Cold Spring Canyon Bridge Suicide Barrier

On State Route 154 at Cold Spring Canyon Bridge
05-SB-154-PM 22.9/23.1
05-0P9100
SCH# 2008011060

Final Supplemental Environmental Impact Report

Volume 2 of 3

Appendix G Updated Visual Impact Assessment

Appendix H Cultural Reports and Coordination Efforts

April 2011

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Appendix G Updated Visual Impact Assessment

UPDATED VISUAL IMPACT ASSESSMENT

of the proposed

Caltrans

California Department of Transportation
Landscape Architecture Branch

November 2010

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UPDATED VISUAL IMPACT ASSESSMENT of the proposed COLD SPRING CANYON BRIDGE SAFETY PROJECT

On Route 154 in Santa Barbara County
Postmile 22.9/23.1 EA 0P9100

November 2010
Caltrans Landscape Architecture Branch

This updated Visual Impact Assessment was prepared using a process developed by Federal Highway Administration (FHWA) in conjunction with the American Society of Landscape Architects. This process for assessing visual impacts satisfies the requirements of the National Environmental Policy Act (NEPA). In addition, levels of impact are determined according to the California Environmental Quality Act (CEQA) definitions and guidelines. CEQA Guidelines Appendix G (b) states: "A project will normally have a significant effect on the environment if it will have a substantial, demonstrable negative aesthetic effect".

The intent of this visual impact assessment is to substantiate findings presented within the environmental document by acting as a technical support document. The assessment defines the visual environment of the project area, quantifies the visual resources of the project area, and identifies expected viewer response to those resources. The study assesses the resource change that would be introduced by the project and the corresponding viewer response to that change. This perceived change is analyzed and used to determine the degree of potential visual impacts.

I. EXISTING FACILITY

State Route 154 through the project area is a two-lane conventional highway that originates at the junction of Highway 101 north of Buellton and ends at Highway 101 in the City of Santa Barbara. The Cold Spring Canyon bridge has been determined as Eligible for the National Register of Historic Places. The bridge structure is approximately 1,250 feet in length with 12–foot wide lanes and 2-foot shoulders. Rising more than 400 feet above the Cold Spring Canyon floor, the steel truss bridge structure includes concrete bridge rail with tubular steel safety rail attached above it. The eastern end of the bridge is at a higher elevation, and the bridge deck and roadway become lower in elevation at the western end. Route 154 in Santa Barbara County serves local and interregional traffic which primarily includes recreational, commuters, as well as commercial users. Highway 154 is an Officially Designated State Scenic Highway.

II. PROJECT DESCRIPTION

The project proposes to install safety barrier along both sides of the bridge deck adjacent to the bridge rail. The safety barrier would be constructed of metal and would include the following characteristics:

- Approximately 9 feet 7 inches feet tall (measured from the bridge deck)
- Steel posts
- Horizontal top and bottom rail
- Curved inward at the top

Two design alternatives are included as part of the analysis. The alternatives address the system between the posts, and include:

- Vertical pickets, or
- Steel grid mesh

III. EXISTING VISUAL ENVIRONMENT

Visual Condition

The region is part of the Santa Ynez mountain range north of Santa Barbara. The Highway 154 corridor generally traverses a northwest-southeast route from the coastline over the mountains to the Santa Ynez Valley inland. The landform of the region is generally characterized by slopes and ravines forming a series of steeper ridgelines and valleys as the hills rise from the Pacific Ocean. In general, the regional topography supports a mostly curvilinear roadway which produces views for the highway traveler ranging from close-in views of roadside slopes to mid-range hillside views and wide open panoramas.

The project site is located approximately 9 miles north of Santa Barbara and 20 miles south of the community of Los Olivos. The project is located within generally steep topography, with the adjacent hillsides rising well above the roadside in certain areas, and dropping below the highway at other locations. Through the project limits on each end of the bridge the highway is built along a hillside, with the landform rising up to the south and falling away from the road to the north. The project crosses Cold Spring Canyon, which allows sweeping vistas of the Santa Ynez Valley and mountains beyond. Because of the higher roadway elevation and view orientation, the northbound direction of travel provides the most panoramic views. Views from the southbound lane include a more restricted view of the valley, and are more defined by the adjacent vegetated topography.

Throughout the region, vegetation is a primary component of overall visual character. In the project area, the vegetative cover is chaparral and mixed oak woodland on the hillsides, with sycamore, willow and alder found along the canyon floor. Along much of Highway 154 the topography and density of the existing roadside vegetation blocks long-range views to and from the highway. In the vicinity of the project however, the sloping topography and bridge elevation allows expansive views unhindered by roadside trees.

Along this section of Highway 154 the primary evidence of development is the bridge and roadway themselves and related highway features. Visible highway elements include occasional guardrail, cut slopes, signage, call boxes and markers, as well as the vehicular traffic itself. Overhead utility poles and wires also contribute to the view along the corridor. Access roads and driveways intersect the highway periodically. In this section of Route 154 built development has a low to moderate

visual presence in the landscape. Throughout much of this section of the highway, the scale and frequency of roadway elements and other built amenities are such that although visible, they don't dominate the views when seen in the context of the overall landscape. Existing dense vegetation and varied topography preclude most of the potential views of off-highway development throughout the project area.

Although views from the highway to the bridge sub-structure are limited, the Cold Spring Canyon bridge structure is considered a Scenic Resource per CEQA Guidelines due to its sculptural quality in the overall landscape, and the memorable visual image it creates by its graceful and delicate arched form contrasting with the rugged, natural setting.

Visual Quality and Character

The quality of the existing visual environment through the project area is high. The dramatic topography and natural vegetative patterns combine in a classic representation of the natural landscape of the central coast of California. This natural landscape is in part the basis for the route's State Scenic Highway designation.

Views from the bridge and roadway

The views from the highway include the broad panoramas to the north and the wooded hillsides along the roadway to the south. The high quality of views from the roadway is emphasized by the elevated viewing position the bridge provides. Most views to the bridge are from locations on the highway and the bridge itself, with approximately 16,000 vehicles per day using this section of Highway 154. The bridge is visible from an approximately 0.6 mile section of Highway 154, and viewing durations to the project are approximately 30 seconds traveling in the westbound lanes and approximately 9 seconds in the eastbound direction, traveling at the posted speed limit. The current bridge design includes 43-inch high bridge rail, which allows unhindered views from the bridge deck to the surrounding landscape. While traveling across the bridge on top of the deck, the bridge arch and super-structure cannot be seen. In addition, the roadway is relatively straight approaching the bridge from both directions, which doesn't allow opportunities to see the lower part of the structure from the roadway elsewhere on Highway 154. As a result, the only bridge elements visible from the highway itself are the paved lanes, bridge rail, guardrail at each end of the bridge rail, and signage (refer to Figure 2).

An unpaved pullout near the call box at the west end of the bridge allows an angled viewing opportunity to the side of the bridge (refer to Figure 6). It should be noted that this area is signed for emergency parking only and not legally available for casual sight-seeing opportunities of the bridge or the surroundings. Guardrail along the other three bridge-approaches prevents parking, and limits side-view access to the bridge from those locations.

Views to the bridge and roadway

Views to the bridge are available from several locations on Stagecoach Road. Stagecoach Road intersects with Highway 154 approximately 0.2 east of the Cold Spring Canyon bridge and descends into the canyon in a southerly direction. Mature vegetation lines Stagecoach Road along this side of

the canyon, and the bridge is generally screened from roadway view. A small unpaved area off the roadway near the southern end of the bridge provides views to the structure for viewers willing to leave their vehicles and peek through the oak trees. Views to the bridge are also available from Stagecoach Road along the bottom of the canyon (refer to Figure 10). These views provide a dramatic picture of the bridge's steel arch and support structure as it spans the canyon walls approximately 400 feet overhead.

IV. VIEWER SENSITIVITY AND RELEVANT VISUAL POLICIES

In determining the viewer sensitivity level for purposes of assessing visual impacts, the number of viewers as well as duration and dominance of views were also considered. The relative sensitivity varies with the viewer's activities and expectations.

In addition, sensitivity regarding aesthetic issues is reflected in applicable planning policies and guidelines. The proposed development is located in the County of Santa Barbara. Although this state-owned route is not under the jurisdiction of the local planning authority, the following planning policies and guidelines are indicators of the general level of community sensitivity regarding the aesthetic character of the region and of the project area.

State Scenic Highway Designation - Highway 154 through the project limits is classified as an Officially Designated State Scenic Highway. The state scenic highway program designates routes based high-quality views of the natural landscape along the route, and on the local governing body's implementation of a Corridor Protection Plan. The Corridor Protection Plan includes policies and ordinances addressing land use, design review, billboards, earthwork and landscaping, and utility structures. The State Scenic Highway designation is a recognition of the route's visual quality which indicates a higher level of interest in the aesthetic character of the highway corridor. The Scenic Highway program does not preclude development, and makes the following statements regarding the effect of designation on highway construction, emergency repairs and maintenance activities:

"Highway construction and emergency repairs proposed on Designated State Scenic Highways are evaluated for visual impacts to scenic views as part of the environmental process. If impacts occur, then appropriate mitigation measures are necessary. Generally, the designation of a route as an official scenic highway does not substantially alter the type of project proposed but it may limit the use of statutory or categorical exemption from the California Environmental Quality Act."

"Caltrans works with appropriate agencies to ensure the protection of scenic corridors to the maximum extent feasible. It identifies impacts to scenic corridors such as degradation and obstruction of views as an integral part of its project planning, project development and maintenance operations".

The Santa Barbara County Comprehensive Plan Land Use Element, Visual Resource Policy Number 2 states that "In areas designated as rural on the land use plan maps, the height, scale, and design of structures shall be compatible with the character of the surrounding natural environment, except where technical requirements dictate otherwise. Structures shall be subordinate in appearance to natural landforms; shall be designed to follow the natural contours of the landscape; and shall be

sited so as not to intrude into the skyline as seen from public viewing places". The project would be inconsistent with this local policy due to the barrier's visual intrusion into the skyline as viewed from Highway 154.

The County of Santa Barbara Environmental Thresholds and Guidelines Manual references the Comprehensive Plan and states that significant visual resources within the county that have aesthetic value include:

- Scenic highway corridors
- Parks and recreational areas
- Views of coastal bluffs, streams, lakes, estuaries, rivers, water sheds, mountains, and cultural resource sites
- Scenic areas

The Thresholds and Guidelines Manual also provides recommendations for consideration when assessing a project's potential affect on the visual environment. The following questions are intended by the County to provide information to address the criteria specified in CEQA Appendix G. The County of Santa Barbara Thresholds and Guidelines Manual states the affirmative answers to the following questions would indicate potentially significant impacts to visual resources.

1a. Does the project site have significant visual resources by virtue of surface waters, vegetation, elevation, slope, or other natural or man-made features which are publicly visible?
1b. If so, does the proposed project have the potential to degrade or significantly interfere with the public's enjoyment of the site's existing visual resources?
2a. Does the project have the potential to impact visual resources of the Coastal Zone or other visually important areas (i.e., mountainous area, public park, urban fringe, or scenic travel corridor)?
2b. If so, does the project have the potential to conflict with the policies set forth in the Local Coastal Plan, the Comprehensive Plan or any applicable community plan to protect the identified views?
3. Does the project have the potential to create a significantly adverse aesthetic impact though obstruction of public views, incompatibility with surrounding uses, structures, or intensity of development, removal of significant amounts of vegetation, loss of important open space, substantial alteration of natural character, lack of adequate landscaping, or extensive grading visible from public areas?

V. VISUAL IMPACTS

Analysis Methodology

Three viewpoint analysis locations were identified which would best reveal the project's components and any potential visual character change (refer to Figure 1). Viewing locations were selected from the westbound direction of Highway 154 in order to represent the typical visual character of the project from the roadway, and particularly the potential affect on views to the Santa Ynez Valley and distant hills (refer to Figure 2).

A second viewpoint was selected from the highway pullout near the west end of the bridge. This location is near an existing call box, and accommodates fewer number of viewers compared to the on-highway viewpoint. This vantage point however offers high quality side-angle views to the structure from a somewhat close viewing distance (refer to Figure 6). It should be noted that this area is signed for emergency parking only and not legally available for casual sight-seeing opportunities of the bridge or the surroundings.

The third viewpoint chosen for analysis is from Stagecoach Road along the canyon floor looking up at the bridge structure. This viewpoint represents one of the primary viewing locations from below the project as seen by the public (refer to Figure 10).

A Visual Quality Evaluation (VQE) was conducted in order to assess the magnitude of the potential visual changes caused by the proposed project and to assess the corresponding viewer response to that change. This perceived change was analyzed and used to determine the degree of potential visual impacts. The VQE compared the visual quality of both the existing and proposed conditions. From each of the selected viewpoints, a separate VQE was done for each project alternative. As part of the VQE, a numerical rating between 1 and 7 was assigned for the existing quality from each viewpoint, with 1 having the lowest value and 7 the highest. The proposed project was then analyzed for its likely appearance and was rated according to the same criteria as was the existing view. An evaluation was conducted for each project alternative (vertical pickets and grid mesh). The numerical difference, if any, between the existing and proposed conditions helped quantify the change which may occur as a result of the proposed project. This numerical difference was compared to the expected sensitivities of potential viewer groups in order to determine the level of visual impact.

The numerical rating system described above is based on evaluative criteria using three primary components identified as vividness, intactness, and unity. These three criteria are described as follows:

Vividness is the visual power or memorability of the landscape components as they combine in striking and distinctive visual pattern.

Intactness is the visual integrity of the landscape and its freedom from non-typical encroaching elements. If all of the various elements of a landscape seem to "belong" together, there will be a high level of intactness.

Unity is the visual harmony of the landscape considered as a whole. Unity represents the degree to which the visual elements maintain a coherent visual pattern.

Visual Quality Evaluation

Following are the results of the Visual Quality Evaluation ratings conducted from the critical viewpoints (VP). These numerical ratings are the technical evaluation of the type and magnitude of probable visual change. Two alternatives are evaluated from each viewpoint. The two alternatives include the use of vertical pickets (Vert.), or steel grid mesh (Mesh) between the posts. Following this section, this technical data is analyzed and redefined in terms of likely viewer experience. A summary of the evaluation can be found in the section following the ratings.

VIEWPOINT 1 – From northbound Highway 154 on the bridge.

Existing View: The view from this area reveals a largely cohesive landscape, with a strong open-space identity. Other than the highway facility itself, the existing view is generally free from visual elements which detract from the overall scenic character, resulting in a relatively high degree of intactness and unity. The varied topography and vegetative patterns combine in a view with a high degree of vividness. The panoramic view of the overall landscape adds to the high overall quality of the view and its memorability. From this viewpoint the existing bridge rail blocks the lowest approximately forty percent of the view to the Santa Ynez Valley and hills beyond. The relatively simple form of the existing rail does not demand attention and allows the landscape vistas to dominate views in that direction.

The proposed barrier – The proposed barrier would affect approximately 70 percent of the existing views of the valley and hills as seen from the bridge deck. Views to the surrounding landscape would still be seen through the barrier, and the extent to which the barrier would affect views would depend on the viewing-angle through the barrier. With each alternative the barrier would appear most transparent when viewed perpendicular to the barrier, such as from the side windows of a vehicle, because the individual elements of the barrier would occupy the least amount of visible space relative to the view beyond. Views from the front of the vehicle would see the barrier at a more acute angle, which would result in the barrier elements appearing closer together and blocking a greater percentage of the existing view through it. The barrier would appear increasingly more opaque as the view-angle became more acute.

With implementation of the project the visual quality evaluation identified a decrease in ratings for each of the evaluation criteria as seen from the bridge. The visual intactness rating had the greatest reduction because the built, engineered appearance of the new barrier was generally inconsistent with the natural, open space character of the existing view. The overall unity of the view decreased primarily because the geometric form of the barrier was considered disharmonious with the random, organic visual patterns of the surrounding landscape. The vividness rating of the view also was reduced because the memorable, expansive vista would be partially compromised by the barrier.

	Vividness	/ Intactness	/ Unity /	(=V+I+U/3)
VP-1 EXISTING VIEW	5.3	5.3	4.9	5.2
VP-1 PROPOSED (Vert.)	4.4	2.8	2.9	3.4
		Visual Quality Difference =		-1.8

Vertical picket alternative – The visual quality evaluation revealed a perception that the individual vertical pickets would visually blur somewhat when seen at highway speeds, however they would still be noticeable enough to contribute to the visual dominance of the barrier in the overall view.

	Vividness	/ Intactness	/ Unity /	(=V+I+U/3)
VP-1 EXISTING VIEW	5.3	5.3	4.9	5.2
VP-1 PROPOSED (Mesh)	4.7	3.5	3.6	3.9
		Visual Quality Difference =		- 1.3

Grid mesh alternative - The visual quality evaluation ratings show that the grid mesh alternative would result in a slightly more opaque view outward from the bridge, however the grid mesh would tend to blur more when viewed from a moving vehicle. The mesh would visually recede more than the vertical picket alternative, and as a result the barrier itself would become less of a visual element as seen from this highway viewpoint.

VIEWPOINT 2 – From southbound Highway 154 at the emergency turnout.

Existing View: The existing view from the pullout next to the bridge is of moderately high visual quality and is dominated by the bridge structure itself. This memorable view is due in part to the visual strength of the bridge positioned in an equally dramatic natural setting. The intactness rating is only slightly above average in spite of the visual presence of the structure because the bridge is not entirely uncharacteristic in a highway environment. The overall unity of the existing view is moderately high because the arched form of the bridge structure compliments the shape of the canyon, and the sub-structure elements create a pattern which complements the visual texture of the vegetated hillsides.

The proposed barrier – Construction of the project would reduce all three rating criteria to some degree. The vividness of the scenery would remain moderately high however because the basic elements that make the view memorable, such as the dramatic form of the sub-structure and its relationship to the topography would not be affected. The intactness and unity ratings would drop into the below-average range from this viewing location because of the barrier's direct, close-range visibility, and its urbanizing affect on the setting. The barrier's somewhat futuristic shape would appear inconsistent with the more industrial, trestle style of the existing bridge sub-structure. Views from this location are stationary and as a result the viewing dynamics associated with seeing the

barrier from a moving vehicle would not apply. From this viewing location, the barrier would affect approximately 10 percent of the existing available viewshed.

	Vividness	/ Intactness	/ Unity /	(=V+I+U/3)
VP-2 EXISTING VIEW	4.6	3.9	4.2	4.2
VP-2 PROPOSED (Vert.)	4.2	2.9	2.7	3.3
		Visual Quality Difference =		-0.9

Vertical picket alternative – The evaluation ratings indicate that the vertical picket alternative would result in the greatest reduction in visual quality. The vertical picket alternative would appear somewhat more transparent than the grid mesh alternative. However the vertical pickets themselves would be more noticeable, and as a result would draw attention to the barrier. This would make the barrier more dominant in the viewshed and would adversely affect the intactness and unity ratings to below-average levels.

	Vividness	/ Intactness	/ Unity /	(=V+I+U/3)
VP-2 EXISTING VIEW	4.6	3.9	4.2	4.2
VP-2 PROPOSED (Mesh)	4.3	3.3	3.2	3.6
		Visual Quality Difference =		-0.6

Grid mesh alternative - As with views from the bridge deck, the visual quality evaluation ratings show that the grid mesh alternative would result in a slightly more opaque view through the barrier. The ratings also indicate that the grid mesh itself would generally blur together when seen from this viewpoint, and would be a less noticeable visual element than the vertical picket alternative. The grid mesh would result in a slightly more opaque view, but would make the barrier itself somewhat less noticeable. The grid mesh alternative would cause slightly less visual quality difference when seen from this viewpoint.

VIEWPOINT 3 – From Stagecoach Road below the bridge.

Existing View: The existing view from below the bridge is considered to be of high quality. The vividness rating receives the highest score because of the dramatic view of the structure spanning the canyon overhead. From this viewing distance, the smaller elements of the structure are less recognizable, and the overall form of the bridge is the dominant visual characteristic. The intactness and unity ratings are also high because the sculptural form of the bridge balances well with the steep topography and shape of the canyon.

The proposed barrier – From this more distant vantage point the proposed barrier would affect less than approximately 1 percent of the existing view. The barrier could be seen, but would occupy such a small percentage of the view that it would likely go unnoticed by many casual observers. Although the individual elements of the barrier would be difficult to discern from this viewing

distance, the visual quality evaluation showed a slight reduction in ratings with implementation of the project. As seen from Stagecoach Road the reflectivity and color would be the most potentially visible characteristics of the barrier.

	Vividness	/ Intactness	/ Unity /	(=V+I+U/3)
VP-3 EXISTING VIEW	5.0	4.6	4.7	4.8
VP-3 PROPOSED (Vert.)	4.8	4.4	4.5	4.6
		Visual Quality Difference =		-0.2

Vertical picket alternative – The evaluation ratings indicate that as seen from Stagecoach Road the vertical picket alternative would have an effect on each of the three rating criteria. Although the visual difference would be subtle, the evaluation determined that the vertical picket alternative would be the most noticeable and the incompatible with the architectural style of the bridge super structure.

	Vividness	/ Intactness	/ Unity /	(=V+I+U/3)
VP-3 EXISTING VIEW	5.0	4.6	4.7	4.8
VP-3 PROPOSED (Mesh)	4.8	4.6	4.7	4.7
		Visual Quality Difference =		-0.1

Grid mesh alternative - From the Stagecoach Road viewpoint, the grid mesh alternative would potentially be the most opaque, which would slightly reduce the overall vividness. The visual quality ratings show that although the barrier would be more opaque, its individual elements would be unnoticeable and would have no affect on intactness or unity.

