



TRANSPORTATION CORRIDOR CONCEPT REPORT STATE ROUTE 160



The Transportation Corridor Concept Report (TCCR) is Caltrans' long range planning document for each State Highway Route. The TCCR provides information regarding route segments, including high priority projects for the highway over the next 20 years, and existing and forecasted traffic data. Projects identified in the TCCR will require environmental and engineering studies before final approval and are subject to change.

Approvals:

Jeff Pulverman
District 3 Deputy Director
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Date

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District 3 Director

Date

Transport Corridor Concept Report Data



Isleton Bridge

Segment Summary Information

The following pages provide summaries of each route segment. Each summary includes a segment map, a segment overview, a list of future projects, and traffic analysis data table. The future projects are separated into three categories:

1. **Planned** — projects included in an approved Regional Transportation Plan;
2. **Programmed** — projects included in the State Transportation Improvement Program, State Highway Operations and Protection Plan, or California Federal Transportation Improvement Program; and
3. **Conceptual** — projects not yet included in a planning or programming document, but are projects needed to maintain mobility along the segment.

Project listing include a brief description, cost (if available), and planned completion year.

State – Local Responsibility

Improvements to the State Highway System are the responsibility of both Caltrans and local agencies. Developments affecting this route and the regional State Highway System may necessitate that local jurisdictions provide nexus based, proportional fair-share funding for future highway improvements.

State Route 160 Summary

State Route (SR) 160 is a 2-lane conventional facility, which enters District 3, via the Antioch Bridge (at the Sacramento/Contra Costa County line), and traverses Sherman Island. From Sherman Island to a break in route at the Sacramento city limit, SR 160 follows the Sacramento River passing through the towns of Rio Vista, Isleton, Ryde, Walnut Grove, Courtland, Hood, and Freeport. In July 1999, SR 160 was relinquished to the City of Sacramento from the Sacramento city limit to the American River Bridge. SR 160 remains within the City of Sacramento, as a 4-lane freeway, from the American River Bridge to SR 51.

Segments 1 through 3 wind through the Sacramento River Delta Region as a narrow, two-lane conventional highway. The highway preceded the construction of a levee system for the river and was relocated to the crests of the levees when it was built, with neither the levees nor the highway built to modern standards. The levees shift, settle, and crack to a degree which affects the highway pavement condition and necessitates frequent repairs by Caltrans. A long-term maintenance preservation solution has not been identified.

Along the levees, there are numerous driveways and other access points for orchards, fields, farms, residences, and businesses, many of which have limited sight distance for various reasons. Commuter, agriculture, truck, and recreation traffic are highly seasonal and may appear in peaks at various times of the day. The highway shoulders are narrow and encroaching vegetation can make the roadway appear even more narrow. Metal beam guard rail projects have helped limit river-side parking. While passing lanes are available in some locations, additional passing opportunities are difficult to construct due to limited vertical and horizontal sight distance.

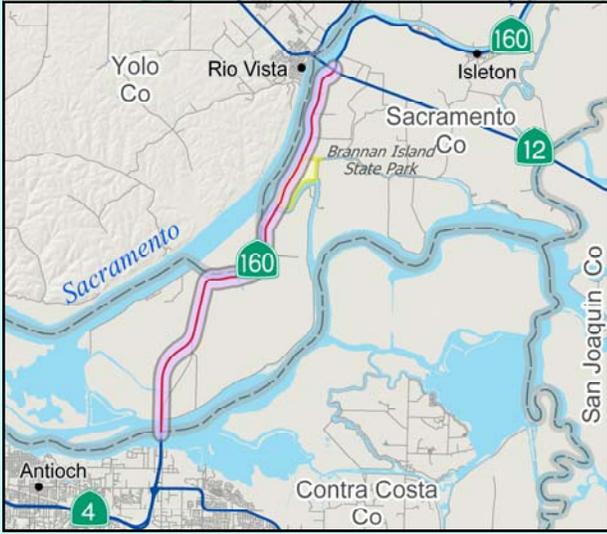
During the next 20 years, SR 160 will experience increased traffic from growth in the various communities (i.e. Rio Vista) located along the route or in neighboring communities. Planned improvements to the facility include a focus on upgrading the facility to current design standards, with special emphasis on the bridge structures and roadbed.

