

LANDMARK DESCRIPTION (CONTINUED)

Current Use: _____ Residential _____ Commercial _____ Industrial
_____ Civic Other: describe municipal surface street

Original Use: _____ Residential _____ Commercial _____ Industrial
_____ Civic Other: describe state highway

Is the structure on its original site? yes _____ no-year moved _____
_____ unknown

DESCRIPTION FOR DISTRICT

Geographic area description/boundaries _____

Resources in District: _____ Residential Structures _____ Commercial Structures
_____ Industrial Structures _____ Landscape/Treescape
_____ Out-buildings _____ Monuments/Murals/Markers
_____ Other: describe _____

Are the resources on their original site? _____ yes _____ no-year moved _____
_____ unknown

Current Condition: _____ Excellent _____ Good _____ Fair _____ Deteriorated

Do any of the structures meet Landmark eligibility? If yes, fill out the Landmark Description section for each eligible structure.

UNDERSTANDING AND AFFIDAVIT

I CERTIFY under penalty of perjury, that the statements and answers contained herein and any other information herewith submitted as part of this application are in all respects true and correct to the best of my knowledge and belief.

Applicant Signature _____ Date _____

Legal Owner Signature _____ Date _____

NOTE: An agent may sign for the property owner if a certificate of notarized power of attorney is filed with this application.

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SR-18 Corona Segment

Description

This approximately one-mile former highway segment is located within the western edge of the Corona city limits, just east of the junction of the Riverside and Orange County lines. Now named Palisades Road, the 1939 alignment includes the Wardlow Wash Bridge on the east and curves gently between the contours of the Santa Ana Mountain foothills on the south and the Santa Fe railroad tracks and Wardlow Wash on the north to the end of the center dividing strip just east of the intersection of Green River Road and Palisades Road.

Roadway & Roadside

The asphalt roadway is divided by a narrow, raised center median and edged with asphalt shoulders. The original multi-lane highway has been resurfaced more than once; the original plant-mix surface is exposed near the eastern end of the southern roadside. Two metal manholes near the east end in the northern roadway are heavily engraved in a geometric motif and marked "Bell System." Shoulders merge into natural topography with native vegetation and geology varying in width before sloping steeply down into the oak lined banks of the natural wash on the north or meeting the steep hills and canyons on the south. Wooden power poles line the southern shoulder, and wires stretch across the roadway to two matching poles on the north. The northern shoulder is bordered by a segment of concrete curbing on the east then large asphalt curbing. A section of smaller asphalt curbing is extant behind the larger asphalt curb, which is interrupted by two concrete drainage routes (1995) before sloping to an end approximately midway along the northern edge. Much of the southern roadway is bordered by a roughly rolled asphalt berm, which is interrupted by several drains. The most westerly original drain is shaped from a break in the asphalt berm toward an earthen drainage route carved from a gentle hill slope adjacent to the roadway that drains to the north below the road to the Wardlow Wash. This method was improved in three places to the east with the addition of a concrete curb strip across a shoulder depression and break in the asphalt berm and short below-grade concrete wall cored to direct drainage flow to the south; only the curb strip is visible on the easternmost drain as the below-grade wall and coring appear to have been asphalted over (date unknown). Three unimproved access roads lead from the southern edge of the roadway - an ungraded dirt road on the west that intersects at a narrow angle and slopes down and away from roadway into the canyon near its point of beginning and two graded dirt roads with swinging metal arm gates.

Median/Dividing Strip

The raised center median extends the entire length of the former highway segment and is sloped toward the lower westbound northerly roadway. Filled with gravel, dirt, native vegetation, and asphalt in places, the dividing strip supports a modern directional sign on each end. The curb sidewalls of the median are 6" high and 8.5" deep with its face sloped on a batter of four inches

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in that height and features a repeating pattern of five recessed wedges spaced 2” apart. Each wedge is 5” in width at the surface, and 4” in width at depth, thus recessed to a depth of 1” on the angled curb face toward the direction of travel. Each wedge was originally filled with reflective paint. The recessed wedges have been partially buried over time by additional asphalt layers though an original stretch of concrete gutter and the full height of the recessed curb wedges are exposed on the southern sidewalk where it dramatically narrows at an original or early single receptacle storm drain topped by a round metal cap stamped “State of California Division of Highways.”

Wooden Guardrail

Approximately 370 feet of original single-rail, all-wooden guardrail lines the northerly curve of the west end where the roadway and railroad tracks are separated by the least distance. The guardrail consists of approximately 6-foot lengths of unreinforced 8x8 camphored redwood posts buried about 4 feet deep and 7½ feet apart. Wooden 2x6 boards about 16 feet in length are stacked three deep and bolted to the interior of the posts. A short, approximately 7-foot section in the middle of the barricade is missing, and a series of five metal poles with missing braided metal cord to the east of the guardrail.

