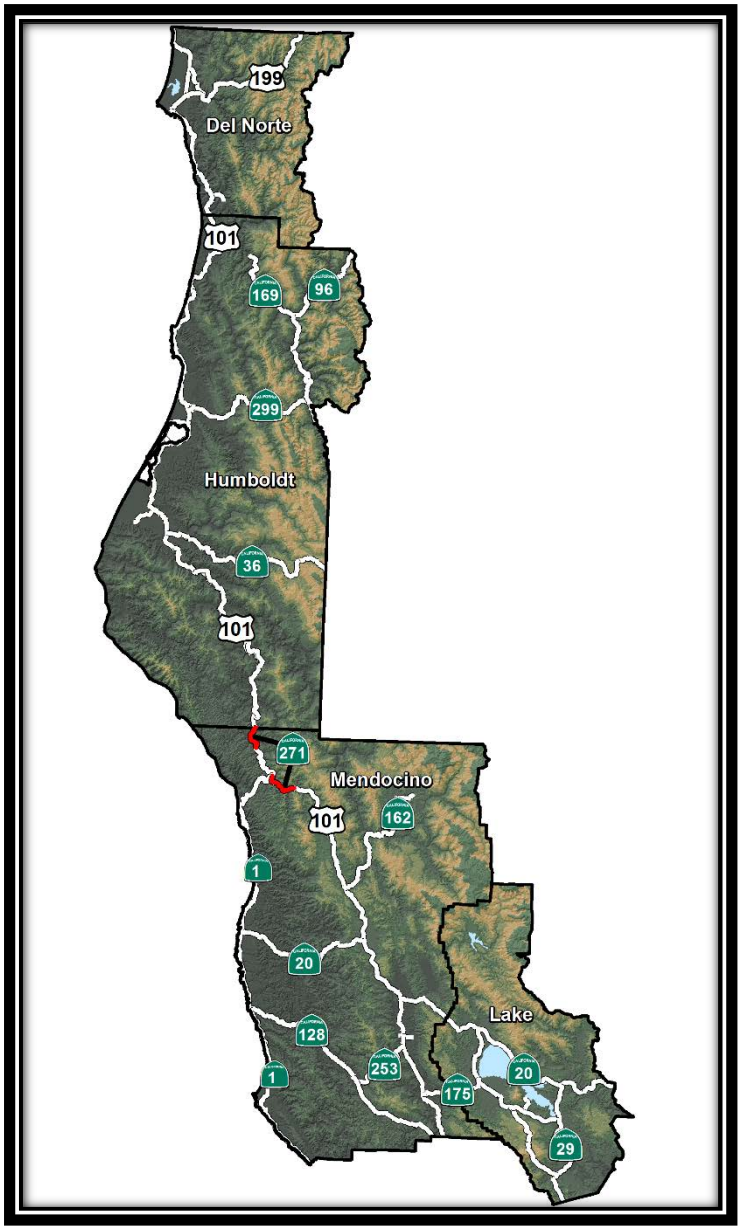
Transportation Concept Report

State Route 271

District 01

June 30, 2017



Disclaimer: The information and data contained in this document are for planning purposes only and should not be relied upon for final design of any project. Any information in this Transportation Concept Report (TCR) is subject to modification as conditions change and new information is obtained. Although planning information is dynamic and continually changing, the (insert District) System Planning Division makes every effort to ensure the accuracy and timeliness of the information contained in the TCR. The information in the TCR does not constitute a standard, specification, or regulation, nor is it intended to address design policies and procedures.

California Department of Transportation
Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability

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ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by evaluating conditions and proposing enhancements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process for District 1 is primarily composed of three parts: the District System Management Plan (**DSMP**), the DSMP Project List, and the Transportation Concept Report (**TCR**). The District-wide DSMP is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The DSMP Project List is a list of planned and partially programmed transportation projects used to recommend projects for funding. The TCR is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. These System Planning products are also intended as resources for stakeholders, the public, regional agencies, and local agencies.