Concept Level of Service (LOS) represents the minimum acceptable service conditions over the next 20 years. While LOS D is a standard Concept LOS for rural highway segments, it would not be feasible to re-attain or maintain LOS D on Segments 1, 2, and 3 due to physical constraints (highway built on levees), limited sight distance (vertical and horizontal), and environmental constraints (habitat sensitivity).

The Concept LOS for Segment 4 is LOS E (urban concept). However, Concept LOS E is also not feasible due to physical limitations, which prevents any lane additions. All efforts should be made to provide sufficient right of way for future improvements to bridge structures, interchanges, and on and off ramps.

State Route 160 Segment 1 Summary

Segment 1



Segment 2



Segment One

Segment 1 is a 2-lane conventional facility beginning at the Sacramento/Contra Costa County line and continuing to SR 12 in Sacramento County. This segment passes through agricultural and Sacramento River/Delta recreational areas.

Beginning at the Antioch Bridge, SR 160 spans the San Joaquin River and extends onto Sherman Island in Sacramento County to the north and into Contra Costa County to the south. After the Antioch Bridge, the highway is primarily located on the Sacramento River levee.

Due to the limited availability of other direct routes along the Sacramento River corridor, agricultural traffic, goods movement traffic, and recreation traffic use this segment. Commuter traffic is also increasing and becoming a growing factor for this segment.

SR 160 will experience increased traffic in this segment due to increased growth in neighboring communities such as Rio Vista. Segment 1 currently operates at LOS E, but is expected to decline to LOS F by the year 2027. However, due to physical constraints (highway built on levees), limited sight distance (vertical and horizontal), and environmental constraints (habitat sensitivity) highway expansion projects are difficult.

State Route 160 Traffic Data—Segments 1 and 2 *(continued on next page)*

Segment	Location				Forecasted LOS and Facility Type					
	Description	County	Post Mile From	Post Mile To	Current LOS	20-Year Future LOS	20-Year Concept LOS	Existing Facility	Concept Facility	Ultimate Facility
1	Antioch Bridge/Contra Costa County line to SR 12	SAC	L0.00	L10.78/ R0.00	E	F	F	2C	2C	2C
2	State Route 12 to Isleton Bridge	SAC	R0.00	5.95	E	E	E	2C	2C	2C

State Route 160 Segment 2 Summary

Segment Two

Segment 2 continues north of SR 12 on the levee and ends at the Isleton Bridge. This segment has similar access and usage issues as Segment 1, although considerably less daily traffic due to vehicles entering and exiting the highway at the SR 12 junction.

For most of this segment, SR 160 is located on top of a levee owned by the Department of Reclamation. It is a non-standard highway sitting on highly organic soil which is constantly moving and settling, causing excessive cracking, and differential settlement. This is an exceptionally difficult segment of highway for pavement maintenance.

As a Main Street, SR 160 carries local as well as regional traffic. Businesses, residences, and commercial zones border both sides of SR 160. Accommodating pedestrians and bicycles should be considered with bike facilities, streetscape elements, crosswalks, and signage. Streetscape elements could include curb extensions, wider sidewalks, street landscapes, pedestrian-scale streetlights, trees, or street furniture.

The Sacramento River Isleton Bridge will require rehabilitation or replacement because of age, narrow lane widths, and outdated electric components. SR 160 will also experience increased traffic in this segment due to increased growth in neighboring communities such as Rio Vista. Segment 2 currently operates at LOS E and is expected to remain LOS E. There are no highway expansion projects planned for this segment.

Highway Improvement Projects

(Construction Cost in thousands; Construction Completion Year)

Segments 1 & 2

Planned:

- ◆ Pavement rehab from Three Mile Slough Bridge to SR 12 PM L6.9/L10.7 (\$7,700; 2013) 2007 [EA 0F320k]

Programmed:

- ◆ Replace pier fender at Three Mile Slough Bridge PM L6.9 (\$640; 2010) 2008 SHOPP

Conceptual:

- ◆ Construct left-turn pocket and lighting at West Sherman Island Road PM L4.2
- ◆ Replace Three Mile Slough Bridge PM L6.9
- ◆ Construct acceleration and deceleration lane northbound, Brannon Island State Park PM L7.4 (\$267; 2010) SHOPP
- ◆ Non-motorized vehicles and pedestrians are allowed on the Antioch Bridge for Segment 1. The County 2010 Bike Master Plan shows this segment as part of a proposed bike route from the Contra Costa County line to the Sacramento City limits. However, significant sections of the segment contain narrow shoulder widths and metal beam guard-rails, and do not encourage bike use or pedestrian travel. SR 84 is a parallel route and could be considered an alternative bike route.