Wardlow Wash Bridge

The reinforced concrete rigid frame bridge (Structure No. 56C0182) is date stamped 1939 on the inside concrete border of both the northern and southern edges and was partially reconstructed in 1950. The concrete slab roadbed measures 64 feet wide, and the bridge has a total length of 37.1 feet and a span of 27.9 feet. The southern edge is protected by seven vertical wood 4x4 posts with a metal rail (rail likely added or replaced wood rail in 1950); guardrail is missing on the northern edge. On the southern edge, a short stretch of wooden barricade lines the steep slope west of the bridge and wrought iron railing has been added east of the bridge. A mast arm light has been added near a broad concrete abutment at the northern edge of the roadway.

A modern residential development along the adjacent hilltop (south) and the construction of the Communities Facilities District in the same year (1985-6) have prompted some alteration, improvements, repair, and maintenance. Then named Green River Road, a segment was abandoned to facilitate the realignment of Green River Road to the south, and the newly created west end of the former highway was curved south to meet it perpendicularly as Palisades Road. A new curving concrete median end was constructed, improvements to the water main and storm drain system were completed, including the addition of drains on the west end, and minimal patch and repairs were made along the original median. Modern utility boxes and fire hydrants were added off the southern roadside, and four mast arm lights, one on each end and edge of the roadway were added, though the northwesterly light is just outside the historic alignment. The property remains in good condition and maintains a high level of integrity.

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Statement of Significance

Constructed as part of the State highway system's Mountains to Sea Highway through the Santa Ana Canyon, State Route 18 (SR-18) served as a vital regional link between Orange and Riverside Counties and beyond.

The State highway system was born in 1895 when the State Legislature authorized the formation of the Bureau of Highways. At that time, Riversider J.L. Maude, a civil engineer of San Bernardino and early resident of the Eastside, was appointed one of three officials to conduct the first comprehensive state roads survey and recommended to the Governor a system of state highways. Maude's recommendation was a system that consisted of 28 routes, which connected all county seats (Bynon 1893-4:194). The California highway system was formally organized in 1902 when the state constitution was amended to give the Legislature the authorization to institute a statewide highway system. The first Bond Act in 1909 established the system and authorized the construction of over 3,000 miles of highways.

As part of the more extensive Legislative Route Number (LRN) 43 defined from San Bernardino to Arrowbear under the 1915 Bond Act and authorized in the 1917 statute, SR-18 was first defined to the north during the second phase of the state highway system from 1915-1932, which was marked by early and substantive growth. The 1920s, particularly, saw the administrative expansion of the young state highway system with the founding of the Department of Public Works and the Division of Highways (1921), the creation of a bridge department (1923), the establishment of the first gas tax for highway improvement and new construction (1923, 1927), the passage of the Melville Act, which conferred to the state responsibility for local highway construction and the right to relinquish roads to local governments (1925), and the signing of California highways (1928; Faigin 2012). This segment of SR-18 through Corona was defined under the 1931 Bond Act (State of California 2005; Mermilliod 2003:8) and statute (Chapter 82 (j)), which extended LRN 43 south from Waterman Canyon to Newport Beach via the Santa Ana Canyon. The route was also cosigned US-91 since 1933, running from Long Beach to nearly Barstow as part of the U.S. Highway System (JMRC 2005:116-118).

Actual construction of the Corona segment was begun and completed during Phase III (1933-1946), the next phase of the state highway system, during which a significant roadway system was created. Originally built between 1935 and 1938 as the Santa Ana Canyon Highway between the Orange-Riverside County line and the City of Corona, the first path of SR-18 and adjacent Santa Fe railway lay to the north, through the current site of the reservoir created by the construction of the federal Prado Dam project (CHPW 1939c:14 & 1940a:19), an earth-filled dam across the Santa Ana River in the Lower Santa Ana Canyon that was authorized for flood control in 1936 and completed in 1941. Constructed by the U.S. Army Corps of Engineers following the devastating flood of 1938, by now the route was touted as the Mountains to Sea Highway, connecting the inland mountain resort regions to the populous beach communities and

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facilitating heavy tourist and recreational traffic, as well as truck and passenger use from the Los Angeles Harbor District to inland points in California, Arizona, and Nevada (CHPW 1939c:14).