VI. SUMMARY OF PROJECT IMPACTS

The existing visual quality within the project area is high. This view quality is due primarily to the varied topography and native vegetation along the roadsides and adjacent hills. The exaggerated landform, curved road alignment and limited visibility of built elements outside of the roadway corridor also contribute to the existing visual quality. The alternating sweeping vistas of the Santa Ynez Valley and close-in views to the adjacent hillsides provide a dynamic viewing experience for the highway traveler. The Cold Spring Canyon bridge offers some of the most memorable views along Highway 154 from the highway as well as from Stagecoach Road in the vicinity of the project.

Since few critical off-site views of the bridge exist, the primary affected viewers are those who travel the highway and are in the immediate vicinity of the project. In general, viewers along Highway 154 are considered to be sensitive to changes in the visual environment, based on the high quality of views along the route as well as increased viewing expectations associated with the State Scenic Highway designation. Views from the bridge deck would be the most affected. Views from

the adjacent highway pullout would see the proposed barrier in the context of the bridge's historic super-structure. Changes to the bridge would be least noticeable from the more distant views on Stagecoach Road.

The visual quality evaluation ratings conducted for the project show that a substantial change in visual resources would occur as a result of the proposed project. Although views from the highway while not on the bridge would remain mostly intact, the construction of a barrier would have an affect on as much as 70 percent of the existing view as seen from the bridge deck itself. The visual quality evaluation conducted for the project identified two distinct potential visual effects the barrier would have: 1) The view blockage (or opacity) caused by the barrier; and 2) the visual detraction to the existing setting caused by the barrier. The extent to which the barrier blocks views and/or detracts from the setting depends on the physical characteristics of the barrier itself. Differences in opacity and compatibility were discovered with each of the two proposed alternatives.

Evaluations revealed that the grid mesh alternative would result in the least overall adverse affect to visual quality. The grid mesh barrier would be the least noticeable of the alternatives because the mesh itself would tend to recede and visually blend with the background. Although the grid mesh alternative would be the most opaque, it would not completely block views, and the surrounding landscape would still be seen through the mesh.

The vertical picket alternative would result in the barrier being more noticeable. The visual quality evaluation found that the vertical pickets would themselves be distinguishable elements that would draw attention to the barrier. The vertical pickets would not blend with the background and would be seen more as distinct architectural features that define the barrier. The visual quality evaluation found that the vertical pickets contributed to the somewhat futuristic appearance of the barrier.

The evaluation determined that regardless of the alternative, the barrier would be incompatible with the natural character of the surrounding landscape and would distract from the existing architectural style of the bridge. Each of the alternatives would result in some combination of view blockage (opacity) and visual intrusion due to the intervening barrier elements and architecture.

In the short-term, the visual character of the project site and views of the surrounding area would be temporarily affected during the construction phase of the project, which is to last approximately 60 days. Short-term impacts would be related to features such as construction vehicles and equipment, storage of construction materials, and required safety devices including temporary fencing and signage. The appearance of construction-related features would be based on the physical requirements of conducting the required work and/or mandated by State and Federal safety requirements. These activities and visual conditions however would be short-term and would cease at the completion of construction. In addition, these short-term activities and visual conditions would not be unexpected visual elements typically seen at a construction site and would be understood by most viewers to be temporary.

Although partial view blockage specifically caused by required safety fencing placed along the existing bridge rails would be temporary, views from the highway bridge-deck would continue to be affected after construction since the safety fencing would ultimately be replaced by permanent barriers at the same approximate locations.

Because of the expected high level of viewer sensitivity associated with the bridge and Highway 154, combined with the magnitude of visual change identified by the visual quality evaluation ratings, the project is anticipated to result in significant adverse impacts to the visual environment. The impacts would be the result of:

1) The partial blockage of high-quality views from an Officially Designated State Scenic Highway; and
2) The visual incompatibility of the futuristic style barrier with the historic, somewhat industrial architecture of the existing bridge structure.

VII. RECOMMENDED MITIGATION/ MINIMIZATION

Evaluations revealed that the grid mesh alternative would result in the least overall adverse affect to visual quality. The grid mesh barrier would be the least noticeable of the alternatives because the mesh itself would tend to recede and visually blend with the background.

Mitigation/minimization measures were identified with recommendations provided by an Aesthetics Design Advisory Committee (ADAC), convened specifically for the project. The purpose of the Design Committee was to make recommendations to the Caltrans design team regarding the appearance of the barrier and to lessen the project's adverse visual effects; Caltrans makes the final design determination. The Committee was composed of Caltrans staff and members from the local community including a representative of the Santa Barbara County Historic Landmarks Advisory Commission, architects, landscape architects, and County Public Works and Planning members. Refer to Appendix B for the Aesthetics Design Advisory Committee charter and meeting summaries.

The Aesthetics Design Advisory Committee concurred that the grid/mesh alternative would result in less view blockage than the vertical picket alternative because it would avoid the "stacking" effect created when closely spaced vertical pickets are viewed from an oblique angle.

The resulting recommendations of the Aesthetics Design Advisory Committee did not change the fundamental design of the barrier, but helped refine detailed aspects of the barrier's design. The Committee's recommendations did not change the fundamental mitigation/ minimization concepts that were presented in the draft EIR/EA. The barrier is designed to be reversible, with minimal permanent impact to the historical fabric of the bridge structure if the panels were to be removed.

Through implementation of the following mitigation/minimization measures, potential visual impacts related to construction of the barrier would be minimized:

- The in-curving grid/mesh panels will have two-inch-square openings, which is the largest opening possible that would not provide convenient finger-holds and toe-holds for climbing.
- The cross-section dimensions of the vertical and horizontal framing members will be minimized as much as possible without jeopardizing the structural integrity of the panels.
- The horizontal length of the individual panels will be increased as much as possible, to reduce the number of vertical elements, without jeopardizing structural integrity.

- The barrier panels will be attached to the outside of the existing concrete railings to minimize physical impacts on the original rails.
- The barrier panel attachment points and the lowest rail (bottom framing member) of the individual barrier panels will be situated below the top of the existing concrete barrier. The attachment points will be out of the line-of-sight of motorists on the bridge.
- The individual barrier panels will be custom made to conform to the irregular intervals between the existing bridge-railing supports, so that the vertical supports will be in alignment with the existing bridge rail supports, rather than staggered.
- The steel will be coated with a low-reflectivity finish to help reduce glare and to allow the grid/mesh to recede visually.

VIII. RESIDUAL IMPACTS

With implementation of the above mitigation/minimization measures, impacts resulting from the construction of the barrier would be reduced by making it less noticeable and more compatible with the rural setting (refer to Figures 5, 9 and 13 for simulations of the project with mitigation/ minimization measures applied). In spite of these mitigation/minimization measures, the barrier would continue to partially block views from the bridge and would still be highly noticeable along the roadside and adverse visual impacts would remain.

APPENDIX A
Photo-Simulations

Figure 1

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Cold Spring Canyon Bridge - Highway 154
Safety Barrier Project

Viewpoint Location Map

Existing view

Figure 2

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 1
View from the bridge on westbound Highway 154

Conceptual view of vertical picket alternative

Figure 3

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Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 1
View from the bridge on westbound Highway 154

Conceptual view of grid/ mesh alternative

Figure 4

Caltrans

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 1
View from the bridge on westbound Highway 154

Conceptual view of project with mitigation/ minimization measures applied

Figure 5

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 1
View from the bridge on westbound Highway 154

Existing view

Figure 6

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 2
View from the eastbound pullout adjacent to the bridge

Conceptual view of vertical picket alternative

Figure 7

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Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 2
View from the eastbound pullout adjacent to the bridge

Conceptual view of grid/ mesh alternative

Figure 8

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 2
View from the eastbound pullout adjacent to the bridge

Conceptual view of project with mitigation/ minimization measures applied

Figure 9

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 2
View from the eastbound pullout adjacent to the bridge

Existing view

Figure 10

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 3
View from Stagecoach Road below the bridge

Conceptual view of vertical picket alternative

Figure 11

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 3
View from Stagecoach Road below the bridge

Conceptual view of grid/ mesh alternative

Figure 12

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 3
View from Stagecoach Road below the bridge

Conceptual view of project with mitigation/ minimization measures applied

Figure 13

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 3
View from Stagecoach Road below the bridge

APPENDIX B
Aesthetic Design Advisory Committee Charter and Meeting Summaries

Aesthetics Design Advisory Committee (ADAC)
for the proposed improvements at
Cold Spring Canyon Bridge on Highway 154 in Santa Barbara County

Role Statement

February 2008

Purpose:
The Aesthetics Design Advisory Committee (ADAC) will assist Caltrans in the design of the aesthetic features of a proposed suicide deterrent barrier at Cold Spring Canyon Bridge, on Highway 154 near Lake Cachuma in Santa Barbara County.

Background and Status of Proposed Project:
Caltrans released the Notice of Preparation January 14, 2008 and intends to issue a Draft Environmental Impact Report (DEIR) for implementing a suicide deterrent project at the Cold Spring Bridge in May of 2008. Public hearings will be held in June of 2008.

Based on extensive research and input received at several public forums, the DEIR provides an evaluation of alternative solutions considering the project's need and purpose of effectively deterring suicide attempts from the bridge.

Caltrans has identified a physical barrier attached to the bridge as the preferred solution to the stated project purpose and need. The decision to select an alternative to proceed into design will consider all public comments received on the DEIR which are due in late July.

Preliminary studies have identified potential adverse effects associated with the project's preferred alternative. As a result, the DEIR includes a measure to minimize potential adverse effects through community involvement in the design. Establishment of the Aesthetic Design Advisory Committee (ADAC) is proposed in part to fulfill this objective.

ADAC Role:
The ADAC will be asked to help define the important visual character issues that relate to the project and to advise Caltrans in the design of the preferred alternative to ensure that project features meet the objectives for aesthetic design consistent with community values and state and federal historic guidelines.

The ADAC will focus solely on the preferred alternative, a physical barrier attached to the bridge. Within specified constraints for technical engineering parameters and costs, the ADAC will explore design opportunities regarding architectural treatments and details and other project components. The ADAC will perform in an advisory capacity to the Caltrans Project Development Team (PDT) and the Caltrans District 5 Director, who have overall decision-making responsibility for the project as the lead agency.

Participation in the ADAC does not constitute an endorsement of any particular project alternative.

Composition of ADAC:
Caltrans staff will facilitate the ADAC group process. The ADAC itself will comprise community and agency representatives who have an interest in the project's appearance and have a basic understanding of potential design issues. It is also intended that the group be of a manageable size for optimum function as a working group. It is recommended that the ADAC comprise one representative from each of the following:

Aesthetics Design Advisory Committee (ADAC)
for the proposed improvements at
Cold Spring Canyon Bridge on Highway 154 in Santa Barbara County

Role Statement
February 2008

- Central County Board Of Architectural Review
- Santa Barbara County Planning & Development Department
- Santa Barbara County Public Works Department
- Santa Barbara County Historic Landmarks Advisory Commission
- Local architects
- Representatives from the Santa Ynez Valley as well as the greater Santa Barbara community.

Meeting Process:
The ADAC's efforts will be conducted in a series of design charrettes, or workshops, where members will work together to share relevant information, discuss options and opportunities, and then provide advisory recommendations to the Caltrans Project Development Team. Engineers, landscape architects, architects, historians, environmental specialists and other technical experts will make presentations and be available as a resource to the ADAC.

The ADAC will operate by manner of general consensus. Recommendations made by consensus will be forwarded to the Project Development Team for further action.

Responsibilities and Expertise:
ADAC members will be responsible for attending all meetings (or sending an alternate, if appropriate) and representing their organization to the best of their ability. Members are responsible for keeping colleagues, staff and/or managers of their respective organizations informed of the ADAC's activities and recommendations.

While special expertise is not required, it is desirable for ADAC members to have a working knowledge of aesthetic design, architectural history, architecture or landscape architecture principles.

Estimated Schedule:

- Five meetings, approximately two to four hours each.
- Tentatively planned to extend over a six-month period.
- Meetings to occur between March and August, 2008.

Meetings will be held in Santa Barbara at a location to be determined.

Product of ADAC efforts:
The ADAC will develop recommendations regarding the appearance of the physical barrier. These recommendations will be presented to the Project Development Team for consideration in the project's final design.

Meeting #1 Summary
Cold Spring Canyon Bridge
Aesthetic Design Advisory Committee

Wednesday March 19, 2008
1:00 – 4:00 PM
County Engineering Building
123 E. Anapamu Room 235
Santa Barbara

Goal: Start-up meeting to gain an understanding of the project, the visual and historic context, and the ADAC process.

Members present: Bethany Clough, Evans Jones, Deborah Schwartz, Anne Almy, Dace Morgan, Laurie Romano, Keith Rivera.
Members absent: None

Caltrans staff/consultant present: Sara von Schwind, Bob Carr, Jim Espinosa, Wai Kwan (via telephone), Paula Carr, Mike Jacob, Chris McMorris of JRP Historical Consulting.
Staff absent: Isaac Tasabia

1. Project introduction-Sara von Schwind welcomed and thanked everyone, gave an introduction to the project, and explained the background of the Cold Spring Canyon Bridge project including the different solutions considered for this project and the goal of the ADAC.

2. Member introductions-members and staff introduced themselves.

3. Meeting procedures-Bob Carr thanked everyone for participating and discussed meeting procedures.

4. Project information handouts-Bob discussed the project information handouts, the ADAC Committee Role Statement; the role of the ADAC in helping to minimize any impacts by helping to design the barrier, that participation is not an endorsement of the barrier, and that Caltrans staff was advisory to the Committee.

5. Background report summary-Chris McMorris, JRP Historical Consulting, gave an overview and answered questions about the history of the Cold Spring Canyon Bridge, including its design and the character defining features. Chris clarified that the Caltrans' Historical Resources Evaluation Report (HRER) concluded that the

bridge is eligible for listing in the National Register of Historic Places and that the State Historic Preservation Officer concurred with Caltrans' findings for eligibility in August 2007.

6. Bob Carr summarized and discussed the bridge's Visual Impact Assessment Report.

7. Sara, with input from the Committee, scheduled the next ADAC meeting for Wednesday, April 9th, from 1:00 to 4:00 pm. Another meeting room was suggested by a member.

8. Committee field trip to the Cold Spring Canyon Bridge-several different locations by the bridge were visited. Chris, Bob, and Caltrans staff answered questions and discussed various aspects of the bridge and site.

9. After the field trip, the meeting was adjourned.

Action items:

- Chris will supply the Secretary of the Interior Guidelines as requested by the ADAC.
- Mike Jacob will compile and email to the Committee photo examples of existing bridge barriers, a member requested samples of bridge barriers in rural areas if possible.
- Wai Kwan will compile a "bridge vocabulary" for members' use.

Handouts provided:

- Photos of existing structure from various views
- Bridge as-builts

Meeting #2 Summary
Cold Spring Canyon Bridge
Aesthetic Design Advisory Committee

Wednesday April 9, 2008
1:00 – 4:00 PM
County Engineering Building
123 E. Anapamu Room PW-1
Santa Barbara, CA

Purpose: Begin conceptual design development

Members present: Bethany Clough, Deborah Schwartz, Anne Almy, Laurie Romano, Keith Rivera
Members absent: Evans Jones (called in absence), Dace Morgan

Caltrans staff/consultant present: Sara von Schwind, Bob Carr, Jim Espinosa, Wai Kwan (via telephone), Isaac Tasabia, Paula Carr, Mike Jacob, Chris McMorris JRP Historical Consulting.
Staff absent: None

1. Sara thanked members for attending, stating their time is appreciated. Recapped last meeting, discussed action items
   - Chris – Document presenting the Secretary of the Interior Standards for Rehabilitation and their potential application for this project was distributed, along with excerpts from the Historical Resources Evaluation Report (HRER) explaining the historical significance of the bridge.
   - Mike –As requested, photo example packet of existing bridge barriers had been emailed and hard copies were distributed at the meeting.
   - Bob – Discussed handout with common language for bridge components. Showed Under Bridge Inspection Truck (UBIT or "Snooper") photos. Discussion about UBIT.

2. Chris discussed the two handouts sent to the group, and provided an update regarding Caltrans' Section 106 compliance for the project. This included discussion of ways in which the Secretary of Interior's Standards for Rehabilitation can be applied to the design for the barrier on the Cold Spring Canyon Bridge.

3. Bob reviewed last meeting's field trip to Cold Spring Canyon Bridge and the Scenic Highway Designation.

4. Jim discussed physical parameters of the bridge and Design Constraints. Constraints included weight of barrier, percent open for wind loads, physical attachment points, height for "snooper" truck from the roadway to the top of the barrier (9'7"), maximum opening size (6" to 8"), minimum height above top existing horizontal element (6'), end conditions of the proposed rail, shape of barrier elements i.e., round shape verses square (round shape has less drag) and minimum vertical picket sizing (1").

5. The Committee discussed the development of design goals, physical design parameters. Discussed the various views of the bridge, how the proposed barriers can be positive, the bridge structure's parameters, and other comments.

6. Open design discussion, Committee identified goals for the barrier to be / have:

    - As consistent with Secretary of Interior Standards as possible
    - Visually transparent
    - Spareness-simple, clean, open, uncluttered
    - Stylistically in keeping with the existing structure
    - An effective barrier with minimal effects
    - Consideration of emergency responders
    - Maintenance considerations
    - Within budget

7. Photo simulations of the proposed physical barrier alternatives were shown to the Committee for viewing in the meeting only and were returned to staff so the environmental document would not be compromised.

8. Committee suggested a second public hearing for the draft environmental document in the Santa Ynez area, in addition to the Santa Barbara city area.

9. Meeting recapped and goals set for next meeting.

10. Adjourned.

Action Items:

1. Isaac to determine required maximum spacing for the vertical pickets.
2. Jim to talk to Andy Gill about distance "snooper" truck can reach.

Handouts provided:

- Bridge vocabulary/terminology
- The Secretary of the Interior's Standards for Rehabilitation
- Suggestions for minimizing adverse affects and for applying the Secretary of the Interior's Standards for Rehabilitation
- Excerpts from the HRER

- Photos of an Under Bridge Inspection Truck
- Packet of photo examples of existing/proposed bridge barriers

Meeting #3 Summary
Cold Spring Canyon Bridge
Aesthetic Design Advisory Committee

Wednesday May 7, 2008
1:00 – 4:00 PM
Santa Barbara County Courthouse
1100 Anacapa Street, Third floor conference room
Santa Barbara, CA

Purpose: Conceptual Design Development

Members present: Bethany Clough, Laurie Romano, Keith Rivera, Evans Jones, Deborah Schwartz
Members absent: Ann Almy, Dace Morgan,

Caltrans staff/consultant present: Sara von Schwind, Bob Carr, Jim Espinosa, Wai Kwan (via telephone), Isaac Tasabia, Paula Carr, Chris McMorris JRP Historical Consulting.
Staff absent: Mike Jacob

1. Recap and discussion of Meeting #2.

2. Reviewed the attached Barrier Design Goals and Project Context formulated by Committee at Meeting #2.

3. Discussion about the barrier types including the consideration of constructing a platform below the bridge deck, which would allow a barrier that would not be visible from the roadbed. Initial calculations show that such a structure would likely be beyond the weight limit for the structure. From an aesthetics point the Committee felt the grid/mesh was more transparent than the vertical and further modification of the grid/mesh design should be considered.

4. Discussion to improve aesthetics of the grid mesh barrier including: lowering the bottom horizontal rail to hide behind the existing concrete barrier, minimizing diameter of top horizontal rail, increasing the size or number of secondary horizontal rods in order to reduce the size of the top horizontal rail, reducing the number of main vertical posts only if top horizontal rail size does not increase, adding elements between the two steel plates which make up the vertical posts to minimize the number of verticals and the size of the horizontals, having the vertical posts line up with the existing rail posts (this measure will avoid staggering the vertical posts and avoid creating a jarring visual rhythm - panels would need to be custom-made) which vary approximately 8 to 10 feet apart, placing vertical posts at every other existing rail

post, and minimizing where possible all of the barrier component dimensions. Note: the curve/arc of the barrier is good.

5. Recap and set goals for next meeting.

6. Adjourn.

Action Items:

1. Confirm the spacing of the existing rail posts.
2. Develop a barrier/rail connection to accommodate the variable spacing.
3. Investigate the connection between the grid/mesh and the vertical and horizontal plates.
4. Investigate the bridge repair history.
5. Explore lowering the entire barrier in combination with a "platform."

Design Guidance from Committee on the Flip Chart Notes:

- Lower the bottom horizontal rail below the sight line of the roadway viewer.
- Explore using fewer vertical posts. How far apart can the post spacing be without increasing the thickness of the horizontal top rail?
- Barrier post spacing must relate somehow to the existing bridge rail post spacing (in spite of the variation in existing spacing).
- Reduce the size of the horizontal top rail.
- Increasing the size or number of the intermediate horizontal stays may be acceptable if it would allow the size of the top horizontal rail to be decreased.
- Explore the connection between adjacent vertical posts.
- The existing curve/arc is good.
- Mesh is more transparent than vertical pickets.

Handouts provided:

- List of project contacts developed from Meeting #2
- Barrier design goals developed in Meeting #2
- Engineering concept drawings of vertical barrier alternative

Meeting #4 Summary
Cold Spring Canyon Bridge
Aesthetic Design Advisory Committee

Wednesday June 11, 2008
1:00 – 4:00 PM
Santa Barbara County Courthouse
1100 Anacapa Street, Third floor conference room
Santa Barbara, CA

Purpose: **Conceptual design refinement**

Members present: Bethany Clough, Deborah Schwartz, Laurie Romano, Keith Rivera, Evans Jones
Members absent: Dace Morgan, Anne Almy

Caltrans staff/consultant present: Sara von Schwind, Bob Carr, Jim Espinosa, Wai Kwan (via telephone), Isaac Tasabia, Paula Carr, Mike Jacob, Chris McMorris JRP Historical Consulting.
Staff absent: None

1. Meeting 3 recap/ previous action items reviewed and discussed.

2. Presentation of design sketches and actual grid/mesh samples. Discussion of rod and gird/mesh dimensions, colors/materials, black, galvanized, acid washed galvanized, stainless steel, models should be tested in real life situation, how to make the barriers better aesthetically but still be effective, make the opening sizes as large as possible but still effective, vertical 4 or 6 inch between vertical posts, grid/ mesh size (1-2 inches), and a reduction in horizontal rods.