TCR Purpose

California's State Highway System needs long range planning documents to guide the logical development of transportation systems as required by CA Gov. Code §65086 and as necessitated by the public, stakeholders, and system users. The purpose of the TCR is to evaluate current and projected conditions along the route and communicate the vision for the development of each route in each Caltrans District during a 20-25 year planning horizon. The TCR is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs along the corridor through integrated management of the transportation network, including the highway, transit, pedestrian, bicycle, freight, operational improvements and travel demand management components of the corridor.

STAKEHOLDER PARTICIPATION

A draft copy of this TCR has been circulated to transportation agencies in areas served by the route, including the Mendocino Council of Governments, Mendocino County, Humboldt County Association of Governments and Humboldt County. The draft TCR was circulated to other functional units within the District and Headquarters System Planning for compliance and compatibility with District and Statewide directives and policies. Input was received and revisions made as appropriate.

EXECUTIVE SUMMARY

State Route (SR) 271 is functionally classified as a Rural Minor Arterial, consisting of two discontinuous segments on the old US 101 alignment in northern Mendocino and southern Humboldt counties. The route is a bypassed alignment of U.S. Route 101 and the corridor generally parallels the South Fork of the Eel River. The combined segments of SR 271 are approximately 15 miles in length (MEN-271-PM 0.0/22.7, HUM-271-PM 0.0/T0.3).

Concept Summary

Segment	Segment Description	Existing Facility	20-25 Year System Operations and Management Concept	20-25 Year Facility Concept
	MEN 271			
1	Route 101 to Route 1	2L-C	Maintain Only	2L-C, Maintain Only
2	1.5 miles south of Reynolds Overcrossing to the MEN/HUM County line	2L-C	Maintain Only	2L-C, Maintain Only
	HUM 271			
3	MEN/HUM County line to Route 101	2L-C	Maintain Only	2L-C, Maintain Only

L = Lane; C = Conventional

Concept Rationale

The corridor concept serves as a guide for long range planning of route improvements. It protects the State's investment in SR 271, while recognizing financial and environmental constraints, which will not allow the programming of extensive improvements for all state highways.

Proposed Projects and Strategies

The route will be maintained at its present width and on the existing alignment. There are no planned improvements for SR 271 in order to achieve the route concept. Maintenance, rehabilitation, and safety projects will be developed as needs are identified.

CORRIDOR OVERVIEW

ROUTE SEGMENTATION

State Route consists of two discontinuous segments of the old U.S. Route 101 in northern Mendocino and southern Humboldt counties, which were bypassed with new freeway construction. The northern portion of the route is segmented at the Humboldt/Mendocino county line.

Segment #	Location Description	Beginning PM	End PM
	MEN 271		
1	Route 101 to Route 1	0.00	7.30
2	1.5 miles south of Reynolds Overcrossing to the MEN/HUM County line	17.10	22.70
	HUM 271		
3	MEN/HUM County line to Route 101	0.00	T0.30

ROUTE DESCRIPTION

Route Location:

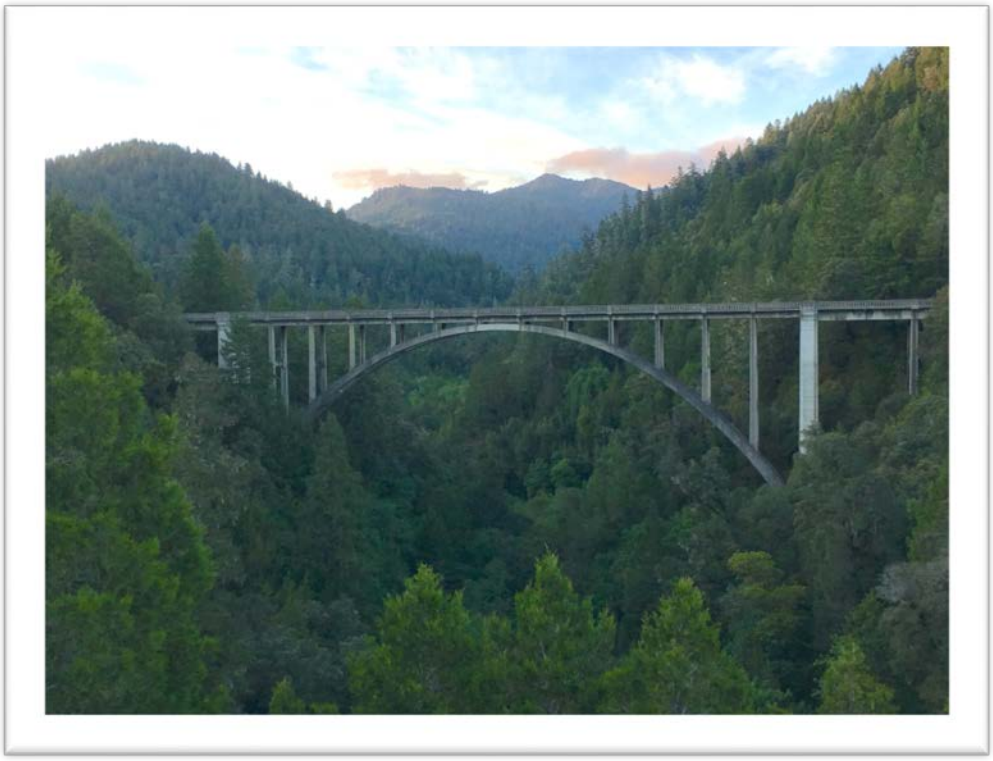
SR 271 originates at U.S. Route 101 near Cummings, which is located at the lower-end of Rattlesnake Creek. The route proceeds in a northwesterly direction, crossing U.S. Route 101 twice before it intersects with State Route 1 in the community of Leggett. SR 271 resumes again near Red Mountain Creek, about one and one-half mile south of the Reynolds Overcrossing. The route continues in a northerly direction, again crossing U.S. 101 twice near the Humboldt/Mendocino County line.

Route Purpose:

SR 271 is used primarily for access by a few small unincorporated communities in northern Mendocino County, including Leggett and Piercy. Historically, portions of Route 271 have served as a detour for Route 101 when storm damage or storm damage restoration work impedes travel. SR 271 is functionally classified as a Rural Minor Collector.

Major Route Features:

The route includes two concrete arch bridges that span Little Dann Creek and Cedar Creek just south of the unincorporated community of Leggett. SR 271 functions as the main street for the small community of Leggett.



Cedar Creek Bridge, SR 271

Route Designations and Characteristics:

Segment #		1	2	3
Freeway & Expressway		No	No	No
National Highway System		No	No	No
Strategic Highway Network		No	No	No
Scenic Highway		No	No	No
Interregional Road System		No	Yes	No
High Emphasis		No	No	No
Focus Route		No	No	No
Federal Functional Classification		Rural Minor Collector	Rural Minor Collector	Rural Minor Collector
Goods Movement Route		No	No	No
Truck Designation		CA Legal	CA Legal	CA Legal
Rural/Urban/Urbanized		Rural	Rural	Rural
Regional Transportation Planning Agency		MCOG	MCOG	HCAOG
Local Agency		Mendocino County	Mendocino County	Humboldt County
Tribes		N/A	N/A	N/A
Air District		Mendocino Air Quality Management District	Mendocino Air Quality Management District	North Coast Unified Air Quality Management District
Terrain		Mountainous/Rolling	Rolling	Rolling/Flat

LAND USE AND COMMUNITY CHARACTERISTICS

Land use adjacent to Route 271 is generally open space forest, with some agricultural land (primarily used for grazing) and scattered low-density residential development and low traffic volumes. It is anticipated that these land uses will continue, with little additional development.