The new location of the 4.8-mile stretch of SR-18, which includes this Palisades Road segment, was determined by the high water line of the dam and reservoir and moved south of the old highway to skirt the mountains that rise from the Santa Ana River channel (CHPW 1940a:19). As the finger like ridges of the Santa Ana Mountains required cross cutting and heavy grading, the roadway was constructed with adequate width to accommodate four lanes of divided traffic with a minimum 200-foot, graded right-of-way, including a 68-foot roadbed and drainage features, but was only partially finished according to then-current needs. On December 8, 1939, only the northerly half of the roadway, which was finished with three inches of plant-mixed surfacing and bordered by 7-foot shoulders surfaced with road-mix, was opened to the motoring public (CHPW 1939c:14 & 1940a:19, 26). The existing Palisades Road segment appears to have been part of the first, approximately 1.5-mile portion, opposite the dam site to be rough graded with drainage structures, the contract for which was awarded by the Orange County Flood Control District to Person & Hollingsworth and Wilbur C. Cole. This portion was surfaced under contract by the State of California to V.R. Dennis Construction Company of San Diego, who constructed the Wardlow Wash Bridge and graded and paved the remaining miles of relocated highway for \$17,978.00 and \$172,463.95, respectively, from the Orange County line to West 6th Street at Grand Boulevard where it funneled motorists into the heart of Corona (CHPW 1939b:27, 1939d:25 & 1940a:19).

The relocated highway joined 1,340 miles of paved highway in the state's District VIII, which included, and still includes, the valleys, foothills, mountains and deserts of San Bernardino and Western Riverside County, and constituted 10% of the total state highway system and 333 bridges in January 1939 (CHPW 1939a:1). Constructed at a time when roadway safety had come to dominate highway design and engineering across the nation (CHPW 1938:7-12), the design modeled recently developed safety standards, including multiple lanes, wider traffic lanes, separated grades for opposing travel lanes, center dividing strip, and guardrails. The new route, which was "...built to modern standards with curves so easy they are not a limiting factor in legal speeds," (CHPW 1940a:26) eliminated both vertical and horizontal hazardous curves, decreased the maximum grade, and reduced the distance for motorists between Orange County line and Corona by about one mile (CHPW 1939c:27 & 1940a:19).

Increases in automobile ownership, advances in automotive design and technology, and improvements in roadway design and construction had sparked greater traffic volume and speed by the 1920s. Subsequent improvements in lane width and shoulders and the addition of multiple travel lanes were a response to a sharp increase in fatal roadway accidents. By 1940, the number was shocking: "European news commentators have been warning us of late that casualties on the war front are far greatly exceeded by traffic fatalities on the highways of the United States...."

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(CHPW 1940b:16). Annual deaths on US highways reached over 30,000 with those resulting in permanent disability at over 100,000. Despite the fact that more 75% of all rural state highway accidents were chargeable to the motorist and only 10% to the road, the state Department of Traffic and Safety was established in the early 1930s, which strengthened and augmented existing safety measures by analyzing traffic and accident statistics lead to all new highway design (CHPW 1940b:16-17). Highway engineers across the country united in establishing safe principles of highway design, improving existing and designing new features to enhance traffic flow, vehicle separation, and visibility, all while lamenting the apathy of the American driver for his own safety:

Extra lanes managed to provide for the further requirements of over congestion on two-lane design during the period before high-speed tendencies and attendant accident rate brought conviction that the driver could not or would not move within the safe limitations of conservatively designed facilities. Acceptance of assumption that the highway designer must extend his efforts to more fully counteract the harmful idiosyncrasies of the driver has, however, presented additional problems (CHPW 1938:8).

Among other improvements, advances in horizontal and vertical grading and lane width were made, and channelization was developed to improve traffic flow. Experiments in lighting were conducted, and guard railing employed. In September 1937, standard traffic lane widths were increased to a minimum of 11 feet with the inner, passing lane of a multi-lane highway constructed to 12 feet in compliance with the recommendation of the American Association of State Highway Officials, and contrasting surfacing material was often employed to distinguish opposite travel lanes. The first dividing strip was also completed in September 1937 and was only a neutral zone, demarcated by double white painted stripes and filled with raised arrows (CHPW 1950a:16). Corona's Santa Ana Canyon segment was among the first of state highways to be constructed with multiple lanes and with the minimum 4-foot- and preferable 6-foot-wide center dividing strip, which was soon curbed or planted to better separate traffic and reduce head-on collisions. Likewise, like this segment, such divided, multiple-lane highways began to be constructed in two phases with one half of the roadway finished for two-lane traffic and converted to two one-way lanes when until the remaining roadway was constructed at a later date, approximately parallel and not on the same grade for opposite traffic. By the end of 1938, about 120 miles of divided highway had been constructed or was under construction in California with curbs, wide separations, or raised or marked center strips, and many more miles of initial construction had been laid out on special design to await the construction of additional lanes and conversion into divided roadways (CHPW 1938:7-11).