3. Discussion of possible barrier end treatment designs.

4. Meeting was recapped.

5. Adjourn.

Action Items:

1) Isaac and Wai to compare horizontal rods, make the horizontal rods larger in diameter but increase the spacing from 14” on center to 18” on center.
2) Isaac to move the vertical plate steel supports from 6” spacing to 4” spacing to make the overall vertical plate member look smaller.
3) Team is to look at obtaining real life size samples and panels.
4) Mike to research for the largest opening for the grid/mesh that is considered not climbable.
5) Isaac and Wai to develop possible end treatments for the barrier and bring plans and photos of existing end treatments.

Handouts provided:

- Prospective view of mesh design

Meeting #5 Summary
Cold Spring Canyon Bridge
Aesthetic Design Advisory Committee

Wednesday July 23, 2008
1:00 – 4:00 pm
Santa Barbara County Courthouse
100 Anacapa Street, Third floor conference room
Santa Barbara, CA

Purpose: **Conceptual design refinement**

Members present: Laurie Romano, Keith Rivera, Evans Jones
Members absent: Anne Almy, Dace Morgan, Deborah Schwartz, Bethany Clough

Caltrans staff/consultant present: Sara von Schwind, Bob Carr, Jim Espinosa, Wai Kwan (via telephone), Paula Carr, Mike Jacob, Chris McMorris of JRP Historical Consulting.
Staff absent: None

1. Recap of previous meeting.

2. Discussed design and colors. Simulations with revised sizes and design were provided. Vertical support members' connection with the existing structure was revised as shown in the simulations. Committee members stated that bonderizing in dark brown or gray colors looks old, galvanized finish looks better. The grid/mesh design will be easier to look through than the vertical pickets. The best finish and color choice is dependent upon which side of the structure one is looking out, since the backdrop on one side of the structure is the densely forested green canyon whereas the other side is the sky and mountain panorama view. The panorama view is the top priority and the barrier on each side of the structure should be consistent with the same in color, finish and design.

3. Need poster size high quality renditions for Committee.

4. Committee discussed and asked for examples of existing bridges with barriers/fences, including real life size barrier models in addition to barrier photo simulations, pictures, and videos.

5. Access preventer (end treatments) non-climbable. Photos of the existing conditions at the ends of the bridge were provided.. End treatments slope down to end. Where should fence end? Access preventer should be located 1 to 2 bays in from the end of the barrier. Make the barrier as short as possible with 2 bays going past the maximum height of 20 to 25 feet was suggested. Access preventer should be a fan shape to match curve of barrier possibly, be located on the

vertical post, and be aware of the bridge expansion joints. Discussed various barrier dimensions.

6. ADAC wants to meet again to examine life size scale models, videos, and pictures of existing grid/mesh and vertical type barriers, staff will supply.

7. Meet on August 18th at Caltrans Santa Barbara yard to examine life size barrier panel samples.

8. Adjourn.

Action Items:

1) Team to provide life size sample model panels, videos traveling past existing barriers, and poster size simulations.

Handouts provided:

- Photos of the existing Cold Spring Canyon Bridge ends
- Perspective views of mesh and vertical barriers

Meeting #6 Summary
Cold Spring Canyon Bridge
Aesthetic Design Advisory Committee

Monday-August 18, 2008
1:00 – 4:00 PM
Caltrans Maintenance Station
3999 State Street
Santa Barbara, CA 93105

Purpose: Conceptual design refinement

Members present: Bethany Clough, Evans Jones, Laurie Romano, Keith Rivera
Members absent: Deborah Schwartz, Dace Morgan, Anne Almy

Caltrans staff/consultant present: Sara von Schwind, Bob Carr, Jim Espinosa, Isaac Tasabia, Chris McMorris JRP Historical Consulting.
Staff absent: Wai Kwan, Paula Carr, Mike Jacob

1. Meeting 5 recap/ previous action items, met at Caltrans Santa Barbara Maintenance station.

2. "Driver's eye" view videos and pictures of existing design examples of grid/mesh and vertical barriers from Paso Robles, Davis, and Fresno were shown to the Committee. Committee noticed that the vertical pickets were more dominant to the eye.

3. Staff displayed scale model examples of grid/mesh and vertical barriers on the blacktop. Members drove past the models to get a feel for what they would see from a moving vehicle. A Committee member was able to completely pass through the 6-inch vertical spacing of the vertical barrier model.

4. The ADAC members unanimously agreed that the grid/mesh alternative had the least visual impact. Try to match the color of the tube rail. With a bonderized finish, reflectivity is reduced as compared to powder coat so it is recommended to use a bonderized finish with low reflectivity. Keep the least length of the barrier with the end treatments on the bridge side of the bolsters.

5. Colors and finish were discussed.

6. End treatment or access preventer design ideas were discussed.

7. Recap and wrap up.

8. Adjourn.

Action items:

1) We will provide the team the following information via email as the final follow up for the ADAC Committee:

- Appearance and location of the access preventers
- Explore options for terminating the barrier ends, such as providing a transition to full height, etc
- Location of the beginning and end of barrier relative to the bridge deck

Appendix H Cultural Reports and Coordination Efforts

The attachments in Appendix H document the extensive consultation process carried out by the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation (Caltrans) to meet their respective responsibilities under the January 2004 Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, As It Pertains to the Administration of the Federal-Aid Highway Program in California.

Consultation with the State Historic Preservation Officer under the Programmatic Agreement also constitutes consultation under Public Resources Code 5024.5 and meets the purposes of the California Environmental Quality Act.

A chronological narrative of the Memorandum of Agreement consultation is included below, followed by a list of the 44 attached documents and copies of the individual documents. The first six attachments (Attachments 1-6) establish the eligibility of the Cold Spring Canyon Bridge for the National Register of Historic Places and the finding that the proposed Cold Spring Canyon Bridge Suicide Barrier project will have an adverse effect on the historic integrity of the bridge. The remaining attachments (Attachments 7- 44) document the effort to resolve these adverse effects through a Memorandum of Agreement.

Memorandum of Agreement Consultation

On July 25, 2008, Caltrans District 5 sent a draft Memorandum of Agreement (Draft #1) to Caltrans Headquarters (Attachment 7), pursuant to Caltrans Headquarters' assumption of the Federal Highway Administration's responsibilities under the Programmatic Agreement, assigned to Caltrans as part of the Surface Transportation Delivery Pilot Program (23 Code of Federal Regulations 773); Caltrans Headquarters transmitted Memorandum of Agreement Draft #1 to the State Historic Preservation Officer on July 29, 2008 (Attachment 8). Memorandum of Agreement Draft #1 noted that Caltrans had thoroughly considered alternatives to the proposed undertaking and had determined that engineering constraints on the barrier design precluded the

possibility of avoiding adverse effects. To resolve the adverse effects of the proposed undertaking, Memorandum of Agreement Draft #1 itemized proposed off-site mitigation measures, including photo documentation to Historic American Engineering Record-like standards, publication of the original historic research completed in connection with this project, and exhibit panels explaining the history and significance of the Cold Spring Canyon Bridge.

On August 7, 2008, Caltrans contacted the State Historic Preservation Officer's staff at the Office of Historic Preservation, providing an electronic version of Memorandum of Agreement Draft #1. The email also noted that, as documented in the Historic Property Survey Report and Finding of Effect, there was some controversy associated with this project, such as the concerns raised by the Santa Barbara County Historic Landmarks Advisory Commission and opinions expressed at the State Historic Resources Commission meeting that had recently been held in Santa Barbara (Attachment 9).

In a follow-up email sent on September 8, 2008, Office of Historic Preservation staff responded to Caltrans stating that the Memorandum of Agreement "looks good" (Attachment 9). On September 10, 2008, Office of Historic Preservation staff telephoned Caltrans to inform them that the State Historic Preservation Officer (Wayne Donaldson) had refused to sign Memorandum of Agreement Draft #1 and that a follow-up letter would be prepared (Attachment 10).

The State Historic Preservation Officer sent a letter to Caltrans on September 11, 2008 (Attachment 11) stating that he was "unwilling to sign" Memorandum of Agreement Draft #1 "for this undertaking as it is currently designed" and that other alternatives should be explored. Caltrans telephoned Carol Legard of the Advisory Council on Historic Preservation to let her know that the State Historic Preservation Officer was not going to sign Memorandum of Agreement Draft #1 and that Caltrans would be asking the Advisory Council on Historic Preservation to participate in consultation. Carol Legard noted that the State Historic Preservation Officer would have to officially terminate consultation for them to become involved and that the Advisory Council on Historic Preservation would call the State Historic Preservation Officer to discuss the matter (Attachment 12).

Caltrans left a telephone message with Office of Historic Preservation staff on September 16, 2008 in an attempt to clarify the State Historic Preservation Officer's concerns, to confirm whether he wanted to continue consultation, and to find out if he

wanted to meet with Caltrans to seek avoidance, minimization or mitigation measures that could be agreed to (Attachment 13). Also on that date, Caltrans forwarded a copy of the State Historic Preservation Officer's letter refusing to sign Memorandum of Agreement Draft #1 to the Advisory Council on Historic Preservation (referenced in Attachment 16), and the Advisory Council on Historic Preservation informed Caltrans that they had not been able to reach the State Historic Preservation Officer, but that they would send a letter stating that the Advisory Council on Historic Preservation would participate in consultation (referenced in Attachment 14).

On September 18, 2008, Office of Historic Preservation staff contacted Caltrans by telephone to further discuss the State Historic Preservation Officer's refusal to sign Memorandum of Agreement Draft #1 and indicated that the State Historic Preservation Officer wanted to investigate non-physical barrier options. Caltrans was advised by Office of Historic Preservation staff to prepare a letter documenting that non-physical alternatives had been considered and rejected, and upon receipt the State Historic Preservation Officer would likely formally terminate consultation (Attachment 14).

On September 22, 2008, Caltrans responded to the State Historic Preservation Officer's letter of September 11, 2008, as discussed in the above paragraph, reaffirming that "Caltrans has extensively researched means to deter suicide from the Cold Spring Canyon Bridge. These have included a 'human barrier' and other measures that do not entail constructing physical barriers on the bridge" and that Caltrans has determined that, given the remote location of the bridge, the only effective means of deterring suicide from the Cold Spring Canyon Bridge, and of meeting the undertaking's purpose and need, is to install physical barriers as described in the report supporting Caltrans' finding of adverse effect" (Attachment 15).

The Advisory Council on Historic Preservation wrote to Caltrans on September 23, 2008 (Attachment 16), stating, "In light of the SHPO's objections to the proposed MOA, as well as the concerns raised by the Santa Barbara County Historic Landmarks Advisory Commission (HLAC), as described in Caltrans' 'Finding of Adverse Effects,' the ACHP has determined that our participation in consultation is warranted." The Advisory Council on Historic Preservation expressed its interest in more fully understanding the State Historic Preservation Officer's and the Historic Landmark Advisory Commission's recommendation that Caltrans consider an alternative to a large-scale physical barrier, as well as the "public interest in this

project, and the factors that went into [Caltrans'] analysis of alternatives." To assist in this analysis, the Advisory Council on Historic Preservation requested that Caltrans provide both the Advisory Council on Historic Preservation and the State Historic Preservation Officer with the following documentation:

- A copy of the Draft Environmental Impact Report/Environmental Assessment and the Section 4(f) analysis for this undertaking;

- Documentation of the views of the public and interested individuals regarding this project, as expressed in public meetings, comments on the Draft Environmental Impact Report/Environmental Assessment, and general correspondence;

- A list of the consulting parties that participated in consultation for this undertaking and copies or a summary of the views of those parties; and

- Minutes or summaries of meetings held by the Aesthetics Design and Advisory Committee.

The Advisory Council on Historic Preservation also recommended that a follow-up telephone conference take place within two weeks of receipt of the additional documentation.

Caltrans complied with this request, mailing the requested documentation to both the Advisory Council on Historic Preservation and the State Historic Preservation Officer on September 20, 2008 (Attachment 17) and October 2, 3008 (Attachment 18).

On October 17, 2008, Caltrans held the follow-up telephone conference with the State Historic Preservation Officer (Wayne Donaldson) and Advisory Council on Historic Preservation staff (Carol Legard). During that meeting the State Historic Preservation Officer raised concerns regarding the project purpose and need, the effectiveness of a physical suicide barrier, and whether other alternatives should have been more fully explored, such as a net alternative (similar to that being considered at that time for the Golden Gate Bridge). All parties agreed that an on-site meeting would provide a forum for further discussion and clarification regarding the project. The State Historic Preservation Officer also expressed the desire to continue consultation with Caltrans.

The on-site meeting was convened November 19, 2008 at the Santa Barbara County Association of Governments Office in Santa Barbara and included a field visit to the

Cold Spring Canyon Bridge. Those in attendance included Wayne Donaldson and Natalie Lindquist from the State Office of Historic Preservation; Charlene Dwin Vaughn from the Advisory Council on Historic Preservation (by telephone for the preliminary meeting and in lieu of Carol Legard); Jill Hupp from the Caltrans Headquarters Cultural and Community Studies Office; Sheriff Bill Brown and Commander Dominic Palera from the Santa Barbara County Sheriff's office; Steve Vandenberg and Brittany Odermann from the Santa Barbara County Association of Governments; Christopher McMorris, partner and architectural historian, JRP Historical Consulting, LLC (preparer of Historical Resource Evaluation Report and Finding of Effect); Jim Espinosa, Caltrans District 6 Senior Transportation Engineer; Isaac Tasabia, Caltrans Bridge Architecture; and Dr. Paul Erickson, Medical Director of Psychiatric Services, Santa Barbara Cottage Hospital.

In addition, representatives from Caltrans District 5 included Sara von Schwind, Project Manager; Steve Price, Deputy District Director for Maintenance and Operations; Robert Pavlik, Headquarters Environmental Coordinator; Valerie Levulett, Technical Studies Branch Chief; Paula Juelke Carr, Associate Environmental Planner (Architectural History); and Mike Jacob, Associate Environmental Planner. Meeting topics included review of project purpose and need, Section 106 compliance, public safety, the psychology of suicide, and the proposed safety net design alternative's impacts to the historic bridge.

On December 1, 2008, Christopher McMorris of JRP Historical Consulting, LLC, wrote a memorandum to Caltrans documenting his effects analysis of the proposed net alternative, as presented during the meeting on November 19, 2008. The memorandum concluded that "the net alternative would diminish more aspects of the bridge's integrity than the vertical barrier [i.e., either the Grid/Mesh or the Vertical Picket alternative] and it would be non-compliant with more of the Secretary of Interior's Standards for Rehabilitation than the vertical barrier alternative would" (Attachment 19).

On December 8, 2008, Caltrans submitted the Supplemental Report Prepared for Wayne Donaldson, California State Historic Preservation Officer, as part of continuing Section 106 consultation and the Resolution of Adverse Effect, 36 Code of Federal Regulations 800.6, Cold Spring Canyon Bridge Suicide Barrier (Attachment 20). The Supplemental Report documented the November 19, 2008, meeting in Santa Barbara, including the evaluation of adverse effects by JRP. This documentation clarified the design engineering constraints and issues pertaining to the net alternative

and its potential impacts to the historic qualities of the bridge (the following is an excerpt):

> Caltrans' alternative to potentially construct a 20 foot wide steel frame net either 13 feet or 20 feet below the deck on either side of the bridge would have a direct adverse effect on the Cold Spring Canyon Bridge. Similar to the vertical barrier, the net alternative would be an alteration to the historic property that is not consistent with the SOI [Secretary of Interior] Standards for the Treatment of Historic Properties, as discussed below. The net alternative would not only diminish the structure's historic integrity of design, feeling, and association, it would also diminish the bridge's historic integrity of materials and workmanship in ways that the vertical barrier alternative does not.
>
> As presented by the Caltrans team on November 19 [2008], the net alternative would require Caltrans to construct an entirely new steel structure to frame the panel sections of net and attach the new structure to the columns, towers, and arch ribs in the substructure and tie the panels back to the concrete railing on the superstructure. Caltrans would need to build this net in panels so that one or more panels could be raised during maintenance procedures. The net could be built either 13 feet or 20 feet below the bridge deck. This would intersect the substructure either near the top of the arch or just below the arch ribs. The nets would have to be at least 20 feet wide each to effectively deter a person from jumping out past the nets. The distance outward from the bridge of the net combined [with the width of the nets on each side] would have the effect of more than doubling the width of the bridge. The net option would add an additional 290 tons of weight to the bridge. This includes the following: TS 14x14x3/8 steel beams, W6x20 steel beams, cables, plate gussets, clevises, net and the required connection hardware. In comparison, the mesh/grid alternative would add 90 tons of weight to the bridge. This includes: Plate columns, 2 ½" pipe, 3" pipe, mesh/grid element (#8 gauge) and the required connection hardware. Caltrans has concluded that most, if not all, substructure components of the bridge would need to be retrofitted in order to carry the additional dead and (potential) live load of the nets and withstand the wind and seismic loads. The retrofit could require Caltrans to encase substructure members, covering the original steel structure, and could require Caltrans to construct cross bracing under the bridge deck between the columns. Although exact calculations regarding changes to the columns, towers, and arches have

not been completed for the potential retrofit, it is likely that each of the elements of the substructure that are considered character-defining features of the bridge would need to be physically altered and that the slender qualities of those components would be changed, perhaps radically so.

The net alternative, either at 13 or 20 feet below the deck, would have the appearance from below the bridge and to the side of the bridge as increasing the bridge deck's thickness and the bridge's width, resulting in a bridge that appears to be shorter, or more squat, than the extant bridge. (The net alternative would also create a shorter looking bridge than the vertical barrier alternative, which raises the height of the bridge.) The nets would obscure the view of character-defining features of the bridge's substructure and greatly alter the overall design aesthetic of the historic bridge. The nets would traverse the entire length of the bridge's substructure severely interfering with the bridge's historic character related to its engineering and aesthetic achievement. The nets would interrupt the openness and uncluttered appearance of the bridge's slender columns, towers, and arch ribs, dividing and filling the open spaces and impairing the spatial relationship between the carefully crafted components of the bridge's substructure. The retrofit of substructure components would also increase the size of the substructure members, and may include cross bracing, both of which would further deteriorate the openness of the structure. Attaching the steel frame structure for the nets and retrofitting the substructure would also directly impact the historic materials of the bridge. Thousands of holes would need to be drilled into steel members of the bridge and into the concrete railing for fasteners and attachments. Also, new steel would need to be added to the substructure components to strengthen those members. These actions would diminish the bridge's historic integrity of design, feeling, and association. They would also diminish the bridge's historic integrity of materials and workmanship. The nets would decrease the ability for comprehension of the bridge's historically significant engineering and aesthetic achievement. Construction of the nets would impair the original welded steel members which are central to the bridge's historic significance, and the nets and accompanying retrofit of the substructure would reduce one's ability to comprehend the workmanship that went into the bridge's all-welded steel design. Overall, the nets would reduce the structure's aesthetic expression, its historic sense of its particular period of time, and impair the direct link the bridge currently presents between now and

the period in which Division of Highways Bridge Department engineers designed the state's monumental bridges.

In addition, the net alternative "could not be built in a manner that is consistent with [Secretary of the Interior Rehabilitation] Standard 2 and Standard 9 because of the nets' alteration of the spatial relationships of the bridge's character-defining features and because the nets would be incompatible with the massing, proportion and features of the historic bridge. Furthermore, as described above, the net alternative could not be built in a manner that is consistent with Standard 10 because the nets represent new additions that cannot be 'undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property. . .would be unimpaired.' Installation of the steel frame structure for the nets and the retrofit of the substructure could not be reversed in the future such that the bridge's original historic integrity would not be largely ruined."

The Supplemental Report submitted to the State Historic Preservation Officer on December 8, 2008 (Attachment 20), also provided extensive documentation of the opportunities Caltrans provided for public participation, as well as all records of consultations with interested parties conducted during the course of the project's development, including the formation and function of the community-based Aesthetic Design and Advisory Committee.

Caltrans received a letter from the Advisory Council on Historic Preservation on December 10, 2008, indicating that Caltrans "appears to have worked to minimize the effect of the project on the historic character of the bridge while addressing public safety issues" and that the Advisory Council on Historic Preservation "believes that a reasonable balance between Santa Barbara County's concern for public safety and preservation of the aesthetics of the bridge can be achieved with a fence-type barrier" and would "welcome participating in the Section 106 consultation to formalize the design and related mitigation" (Attachment 21). The State Historic Preservation Officer contacted Caltrans on December 17, 2008, stating that he believed the preservation concerns he expressed had been addressed both at and since the meeting and field visit to the bridge on November 19, 2008, and he would now sign the Memorandum of Agreement (referenced in Attachment 22).

Since the State Historic Preservation Officer had expressed his willingness to sign the Memorandum of Agreement, which addressed measures to mitigate the effects of the fence barrier, Caltrans revised the Memorandum of Agreement Draft #1 to include

Stipulation II, Barrier Design and Construction Minimization Measures. On December 19, 2009, Caltrans and the State Historic Preservation Officer signed Memorandum of Agreement Draft #2 (Attachment 7). The State Historic Preservation Officer, however, did not want to include Stipulation II, stating that he did not want to sign anything that discussed a "mesh" design, since he preferred the pickets. Stipulation II, therefore, was omitted from Memorandum of Agreement Draft #2 when it was forwarded to the Advisory Council on Historic Preservation on December 22, 2008, for signature (Attachment 22).

