious cyclists. The two existing bicycle/pedestrian bridges are useful despite their grade, but more safe crossings of Highway 101 are needed. It should be noted that bike lanes are being planned under Highway 101 at College Avenue and Steele Lane as part of the reconstruction of those interchanges with the widening of U.S. 101.
High Priority Projects
The routes that score the highest using these five criteria are:

North-South
- Route 2 – Stony Point Road
- Route 5 – Range Avenue/Frances Street/Cleveland Avenue/ Wilson Street Railroad Street / Olive Street
- Route 7 - Mendocino Avenue /Santa Rosa Avenue (north of Highway 12)
- Route 10 – Humboldt Street/D Street/Hendley Street
- Route 11 – Franklin Avenue/North Street/Brookwood Avenue
- Route 4 – Dutton Avenue/Coffey Lane

East-West
- Route 32 – Piner Road/Coffey Lane
- Route 34 – Chanate Road/Montecito Boulevard
- Route 39 - West Ninth Street/Seventh Street;
- Route 41 - West Third Street /Third Street/Montgomery Drive

Bike Paths/Overcrossings
- Route 37 – Path and overcrossing at Santa Rosa Junior College
- Route 67 – Northwest Pacific Railroad ROW Trail
- Route 68 – Piner Creek Trail
- Route 69 – Santa Rosa Creek Trail
- Route 70 – Paulin Creek Trail
EXISTING/PROGRAMMED AND PROPOSED BICYCLE NETWORK
High Priority Projects

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Existing Facilities at Higher-Frequency Accident Locations

The following is a description of the corridors and intersections with the highest frequency of accidents.

**Steele Lane Corridor** – West Steele Lane is a two-lane arterial between Marlow Road and Range Avenue. Sidewalks exist on both sides of the road along this segment, though no bicycle lanes exist. Signals exist at Coffey Lane, Range Avenue, and Guerneville Road. The segment of Steele Lane between Range Avenue and County Center Drive is a major arterial that, like the adjacent Guerneville Road, carries extremely heavy traffic volumes during peak hours. West Steele Lane is used by bicyclists as one of the few locations to cross under U.S. 101. Sidewalks exist along both sides of the road except on the south side of the street between Cleveland Avenue and Armory Drive (which includes the U.S. 101 underpass). Bicycle lanes currently do not exist on the street. A traffic signal exists further to the east in front of the Steele Lane Elementary School. The corridor is currently not designated as a bicycle route.

**Mendocino Avenue Corridor** – Mendocino Avenue includes sidewalks on both sides of the street between Steele Lane and Fourth Street downtown, but does not include bicycle lanes. The street is generally comprised of a five-lane section between Steele Lane and College Avenue, and signalized intersections exist at Elliott Avenue, Pacific Avenue, Crawford Street and Ridgeway Avenue. A push-button actuated overhead crosswalk sign exists adjacent to the Junior College at McConnell Avenue. Crosswalks exist at the unsignalized intersections of Denton Way and Benton Street. South of College Avenue, Mendocino Avenue narrows to two northbound lanes
Santa Rosa Bicycle Plan Update Community Workshop May 18, 2000

Workshop Comments

- We need to pursue the Northwestern Pacific Railroad (NWPRR) bike trail.
- A priority should be continuous north-south and east-west bike trails within the City.
- We should make bicycles, cars, and pedestrians equal on the streets.
- Mendocino Avenue and Santa Rosa Avenue should be a priority bike route.
- Cracks and maintenance of road surfaces (especially patches) are a big issue to bicyclists and are a problem in town.
- There is not enough bicycle parking.
- Bicycle education is critical, especially for children but also for drivers.
- We should make Humboldt Avenue a primary north-south route, maybe a “bike boulevard” like in Palo Alto.
- A path between City Hall and the creek path is desperately needed.
- The City could prohibit parking on streets during peak hours to create more room for bicyclists (reference to Hoen and Summerfield Avenues).
- Bicyclists prefer quieter streets than streets with heavy traffic volumes.
- Safe bicycle routes to schools are needed.
- How do bicyclists get across town east to west? U.S. 101 is a major barrier.
- The Third Street and Steele Lane crossings of U.S. 101 are dangerous to bicyclists.
- The gates at the Brush Creek trail are a major problem for bicyclists.
- What ever happened to the Calistoga Road bicycle lane project?
- The Davis Street-Morgan Street “diamond” freeway access concept, which includes bike lanes, was not ideal because it puts bicyclists on medians and intersections.
Utility corridors such as PG&E easements and the Geysers Pipeline