With few streetlights in use on highways, reducing the hazards of nighttime prompted the development of a new type of reflecting curb for center dividing strips in 1937 that utilized the

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light from vehicle headlights to increase visibility and mark roadway limits. After extensive studies were completed in curb dimensions, slope, face designs, and paint combinations, the approved design developed in California was adapted from a design in place in New Jersey and featured shallow, angled recesses in the face of the conventional curb. Two types were made standard, a block type at island and curb interfaces receiving direct headlights and the wedge-shaped indentation suitable for central dividing strips where traffic movement is mainly parallel to the curbs. As seen along the former highway segment, the approved design featured a repeating pattern of recessed wedges with exact specifications on a 6" high and 8.5" deep curb. Each wedge is 5" in width at the surface, and 4" in width at depth, thus recessed to a depth of 1" on the angled curb face (CHPW 1937:8-9, 27). Recessed wedge curbing appears to have been installed in new construction until advances in lighting and new reflectorized pavement markers and raised applied plastic dots and wedges were developed in the early-1960s.

Safety continued to lead highway design for decades, with even improvements in traffic striping and developments in reflectorized signage becoming expensive measures in motorist protection. Physical barriers included thousands of feet of guardrail and hundreds of sight posts by 1940 (CHPW 1940b:17). Considerable mileage had been developed in California into multiple-lane roadways in areas of congestion, though divided highways of four or more lanes were the exception rather than rule. The 1939 segment of SR-18 was widened to its originally envisioned four lanes about 10 years after its design as part of connecting improvements associated with the reconstruction of SR-71 (1950-51) by Peter Kiewit Sons Company of Arcadia, who laid a new two-lane roadway beside the then-existing roadway to produce a four-lane divided expressway (CHPW 1950b:50-52; USGS 1947, 1949 & 1950). Sixth Street through Corona was concurrently widened by E.L. Yeager of Riverside to four traffic lanes and two parking lanes as part of these associated improvements, and the final 6.1-mile link in the four-lane divided expressway through the Santa Ana Canyon was completed to the west in June 1952 (CHPW 1952:36). The divided multiple-lane highway design became the precursor to the freeway concept, as seen in seven miles of the Arroyo Seco Parkway between Los Angeles and Pasadena, under construction as a freeway in 1938 (CHPW 1938:11), and this Corona segment of the SR-18 was declared a freeway by resolution of the State highway Commission on December 19, 1947 (CHPW 1952:36). Portions of the former four-lane expressway, cosigned SR-18/US-91, were converted to the modern Riverside Freeway (SR-91), which was constructed in phases from the late-1950s to the early-1960s (CHPW 1960 & 1961; USGS 1967).

This stretch of Palisades Road, a segment excluded from the ultimate, modern alignment of SR-91, remains in service as a municipal surface street and retains the character-defining features of the significant, pre-freeway era in California highway development, from 1933-1946, including its two-phased, graded roadway alignment, raised center dividing strip with recessed, reflective safety curbs, wooden guardrail, and reinforced concrete rigid frame bridge. As a link in the state transportation network, this former highway segment of the Mountains to Sea route, and now

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Corona surface street, once functioned as an important connection between the beach cities and the Inland Empire, “provid[ing] the residents of Riverside and San Bernardino counties their most accessible route to the coast...[and] the populous harbor and beach areas of Los Angeles and Orange counties their most direct road to the various resorts located in the mountains of Riverside and San Bernardino counties” (CHPW 1940a:19). Construction of this critical route not only influenced the regional movement of people and general development in the area but also contributed to roadside commercial development in the heart of Corona, particularly within the Grand Boulevard circle and along 6th Street, through which SR-18 funneled approximately 8000 daily motorists in the late-1930s, or quadruple current traffic volume estimates (CHPW 1939e:10; FHWA 2010).

As a physical element of Corona’s historical development that meets the minimum threshold for eligibility in age, association, and integrity, and that is associated with the establishment of the state highway system, an event that has made a significant contribution to the history of Corona, the region, and the state (Criterion A), that embodies the distinctive characteristics of a type of multiple-lane divided highway construction (Criterion C), and that contains outstanding elements of architectural design and detail during a period of substantial highway system growth and the development of safety standards and design principles in the state of California from 1933-1946 (Criterion F), this former segment of SR-18, now signed Palisades Road, appears eligible for local designation as a Landmark under Title 17 of the Corona Municipal Code (Chapter 17.63.050).

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