Caltrans received an email from the Advisory Council on Historic Preservation on January 2, 2009, expressing surprise that Memorandum of Agreement Draft #2 did not include provisions for review of the fence design and interpretative display by the State Historic Preservation Officer and the Advisory Council on Historic Preservation, or mention of which fence barrier design would be used for the project (Attachment 23). This was followed by an email on January 5, 2008 (Attachment 24), from the State Historic Preservation Officer, stating that, "As an oversight, I should be involved in the determination of the final design as I am leaning towards Alternate 2 (the vertical bars) and not the preferred design Alternate 1 (the mesh screen)."

On January 6, 2009, Caltrans received a letter from the Advisory Council on Historic Preservation, which returned Memorandum of Agreement Draft #2 unsigned, since it did not "adequately convey all the mitigation measures needed to ensure that historic preservation issues are reviewed and resolved consistent with [the Advisory Council on Historic Preservation's] previous recommendations." The Advisory Council on Historic Preservation noted that they "would like to participate further in consultation to formalize the design and related mitigation for the undertaking." The Advisory Council on Historic Preservation also stated that Memorandum of Agreement Draft #2 did not "include provisions to ensure that the impact of the barrier fence on the historic fabric and views of the bridge will be minimized; nor does the MOA provide the SHPO and ACHP an opportunity to participate in post-agreement review of the barrier fence design, HAER documentation, or the interpretative display panels to be developed by Caltrans. Post-agreement reviews of this nature are a standard provision in MOAs, particularly when a final alternative has yet to be selected" (Attachment 25).

Caltrans emailed Memorandum of Agreement Draft #3 to the Advisory Council on Historic Preservation and the State Historic Preservation Officer (Attachments 7 and 26) on January 13, 2009. Revisions were made in accordance with the January 6,

2009, letter from the Advisory Council on Historic Preservation, as well as the comment that the State Historic Preservation Officer be involved in review of plans. At the request of the Advisory Council on Historic Preservation, Memorandum of Agreement Draft #3 included Attachment 1, Barrier Design and Construction Minimization Measures, to ensure that impacts of the barrier fence on the historic fabric and views would be minimized.

The Advisory Council on Historic Preservation emailed Caltrans on January 21, 2009, stating that they had not yet looked at Memorandum of Agreement Draft #3 (Attachment 27). Caltrans also received an email on January 21, 2009, from the State Historic Preservation Officer, who had additional comments on Memorandum of Agreement Draft #3. The State Historic Preservation Officer requested additional information pertaining to previous seismic retrofit drawings. His concerns centered on Memorandum of Agreement Draft #3 Attachment 1, Barrier Design and Construction Mitigation Measures.

The State Historic Preservation Officer noted that, "Although Caltrans has selected the grid/mesh alternative, I am not convinced that this alternative may be the best design for the bridge, since only two designs, one with mesh and the other with pickets, were presented in the documentation." The State Historic Preservation Officer also cited the January 6, 2009, Advisory Council on Historic Preservation letter, which stated, "Include a stipulation ensuring SHPO and ACHP participation in the review of the fence barrier design…If there are other consulting parties who wish to be involved…they should also be named." The State Historic Preservation Officer concluded, "…I interpret this paragraph to mean that the SHPO, ACHP, and others should be involved in the initial design… I would like to revisit this design at your earliest convenience and would appreciate the involvement of other consulting parties" (Attachment 28).

On February 11, 2009, Caltrans participated in a telephone conference to discuss issues that still needed to be resolved. The content of the phone conference was summarized in a letter to Caltrans from the Advisory Council on Historic Preservation, also dated February 11, 2009 (Attachment 29), as follows:

> As we discussed, both the ACHP and SHPO remain concerned that, despite everyone's best efforts, the project has progressed to what appears to be a final design of the proposed suicide barrier with limited input from the SHPO and/or ACHP. As part of Section 106 consultation, consulting parties should be provided an opportunity to explore recommendations on the specific

design…. Subsequent to the meeting of November 19th [2008], all parties agreed to move forward with an MOA for construction of a physical barrier or fence-type barrier to help prevent suicide. We did not agree to a particular design or specific design standards at that time. However, we understand that Caltrans spent considerable energy in reviewing alternatives and working with experts on aesthetics and suicide behavior. Nevertheless, we do not believe that we have had sufficient opportunity to exchange views on the barrier design that balances project goals and preservation values. Accordingly, we request that District 5 meet with SHPO and ACHP during an upcoming visit by ACHP staff to further explore design modifications that reflect historic preservation interests. Our discussion would be limited to consultation on a fence-type barrier, as proposed by Caltrans, but would seek a more context-sensitive solution.

Although Caltrans' selection of a grid/mesh fence barrier remains controversial, the project documentation reveals that District 5 went to considerable lengths to obtain public input on the proposed suicide barrier; considered alternatives; designed the project to minimize its effects on the aesthetics of the Cold Spring Canyon Bridge; and afforded local officials and concerned citizens the opportunity to express their views as proponents and opponents of the preferred alternative. We want to clarify that we are not asking Caltrans to re-open consultation to explore alternatives that were previously considered and rejected. Rather, we want to focus on design issues that meet the purpose and need for this project.

The Advisory Council on Historic Preservation further stated "After we meet later this month, we will work with you to finalize the MOA to either further clarify the details of the barrier design and/or incorporate agreed upon changes. Alternatively, Caltrans may proceed to revise the MOA to stipulate additional consultation that will occur on the project design and the mechanism to resolve any disputes that may occur."

In conclusion, the Advisory Council on Historic Preservation recommended the following additional language for incorporation into the Memorandum of Agreement:

STIPULATION II. CONSULATION TO FINALIZE BARRIER DESIGN

A. Within 60 days of execution of the MOA, Caltrans shall meet with [the project sponsor], SHPO and ACHP to review the Barrier Design and Construction Minimization Measures in Attachment 1. Caltrans will facilitate this meeting

to promote an open exchange of ideas and will consider modifications to the barrier fence height, design, and placement to further reduce the adverse effects of the project on the Cold Spring Canyon Bridge.

B. Within 10 days following the meeting required in Stipulation II.A, Caltrans will either:

   i. revise Attachment 1 to incorporate all agreed upon measures and transmit it to the parties to the MOA for a 30 day review, or
   ii. provide the parties to the MOA with a summary of the meeting and a schedule for modifying the design and submitting revised plans to the ACHP and SHPO for review and comment, or
   iii. notify the signatories to the MOA that it is requesting the views of the ACHP on the barrier design pursuant to Stipulation IV.B of this MOA.

In response to the request by the Advisory Council on Historic Preservation, Caltrans met with the Advisory Council on Historic Preservation and the State Historic Preservation Officer in Sacramento on February 25, 2009 to further discuss the proposed design of the fence-type barrier for the Cold Spring Canyon Bridge. At the meeting, State Historic Preservation Officer Wayne Donaldson presented other suicide deterrent barrier concepts for the Cold Spring Canyon Bridge. One was referred to as a "swoop" or arc net, and the other was a cantilever structure with a vertical barrier at the outside edge of the cantilever arm. He presented both concepts to address his concerns about views from the bridge deck being affected by a suicide barrier as seen from a vehicle traversing the structure. Caltrans architecture and engineering staff responded to the State Historic Preservation Officer's suggestions by discussing and sketching the engineering and architectural feasibility of these concepts.

On February 26, 2009, Wayne Donaldson met with Isaac Tasabia and Javier Chavez, (Caltrans Bridge Architecture and Aesthetics Branch), Wai Kwan (Caltrans Office of Structure Design), and Christopher McMorris, (partner and architectural historian, JRP Historical Consulting) to develop the two concepts that were discussed the previous day. The meeting on February 26, 2009 resulted in the combining of the two concepts into one possible alternative. Following the meeting, Caltrans Bridge Architect Isaac Tasabia and Caltrans Bridge Engineer Wai Kwan worked through various factors for the new alternative, which resulted in the development of a Cantilever Arc Barrier Net alternative.

During the meeting on February 25, 2009, Caltrans, the State Historic Preservation Officer and the Advisory Council on Historic Preservation also revised Stipulation II for Memorandum of Agreement Draft #4. The revised stipulation stated that the agencies would meet to further explore design alternatives (referring to the February 25, 2009 meeting), and that Caltrans would examine the feasibility of the State Historic Preservation Officer's proposed design alternative and report back to the State Historic Preservation Officer and Advisory Council on Historic Preservation. Any objections to Caltrans' recommendations were to be resolved in accordance with Stipulation V.B. of Memorandum of Agreement Draft #4.

The revisions to Stipulation II shifted the focus of the ongoing Memorandum of Agreement consultation from addressing modifications for the original Caltrans fence barrier designs to the feasibility of developing a platform cantilever or arc design barrier as proposed by the State Historic Preservation Officer. Caltrans emailed the revisions to Memorandum of Agreement Draft #4 Stipulation II, developed during the February 25, 2009 meeting, to the State Historic Preservation Officer and Advisory Council on Historic Preservation on that same day. Caltrans' transmittal letter noted that Attachment 1 was deleted (Attachment 30).

On March 4, 2009, Caltrans received an email from the State Historic Preservation Officer stating that he would review Memorandum of Agreement Draft # 4 and that he had had "an excellent meeting" with the Caltrans bridge architects on February 26, 2009 (Attachment 30). That same day, Caltrans received an email from the Advisory Council on Historic Preservation suggesting that Memorandum of Agreement Draft #4 retain Attachment 1, Barrier Design and Construction Mitigation Measures, since it was "the only reference we have to the current proposed design and minimization measures." The Advisory Council on Historic Preservation also proposed additional language for Stipulation II.A. The Advisory Council on Historic Preservation acknowledged that Memorandum of Agreement Draft #4 "accurately reflects what we all agreed on at the meeting in Sacramento last week" (Attachment 30).

On March 10, 2009, Caltrans received an email from Carol Legard of the Advisory Council on Historic Preservation stating that, after discussions with the State Historic Preservation Officer, the Advisory Council on Historic Preservation was withdrawing their request that Caltrans include Attachment 1 in the Memorandum of Agreement. The State Historic Preservation Officer had argued that "including the details of the preferred alternative design in the MOA suggests a pre-disposition to that alternative by the other signatories." The Advisory Council on Historic Preservation noted that

they understood the State Historic Preservation Officer's concern and were happy to execute Memorandum of Agreement Draft #4 (the final version of the Memorandum of Agreement) without the attachment (Attachment 31).

Caltrans signed the Memorandum of Agreement on March 10, 2009 (Attachment 7), and forwarded it to the State Historic Preservation Officer on March 11, 2009. In the transmittal email, Caltrans indicated that Stipulation II reflected the language suggested by the Advisory Council on Historic Preservation at the February 25, 2009, meeting in Sacramento, and that, per the Advisory Council on Historic Preservation's email of March 10, 2009, Attachment 1 had been deleted (Attachment 32). The Memorandum of Agreement was signed by the State Historic Preservation Officer on March 13, 2009 (Attachment 7).

On March 16, 2009 (Attachment 33), Caltrans sent the Memorandum of Agreement to the Advisory Council on Historic Preservation, which returned it with their signature on March 20, 2009 (Attachments 7 and 34). Caltrans sent copies of the now fully executed Memorandum of Agreement to the State Historic Preservation Officer and Advisory Council on Historic Preservation on April 13, 2009 (Attachments 35 and 36).

Feasibility Study for Cantilever Arc Barrier Net Alternative

As a condition of Memorandum of Agreement Stipulation II.A, Caltrans transmitted the Feasibility Study Conducted for the Cantilever Arc Barrier Net Alternative (Feasibility Study) to the Advisory Council on Historic Preservation (Attachments 37 and 39) and State Historic Preservation Officer (Attachments 38 and 39) on April 20, 2009. The Feasibility Study concluded that, while the alternative could be a credible suicide deterrent, it was not feasible for the Cold Spring Canyon Bridge, as follows:

> The bridge cannot withstand the additional load that would be associated with a suicide attempt if the Cantilever Arc Barrier Net were on the bridge. Although the barrier could support at least one individual, the barrier would not be able to withstand the weight associated with a rescue team. A design for a greater load would entail retrofitting the structure, including replacing the existing concrete rails and bridge deck. Construction of the barriers would also likely entail retrofitting the substructure. This would lead to greater permanent and irreversible structural changes to the Cold Spring Canyon Bridge, further decreasing the integrity and historic qualities that make the bridge eligible for listing in the National Register of Historic Places.

> In addition to the design feasibility study, Caltrans has determined that it would be difficult to prevent entry onto the barrier, requiring only a one to two-foot free fall onto the net once an individual has lowered their body over the bridge rail. The easily accessible platform would likely become an attractive nuisance or magnet for unauthorized use or activities. The Big Sur postcard [a postcard of unauthorized climbers on a Big Sur wire mesh fabric debris flow barrier is included in the Feasibility Study as Figure 1] is a clear example of just how quickly a facility can be adopted for unauthorized use. This is a liability that Caltrans cannot knowingly assume, nor would the Department [of Transportation] design for an attractive nuisance as represented by the Cantilever Arc Barrier Net.
>
> Caltrans has made a good faith effort to explore more fully the SHPO's alternative design concept, developed in collaboration with Bridge Architecture and Aesthetics Branch and the Office of Structure Design, for the Cold Spring Canyon Bridge Suicide Barrier Project. Although Caltrans was hopeful that the proposed Cantilever Arc Barrier Net design would prove feasible, this is not the case.

The State Historic Preservation Officer was notified (Attachment 38) that, as documented in the Draft Environmental Document (May 2008, pp. 10-11), the original reasons for rejecting a net alternative were still applicable, and that Caltrans planned to proceed with the vertical barrier design. The Feasibility Study fulfilled Caltrans' responsibilities in accordance with the requirements under Stipulation II. A and B of the executed Memorandum of Agreement.

The State Historic Preservation Officer wrote to Caltrans on May 14, 2009 (Attachment 40) in response to the results of the Feasibility Study. The State Historic Preservation Officer stated that, "Caltrans has certainly made a good faith effort to explore this design alternative and we are pleased to read the report." The State Historic Preservation Officer did, however, request additional information regarding the feasibility of the retrofit; the estimated project cost, including retrofitting of the bridge rails, deck and possibly the substructure; the "predicted structural response in terms of its failure (complete collapse, or bending and deformation, or isolated failure)" under an excessive load; and how real the potential for unauthorized use of the cantilever net was.

On June 10, 2009 (Attachment 41), Caltrans sent the following responses to the State Historic Preservation Officer:

To fully address [the feasibility of the retrofit] would require extensive structural analysis. Caltrans finds that the pursuit of such a study for an alternative that has the potential to cause substantial adverse impacts to the state-owned historic property is not in the best interest of the public, nor consistent with the department's goal of stewardship, given that there is an alternative that meets the project purpose and need while minimizing alterations to features of the bridge that qualify it as eligible for the National Register of Historic Places under Criterion C for its engineering significance. The alternative discussed in the Design Feasibility Study would require permanent alterations to the bridge's primary character defining feature, its substructure, for the purpose of preserving the view from the bridge, which was not identified as a character defining feature in the consensus determination of August 13, 2007 (Attachment 3).

The current Construction Capital cost for the preferred design is $998,000. The cost estimate that was provided for the Cantilever Arc Barrier Net [$3,750,000] is for the Construction Capital of that barrier. It does not include the costs associated with replacing the existing bridge deck and the bridge rails. This would increase if the Cantilever Arc Barrier Net is designed for more than a single individual dynamic load parameter.

[An estimate for retrofitting the bridge rails, deck and possibly the substructure] would require extensive structural analysis to determine the extent of the retrofitting of the bridge deck, bridge rails, and substructure. The analysis would also be dependent upon the anticipated maximum loading conditions, i.e., the number of people we would anticipate at any one time in the Cantilever Arc Barrier Net. Caltrans finds that the time and cost that would be necessary to accurately estimate the cost of retrofitting . . . does not constitute a reasonable expenditure of public funds because an alternative is available that does not require such work, and that preserves the character-defining features that make the bridge eligible for listing in the National Register of Historic Places.

The failure mechanism would depend upon the loading condition. There [are] any number of scenarios regarding how the load could be distributed in the net. The scenario could entail loads at multiple locations within the net structure, which may result in the deformation of the net, or an excessive load in one panel, which could result in the net collapsing. The current design can accommodate one person, but it would be difficult to determine how many people we would ultimately design for. It was agreed at the onset of the

feasibility study that Caltrans would look at the minimum weight load that the bridge can withstand without extensive bridge retrofits. Even if safety personnel are in a harness, they add weight to the net system when they touch down on the cantilever portion of the net and are still subject to injury or death should the barrier net collapse or fail.

Caltrans does not have a [Cantilever Arc Barrier Net] in our inventory; therefore we do not have direct evidence that this particular design will be accessed by individuals seeking unauthorized activities. However, we are aware of individuals and groups using our facilities for unintended uses in inappropriate and dangerous ways. District 5 recently modified the Huasna River Bridge on State Route 166 in Santa Barbara County in an attempt to prevent individuals from climbing along the outside girder flange to "tag" the structure. We used the example of the public display on the Big Sur postcard to demonstrate that there are people in this vicinity who are inclined to misuse public structures.

As part of the engineering process, the development of a new structure is based on both past experience and technical knowledge. Based on Caltrans' experience, if a design is unique, thrill seekers will attempt to access the structure to engage in extreme activities.… Caltrans believes that the Cantilever Arc Barrier Net installed along the outside rails of the Cold Spring Canyon Bridge, suspended 400 feet above the canyon floor…will create an attractive nuisance.

On June 24, 2009, the State Historic Preservation Officer wrote to Caltrans (Attachment 42), commenting that the response provided by Caltrans on June 10, 2009 "did not adequately address the issues" that he had raised. The State Historic Preservation Officer stated "At the current time and based on your response, I do not feel you have adequately responded to my comments and I thus am not able to support Caltrans preferred design. I feel that we are at an impasse regarding the Caltrans preferred alternative and the Cantilever Arc Barrier Net alternative.… I am invoking Stipulation V.B. (Dispute Resolution) of the March 2009 Cold Spring Canyon Bridge Suicide Barrier Memorandum of Agreement (MOA). I would ask that Caltrans forward all documentation relevant to this dispute, including Caltrans' proposed resolution to the Advisory Council on Historic Preservation (ACHP)."

On June 25, 2009, Caltrans requested the Advisory Council on Historic Preservation's guidance on how to proceed. The Advisory Council on Historic

Preservation informed Caltrans that they would send a letter with their views and that Caltrans need not formally request the Advisory Council on Historic Preservation's views or provide any additional documentation, as they already were in possession of all relevant materials.

On July 1, 2009, Caltrans received the Advisory Council on Historic Preservation's response and recommendations (Attachment 43) under Stipulation V.B of the Memorandum of Agreement. The Advisory Council on Historic Preservation reiterated that, under Stipulation II of the Memorandum of Agreement, Caltrans was required as follows:

> . . . in consultation with SHPO, to examine the feasibility of developing a platform cantilever or arc design barrier as proposed by the SHPO on February 25, 2009. Caltrans consulted with the SHPO and completed the feasibility study, which was submitted to the SHPO and ACHP for review. Although the study found that the cantilever arc net barrier design is not feasible for this particular bridge, the SHPO questions this conclusion. Caltrans did not provide cost breakdowns for the two alternative designs; nor was [there] a detailed analysis of the substructure retrofit that would be needed for the cantilever design on the Cold Spring Canyon Bridge. In the SHPO's view, the cantilever arc net barrier design is preferable as it greatly reduces 'the visual intrusion that maintains the setting of the bridge' and preserves the view corridor from the bridge to the valley. Caltrans took a different view, however, and concluded that the costs associated with additional analysis of the cantilever arc design are not in the public interest because that design would require permanent alterations to the bridge's primary character defining feature, its substructure. On the other hand, the fence type barrier minimizes physical alterations to the historic bridge…and costs substantially less than the other proposed design.
>
> Despite the lack of a more detailed analysis for the retrofit of the bridge rails, deck, and substructure, it is evident that the cantilever arc net barrier design would cost substantially more to construct than a fence-type barrier. In addition, the ACHP is concerned about the extent to which the historic bridge would need to be altered to accommodate the SHPO's preferred design. Given the greater costs associated with the cantilever arc net design, and the fact that Caltrans has examined the feasibility of the alternative design, as required in the MOA, the ACHP does not object to Caltrans' approval of its preferred alternative design for this project.

The Advisory Council on Historic Preservation concluded by saying "We continue to believe that the fence-type barrier proposed by Caltrans strikes a reasonable balance between the county's concern for public safety and preservation of the aesthetics of the bridge. In accordance with Stipulation V.B of the MOA for this undertaking, we are sharing our comments with the SHPO. Likewise, Caltrans should prepare a written response to our comments….You may then proceed according to your final decision. Caltrans remains responsible for carrying out all other actions subject to the terms of the MOA."

On July 14, 2009, Caltrans notified the Advisory Council on Historic Preservation (Attachment 44) that they had taken the views of the Advisory Council on Historic Preservation, as well as those expressed by the State Historic Preservation Officer in the letter to Caltrans dated June 24, 2009 into account and had decided to proceed with the vertical barrier design as illustrated in the Draft Environmental Document [i.e., the Grid/Mesh Alternative].