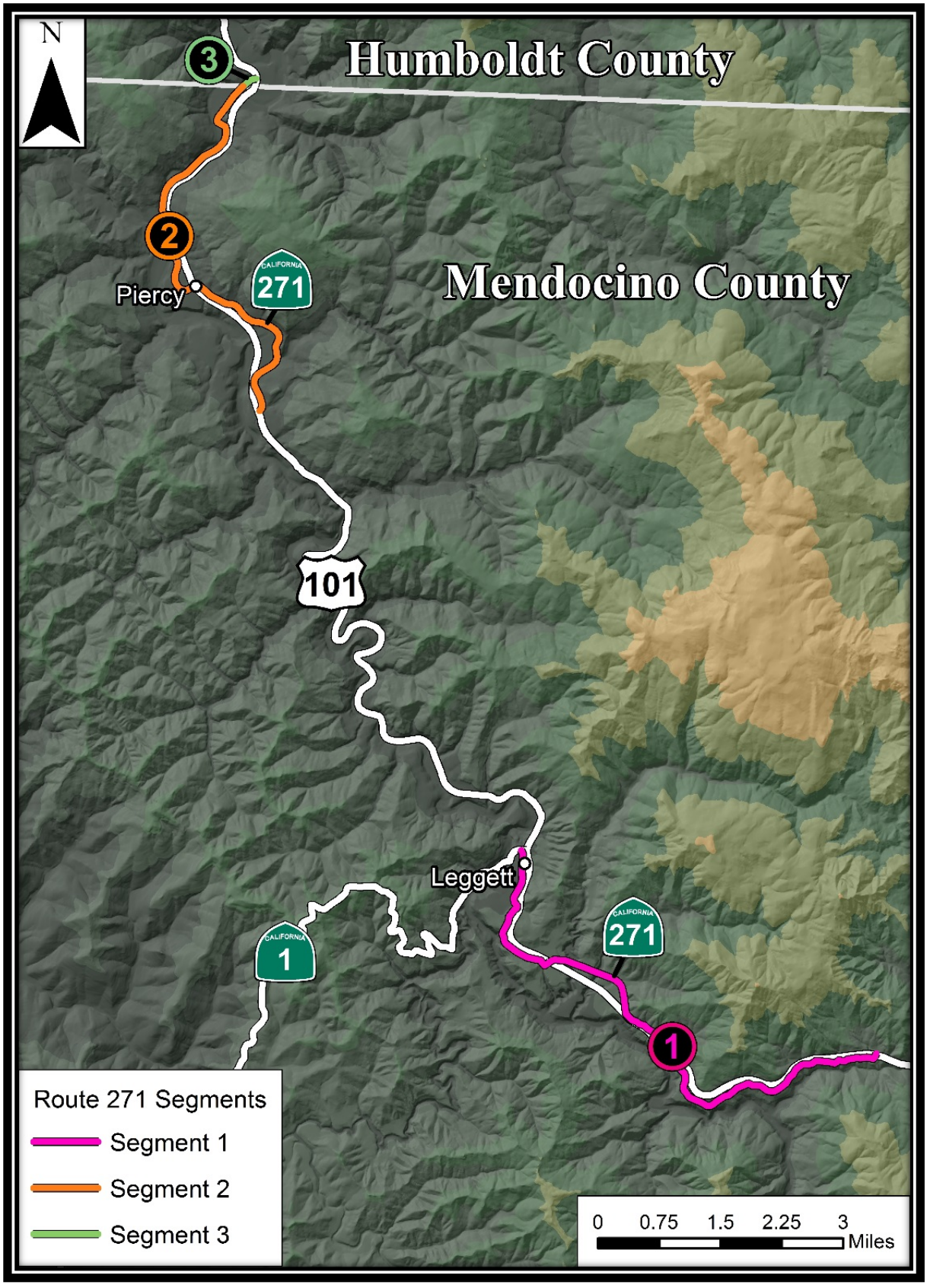
Smart Mobility Framework Place types provide a statewide framework for classifying land uses and their relation to mobility. Listed below are the definitions of Smart Mobility place types and any modifications for rural areas:

- Rural and Agricultural Lands: Settlement patterns with widely spaced towns separated by farms, vineyards, orchard, or grazing lands. For the purpose of this TCR rural and agricultural lands can be split into agricultural lands and rural lands, undeveloped lands including forested lands.