- The availability of dedicated non-motorized transportation funding sources:
  - Measure M, Sonoma County’s dedicated transportation sales tax, administered by SCTA
  - Sonoma County Agricultural Preservation and Open Space District is increasingly focusing on access and recreation
- The major reconstruction of Highway 101 is presenting multiple opportunities to improve associated bicycle and pedestrian crossings.
- In recent times, the development community has been largely responsive to the public’s desire to see pedestrian and/or bicycle facilities built into new development.
- City and County zoning, permitting, and design standards have been put in place to foster infill, and non-motorized accessibility.
- Mandates and guidelines requiring the routine accommodation of bicyclists and pedestrians in the construction and upgrading of facilities serve to accelerate the build-out of the bicycle and pedestrian systems.
- Public involvement in the planning process creates greater awareness of needs, public desires, and solutions. Bicycle and pedestrian advisory groups, cycling groups, and advocacy organizations like the Sonoma County Bicycle Coalition, provide effective means of communicating.
- Programs like Safe Routes to School, and those involving law enforcement to improve motorist, bicyclist and pedestrian behaviors are supportive.
SCTA Bicycle and Pedestrian Plan

Proposed and Existing City and County Bicycle and Pedestrian Facilities

Author: Sonoma County Transportation Authority
Date: April 12, 2006
Revised: April 14, 2006

Projection & Coordinate System: CA State Plane, Zone 16, NAD83, U.S. Survey Foot, Lambert Conformal Conic Projection
Project Source: SCTA/SCTA Modeling Program/PRO/MAST/UC, update, new and
Sonoma-SCTA, Sonoma County CLD, Sonoma County Bicycle Advisory Committee

This map is for illustrative purposes only, and though care has been taken to ensure that data is accurate, maps
and represented data are provided without warranty of any kind.

0 1.5 3 5 7.5 10
0 1.25 2.5 5 7.5 10

Legend:
- Blue: Arterials
- Green: Collectibles
- Yellow: Local Streets
- Orange: Planned/Proposed
- Black: Existing Trails
- Purple: Regional Trails
- Green: Non-Motorized Corridors
- Yellow: Bicycle Pathways
- Blue: Pedestrian Pathways
- Red: High Use Corridors
- Gray: Other Routes

Scale 1:15,000

SCTA
Sonoma County Transportation Authority
PEDESTRIANS AND BICYCLES

T-J  Provide attractive and safe streets for pedestrians and bicyclists.

T-J-1 Pursue implementation of walking and bicycling facilities as envisioned in the city's Updated Bicycle and Pedestrian Master Plan.

T-J-2 Provide street lighting that is attractive, functional, and appropriate to the character and scale of the neighborhood or district, and that contributes to vehicular and pedestrian safety.

T-J-3 Strengthen and expand east-west linkages across the Highway 101 corridor.

T-J-4 Provide street trees to enhance the city's livability and to provide identity to neighborhoods and districts.

T-K Develop a safe, convenient, and continuous network of pedestrian sidewalks and pathways that link neighborhoods with schools, parks, shopping areas, and employment centers.

Pedestrian and bicycle paths surrounding Spring Lake provide recreational opportunities.
<table>
<thead>
<tr>
<th>NORTH/SOUTH SUBAREA</th>
<th>SANTA ROSA AREA</th>
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<tbody>
<tr>
<td>Class</td>
<td>Location</td>
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<tr>
<td>1</td>
<td></td>
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<tr>
<td>Santa Rosa Creek Trail</td>
<td>Mission to Streamside</td>
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<tr>
<td>Santa Rosa Creek Trail</td>
<td>Yulupa to Farmers Ln.</td>
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<tr>
<td>Santa Rosa Creek Trail</td>
<td>Fulton Rd. to Guerneville Rd.</td>
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<tr>
<td>Joe Rodota Trail</td>
<td>to Prince Memorial Greenway</td>
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<tr>
<td>Roseland Creek</td>
<td>Ludwig Ave. to Hane Rd.</td>
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<tr>
<td><strong>Highway 101 Overcrossing</strong></td>
<td>near the Santa Rosa Junior College</td>
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<tr>
<td>Piner Creek</td>
<td>Santa Rosa Creek to Hopper Ave.</td>
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<tr>
<td>Colgan Creek</td>
<td>Bellevue Ave. to Hearn Ave.</td>
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<td>2</td>
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<tr>
<td>Sonoma Ave.</td>
<td>Santa Rosa Ave. to Farmers Ln.</td>
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<tr>
<td>Humboldt Ave.</td>
<td>Lewis to Sonoma Ave.</td>
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<tr>
<td>Santa Rosa west east</td>
<td>W. 3rd street to Montgomery</td>
</tr>
<tr>
<td>Santa Rosa downtown</td>
<td>W.9th/7th Street/5th Street Dutton to Brookwood</td>
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<tr>
<td>Mendocino/Santa Rosa</td>
<td>Fountaingrove Pkwy to Hwy 12</td>
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</tr>
<tr>
<td>Piner Rd./Russell Ave/Bicentennial Wy.</td>
<td>Fulton to Mendocino</td>
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<tr>
<td>Range/Cleveland/Olive</td>
<td>Piner to Sebastopol Rd.</td>
</tr>
<tr>
<td>Old Redwood Hwy.</td>
<td>Piner Creek to Eastside Rd.</td>
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<tr>
<td>Stony Point Rd.</td>
<td>Highway 12 to Hearn Ave.</td>
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<td>Stony Point Rd.</td>
<td>Highway 12 to Hearn Ave.</td>
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<tr>
<td>Todd Rd.</td>
<td>Hearn Ave. to Petaluma city limits</td>
</tr>
</tbody>
</table>
2007 Measure M Strategic Plan