Mitigation and Minimization Measures Required by the Memorandum of Agreement

The Memorandum of Agreement includes specific measures that will be implemented to mitigate/minimize the project's adverse effects to the bridge:

- Large-format photographs will be taken showing the Cold Spring Canyon Bridge in context as well as details of its historic engineering features. All photographs will be processed for archival permanence in accordance with Historic American Engineering Record photographic specifications.
- Caltrans will photographically reproduce plans, elevations, and selected details from construction drawings in accordance with Historic American Engineering Record photographic specifications that are not deemed confidential for security reasons.
- Written documentation following the National Park Service *Historic American Engineering Record Guidelines for Preparing Written Historical and Descriptive Data* (September 1993).
- The copies and negatives will be made available to appropriate agencies and local archives in Santa Barbara County.
- Publication of 500 copies and distribution of the Historic Resources Evaluation Report: Cold Spring Canyon Bridge (51-0037), prepared by JRP Historical Consulting.

- Caltrans will produce four sets of an interpretive display, which consists of a three-panel interpretive exhibit that illustrates the history of the San Marcos Pass and the construction of the Cold Spring Canyon Bridge, and make these displays available to appropriate agencies in Santa Barbara County.

List of Attachments

Attachment Number	Document Description	PDF Document Name
1	HPSR	Att 1 - HPSR
2	Transmittal Letter to SHPO for HPSR 6/14/07	Att 2 – 2007 0614 CT to SHPO
3	SHPO concurrence Letter on HPSR 8/13/07	Att 3 – 2007 0813 SHPO to CT
4	Finding of Adverse Effect Document	Att 4 – FOE
5	Transmittal Letter to SHPO for FOE 6/12/08	Att 5 – 2008 0612 CCSO to SHPO
6	SHPO concurrence letter on FOE 7/24/08	Att 6 – 2008 0724 SHPO to CCSO
7	MOA Drafts 1-4	Att 7 – MOA drafts 1-4
8	Transmittal letter to SHPO for MOA Draft #1 7/29/08	Att 8 – 2008 0729 CT to SHPO
9	Email 8/7/08 from CT to SHPO and 9/8/08 from SHPO to CT	Att 9 – 2008 0908 SHPO to CCSO email
10	Email 9/10/08 from CT to CT	Att 10 – 2008 0910 CCSO to CT email
11	Letter 9/11/08 from SHPO to CT	Att 11 – 2008 0911 SHPO to CT
12	Email 9/11/08 from CT to CT	Att 12 – 2008 0911 CCSO to CT email
13	Email 9/16/08 from CT to CT	Att 13 – 2008 0916 CCSO to CT email
14	Email 9/8/08 from CT to CT	Att 14 – 2008 0918 CCSO to CT email
15	Letter 9/22/08 from CT to SHPO	Att 15 – 2008 0922 CCSO to SHPO
16	Letter 9/23/08 from ACHP to CT	Att 16 – 2008 0923 ACHP to CCSO
17	Letter 9/30/08 from CT to ACHP	Att 17 – 2008 0930 CCSO to ACHP
18	Letter 10/2/08 from CT to ACHP	Att 18 – 2008 1002 CCSO to ACHP
19	JRP memo to CT	Att 19 – 2008 1211 JRP to CT memo

20	Supplemental Report 12/3/08	Att 20 – Supplemental Report
21	Letter 12/10/08 from ACHP to CT	Att 21 – 2008 1210 ACHP to CCSO
22	Letter 12/22/08 from CT to ACHP	Att 22 – 2008 1222 CCSO to ACHP
23	Email 1/2/09 from ACHP to CT	Att 23 – 2009 0102 ACHP to CCSO email
24	Email 1/5/09 from SHPO to CT and ACHP	Att 24 – 2009 0105 SHPO to CCSO email
25	Letter 1/6/09 from ACHP to CT	Att 25 – 2009 0106 ACHP to CCSO
26	Email 1/13/09 from CT to ACHP	Att 26 – 2009 0113 CCSO to ACHP email
27	Email 1/21/09 from ACHP to CT	Att 27 – 2009 0121 ACHP to CCSO email
28	Email 1/21/09 from SHPO to CT	Att 28 – 2009 0121 OHP to CCSP email
29	Letter 2/11/09 from ACHP to CT	Att 29 – 2009 0211 ACHP to CCSO
30	Email 2/25/09 from CT to ACHP/SHPO Email 3/4/09 from SHPO to CT/ACHP Email 3/4/09 from ACHP to CT/SHPO	Att 30 – 2009 0304 email chain
31	Email 3/10/09 from ACHP to CT	Att 31 – 2009 0310 ACHP to CCSO email
32	Email 3/11/09 from CT to SHPO	Att 32 – 2009 0311 CT to OHP email
33	Transmittal Letter 3/16/09 from CT to ACHP	Att 33 – 2009 0316 CCSO to ACHP
34	Letter 3/20/09 from ACHP to CT	Att 34 – 2009 0320 ACHP to CCSO
35	Transmittal Letter 4/13/09 from CT to SHPO	Att 35 – 2009 0413 CCSO to SHPO
36	Transmittal Letter 4/13/09 from CT to ACHP	Att 36 – 2009 0413 CCSO to ACHP
37	Transmittal Letter 4/20/09 from CT to ACHP	Att 37 – 2009 0420 CT to ACHP
38	Transmittal Letter 4/20/09 from CT to SHPO	Att 38 – 2009 0420 CT to SHPO
39	Feasibility Study 4/20/09	Att 39 – Feasibility Study
40	Letter 5/14/09 from SHPO to CT	Att 40 – 2009 0314 SHPO to CCSO

41	Letter 6/10/09 from CT to SHPO	Att 41 – 2009 0610 CCSO to SHPO
42	Letter 6/24/09 from SHPO to CT	Att 42 – 2009 0624 SHPO to CCSO
43	Letter 7/1/09 from ACHP to CT	Att 43 – 2009 0701 ACHP to CCSO
44	Letter 7/14/09 from CT to ACHP	Att 44 – 2009 0714 CCSO to ACHP

Attachment 1

HPSR

HISTORIC PROPERTY SURVEY REPORT

Cold Spring Canyon Bridge Pedestrian Barrier Project
Bridge No. 51 0037, State Route 154, Santa Barbara County, California

05-SB-154 PM 22.95/23.19 (KP 36.93/37.32)
EA 05-0P9100

Prepared for:
VALERIE A. LEVULETT
Chief, Central Region Technical Studies Branch
Heritage Resource Coordinator
Department of Transportation, District 5
50 Higuera Street, San Luis Obispo, CA 93401

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JUNE 2007

HISTORIC PROPERTY SURVEY REPORT

California Department of Transportation

1. UNDERTAKING DESCRIPTION AND LOCATION

District	County	Route *(Local Agency)*	Kilo Posts *(Project prefix)*	Post Miles *(Project No.)*	Charge Unit *(Agreement)*	Expenditure Authorization *(Location)*
05	SB	154	36.93/37.32	22.95/23.19	169	EA 05-0P9100

(Both kilometer posts and post miles must be completed above. For Local Assistance projects off the highway system, use headers in italics)

Project Description: (*Insert project description below; refer reader to location and vicinity maps in HPSR)*

The Cold Spring Canyon Bridge (Bridge No. 51 0037) is located on State Route 154 (San Marcos Pass Road) in the Santa Ynez Mountains in Santa Barbara County (see Attachment 1: Figure 1, Vicinity Map; Figure 2, Location Map). The bridge has the highest concentration of point-location fatalities for all state facilities in District 5 (43 suicides in 43 years of operation). Caltrans proposes to install a pedestrian barrier of a design yet to be determined to significantly deter suicide attempts at the bridge.

Because the project would use funds administered by the Federal Highway Administration, the project is a federal undertaking subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. This Historic Property Survey Report (HPSR) was prepared in accordance with the January 1, 2004, *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Relates to the Administration of the Federal-Aid Highway Program in California* (the Section 106 PA).

The purpose of this HPSR is to: 1) determine the undertaking's Area of Potential Effects (APE); 2) summarize the results of efforts to identify potential historic properties within the APE; 3) evaluate any identified historic properties for their eligibility for inclusion in the National Register of Historic Places; and 4) request concurrence from the State Historic Preservation Officer (SHPO) on Caltrans' determinations of eligibility.

2. AREA OF POTENTIAL EFFECTS

The project Architectural Area of Potential Effects (APE) has both vertical and horizontal aspects; it includes the entire structure and superstructure of the Cold Spring Canyon Bridge. The Archaeological APE includes only the designated adjacent land that will be used for equipment staging areas. The project APE (which includes both the Archaeological APE and the Architectural APE; see Attachment 1, Figure 3) was established in consultation with Valerie A. Levulett, Chief, Central Region Technical Studies Branch, and Sara von Schwind, Project Manager, in May 2007. The APE was delineated in accordance with Attachment 3 of the Section 106 PA.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

(For the following, check the appropriate line, list names, dates, and locations and results of contacts, as appropriate. List organizations/persons contacted and attach correspondence and summarize verbal comments received as appropriate.)

X Native American Heritage Commission

1. A letter was faxed and mailed to Rob Wood of the Native American Heritage Commission (NAHC) on May 1, 2007, requesting a search of the sacred lands file and a

Native American contact list.

2. A response dated May 3, 2007, was received from Katy Sanchez of the NAHC stating that a search of the sacred lands file had failed to indicate the presence of Native American cultural resources in the immediate project area; Ms. Sanchez also provided a Native American contact list (see Attachments 4-1 and 4-2 of this HPSR for copies of this correspondence).

X Native American Tribes, groups and Individuals

Letters were mailed on May 8, 2007, to each of the Native American representatives on the contact list provided by the Native American Heritage Commission:

- Vincent Armenta
- Richard Angulo
- Ernestine DeSoto
- Beverly Salazar Folkes
- Randy Guzman-Folkes
- Stephen Miller
- Diane Napoleone
- Charles S. Parra
- Melissa M. Para-Hernandez
- Carol Pulido
- John Ruiz
- John Sespe
- Joe Talaugon
- Julie Tumamait
- Patrick Tumamait
- Gilbert Unzueta

Julie Tumamait telephoned a response on May 14, 2007, stating that she had no concerns about the project. (See Attachment 4-3 of this HPSR for a representative copy of this correspondence.)

X Local Government *(Head of local government, Preservation Office / Planning Department)*

In November 2005 Caltrans and other stakeholders organized a multi-agency Cold Spring Arch Bridge Suicide Prevention Committee, in response to a community-based request for a suicide deterrent, spearheaded by the Glendon Association, a Santa Barbara mental health organization. The first meeting of the task force was held in the Santa Barbara County Supervisors' Office in Santa Barbara on November 9, 2005, and was attended by representatives from Caltrans; the Glendon Association; Santa Barbara County Association of Governments (SBCAG); California State Assembly (35th District); Santa Barbara County Board of Supervisors (Third District); Santa Barbara County Alcohol, Drug and Mental Health Services; Santa Barbara County Health and Human Services; the California Highway Patrol; and the Santa Barbara County Office of the Sheriff. A second meeting was held in the SBCAG offices in Santa Barbara on January 12, 2006; representatives from the agencies listed above attended the meeting, along with representatives from the Santa Barbara County Executive Office, Planning and Development, and Public Works. KEYT-TV was also present at the January 12 meeting. A third meeting was held in the Santa Barbara County Supervisors' Offices on March 8, 2006.

- Santa Barbara City Historic Landmarks Commission — A letter was mailed to the Commission on February 2, 2007, asking for comment and information pertaining to the bridge's potential historical significance and the potential for the barrier project to affect the bridge's character-defining features. In late April 2007, Caltrans asked JRP to conduct follow-up

communications via telephone with the interested parties who had not yet responded to the letter. On April 27, 2007, Christopher McMorris (JRP) telephoned the City of Santa Barbara Historic Landmarks Commission.

- Santa Barbara County Historical Landmarks Advisory Commission —
  1. A letter was mailed to the Commission on February 2, 2007, asking for comment and information pertaining to the bridge's potential historical significance and the potential for the barrier project to affect the bridge's character-defining features.
  2. The Commission responded with a fax on February 14, 2007, to JRP Historical Consulting (the authors of the Historical Resources Evaluation Report, Attachment 3 of this HPSR) stating that the Commission would be addressing the project at their regularly scheduled March 12, 2007 meeting.
  3. The project was included on the March 12, 2007 HLAC agenda as discussion item #5.
  4. The (undated) minutes of that meeting state that the Commission sent a letter to "JRP Historical Consulting LLC, Caltrans, Public Works" requesting the opportunity to provide additional input on this project and asking that JRP and Caltrans contact the Commission about which upcoming HLAC meeting (April or May) they would be able to attend.
  5. The Commission's (undated) letter, received by JRP on March 19, 2007, also stated that the Commission considers the Cold Spring Bridge to have "a high level of historic and aesthetic significance in the County of Santa Barbara" and that the proposed project "should be sensitive to potential aesthetic impacts on the character-defining features of the bridge." The Commission requested that JRP and Caltrans attend an upcoming HLAC meeting so that the Commission might provide input regarding the design of the proposed pedestrian barrier. On Caltrans' instructions, JRP responded to the Commission by telephone on March 30, 2007, informing them that Caltrans would be contacting the Commission directly.
  6. The project was included on the April 9, 2007 HLAC agenda as discussion item #5 (continued from March 12, 2007). JRP received a follow-up email from Star Schatz, Secretary of the HLAC, on April 12, 2007. Caltrans received a follow-up telephone call from Ms. Schatz on April 13, 2007.
  7. A letter was faxed and mailed by Caltrans to Eileen Wyckoff, Chair of the HLAC, on April 16, 2007, assuring the HLAC of Caltrans' awareness of the historical and aesthetic values of the bridge and stating that Caltrans was in the preliminary stages of analyzing the various design constraints. The letter also stated that Caltrans was planning a Public Information Meeting for July 2007 and promised to notify the HLAC of the exact meeting place and date when available.
  8. The project and Caltrans' letter of response were included on the May 14, 2007 HLAC agenda as discussion item #8 (continued from April 9, 2007). The minutes of the meeting have not yet been posted.
  9. The project and Caltrans' letter of response were included on the June 11, 2007 HLAC agenda as discussion item #8 (continued from April 9 and May 14, 2007). The minutes of the meeting have not yet been posted.

(See **Attachments 5-1 through 5-9** of this HPSR for copies of this correspondence with the HLAC.) In addition, the HLAC sent JRP a copy of an article: Craig Shafer, "Spanning distance and time," *Santa Maria Sun*, November 16, 2006. The article, which was received by JRP on May 21, 2007, includes a photograph of the Cold Spring Canyon Bridge, but does not mention or discuss the Cold Spring Canyon Bridge in the text.

X Local Historical Society / Historic Preservation Group *(also if applicable, city archives, etc.)*

Letters were sent on February 2, 2007, to the following interested parties asking for comment and information pertaining to the bridge's potential historical significance and to the potential effect

the barrier project might have on the bridge's character-defining features.

- David S. Bisol, Executive Director, Santa Barbara Historical Society
- Jarrell C. Jackman, Executive Director, Santa Barbara Trust for Historic Preservation
- Goleta Valley Historical Society
- Chris Bashforth, Santa Ynez Valley Historical Society
- Public History Information Unit, University of California, Santa Barbara
- Clark Adams and Andy Machen, Co-Chairs, History and Heritage Committee, American Society of Civil Engineers, Los Angeles Section
- Lauren J. Doyel, President, American Society of Civil Engineers, Santa Barbara/Ventura Branch
- Gloria Brown, Forest Supervisor, Los Padres National Forest
- Los Angeles Conservancy, Modern Committee "Modcom"
- Society of Architectural Historians, Southern California Chapter
- Morgan Yates, Archivist, Automobile Club of Southern California

(See **Attachment 5-10** for an example of the letter sent to these organizations.)

In late April 2007, Caltrans asked JRP to conduct follow-up communications via telephone with the interested parties who had not yet responded to the February 2, 2007, letter. On April 27, 2007, Christopher McMorris (JRP) telephoned the Santa Barbara Historical Society; Santa Barbara Trust for Historic Preservation; Goleta Valley Historical Society; Santa Ynez Valley Historical Society; Public History Information Unit, University of California, Santa Barbara; American Society of Civil Engineers, Los Angeles Section and Santa Barbara/Ventura Branch; Los Padres National Forest; Los Angeles Conservancy "Modcom"; Society of Architectural Historians, Southern California Chapter; and the Automobile Club of Southern California. JRP left messages requesting comments and spoke to several individuals at those organizations, most of whom did not have comments about the bridge or this project. JRP also sent a copy of the Los Angeles Conservancy "Modcom" letter to the conservancy's staff member Jay Platt via email. Mr. McMorris spoke to Jarrell Jackman of the Santa Barbara Trust for Historic Preservation on April 27, 2007. Mr. Jackman expressed interest in seeing the design of the pedestrian barrier for the Cold Spring Canyon Bridge. Lauren Doyel, of the American Society of Civil Engineers, Santa Barbara/Ventura Branch, called JRP back on April 30, 2007 and spoke to Mr. McMorris. Ms. Doyel emphasized her understanding for the need to alter bridges, even historic bridges, if there are sufficient needs for public safety.

X Public Information Meetings *(list locations, dates below and attach copies of notices)*

- Two public information meetings were held in May 2006 – the first was held in the North County at the Solvang Veterans Memorial Building on May 10, and the second was held at Santa Barbara City College on May 22.

- A Caltrans public information meeting is scheduled for July 25, 2007, from 5:30 to 8:30 p.m., at the Santa Barbara Library, 40 East Anapamu Street, Santa Barbara. Caltrans staff will be present to answer specific questions about the project. A court reporter and a Spanish translator will be available. Invitations will be mailed to all of the interested parties previously notified and identified to date. The purpose of the meeting is to:
  - discuss the project need and strategies to deter suicides on the bridge
  - obtain the public's ideas, comments, and concerns about this proposed project
  - introduce the public to the members of the project team

4. SUMMARY OF IDENTIFICATION EFFORTS

X	National Register of Historic Places	Month & Year: 1979-2002 & supplements
X	California Register of Historical Resources	Year: 1992 & supplemental information to date
X	California Inventory of Historic Resources	Year: 1976
X	California Historical Landmarks	Year: 1995 & supplemental information to date
X	California Points of Historical Interest	Year: 1992 & supplemental information to date
X	State Historic Resources Commission	Year: 1980-present, minutes from quarterly meetings
*	Caltrans Historic Highway Bridge Inventory	Year: 2003 & supplemental information to date

**Note:* Because the Cold Spring Canyon Bridge (51 0037) was not yet fifty years old, it was not formally evaluated in either the 1986 Caltrans Historic Bridge Inventory or the recent (2002-2006) Historic Bridge Inventory Update. The bridge was therefore listed as a Category 5 bridge (i.e., ineligible for listing in the National Register, which is also the default category for unevaluated bridges). The HRER (Attachment 3 of this HPSR) concludes, however, that the bridge is in fact eligible for listing.

X Archaeological Site Records [*List names of Institutions & date below*]

Records searches were conducted on February 13, 2007, and May 9, 2007, at the Central Coast Information Center at the University of California, Santa Barbara, for resources within a one-mile radius of the project APE. No archaeological resources are recorded within the study area.

X **Results:** *(provide a brief summary of records search and research results, as well as inventory findings)*

No archaeological resources are present in the project APE. The following archaeological surveys were consulted, with negative results:

- Costello, Julia G., and Far Western Anthropological Research Group. Addendum Archaeological Survey Report for Proposed Highway 154 Construction, Santa Barbara County, PM R3.1/R31.2, July 1994.
- Farris, Glenn, and Betty Rivers. Phase I Archaeological Survey for Proposed Highway 154 Construction from Los Olivos to Santa Barbara, California, PM R3.1/R31.2, 1992.
- Levulett, Valerie A and John E. Berg. Historic Property Survey Report for Proposed Improvements along State Route 154 in Santa Barbara County, California. SB 154 PM 12.2/21.4, November 1995.
- Mikkelsen, Pat, Laura Leach-Palm, Jennifer Hatch, Elizabeth Kallenbach and Jay King. Far Western Anthropological Research Group, Inc. Cultural Resources Inventory of Caltrans District 5 Rural Highways, Santa Barbara County, Highways 1, 33, 101, 135, 150, 154, 166, 192, and 246, June 2001.

X Other sources consulted *[e.g., historical societies, city archives, etc. List names and dates below]*

JRP performed fieldwork on February 14, 2007, and conducted archival research in January, February, and March 2007 at the following:

- Caltrans District 5 offices, San Luis Obispo
- Caltrans Transportation Library and History Center, Sacramento
- California State Library, Sacramento
- University of California, Davis
- University of California, Berkeley

- University of California, Santa Barbara
- Santa Barbara County Historical Society
- Santa Barbara Public Library
- Interview with Marvin A. Shulman, March 19, 2007
- Interview with Raymond L. Whitaker, March 12, 2007
- Interview with George A. Hood, Jr., March 28, 2007

5. PROPERTIES IDENTIFIED

(Check the appropriate category, list properties, or refer reader to appropriate technical study attached, according to their National Register status. Provide, as appropriate, complete address, period and level of significance, criteria, map reference, and any existing state or local designation. Do not include properties that are not within the APE. Attach previous SHPO determinations, as applicable.)

_ **No cultural resources** in project APE.

_ *[Name]*, *[Indicate whether person is Caltrans or consultant architectural historian or archaeologist]*, who meets the Professionally Qualified Staff Standards in Section 106 Programmatic Agreement (Section 106 PA) Attachment 1 as a(n) *[Indicate applicable PQS level]*, has determined that the only other properties present within the APE meet the criteria for Section 106 PA Attachment 4 (**Properties Exempt from Evaluation**).

_* **Bridges listed as Category 5** in the Caltrans Historic Highway Bridge Inventory. Appropriate pages from the Caltrans Historic Bridge Inventory are attached.