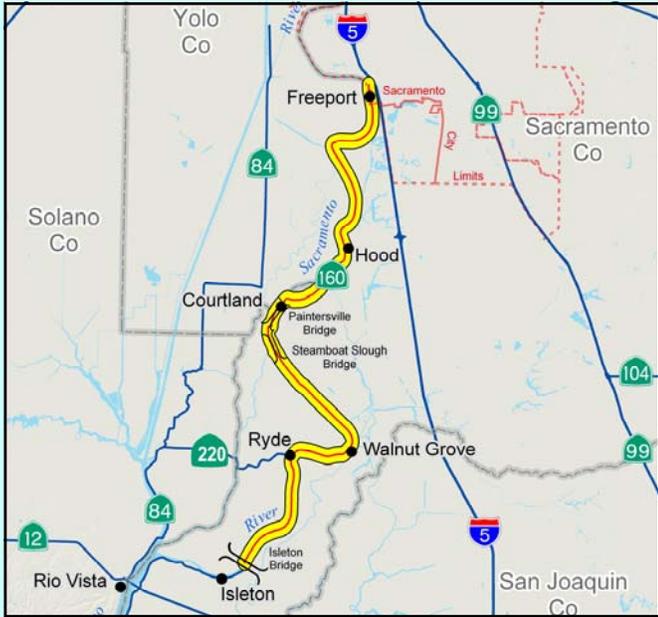
State Route 160 Traffic Data—Segments 1 and 2 *(continued from previous page)*

Segment	Current Traffic Data—2007						Prior 3 Year Safety Index*	Future Traffic Data—2027			
	% of Trucks	Directional Split	Peak Hour Traffic	Average Daily Traffic	Volume over Capacity	Directional Split		Peak Hour Traffic	Average Daily Traffic	Volume over Capacity	
1	7%	65%	1,730	15,300	0.62	-58%	65%	2,410	21,300	0.86	
2	5%	65%	1,000	5,500	0.36	+35%	65%	1,390	7,670	0.50	

*Reported Collision Rate Index: The percentage by which each segment's reported collisions rate (fatal, injury, and property damage only) is above or below the statewide average reported collisions rate on comparable facilities. Source: 3-Year Caltrans Traffic Accident Surveillance and Analysis System data.

State Route 160 Segment 3 Summary

Segment 3



Segment 4



Segment Three

Segment 3 extends from Isleton to the Sacramento City limit as a 2-lane conventional facility through several small-sized communities (Ryde, Walnut Grove, Courtland, Hood, and Freeport).

Due to the limited availability of other direct routes along the Sacramento River corridor, agricultural traffic, goods movement traffic, and recreation traffic use this segment. Commuter traffic is also increasing and becoming a growing factor for this segment.

For most of this segment, SR 160 is located on top of a levee. It is a non-standard highway sitting on highly organic soil which is constantly moving and settling, causing excessive cracking, and differential settlement. This is an exceptionally difficult segment of highway for pavement maintenance.

Where SR 160 acts as a “Main Street”, residences, businesses, and commercial zones border both sides of SR 160. Accommodating pedestrians and bicycles should be considered with bike facilities, streetscape elements, crosswalks, and signage. Streetscape elements could include curb extensions, wider sidewalks, street landscapes, pedestrian-scale streetlights, trees, or street furniture.

At GTE Drive (PM 35.0), the driveway approach has no left-turn lane, acceleration/deceleration lane, or significant shoulder available. A left-turn pocket could improve the sight distance and reduce traffic merges at this access point.

Segment 3 currently operates at LOS D and is expected to decline to LOS E by the year 2027. There are no highway expansion projects planned for this segment.

SR 160 was relinquished to the City of Sacramento from GTE Drive (PM 35.0) to the American River Bridge (PM 44.4).

State Route 160 Traffic Data—Segments 3 and 4 *(continued on next page)*

Segment	Description	County	Location		Forecasted LOS and Facility Type					
			Post Mile From	Post Mile To	Current LOS	20-Year Future LOS	20-Year Concept LOS	Existing Facility	Concept Facility	Ultimate Facility
3	Isleton Bridge to north of Freepoint city limits	SAC	5.95	35.045	D	E	E	2C	2C	2C
4	American River Bridge to State Route 51	SAC	44.456	47.05	E	F	F	4F/6F	4F/6F	4F/6F

State Route 160 Segment 4 Summary

Segment Four

After the Break in Route, Segment 4 is a 6-lane freeway facility south of the American River Bridge and transitions into a 4-lane freeway facility after crossing over the North Sacramento Viaduct.