- Rural Settlements: Rural settlements are also a subset of Rural and Agricultural Lands, and consist of scattered dwelling units, supporting commercial uses, and public facilities. Rural Settlements differ from Rural Towns in that they don't contain a strong sense of community design. An example of a rural settlement along Route 271 is where the Route serves as a main street for the community of Leggett.

Although the timber industry has slowed substantially from historic levels, Mendocino County has a higher than state average employment in agriculture, construction, and resource extraction. According to The California Employment Development Department, tourism is the primary industry in Mendocino County.

Segment	Smart Mobility Place Type
1	*Rural and Agricultural Lands*
2	*Rural and Agricultural Lands*
3	*Rural and Agricultural Lands*


N
Humboldt County
Mendocino County
3
2
Piercy
CALIFORNIA
271
101
Leggett
CALIFORNIA
1
CALIFORNIA
271
1
Route 271 Segments
Segment 1
Segment 2
Segment 3
0
0.75
1.5
2.25
3
Miles

SYSTEM CHARACTERISTICS

Segment #		1	2	3
Existing Facility				
Facility Type		C	C	C
General Purpose Lanes		2	2	2
Lane Miles		14.60	13.16	0.60
Centerline Miles		7.30	6.58	0.30
Median Width (feet)		2	2	2
Median Characteristics		Undivided	Undivided	Undivided
Current ROW (feet)		25-200	25-200	25-200
Concept Facility				
Facility Type		C	C	C
General Purpose Lanes		2	2	2
Lane Miles		14.60	13.16	0.60
Centerline Miles		7.30	6.58	0.30

c = conventional

Virtually all of the right of way on Route 271 is either owned by the State or the State has acquired easements for the construction and maintenance of the roadway. Right of way width varies from 25-200 feet. Based on projections of development currently envisioned for the Route 271 corridor, it is anticipated that no additional right of way will be required.

BICYCLE FACILITY

All State routes in District 1 are open to bicycle traffic. Primary bicycle facilities for SR 271 include mixed-use shoulders and shared travel lanes. The majority of SR 271 has four-foot shoulders or less. The route generally follows a curvilinear path often in close proximity to sensitive natural resources. Constraints to shoulder widening along the Route include: environmental constraints, topography, legacy[1] structures, and lack of funding.

Segments 1 and 2 are adjacent to the Pacific Coast Bike Route (PCBR) alignment on US Route 101, which serves interregional bicycle travel. Within District 1, the PCBR follows US 101 through Del Norte, Humboldt, and Mendocino County as far south as Leggett where the PCBR turns southwest to follow State Route 1 into Sonoma County. Bicyclists following the PCBR may prefer to travel on SR 271 due to the lower traffic volumes and lower travel speeds despite the generally narrower shoulders.

PEDESTRIAN FACILITY

Where Route 271 serves as a main street through the communities of Leggett and Piercy, slightly higher numbers of pedestrians are expected. There is no infrastructure or sidewalks for pedestrian use along the Route other than multi-purpose shoulders. In general, conventional highways do not prohibit pedestrian access. Since all of Route 271 is a 2-lane conventional highway, pedestrians are permitted to traverse the shoulder along the entire route.

[1] Structures constructed before current shoulder standards where developed.

TRANSIT FACILITY

There are no Mendocino Transit Authority routes operating north of Willits on Route 101. No transit service is available on SR 271. An Amtrak through-way bus, between Martinez and Arcata, stops in Leggett on US 101. The through-way bus requires that at least a portion of the trip include travel by train in order to purchase a ticket.