***Note:** Because it is not yet fifty years old, the Cold Spring Canyon Bridge has not been previously evaluated for National Register eligibility. The statewide bridge inventory (updated in October 2006) therefore lists the bridge (51 0037) as a Category 5 bridge (i.e., ineligible for listing in the National Register, which is also the default category for unevaluated bridges). Because the HRER (Attachment 3) concludes that the bridge is, in fact, eligible, the inventory sheet is omitted as an attachment.

X Properties **previously determined not eligible** *(include date of determination)*:

Although small segments of the bypassed alignment of State Route 154 (variously known as Stagecoach Road and Old San Marcos Pass Road) lie below the Cold Spring Canyon Bridge, they will not be affected by this project and are therefore not included in the project APE. The bypassed alignment was previously determined ineligible on July 8, 1996 (FHWA960129A; see Attachment 6 of this HPSR).

_ On behalf of **FHWA**, **Caltrans** has **determined** the following properties are **not eligible**:

-

_ Caltrans, on behalf of FHWA, has determined that the following **archaeological sites** shall be considered eligible for the National Register without conducting subsurface testing or surface collection within the APE, for which the **establishment of an ESA** will protect the sites from any potential effects, in accordance with Section 106 PA Stipulation VIII.C. See attached documentation.

-

_ Properties **previously listed or determined eligible** *(include date of listing or determination)*:

-

X On behalf of FHWA, Caltrans has determined the following properties are **eligible**:

The Cold Spring Canyon Bridge (Bridge No. 51 0037) is eligible for listing in the National Register of Historic Places, at the state level of significance, under Criterion C and under Criteria Consideration G. The period of significance is 1962-1964. The boundaries of the property include the structure and superstructure of the bridge. The character-defining features of the

bridge are all of those elements that are original to the bridge (i.e., that date to the period of significance).

In general, resources that are not yet 50 years old are not evaluated for National Register eligibility. Although the Cold Spring Canyon Bridge is only 43 years old, it was formally evaluated in connection with this project. This decision was made because the bridge is a notable structure, because it is central to the pedestrian barrier project, and because sufficient time has elapsed since the bridge was opened to through traffic to assess its place in the historic record.

The Cold Spring Canyon Bridge is the largest steel arch bridge in California (it has a main span of 700 feet, a total length of more than 1,200 feet, and rises more than 400 feet above the canyon floor). At the time it was built, it was twice as long as the state's previously longest steel arch bridge and was one of the ten longest steel arch bridges in the United States. The Cold Spring Canyon Bridge was also one of the first major arch structures in the United States comprised of all-welded steel components, and it is one of only two steel arch bridges on California roadways built with all-welded steel components.

The bridge has been determined to be eligible under Criterion C for its type, period and method of construction as an important example of bridge design and engineering. The bridge demonstrates a maturation of steel arch bridge design and welded steel technology in California, and it represents a high aesthetic quality of contemporary design from its period. It is also an important work of the Division of Highways Bridge Department, which is considered a "master" engineer of the period, and it is an important work of the American Bridge Division of US Steel, which is considered a "master" builder of the period.

The bridge also possesses exceptional significance that meets the standards for Criteria Consideration G, for properties that have achieved significance within the past fifty years. Although it is not yet fifty years old, the bridge's significance can be viewed with historical perspective: the structure illustrates a defined period of bridge engineering and architecture in California that, while influential to subsequent bridge engineering and design, reflects the refined development of steel arch bridge technology and the aesthetic of the post-World War II Modern era. The Cold Spring Canyon Bridge possesses enduring value as an engineering accomplishment and one that both design professionals and the public continue to appreciate for its engineering and aesthetic qualities.

The structure is similarly significant under California Register of Historical Resources (CRHR) Criterion 3 and under the CRHR special consideration for historical resources achieving significance within the past fifty years.

X **State-owned** historical buildings and structures **to be added to the Master List**, per PRC §5024(d):

- Cold Spring Canyon Bridge (Bridge No. 51 0037)

_ **State-owned** buildings and structures that are **not eligible** for the National Register or as a State Historical Landmark:

-

6. LIST OF ATTACHED DOCUMENTATION

(Provide the author/date and peer reviewer/date of the technical report)

X Attachment 1: Figures

Figure 1: Project Vicinity Map
Figure 2: Project Location Map
Figure 3: Project Area of Potential Effects (APE) Map

X Attachment 2: Archaeological Survey Report (ASR)
Terry L. Joslin, "Archaeological Survey Report: Cold Spring Canyon Bridge (51-0037) Pedestrian Barrier Project, State Route 154, Santa Barbara County, California," 05-SB-154 PM 22.95/23.19, EA 05-0P9100

X Attachment 3: Historical Resources Evaluation Report (HRER)
Christopher McMorris, "Historical Resources Evaluation Report: Cold Spring Canyon Bridge (51-0037) Pedestrian Barrier Project, State Route 154, Santa Barbara County, California," 05-SB-154 PM 22.95/23.19, EA 05-0P9100

X Attachment 4: Native American Consultation

X Attachment 5: Letters to Interested Parties

X Attachment 6: Previous Section 106 Correspondence

***** California Historic Bridge Inventory sheet
Note: Because it is not yet fifty years old, the Cold Spring Canyon Bridge has not been previously evaluated for National Register eligibility. The statewide bridge inventory (updated in October 2006) therefore lists the bridge (51 0037) as a Category 5 bridge (i.e., ineligible for listing in the National Register, which is also the default category for unevaluated bridges). Because the HRER (Attachment 3) concludes that the bridge is, in fact, eligible, the inventory sheet is omitted as an attachment.

7. FINDINGS – HPSR to File

(Check all that apply. Do not transmit to SHPO; file copy to CCSO)

_ **No properties requiring evaluation** are present within the project's APE.

_ Properties **previously determined not eligible** in consultation with the SHPO, or formally determined not eligible by the Keeper of the National Register are present within the project's APE. Copy of SHPO/Keeper correspondence is attached.

_ Properties **previously determined eligible** in consultation with the SHPO, or formally determined eligible by the Keeper of the National Register are present within the project's APE, but **will not be affected** by the undertaking. Copy of SHPO/Keeper correspondence is attached.

_ Under the authority of FHWA, Caltrans has determined a Finding of **No Historic Properties Affected**, according to Section 106 PA Stipulation IX.A and 36 CFR 800.4(d)(1), is appropriate for this undertaking.

8. FINDINGS – HPSR to SHPO

(Check all that apply. Transmit to SHPO, copy to FHWA and CCSO)

_ Under the authority of FHWA, Caltrans has determined that there are properties evaluated as a result of the project that are **not eligible** for inclusion the National Register within the project's APE. Under Section 106 PA Stipulation VIII.C, Caltrans requests SHPO's concurrence in this determination.

X Under the authority of FHWA, Caltrans has determined that there are properties evaluated as a result of the project that are **eligible** for inclusion in the National Register within the project's APE under Criterion C at the state level of significance and under Criteria Consideration G at the state level of significance.

Under Section 106 PA Stipulation VIII.C, Caltrans requests concurrence from the SHPO in this determination. A separate Finding of Effect document will be submitted at a later date.

_ Under the authority of FHWA, Caltrans has determined a Finding of **No Historic Properties Affected**, according to Section 106 PA Stipulation IX.A and 36 CFR 800.4(d)(1), is appropriate for this undertaking.

_ Under the authority of FHWA, Caltrans has determined a **Finding of No Adverse Effect with Standard Conditions - ESAs**, according to Section 106 PA Stipulation X.B(2) and 36 CFR 800.5(b), is appropriate for this undertaking. *(Include description of ESAs and enforcement measures below; attach ESA Action Plan as appropriate.)*

•

_ Under the authority of FHWA, Caltrans has determined a **Finding of No Adverse Effect with Standard Conditions – Rehabilitation**, according to Section 106 PA Stipulation X.B(2) and 36 CFR 800.5(b), is appropriate for this undertaking. *[Name]*, who meets the Professionally Qualified Staff Standards in Section 106 PA Attachment 1 as Principal Architectural Historian, and has the appropriate education and experience, has reviewed the rehabilitation documentation and determined that the rehabilitation meets the Secretary of the Interior's Standards for the Treatment of Historic Properties. *(Include description of rehabilitation below or indicate below the title of the HPSR attachment that contains the description.)*

Findings for State-Owned Properties

X Caltrans has determined that there are **state-owned buildings and structures** within the project limits that meet **National Register and/or the State Historical Landmarks eligibility criteria** and requests that SHPO add such resources to the Master List of Historical Resources pursuant to PRC §5024(d). A separate Finding of Effect document will be submitted at a later date.

_ Caltrans has determined that this project will have **no effect/no adverse effect** to **state-owned archaeological sites, objects, districts, landscapes** within the project limits that meet National Register and/or State Historical Landmarks eligibility criteria and is providing notice and summary to SHPO pursuant to PRC §5024(f). *(Indicate reference to Standard Conditions – ESA above, or include description of proposed treatments, ESAs, protective covenants, etc., below or indicate below which HPSR attachment contains the description.)*

•

_ Caltrans has determined that this project will have **no effect** on **state-owned buildings and structures** within the project limits that meet National Register and/or State Historical Landmarks eligibility criteria and is providing notice and summary to SHPO pursuant to PRC §5024(f).

_ Caltrans has determined that this project will have **no adverse effect** on **state-owned buildings and structures** within the project limits that meet National Register and/or State Historical Landmarks eligibility criteria. *[Name of Caltrans PQS]*, *[applicable PQS discipline/level]* has reviewed the documentation and determined that it meets the Secretary of the Interior's Standards for the Treatment of Historic Properties. Caltrans is providing notice and summary to SHPO pursuant to PRC §5024.5. *(Indicate reference to Standard Conditions – Rehabilitation above, or include description of proposed repairs, rehabilitation, ESAs, protective covenants, etc., below or indicate below, which HPSR attachment contains the description.)*

•

_ Caltrans has determined that this project will have an **adverse effect** to **state-owned archaeological sites, objects, districts, landscapes** within the project limits that meet National Register and/or State Historical Landmarks eligibility criteria and is providing notice and summary to SHPO pursuant to PRC §5024(f). *(Include below a description of alternatives considered and proposed mitigation measures, or indicate below which HPSR attachment contains the description.)*

•

_ Caltrans has determined that this project will have an **adverse effect** on **state-owned buildings and structures** within the project limits that meet National Register and/or State Historical Landmarks eligibility criteria. Caltrans is providing notice and summary to SHPO pursuant to PRC §5024.5. *(Include below a description of alternatives considered and proposed mitigation measures, or indicate below which HPSR attachment contains the description.)*

– For **state-owned qualified historical buildings and properties** within the project limits, Caltrans has **applied the California Historical Building Code** (CHBC) to relevant sections of the current code(s) and/or standards and, if applicable, has consulted with the State Historical Building Safety Board (SHBSB) through its Executive Director pursuant to Health and Safety Code Section 18961 and its implementing regulations at California Code of Regulations Title 24 Part 8 Section8-103.2. [*Indicate below whether use of current code(s) and standards adversely affected character-defining features of the property and describe the alternative solutions under the CHBC, or indicate below which HPSR attachment contains the description. If applicable, attach copies of correspondence with the SHBSB or its Executive Director.)*

•

9. HPSR PREPARATION AND DEPARTMENT APPROVAL

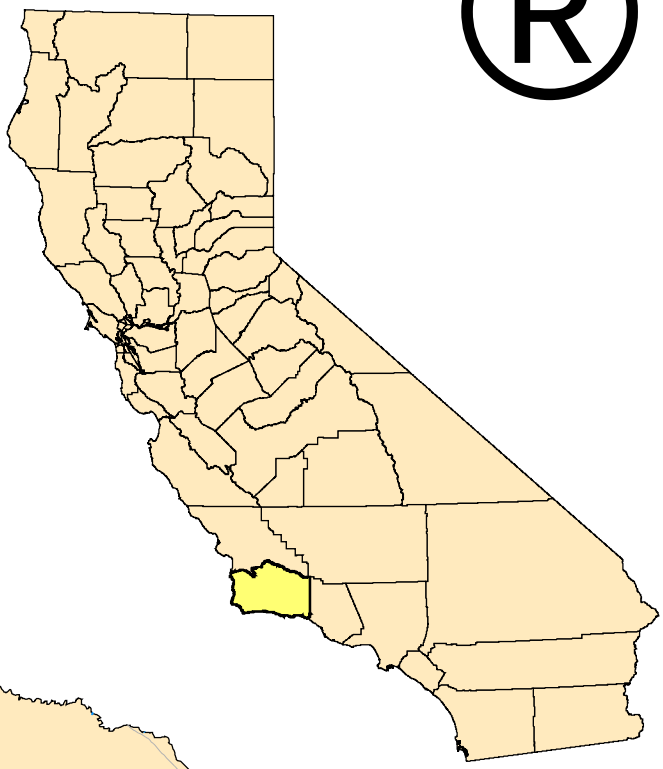
Prepared by *(sign on line)*:		
District ___ Caltrans PQS/Generalist:	*PQS level and discipline]*	Date
Prepared by: *(sign on line)*		
Consultant / discipline:	*[Appropriate PQS discipline]*	Date
Affiliation	*[Firm/company and location]*	
Reviewed for approval by: *(sign on line)*		
District ___ Caltrans PQS discipline/level:	*[PQS certification level]*	Date
Approved by: *(sign on line)*		
District___ EBC:	*[Environmental Branch name]*	Date

California Department of Transportation
District 05

PROJECT VICINITY

Cold Spring Canyon Bridge (51 0037)
Pedestrian Barrier Project
State Route 154, Santa Barbara County, California
05-SB-154 PM 22.95/23.19
EA 05-0P9100

0 3 6 12 18 24
Miles



Project Vicinity

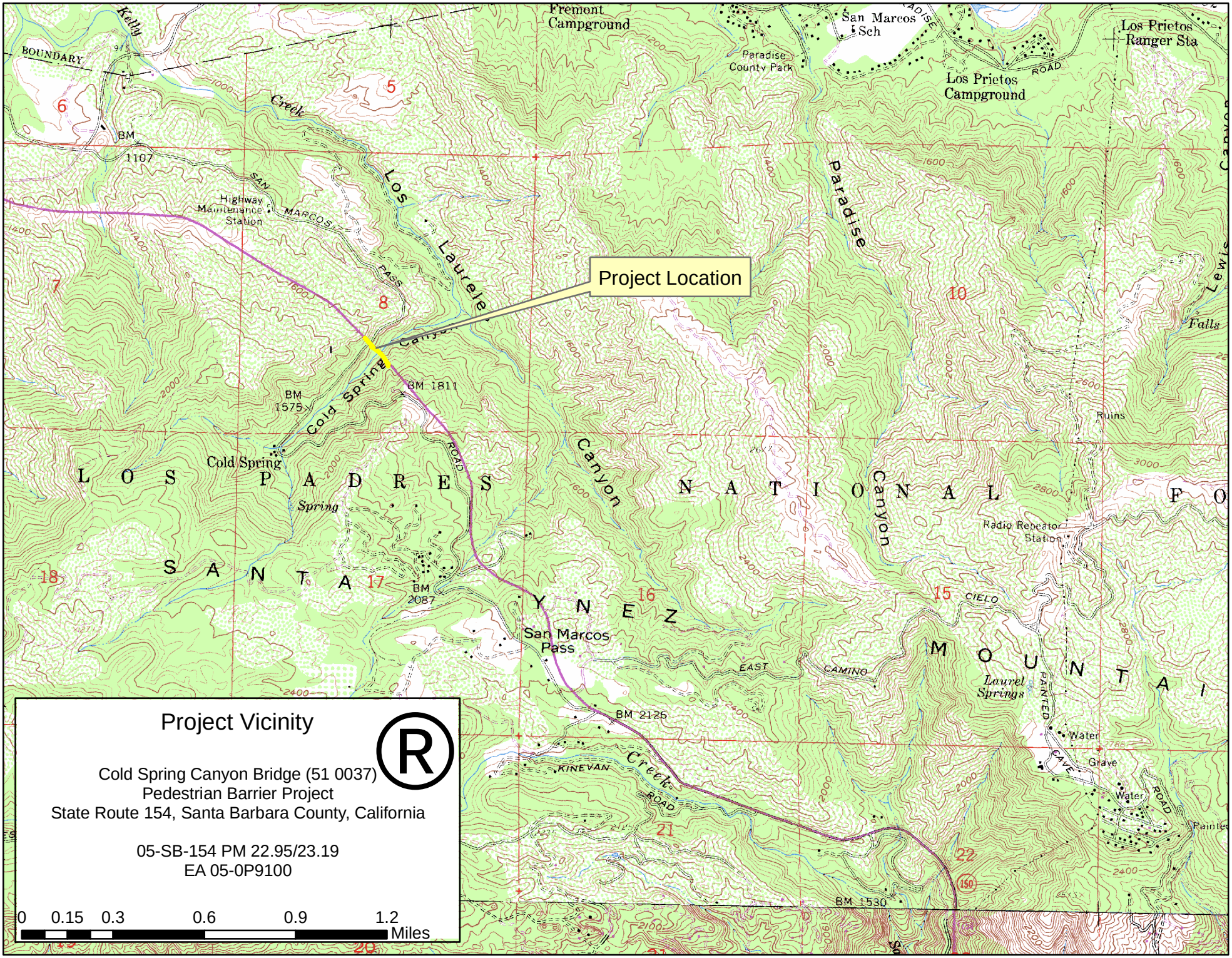

Project Location
Project Vicinity
Cold Spring Canyon Bridge (51 0037)
Pedestrian Barrier Project
State Route 154, Santa Barbara County, California
05-SB-154 PM 22.95/23.19
EA 05-0P9100
0 0.15 0.3 0.6 0.9 1.2
Miles
Fremont Campground
San Marcos Sch
Paradise County Park
Los Prietos Ranger Sta
Los Prietos Campground
Kelly
BOUNDARY
Creek
BM 1107
SAN MARCOS PASS
Highway Maintenance Station
Los Laurele
Paradise
Canyon
Cold Spring
BM 1811
BM 1575
Cold Spring
Spring
L O S P A D R E S N A T I O N A L F O
S A N T A Y N E Z M O U N T A I
BM 2087
San Marcos Pass
EAST CAMINO
CIELO
Laurel Springs
PAINTED CAVE ROAD
Water
Grave
Water
Painted
Radio Repeater Station
Ruins
Falls
Lewis
BM 2126
KINEVAN ROAD
Creek
BM 1530
150

Figure 3. Area of Potential Effects

Cold Spring Canyon Bridge (51 0037)
Pedestrian Barrier Project
State Route 154, Santa Barbara County, California

05-SB-154 PM 22.95/23.19
EA 05-0P9100

Archaeological APE
Architectural APE

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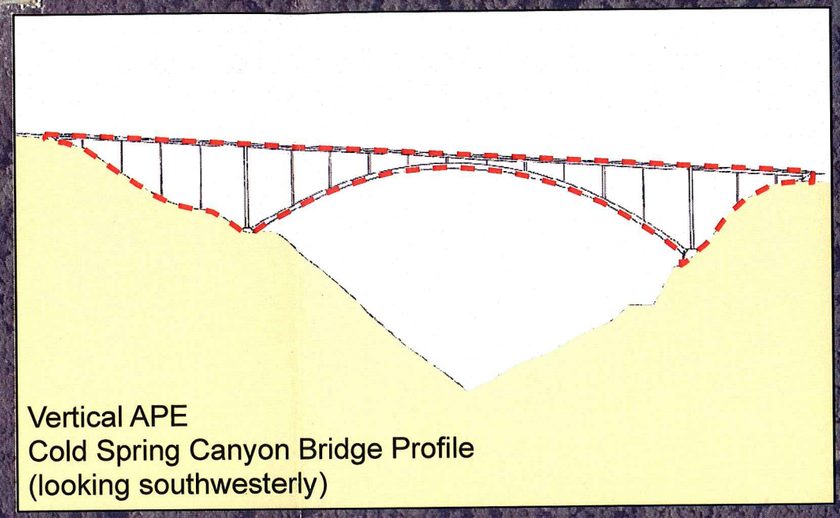

154

PM 22.95

PM 23.19

Stagecoach Rd (former SR154)

Cold Spring Canyon

Stagecoach Rd (former SR154)

154

Recommended for Approval by:

Valerie Levulett 6/12/07

Valerie Levulett — Date
Caltrans District 5 Heritage Resources Coordinator

Approved by:

Sara von Schwind 6/12/07

Sara von Schwind — Date
Caltrans District 5 Project Manager

ARCHAEOLOGICAL SURVEY REPORT FOR THE COLD SPRING BRIDGE PEDESTRIAN BARRIER PROJECT, SANTA BARBARA COUNTY, CALIFORNIA

05-SB-154, Post Mile 22.95 —23.19
Project EA 05-0P9100

May 2007

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Keywords: San Marcos Pass (1959) 7.5' USGS quadrangle; 1.2 Acres; No Archaeological Sites

SUMMARY OF FINDINGS

The Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) propose to install a pedestrian barrier on the Cold Spring Canyon Bridge (Bridge 51 0037), located at post miles (PM) 22.95 —23.19 on State Route (SR) 154 in Santa Barbara County. The project is intended to significantly deter suicide attempts at the bridge while minimizing impacts to the environment, including the aesthetic and historical character of the structure and setting.

Archival research, consultation with the Santa Ynez Reservation and Chumash individuals, and an archaeological survey of the portion of the project APE that rests on the ground surface identified no cultural resources within or in the immediate vicinity of the current project.

It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the project changes to include areas not previously surveyed.

INTRODUCTION

The Cold Spring Canyon Bridge (Bridge No. 51-0037) is located on State Route 154 (San Marcos Pass Road) in the Santa Ynez Mountains in Santa Barbara County (Figures 1, 2, and 3). The bridge has the highest concentration of point-location fatalities for all state facilities in District 5 (43 suicides in 43 years of operation). Caltrans proposes to install a pedestrian barrier, of a design yet to be determined, to significantly deter suicide attempts at the bridge.