Bike-Pedestrian Project #14
Access Across 101

**Project Scope:**
Identify key east-west access points across Highway 101 and ...

**Additional Project Details:**
The city of Santa Rosa has requested $50,000 in Measure M funds which will be matched with $200,000 of city funds to complete a feasibility study for a bicycle and pedestrian overcrossing in the vicinity of Santa Rosa Junior College.

**Project Sponsor:** City of Santa Rosa
Santa Rosa has requested to program the funds for FY 07/08
north-south axis point will be near the intersection of Mendocino and Elliott Avenue and the east-west axis will be at or near the intersection of Mendocino/Pacific and BearCub Way. Bicycle lanes on BearCub Way will assist bicyclists to access Armory Drive. At the Petaluma Campus, points of connection access to public streets and pathways will be at the north and south driveways at Sonoma Mountain Parkway. Access to the Petaluma Public Pathway will be from the east campus pathway link at the Petaluma Campus.

3. Access to Future Pedestrian and Bicycle Overpass: The District maintains its commitment to the construction of and access to a future publicly constructed pedestrian and bicycle overpass (Highway 101) according to the terms of its agreement with the Sonoma County Bicycle Coalition dated March 15, 2005.

4. On-Campus Bicycle Parking and Storage: The District is committed to providing bicycle parking and storage spaces at each college campus site equal to ten percent (10%) of the student automobile parking spaces. The District will provide secure bicycle racks and lockers at each of its college campus sites. The District will endeavor to replace existing bicycle racks with a type that provide upright support for each bicycle frame in two places and enable the frame and one or both wheels to be secured. The District will endeavor to have new and replacement racks conform to the
Windsor: In 2007, Windsor opened its new intermodal transit station, located downtown near the intersection of Windsor Road and Windsor River Road. The new transit center building reflects the historic flavor of downtown Windsor and needs only the addition of boarding platforms to be ready to add SMART service. Local bus operators are already using the station. The SMART project includes expanding nearby parking to about 400 spaces.

Santa Rosa – Jennings: The Jennings Avenue station site is adjacent to Range Avenue south of Jennings, which is just west of Highway 101 and south of the Coddington Shopping Center. Besides being the major park-and-ride facility for Santa Rosa with space for about 630 cars, this station will provide access to Santa Rosa Junior College with the city’s plan for a bicycle-pedestrian bridge over Highway 101.

Santa Rosa – Railroad Square: This station is located at the site of the 1904 historic depot in the Railroad Square District of Santa Rosa, between Fourth and Fifth streets. This also is the site of a proposed mixed-use development project featuring a Sonoma County Food and Wine Center, housing, office, and retail space that is expected to become a major attraction in downtown Santa Rosa. As with other vibrant downtown areas with high transit access and strong mixed use programs, no park and ride lot will be located at this station.
Existing or Planned Bike Routes
Underpass?

- **Functionality and Safety**
  - Relatively large cross-section would be required for the space to not feel oppressive.
  - If a shallow underpass could actually be constructed, then ramping could possibly be as little as half the length required for an overpass.
    - Good sightlines would require straight ramps which can result in higher cyclist speeds and greater need for mode separation devices.

- **Constructability**
  - Cut and cover
    - Typically relies on heavy equipment and pre-cast box sections or concrete bridging slabs.
    - Can be efficient for shallow tunnels.
    - Need to stage traffic diversion for long periods of time.
  - Trenchless methods (e.g. pipe jacking)
    - Less disruptive than cut and cover methods, but would require significant earth cover and thus longer ramps.
    - Unlikely Caltrans would permit trenchless tunneling methods for a structure of this size due to pavement subsidence concerns during construction.

- **Cost**
  - Very closely related to construction method.
  - Generally, tunnels cost more than bridges when they are constructed to cross water or roadways.
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Thanksgiving

Thanksgiving has never been very important for me. To me it's just another day I get off from work. Thanksgiving is really stressful. There's too much preparation involved, and getting family and relatives together inevitably brings up old tensions.

Thanksgiving is my favorite holiday. Sharing food is such a basic and comforting human ritual.
Questions for audience:

- Can an eastern terminus on Bear Cub Way serve the Santa Rosa High School?
- Does pedestrian traffic gravitate towards bus transit center on Range Ave? i.e. how much pressure to push SMART station northwards?
- Is Elliott Ave difficult for cyclists to navigate during class hours? Are cyclists served with an Edwards Ave – Elliott Ave crossing?