FREIGHT

Goods movement through the corridor is transported primarily by truck. US Route 101 is the most important freight route in the region. As a discontinuous route, SR 271 carries limited freight. Goods movement along the route is primarily a function of access to small communities and as a result of infrequent detours that redirect trucks from US 101.

ENVIRONMENTAL CONSIDERATIONS

The diverse biotic and geologic natural systems in Caltrans District 1 demands sensitivity to species of concern and sensitive habitats. To accomplish this District 1 coordinates closely with regional, state, and federal regulatory and natural resource agencies during project development. Caltrans' projects are designed to avoid or minimize impacts whenever feasible. Principal environmental considerations within the SR 271 corridor are listed below.

Fish Passage Remediation- Existing law requires that the California Department of Transportation (Caltrans) provide unimpaired passage for all anadromous fish at stream crossings (Fish and Game Code 5901 and Streets and Highway Code 156 [SB857]). Consistent with SB 857, all projects within current or historically populated streams shall be constructed so that they do not present a barrier to anadromous fish passage at any life stage. The definition of 'projects" includes any action regardless of funding source or level and includes any rehabilitation, new construction or maintenance actions that extend the life of the existing culvert or crossing.

Hydrology/Water Quality - The South Fork of the Eel River roughly parallels the SR 271 corridor and has been designated part of the Wild and Scenic River system.

Cultural Resources - There are no federally recognized Tribal Reservations on this Route. Caltrans will consult with Tribes during project development to ensure that cultural resources are avoided.

Geology/Soils - Slope stability is a concern in the SR 271 corridor. The proximity of US 101 enables either route to serve as a detour route in the event of landslide-caused road or lane closures.

CORRIDOR PERFORMANCE

The table below summarizes corridor performance measures, including Annual Average Daily Traffic (AADT), Vehicle Miles Traveled (VMT), and truck volume data.

Segment #		1	2	3
Basic System Operations				
AADT (2015)		450	140	130
AADT (2040)		475	150	140
AADT: Growth Rate/Year		1.05%	1.05%	1.10%
VMT (2015)		3,350	900	40
VMT (2040)		3,500	950	45
Truck Traffic				
Total Average Annual Daily Truck Traffic (AADTT) (2015)		40	20	35
Total Average Annual Daily Truck Traffic (AADTT) (2040)		45	25	40
Total Trucks (% of AADT) (2015)		8.3%	14.8%	26%
5+ Axle Average Annual Daily Truck Traffic (AADTT)(2015)		2	2	4
5+ Axle Trucks (as % of AADT)(2015)		4.4%	24.3%	19.4%

CORRIDOR CONCEPT

CONCEPT RATIONALE

The corridor concept serves as a guide for long range planning of route improvements. It protects the State's investment in SR 271, while recognizing financial and environmental constraints, which will not allow the programming of extensive improvements for all state highways.

20-Year Facility Concept

The 20-year Facility Concept serves as a broad concept for US 101 throughout District 1 over the 20-year planning horizon, and is consistent with Route 271 classification as a Class II Highway. Class II facilities are distinguished from Class I facilities by an emphasis upon access as opposed to mobility. Based on functional classification, traffic volumes, and maintenance service levels, Route 271 in District 1 should be maintained as necessary at its present width and on the existing alignment. Portions of the Route may be rehabilitated on an exception basis, when maintaining the facility would be less cost effective than rehabilitating it.

PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

The following table provides a summary of programmed and recently completed projects on Route 271.