The purpose of the current study is to determine if there are archaeological resources within the proposed project Area of Potential Effect (APE), pursuant to Section 106 of the National Historic Preservation Act of 1966, as implemented through the January 1, 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Relates to the Administration of the Federal-Aid Highway Program in California* (the Section 106 PA). The project APE includes the Cold Spring Canyon Bridge and the immediately adjacent land that will be used for equipment staging areas (Figure 4).

HIGHWAY PROJECT LOCATION AND DESCRIPTION

The Cold Spring Canyon Bridge Pedestrian Barrier Project is situated along State Route 154 in the topographically rugged Santa Ynez Mountains in interior Santa Barbara County (Figure 2). This section of State Route 154 is situated on the north side of San Marcos Pass, with an expansive view of the upper Santa Ynez Valley, between the town of Los Olivos and the city of Santa Barbara.

The specific design of the barrier is yet to be determined. Although, the project does not have the potential to affect archaeological resources, as none have been found within the project APE. Construction of the proposed barrier will be from the bridge deck, thereby precluding the likelihood of ground disturbance below the bridge. Potential ground disturbing activities are limited to equipment staging at the northwest and southeast pullouts at the ends of the bridge. These two locations are highly disturbed from continued use as staging locations.

SOURCES CONSULTED

On February 13, 2007 a records search was conducted at the Central Coast Information Center, housed at the Department of Anthropology, University of California, Santa Barbara by the Assistant Coordinator, Mark Neal (Attachment A). To update this information, a second records search of the project area was conducted On May 9, 2007, by the author of this report in the District 5 Environmental Planning Branch cultural resources files and maps. In both instances, the records search was conducted for a one-mile radius around the proposed project area.

The sources consulted include:

- State Historic Property Data Files May 2007
- National Register of Historic Places May 2007
- National Register of Determined Eligible Properties May 2007
- California Historical Landmarks May 2007
- California Points of Historic Interest May 2007
- California OHP Archaeological Determinations of Eligibility May 2007
- Caltrans State and Local Bridge Surveys May 2007

This records search reveals that the Cold Spring Canyon Bridge Pedestrian Barrier project area has been surveyed and no archaeological resources are recorded within the study area. Previous studies and their relationship to the current project include the following three surveys. Prior to a series of road improvements along State Highway 154, Farris and Rivers (1992) studied the length of the project as part of an inventory spanning between Los Olivos and Santa Barbara. The study conducted extensive archival research and surveyed the 28.1 mile section of highway, documenting 10 previously recorded sites and recording seven new sites and one isolate. The reader is referred to the Farris and Rivers (1992) report for a summary of previous archaeology in the project vicinity as well as a detailed historic context. During the Farris and Rivers (1992) study, the presence of older segments of State Highway 154 were noted. As a result, a second archaeological survey report was prepared by Costello and Far Western Anthropological Research Group (1994) to identify historic road segments within the specific temporal phases of road development, and to map and formally record these routes. Finally, during a third study, the Cultural Resources Inventory of Caltrans District 5 Rural Roads, Mikkelsen et al. (2001) surveyed the length of the current project within the existing right of way. The Mikkelsen et al. (2001) surveyed the of the length of State Highway 154.

Recorded cultural resources in the vicinity of the project, within a one-mile radius but topographically removed from the project area, include three historic sites associated with a stagecoach route. The sites consist of the First Stagecoach Route (CA-SBA-2685H, Feature 1), the Second Stagecoach Route (CA-SBA-2685H, Feature 2), and a re-recorded section of the First Stagecoach Route as well as a rock wall (CA-SBA-3730H) (Costello and Far Western Anthropological Research Group 1994; McFarland 2003). These routes are situated below the project area approximately 160 feet or 49 meters, following the lower elevations of Cold Spring Canyon. The sequence of use of these transportation corridors over San Marcos Pass is 1869-1880s for the First Stagecoach Route (CA-SBA-2685H, Feature 1) and 1880-1930s for the Second Stagecoach Route (CA-SBA-2685H, Feature 2) (Costello and Far Western Anthropological Research Group 1994:2). McFarland's (2003) mapped location of CA-SBA-3730H appears to be a section of the First Stagecoach Route (CA-SBA-2685H, Feature 1) recorded by Costello and Far Western Anthropological Research Group (1994).

SUMMARY OF NATIVE AMERICAN CONSULTATION

Project Native American consultation was initiated in May 2007. The Native American Heritage Commission (NAHC) was first contacted with a letter of inquiry requesting a search of the sacred lands file, as well as contact information for Native American representatives who might have concerns or knowledge about resources in the project

vicinity. Katy Sanchez, of the NAHC, responded that a record search of the Sacred Land File indicated no Native American cultural resources in the vicinity of project area. Additionally, the response included a list of Native American individuals who might have concerns about the proposed project or special knowledge of cultural resources in the project vicinity.

Consultation with interested Chumash individuals and Santa Ynez Reservation Tribal Administration and Elders Council representatives has included informal meetings, and exchanging letters and telephone calls. The consultation with Native American representatives included both individuals and groups identified by the NAHC and as well as individuals who have contacted Caltrans and wish to be kept informed about projects within a specific geographic area.

A letter was sent to Native American representatives on the list provided by the NAHC. The following comments were received:

- Julie Tumamait (May 14, 2007). Ms Tumamait called to notify me that she had no concerns about the Cold Spring Canyon Bridge Pedestrian Barrier project, but was interested when the project was last surveyed and who conducted that survey. The author of this report provided her with that information.
- The Tribal Elders Council Governing Board (May 16 2007). The Elders Council sent a letter stating they did not have any knowledge of the project location being spiritual or ceremonial and asked to be notified if the scope of the work changes.

BACKGROUND

ENVIRONMENT

The project is located within the rugged Santa Ynez Mountain range on two north-northeast facing finger ridges (an elevation of around 1600 –1800 feet MSL) that overlook the Santa Ynez Valley. The bridge spans Cold Spring Canyon, which channels a perennial spring that flows north into Kelly Creek and eventually empties into the Santa Ynez River approximately two miles northwest of the project area. Soils are predominately comprised of decomposing sandstone, interspersed with large sandstone cobbles (Dibblee 1966). Vegetation is characterized as a chapparal environment with California scrub oak (*Quercus dumosa*) and mixed live oak (*Quercus agrifolia*) (Holland 1986). Introduced invasive species and native vegetation are along the road shoulders. Coast live oak and sycamore trees are situated along the creek bank below the bridge, with chamise (*Adenostoma fasciculatum)*, Cleveland sage (*Salvia clevelandii)*, poison oak, ceanothus, and manzanita (*Arctostaphylos* spp) along the edge of the road shoulder. Currently, the study area is disturbed by road construction and maintenance and construction staging at the opposing ends of the Cold Spring Canyon Bridge.

ETHNOGRAPHY

The undertaking with within the ethnographic territory of the interior or Ynezeño Chumash named after the Santa Inés Mission (Greenwood 1978, Grant 1978, Horne 1981). They spoke a distinct language within the larger Chumash language, including the Barbareño to the south and the Purisimeno to the west, classified in the Hokan linguistic family. Villages had at lease one chief, who functioned as a leader in times of war, ceremonial duties, and

territorial oversight. The degree of intervillage marriage patterns, documented in mission records, provides significant clues to political and trade alliances among the different groups and villages, particularly between the coast and interior (Johnson 1988:273-288; Waechter 1999: 11-15).

PREHISTORIC CONTEXT

Previous archaeological research in Santa Barbara County has primarily focused on coastal and pericoastal sites. However, recent studies (e.g., Hildebrandt 1999; Mikkelsen and Costello 1994) have provided new insights to assist with better understanding interior adaptations. The reader is referred to these studies for a comprehensive discussion on the prehistoric context for the region based on the following chronology adapted from Glassow's (1996) Vandenberg Region (Table 1).

Table 1. Chronological Sequence for the Santa Barbara Region.

Period	Temporal Span
Paleocoastal	Pre-8500 B.P.
Initial Early	8500 - 6500 B.P.
Terminal Early	6500 - 3200 B. P.
Middle	3200 - 800 B.P.
Late	800 B.P. – Spanish Contact

HISTORIC CONTEXT

Prior to a series of road improvements along State Highway 154, Farris and Rivers (1992) studied the length of the project as part of an inventory spanning between Los Olivos and Santa Barbara. The second archaeological survey report was prepared by Costello and Far Western Anthropological Research Group (1994) to identify historic road segments within the specific temporal phases of road development, and to map and formally record these routes. Additionally, Mikkelsen and Costello's (1994) Phase II Archaeological Investigations at site CA-SBA-2203/H provides an excellent summary of the Mission and Mexican Ranchos, particularly San Marcos Ranch; the Modern Ranching Period; and previous historical Archaeology in the Santa Ynez Valley.

FIELD METHODS

An intensive pedestrian survey of the two small staging areas, a total of 1.2-acres, took place on 9 May 2007 (Figure 3). Archaeologist Terry L. Joslin, M.A. in Anthropology, University of California at Santa Barbara walked parallel transects spaced less than 5 meters apart. No cultural resources were identified within or in the vicinity of the APE. Visible native soils consist of sandstone based soils that are highly disturbed from previous staging at the two locations. These locations are essentially bedrock, as they have been previously cut and graded, with no original ground surface remaining. Ground surface visibility therefore was 100% due to the paucity of vegetation in thin soils. A detailed inspection was made of the Highway 154 roadcut and shoulders.

STUDY FINDINGS AND CONCLUSIONS

A complete and thorough survey of the Cold Spring Canyon Bridge Pedestrian Barrier Project APE failed to identify any archaeological resources, therefore the installation of a suicide deterrent will not affect archaeological resources.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.

REFERENCES CITED

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2003 Department of Parks and Recreation Primary Record Form for CA-SBA-3730H. On file at the Central Coast Information Center, UCSB.

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Mikkelsen, Pat., Leach-Palm, Laura, Jennifer Hatch, Elizabeth Kallenbach, and Jay King
2001 Cultural Resources Inventory of Caltrans District 5 Rural Highways, Santa Barbara County, California. Manuscript on file at the Northwest Information Center, Sonoma State University.

Waechter, Sharon
1999 Ethnohistoric Context. In Final Report of Phase II Archaeological Investigations for the Proposed U.S. Highway 101/Route 154 (north) Interchange Project, Santa Barbara, California, by William Hildebrandt, pp. 11 -15. Manuscript on file at the Central Coast Information Center, UCSB.

Figure 1. Project Vicinity Map for the Cold Spring Bridge Pedestrian Barrier Project, Santa Barbara County, California. Located on State Route 154 at Post Mile 22.96. Project EA 05-0P9100

0 3.5 7 14 21 28
Miles

DISTRICT 5
CALIFORNIA DEPARTMENT OF TRANSPORTATION

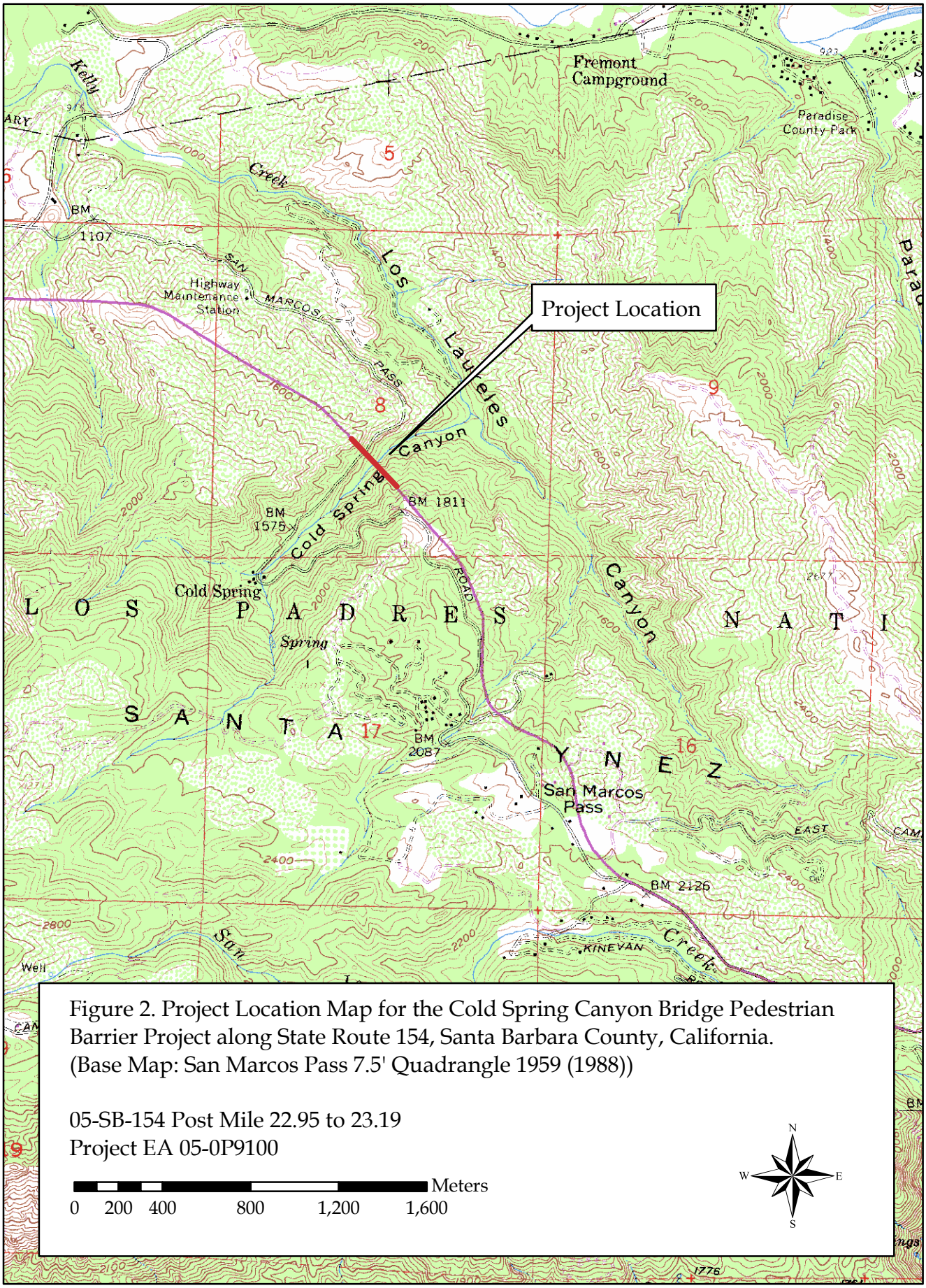


Figure 2. Project Location Map for the Cold Spring Canyon Bridge Pedestrian Barrier Project along State Route 154, Santa Barbara County, California. (Base Map: San Marcos Pass 7.5' Quadrangle 1959 (1988))

05-SB-154 Post Mile 22.95 to 23.19
Project EA 05-0P9100

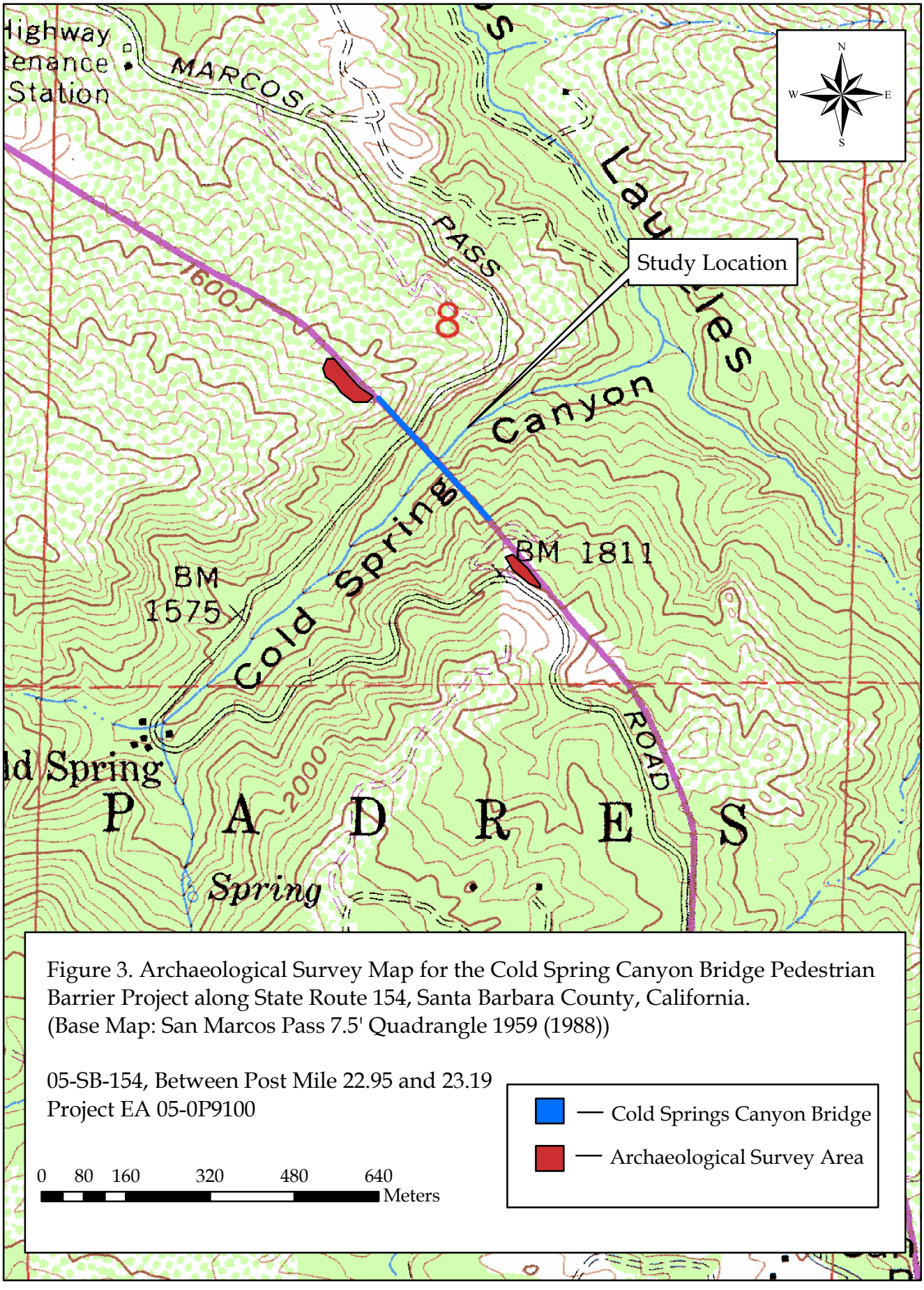


Figure 3. Archaeological Survey Map for the Cold Spring Canyon Bridge Pedestrian Barrier Project along State Route 154, Santa Barbara County, California.
(Base Map: San Marcos Pass 7.5' Quadrangle 1959 (1988))

05-SB-154, Between Post Mile 22.95 and 23.19
Project EA 05-0P9100

Figure 4. Area of Potential Effects

Cold Spring Canyon Bridge (51 0037)
Pedestrian Barrier Project
State Route 154, Santa Barbara County, California

05-SB-154 PM 22.95/23.19
EA 05-0P9100

Archaeological APE

Architectural APE

N
W E
S

0 0.025 0.05 0.1 Miles

154

PM 22.95

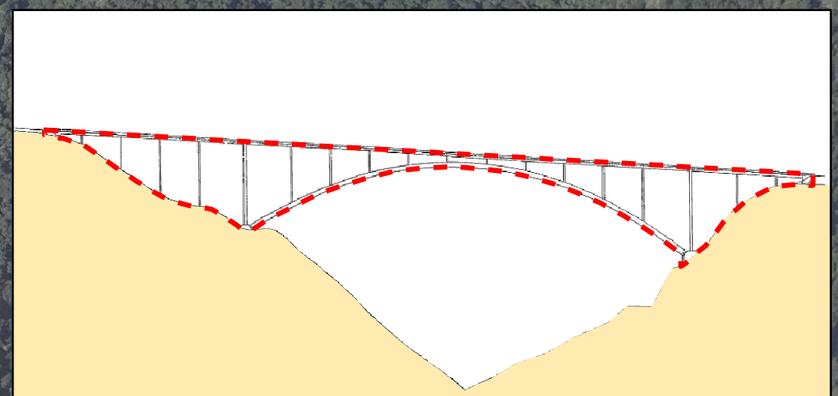
PM 23.19

Stagecoach Rd (former SR154)

Cold Spring Canyon

Stagecoach Rd (former SR154)

154



Vertical APE
Cold Spring Canyon Bridge Profile
(looking southwesterly)

Attachment A: Central Coast Information Center Records Search Letter

CENTRAL COAST INFORMATION CENTER

California
Archaeological
Inventory

SAN LUIS OBISPO AND
SANTA BARBARA COUNTIES

Department of Anthropology
University of California, Santa Barbara
Santa Barbara, CA 93106-3210
(805) 893-2474
FAX (805) 893-8707

February 13, 2007

Krista Kiaha
Environmental Planning, Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401

Dear Ms. Kiaha,

Per your request our records were reviewed for sites and surveys not included on your map of the Cold Springs Bridge Pedestrian Barrier Project. We found the following:

1) Site CA-SBA-3730 is within one mile of the project and was not plotted on your map. We have plotted the boundaries of that site on your map in red.
2) The above mentioned site CA-SBA-3730 is the only site we have on file within one quarter mile of the proposed project area. A copy of that site record is included.
3) No prior surveys have been conducted within the project area as it has been depicted on your map.
4) Our records show that seven surveys have been conducted within one mile of the proposed project and all of those are already plotted on your map. A bibliography of those survey reports is included.