Relinquishment of Segment 4 to the City of Sacramento is being considered and discussed, but must consider any operational impacts to SR 51 due to any changes to this segment.

Morning and afternoon commute traffic and trucks regularly use this segment. When other freeways accessing the downtown Sacramento area from the north are congested due to traffic incidents, this facility is used as an alternative route to avoid the congestion.

The pavement and concrete slabs on this segment are deteriorating due to heavy traffic volumes and pavement age. Signage, lighting, and other roadside features are also showing wear. Grade separated facilities are outdated and constrained by limited right of way. The bridge crossing the American River needs major rehabilitation. Additionally, several heavy rail train tracks and double track light rail operates in the vicinity.

Recent developments in downtown and substantial planned developments in downtown (Railyards, Richards Boulevard area) are expected to significantly increase traffic demands on this facility. The facility already operates near capacity during peak commute periods, so the additional development will make the congestion worse and extend the congested periods to more hours of the day.

Segment 4 currently operates at LOS E. As the facility is expected to decline to LOS F by the year 2027, with capacity increasing projects deemed infeasible, operational improvements should be considered.

Highway Improvement Projects

(Construction Cost in thousands; Construction Completion Year)

Segment 3 & 4

Planned:

- ◆ Bridge rail replacement and rehabilitate bridge deck at American River Bridge (\$6,590; 2011) 2009 Ten-Year SHOPP
- ◆ Upgrade bridge rail at various locations from North Sacramento Viaduct to Swanston Overcrossing (\$5,455; 2012) 2009 Ten-Year SHOPP
- ◆ Construct split-diamond interchange at Exposition Boulevard (\$58,000; 2023) SACOG 2035 MTP
- ◆ Install ramp metering at Canterbury Road, Royal Oaks Drive, Tribute Road, Arden Way (EB & WB) 2009 Ramp Meter Development Plan
- ◆ Construct new Freeport Shores pedestrian/bike path at grade crossing of SR 160 connecting the Sacramento River Trail and the Sports Complex (\$1.1; 2010) SACOG 2035 MTP
- ◆ New four-lane arterial on new alignment between SR 160 and SR 51. Construct a full interchange at the connection with SR 51 (\$206.3; 2030) SACOG 2035 MTP

Programmed:

- ◆ SR 160/Northgate Interchange: add an eastbound on-ramp and a westbound off-ramp (\$18.1; 2010) SACOG MTIP
- ◆ SR 160/Richards Boulevard: install signalized intersection (\$5.1; 2010) SACOG MTIP
- ◆ SR 160 at American River Bridge: replace bridge rail and rehabilitate bridge deck (\$6.5; 2012) SACOG MTIP

Conceptual:

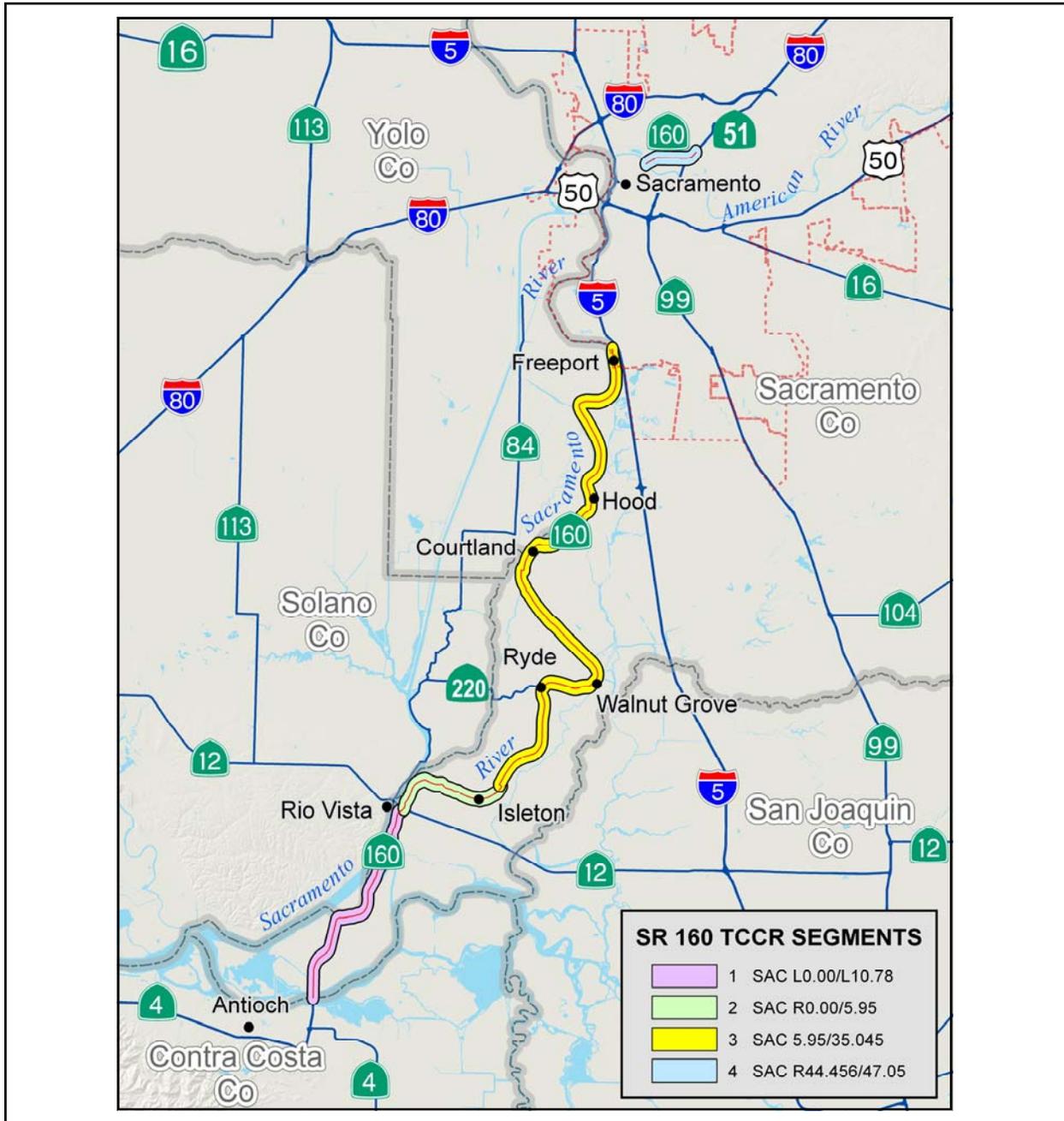
- ◆ Paint bridges: Isleton PM 5.9, Three Mile PM 7.0, Steamboat PM 19.8, and Sacramento River Paintersville PM 20.9
- ◆ Base Repair & AC Overlay SR 12 to Courtland PM 0.0/21.0
- ◆ Base Repair & AC Overlay Courtland to I-5 PM 21.0/35.0
- ◆ Scour mitigation at Steamboat Bridge
- ◆ Upgrade various bridge rails PM 5.9/46.3
- ◆ Various seismic retrofits PM 20.9/R45.0
- ◆ Install barriers at Walnut Grove intersection to prevent SB traffic queues from using empty commercial parking lot as a passing lane
- ◆ Improve Arden Way interchange: widen for six lanes

State Route 160 Traffic Data—Segments 3 and 4 (continued from previous page)

Segment	Current Traffic Data—2007						Prior 3 Year	Future Traffic Data—2027			
	% of Trucks	Directional Split	Peak Hour Traffic	Average Daily Traffic	Volume over Capacity	Safety Index*		Directional Split	Peak Hour Traffic	Average Daily Traffic	Volume over Capacity
3	5%	65%	310	2,880	0.11	+8%	65%	430	4,010	0.16	
4	3%	74%	5,190	38,160	0.91	+19%	71%	6,970	51,280	1.23	

*Reported Collision Rate Index: The percentage by which each segment's reported collisions rate (fatal, injury, and property damage only) is above or below the statewide average reported collisions rate on comparable facilities. Source: 3-Year Caltrans Traffic Accident Surveillance and Analysis System data.

STATE ROUTE 160 SEGMENT MAP



Please contact below for any questions about this TCCR:

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Or visit the TCCR website at:

<http://www.dot.ca.gov/dist3/departments/planning/systemplanning.html>