Project ID	Location	Description	Project ID	Location	Description
EA 01-0G0204	MEN-271 PM 18.4/20.3	Repair Viaduct, Slope, Drainage, & Slipout	*EA 01-0G0204*	MEN-271 PM 18.4/20.3	Repair Viaduct, Slope, Drainage, & Slipout
EA 01-0A8404	MEN-271 PM 17.8/18.0	Replace McCoy Creek Bridge	*EA 01-0A8404*	MEN-271 PM 17.8/18.0	Replace McCoy Creek Bridge

APPENDICES

APPENDIX A
GLOSSARY OF TERMS AND ACRONYMS

APPENDIX B
RESOURCES

APPENDIX A
ACRONYMS & GLOSSARY OF TERMS

ACRONYMS

AADT – Annual Average Daily Traffic
ADA – Americans with Disabilities Act of 1990
ADT – Average Daily Traffic
CALTRANS – California Department of Transportation
CMA – Congestion Management Agencies
CEQA – California Environmental Quality Act
CSS – Context Sensitive Solutions
FHWA – Federal Highway Administration
FSR – Feasibility Study Report
FSTIP – Federal Statewide Transportation Improvement Program
FTIP – Federal Transportation Improvement Program
GHG – Green House Gas
GIS – Geographic Information System
HCP – Habitat Conservation Plan
IGR – Intergovernmental Review
ITS – Intelligent Transportation System
LOS – Level of Service
MPO – Metropolitan Planning Organizations
NOA – Naturally Occurring Asbestos
NCCP – Natural Community Conservation Plan
NEPA – National Environmental Policy Act
PA&ED – Project Approval and Environmental Document
PID – Project Initiation Document
PS&E – Plans Specifications and Estimate
PSR – Project Study Report
RHNA – Regional Housing Needs Allocation
RTP – Regional Transportation Plan
RTIP – Regional Transportation Improvement Program
RTPA – Regional Transportation Planning Agencies
SAFETEA – Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2005
SCS – Sustainable Community Strategies
SHOPP – State Highway Operation Protection Program
STIP – State Transportation Improvement Program
TEA-21 – Transportation Equity Act for the 21st Century
TDM – Transportation Demand Management
TMS – Transportation Management System
TSN – Transportation System Network
VMT – Vehicle Miles Traveled

Appendix A
ACRONYMS & GLOSSARY OF TERMS

GLOSSARY OF TERMS

AADT – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments moved from location to location throughout the State in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Base year – The year that the most current data is available to the Districts.

Bikeway Class I (Bike Path) – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

Bikeway Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway.

Bikeway Class III (Bike Route) – Provides for shared use with pedestrian or motor vehicle traffic.

Bottlenecks – A bottleneck is a location where traffic demand exceeds the effective carrying capacity of the roadway. In most cases, the cause of a bottleneck relates to a sudden reduction in capacity, such as a lane drop, merging and weaving, driver distractions, a surge in demand, or a combination of factors.

Capacity – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Capital Facility Concept – The 20-25 year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility (Intercity Passenger Rail, Mass Transit Guideway etc.), grade separation, and new managed lanes.

Concept LOS – The minimum acceptable LOS over the next 20-25 years.

Conceptual – A conceptual improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a financially constrained plan and is not currently programmed.

Corridor – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included as informational purposes and not analyzed in the TCR.

Facility Type – The facility type describes the state highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

Freight Generator – Any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

Headway – The time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

Horizon Year – The year that the future (20-25 years) data is based on.

Intermodal Freight Facility – Intermodal transport requires more than one mode of transportation. An intermodal freight facility is a location where different transportation modes and networks connect and freight is transferred (or "transloaded") from one mode, such as rail, to another, such as truck.

ITS – Intelligent Transportation System improves transportation safety and mobility and enhances productivity through the integration of advanced communications technologies into the transportation infrastructure and in vehicles. Intelligent transportation systems encompass a broad range of wireless and wire line communications-based information and electronics technologies to collect information, process it, and take appropriate actions.

LOS – Level of Service is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:

> **LOS A** describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.
>
> **LOS B** is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
>
> **LOS C** represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.
>
> **LOS D** demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.
>
> **LOS E** reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.
>
> **LOS F** a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes operations with delay in excess of 60 seconds per vehicle. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

Multi-modal – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

System Operations and Management Concept – Describe the system operations and management elements that may be needed within 20-25 years. This can include Non-capacity increasing operational improvements (Aux. lanes, channelization's, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic (e.g. HOV land to HOT lane), TMS Field Elements, Transportation Demand Management, and Incident Management.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

Peak Period – Is a part of the day during which traffic congestion on the road is at its highest. Normally, this happens twice a day, once in the morning and once in the evening; the time periods when the most people commute. Peak Period is defined for individual routes, not a district or statewide standard.

Planned– A planned improvement or action is a project in a long-term financially constrained plan, such as an approved Regional Transportation Plan (RTP or MTP) or Capital Improvement Plan.

Post Mile – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a county to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The milepost at a given location will remain the same year after year. When a section of road is realigned, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the reminder of the route within the county will remain unchanged.

Programmed – A programmed improvement or action is a project in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program.

Railroad Class I – The Surface Transportation Board (STB) defines a Class I railroad in the U.S. as a carrier having annual operating revenues of $250 million or more. This class includes the nation's major railroads. In California, Class I railroads include Union Pacific Railroad (UP) and Burlington Northern Santa Fe Railway (BNSF).

Railroad Class II – STB defines a Class II railroad in the U.S. as having annual carrier operating revenues of less than $250 million but more than $20 million. Class II railroads are considered mid-sized freight-hauling railroad in terms of operating revenues. They are considered "regional railroads" by the Association of American Railroads.

Railroad Class III – Railroads with annual carrier operating revenues of $20 million or less. The typical Class III is a short line railroad, which feeds traffic to or delivers traffic from a Class I or Class II railroad.

Route Designation – A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), Scenic Highway System, etc.

Rural – Fewer than 5,000 in population designates a rural area. Limits are based upon population density.

Segment – A portion of a facility between two points.

TDM – Transportation Demand Management programs designed to reduce or shift demand for transportation through various means, such as the use of public transportation, carpooling, telework, and alternative work hours. Transportation Demand Management strategies can be used to manage congestion during peak periods and mitigate environmental impacts.

TMS – Transportation Management System is the business processes and associated tools, field elements and communications systems that help maximize the productivity of the transportation system. TMS includes, but is not limited to, advanced operational hardware, software, communications systems and infrastructure, for integrated Advanced Transportation Management Systems and Information Systems, and for Electronic Toll Collection System.

Urban – 5,000 to 49,999 in population designates an urban area. Limits are based upon population density as determined by the U.S. Census Bureau.

Urbanized – Over 50,000 in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

VMT – Is the total number of miles traveled by motor vehicles on a road or highway segments.

APPENDIX B
Standard References

[1] http://www.dot.ca.gov/hq/tsip/hseb/highway_systems/NHS_statehighways.pdf
[2] http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm
[3] http://www.dot.ca.gov/hq/tpp/corridor-mobility/documents/library/Caltrans_High_Emphasis_Routes_HER.doc
[4] http://www.dot.ca.gov/hq/tpp/corridor-mobility/documents/library/List_of_Focus_Routes.doc
[5] http://www.dot.ca.gov/hq/tsip/hseb/crs_maps/
[6] http://www.dot.ca.gov/hq/traffops/trucks/truckmap/truck-route-list.xlsx
[7] http://www.dot.ca.gov/hq/traffops/trucks/truckmap/
[8] http://www.dot.ca.gov/hq/tsip/gis/datalibrary/gisdatalibrary.html
[9] http://www.dot.ca.gov/hq/tpp/offices/orip/index_files/Updated%20Files/MPO_RTPA_Map_June_2012.pdf
[10] http://www.dot.ca.gov/hq/tpp/offices/orip/list/agencies_files/regional_6-12.xls
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[12] http://www.arb.ca.gov/ei/gislib/gislib.htm
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[14] www.dof.ca.gov
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[23] http://pems.dot.ca.gov/?dnode=photolog
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