Please let me know if you have any questions about this record search or if there is any way we can be of further assistance.

Thank You,

Mark Neal
Assistant Coordinator
Central Coastal Information Center

HISTORICAL RESOURCES EVALUATION REPORT:

Cold Spring Canyon Bridge (51 0037) Pedestrian Barrier Project
State Route 154, Santa Barbara County, California

05-SB-154 PM 22.95/23.19
EA 05-0P9100

Prepared for:

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May 2007

EXECUTIVE SUMMARY

The California Department of Transportation (Caltrans) proposes to install a pedestrian barrier on the Cold Spring Canyon Bridge (Bridge 51 0037), located at post miles (PM) 22.95/23.19 on State Route (SR) 154 in Santa Barbara County. The project is intended to significantly deter suicide attempts at the bridge while minimizing impacts to the environment, including the aesthetic and historical character of the structure and setting. The specific design of the barrier is yet to be determined.

JRP Historical Consulting, LLC (JRP) prepared this Historical Resources Evaluation Report (HRER) to identify historic properties within the project's Area of Potential Effect (APE) – i.e. buildings, structures, objects, sites, and districts that are listed in, eligible for listing in, or appear eligible for listing in the National Register of Historic Places (NRHP) – that could be potentially affected by the Cold Spring Canyon Bridge Pedestrian Barrier project. The Cold Spring Canyon Bridge is the only structure in the APE. This report provides documentation for use in the project's compliance with Section 106 of the National Historic Preservation Act (NHPA) and the implementing regulations of the Advisory Council on Historic Preservation (ACHP) as these pertain to federally funded undertakings and their impacts on historic properties. This HRER has been prepared in accordance with the January 1, 2004, *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (the Section 106 PA). The bridge has also been evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. This evaluation identified whether the Cold Spring Canyon Bridge should be considered a historical resource for the purposes of CEQA, including evaluating its eligibility for listing in the California Register of Historical Resources (CRHR). JRP conducted studies for this project related to historic architectural resources under contract with Caltrans District 5. The Project Vicinity and Project Location Maps are **Figure 1** and **Figure 2**. The project APE is shown in **Figure 3**. The figures are provided in Appendix A.

This report concludes that the Cold Spring Canyon Bridge, built in 1962-1963 and opened to traffic in 1964, appears to meet the criteria for listing in the NRHP. The structure is significant at the state level under NRHP Criterion C, and it has exceptional importance that meets the standards of Criteria Consideration G for properties that have achieved significance within the past fifty years. The structure is also significant under CRHR Criterion 3 and under the CRHR special consideration for historical resources achieving significance within the past fifty years. The structure's period of significance is 1962-1964 when the structure was built, completed, and opened to traffic. In addition to its historical significance, the Cold Spring Canyon Bridge also retains historic integrity to convey its significance. Therefore, the bridge should be considered a historic property for the purposes of Section 106 compliance and as a historical resource for the purposes of CEQA.

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APPENDIX C: Letters to Interested Parties and Responses

1. PROJECT DESCRIPTION

The Cold Spring Canyon Bridge Pedestrian Barrier project proposes to install a pedestrian barrier to act as a physical barricade for reducing the number of suicides on Cold Spring Canyon Bridge (51 0037), near San Marcos Pass in Santa Barbara County. This project was initiated by the California Department of Transportation (Caltrans) District 5 Traffic Safety Department. Since the bridge was opened to through traffic in 1964, forty-three people have committed suicide at this location; thirty-one of these suicides have occurred during the past twenty-five years. A multidisciplinary task force, including experts in the field of suicidology, was formed to investigate what could be done to deter future bridge suicides.

Investigations and research have shown that a physical barricade is the most effective strategy for reducing suicides. Studies have also shown that those people who are prevented from committing suicide generally do not go on to commit suicide by other means. This project will be an extremely effective method for reducing suicides at this state facility.

The Project Vicinity and Project Location Maps are **Figure 1** and **Figure 2**. The project APE is shown in **Figure 3**. The figures are provided in Appendix A.

2. RESEARCH AND FIELD METHODS

Caltrans District 5 established the APE for the Cold Spring Canyon Bridge Pedestrian Barrier Project in conformity with Attachment 3 of the Section 106 PA. The Cold Spring Canyon Bridge (51 0037) is the only structure in the APE. The APE was approved in May 2007 and is **Figure 3** in Appendix A. JRP prepared this HRER for Caltrans District 5's project compliance with NHPA Section 106 and CEQA.

Caltrans District 5 conducted a records search at the Central Coastal Information Center at the University of California, Santa Barbara, and shared the results with JRP, as they pertained to historic architectural resources. JRP also reviewed the NRHP, the Office of Historic Preservation (OHP) Determinations of Eligibility for the NRHP, *California Inventory of Historic Resources*, *California Historical Landmarks*, and *California Points of Historical Interest* to identify whether resources in the APE had been previously identified or evaluated. No historic resources were identified in these sources in the APE or in the immediate vicinity of the APE.[1] In 1993, Caltrans evaluated Old San Marcos Pass Road, which passes under the Cold Spring Canyon Bridge, and the nearby Cold Spring Tavern and concluded that neither retained sufficient historic integrity to convey their significance and thus were not eligible for listing in the NRHP.[2]

Furthermore, Caltrans has, to date, considered the bridge to not be eligible for listing in the NRHP based on the department's original historic bridge inventory in the 1980s. This was because the structure was less than fifty years old at that time. Caltrans also did not evaluate the structure during the recently completed historic bridge inventory update (2002-2006) because the inventory evaluated bridges built in or before 1959. The Cold Spring Canyon Bridge does not appear to have been previously evaluated for its eligibility for listing in the NRHP or CRHR.

JRP sent letters to interested parties on February 2, 2007 seeking comment and information pertaining to the bridge's potential historic significance and the potential effect the barrier project may have on the structure's character-defining features. A copy of this letter is in Appendix C. The following is a list of the interested parties that received a letter about this project:

---

[1] National Park Service, National Register Information System, online database: http://www.nr.nps.gov/ and http://www.nationalregisterofhistoricplaces.com/CA (accessed February 2005); Office of Historic Preservation, Directory of Properties in the Historic Property Data File for Santa Barbara County; Department of Parks and Recreation, *California Inventory of Historic Resources*, (Sacramento: Department of Parks and Recreation, March 1976); Office of Historic Preservation, *California Historical Landmarks*, (Sacramento: California State Parks, 1996); and Office of Historic Preservation, *California Points of Historical Interest*, (Sacramento: California State Parks, May 1992).

[2] Caltrans, Historic Resource Evaluation Report, San Marcos Pass Road, 05-SB-154, P.M. 3.1/31.2 05-376600, January 1993, 13-15.

- County of Santa Barbara, Historic Landmarks Advisory Commission
- City of Santa Barbara Historic Landmarks Commission
- David S. Bisol, Executive Director, Santa Barbara Historical Society
- Jarrell C. Jackman, Executive Director, Santa Barbara Trust for Historic Preservation
- Goleta Valley Historical Society
- Santa Ynez Valley Historical Society
- Public History Information Unit, University of California, Santa Barbara
- Clark Adams and Andy Machen, Co-Chairs, History and Heritage Committee, American Society of Civil Engineers, Los Angeles Section
- Lauren J. Doyel, President, American Society of Civil Engineers, Santa Barbara/Ventura Branch
- Gloria Brown, Forest Supervisor, Los Padres National Forest
- Los Angeles Conservancy, Modern Committee "Modcom"
- Society of Architectural Historians, Southern California Chapter
- Morgan Yates, Archivist, Automobile Club of Southern California

The Santa Barbara County Historic Landmarks Advisory Commission (HLAC) sent JRP a fax on February 14, 2007 stating that the commission was going to address Caltrans' project on the Cold Spring Canyon Bridge at their meeting on March 12, 2007. The Santa Barbara County HLAC sent an undated letter, received by JRP on March 19, 2007, stating that the commission considers the Cold Spring Canyon Bridge to have "a high level of historic and aesthetic significance in the County of Santa Barbara" and that the proposed project "should be sensitive to potential aesthetic impacts on the character-defining features of the bridge." The commission requested JRP and a Caltrans representative to meet with them so that they might provide input regarding the design of the proposed pedestrian barrier. Upon instruction from Caltrans District 5, JRP responded to the commission via telephone on March 30, 2007 to inform them that Caltrans would contact the commission directly. Caltrans District 5 Senior Environmental Planner John Luchetta wrote HLAC chair Eileen Wyckoff on April 16, 2007 responding to HLAC comments and informing the commission of Caltrans' plans to hold a public information meeting regarding the Cold Spring Canyon Bridge Pedestrian Barrier Project in July 2007.

Copies of the HLAC letters and a copy of Mr. Luchetta's letter are in Appendix C. In addition, JRP received on May 21, 2007 from HLAC a copy of an article regarding historic bridges in Santa Barbara County.[3]

In late April 2007, Caltrans asked JRP to conduct follow-up communications via telephone with the other interested parties who had not yet responded to the letter JRP sent on February 2, 2007. On April 27, 2007, Christopher McMorris (JRP) telephoned the City of Santa Barbara Historic Landmarks Commission; Santa Barbara Historical Society; Santa Barbara Trust for Historic Preservation; Goleta Valley Historical Society; Santa Ynez Valley Historical Society; Public History Information Unit, University of California, Santa Barbara; American Society of Civil Engineers, Los Angeles Section and Santa Barbara/Ventura Branch; Los Padres National Forest; Los Angeles Conservancy "Modcom"; Society of Architectural Historians, Southern California Chapter; and the Automobile Club of Southern California. JRP left messages requesting comments and spoke to several individuals at those organizations, most of whom did not have comments about the bridge or this project. JRP also sent a copy of the Los Angeles Conservancy "Modcom" letter to the conservancy's staff member Jay Platt via email. Mr. McMorris spoke to Jarrell Jackman of the Santa Barbara Trust for Historic Preservation on April 27, 2007. Mr. Jackman expressed interest in seeing the design of the pedestrian barrier for the Cold Spring Canyon Bridge. Lauren Doyel, of the American Society of Civil Engineers, Santa Barbara/Ventura Branch, called JRP back on April 30, 2007 and spoke to Mr. McMorris. Ms. Doyel emphasized her understanding for the need to alter bridges, even historic bridges, if there are sufficient needs for public safety.

Christopher McMorris (JRP), consulting architectural historian, who meets the Professionally Qualified Staff Standards in Section 106 Programmatic Agreement (Section 106 PA) Attachment 1 as an Architectural Historian, has determined that the only other properties present within the APE meet the criteria for Section 106 PA Attachment 4 (Properties Exempt from Evaluation).

JRP performed fieldwork for this report on February 14, 2007. The project team conducted research in January, February, and March 2007 at: Caltrans District 5 offices in San Luis Obispo; Caltrans Transportation Library and History Center in Sacramento; California State Library in Sacramento; University of California, Davis; University of California, Berkeley; University of California, Santa Barbara; Santa Barbara County Historical Society; Santa Barbara Public Library. JRP also conducted interviews with former Division of Highways Bridge Department engineers who were key members of the team that designed the Cold Spring Canyon Bridge: Marvin A. Shulman, Raymond L. Whitaker, and George A. Hood, Jr. JRP prepared a historic context to address the themes and background of the historic resources in the APE,

[3] The article that HLAC provided to JRP was: Craig Shafer, "Spanning distance and time," *Santa Maria Sun*, November 16, 2006. The article includes a photograph of the Cold Spring Canyon Bridge, but does not mention or discuss the Cold Spring Canyon Bridge in the text.

including the history and development of SR154 and the history and engineering of the Cold Spring Canyon Bridge. The historic context is presented in Section 3. The description and evaluation of the Cold Spring Canyon Bridge are in Sections 4 and 5. Refer to the references listed in Section 6 for a complete listing of materials consulted, and to Section 7 for JRP staff professional qualifications.

JRP prepared DPR 523 forms to inventory and evaluate the Cold Spring Canyon Bridge. The DPR 523 forms are included in Appendix B. Copies of the letter to interested parties and the responses from the Santa Barbara County HLAC are in Appendix C. A copy of the Caltrans Bridge Log for Historical Significance for the Cold Spring Canyon Bridge (51 0037) is not included because the log lists the bridge as not eligible for listing in the NRHP (Category 5), which does not reflect the conclusions of this report.

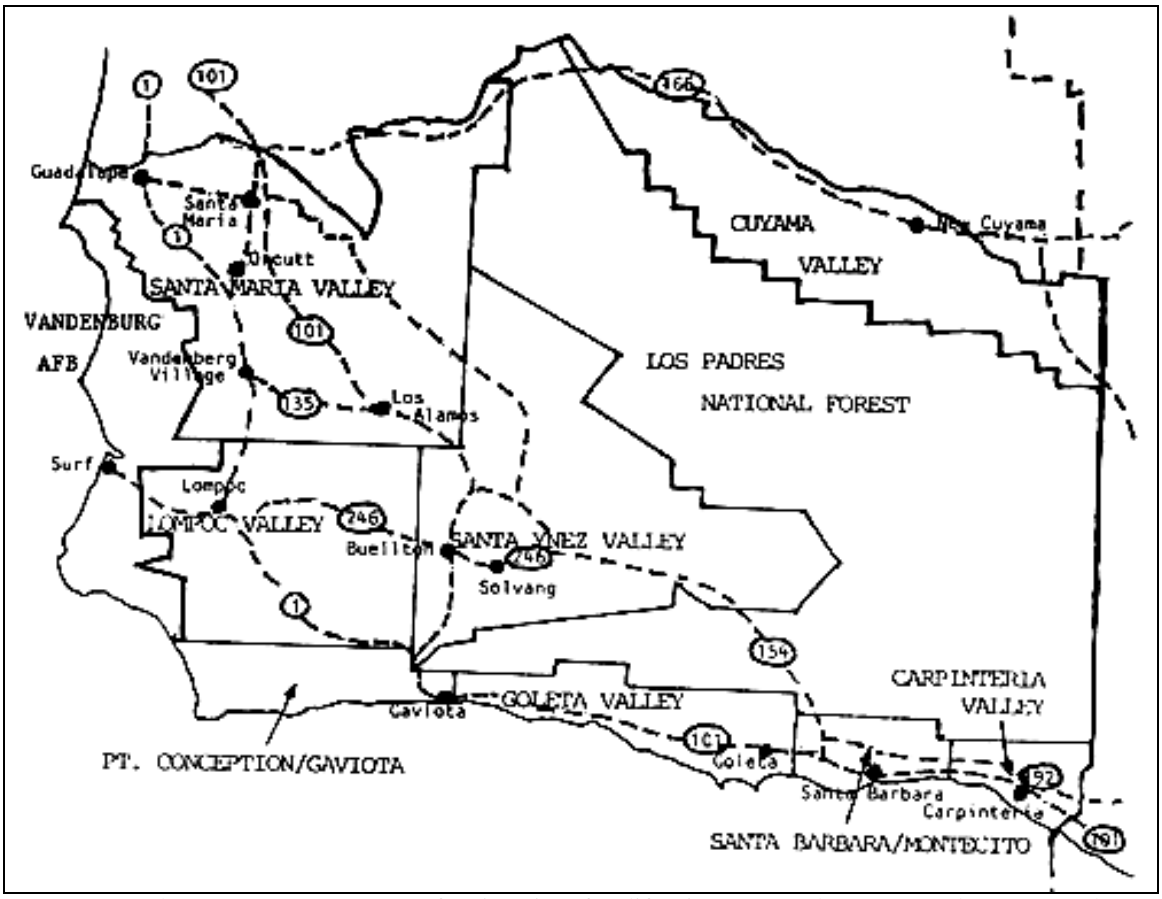
3. HISTORICAL OVERVIEW

The Cold Spring Canyon Bridge (51 0037) was an integral part of a California Division of Highways project to upgrade, relocate, and realign a seven-mile segment of SR154 in the early 1960s. The bridge was designed in 1961. Its construction began in May 1962 and was completed in December 1963. The bridge opened to traffic in February 1964. The Division of Highways Bridge Engineering Department in Sacramento designed the bridge, and the American Bridge Division of United States Steel built the structure. It is the largest steel arch bridge in California, and it was one of the first major arch structures in the United States comprised of all-welded steel components.

The following overview provides a historic context for the route over San Marcos Pass, on which Cold Spring Canyon Bridge is located, as well as context for the bridge's design and construction. Included in this overview is information on the bridge's design that contributes to its engineering and aesthetic qualities, including a discussion regarding welding technology and the architectural character of the structure.

3.1. San Marcos Pass Road and the Development of State Route 154

As shown in **Figure 1** in Appendix A, the Cold Spring Canyon Bridge is located on SR154 (San Marcos Pass Road) approximately 13.5 miles northwest of the City of Santa Barbara in the Santa Ynez Mountains and is situated just northwest of San Marcos Pass. The Santa Ynez Mountains are a coastal range that separates the northern part of Santa Barbara County from its coastline, which, as shown in the county map below, generally runs east-west from the Ventura County line to the area west of Lompoc before turning north. Historically, travelers traversed the mountains at one of several passes, including (from east to west) San Marcos Pass, Refugio Pass, and Gaviota Pass, the latter two of which are located 15 to 20 miles west of San Marcos Pass. SR154 ascends from US101 in Santa Barbara and proceeds in a northwesterly direction into the Santa Ynez Valley, passing Lake Cachuma, and through the communities of Santa Ynez and Los Olivos before intersecting again with US101 approximately six miles north of Buellton and Solvang. After leaving the suburban area north of US101 in Santa Barbara, the highway ascends into the Los Padres National Forest. On the way up from Santa Barbara to San Marcos Pass, the highway is intersected and flanked by several smaller roads, some of which were bypassed when the contemporary roadway was constructed. One sizeable intersection about halfway from US101 northwest to San Marcos Pass and the Cold Spring Canyon Bridge is with Old San Marcos Pass Road and Painted Cave Road. Several miles later one crests San Marcos Pass and begins to descend into the Santa Ynez Valley as the highway takes vehicles over the Cold Spring Canyon on the bridge that is the subject of this report.



[Santa Barbara County – Courtesy of University of California Santa Barbara Map and Imagery Lab]

The Native American Chumash are the first known people to traverse what are now the Santa Ynez Mountains through San Marcos Pass. The earliest historical records of San Marcos Pass date to the early nineteenth century, documenting the route that connected the Santa Barbara Mission with its farm on the San Marcos Rancho, which was established in 1804. The pass is noted as the location where, during the United States war with Mexico, John C. Fremont and his troops passed over the coastal mountains in 1846 on their way from Monterey to Los Angeles to meet up with forces on their way north from San Diego under the command of Commodore Robert F. Stockton. The legend is that Fremont chose the route through San Marcos Pass following a warning not to use the more traveled Gaviota Pass because of a possible ambush there by Mexican armed forces. Although much has been written about this event, there does not appear to be any specific evidence that such an attack was imminent.[4]

[4] Erwin G. Gudde, *California Place Names: The Origins and Etymology of Current Geographical Names*, (Berkeley: University of California Press, 1949) 309; and *California Inventory of Historic Resources*, 185. The story of Fremont proceeding through the San Marcos Pass is recounted in "How San Marcos Pass Saved California to U.S," *California Highways and Public Works*, August 1936, 6-8 and 30-32 and "Fremont and the San Marcos Pass," *California Highways and Public Works*, September 1950, 42-44. The early history of San Marcos Pass is also presented in Caltrans, Historic Resource Evaluation Report San Marcos Pass Road, January 1993. This HRER includes references to Maynard Geiger, "Some Observations on Santa Barbara County's Early Roads," *Noticias*,

The San Marcos Pass was used infrequently during the early period following California statehood in 1850, but by the late 1860s demand grew for improved roadways between Santa Barbara and areas to the north. In response, the Santa Barbara and Santa Ynez Turnpike Road Company incorporated in 1868 with Llewellyn Bixby as one of its directors. Bixby and Thomas Flint operated a stagecoach company that was contracted to carry mail. The turnpike road company built the road over San Marcos Pass, completing the roadway around 1870.[5] Among the noted stops on the stagecoach route was Patrick Kinevan's house, which was situated near the pass, and the Cold Spring Tavern, which is extant upstream from the Cold Spring Canyon Bridge. This tavern began operating in the 1890s. The turnpike operated as the stagecoach route. The county acquired the road in 1898 and the stage line operated until 1901 when the Southern Pacific Railroad completed its line from San Francisco to Los Angeles, connecting San Luis Obispo to Santa Barbara via rail. The stagecoach era ended because stagecoaches could not compete with the comfort and speed of the railroad.[6]

Although the railroad provided passenger and freight service from Santa Barbara to towns to the north, there was growing demand in the early twentieth century for improved roads. Santa Barbara County began improving the highway over San Marcos Pass in the 1900s-1910s, building a bridge on this route at the Santa Ynez River in 1912 for example. In addition to the demand for a better motor vehicle road from Santa Barbara into the Santa Ynez Valley, communities grew along San Marcos Pass Road, including the residential development that accompanied the San Marcos Trout Club in the mid-1920s and Painted Cave Village, which began in 1930. As vehicle traffic increased along the San Marcos Pass Road and speeds increased with improved automobiles and trucks, this twisting, narrow, and largely unimproved road became very dangerous.[7]

The California Division of Highways added San Marcos Pass Road to the state highway system in 1931 and it became State Route (also referred to as Legislative Route) 80. Locally, the road was signed as Highway 150. The Division of Highways upgraded and realigned portions of the roadway in 1935 and 1936 from Santa Barbara up to Painted Cave Road and in the vicinity of Los Olivos in the Santa Ynez Valley. As shown in the map below, the state moved the road's intersection with the coast highway from Goleta closer to Santa Barbara. This project included

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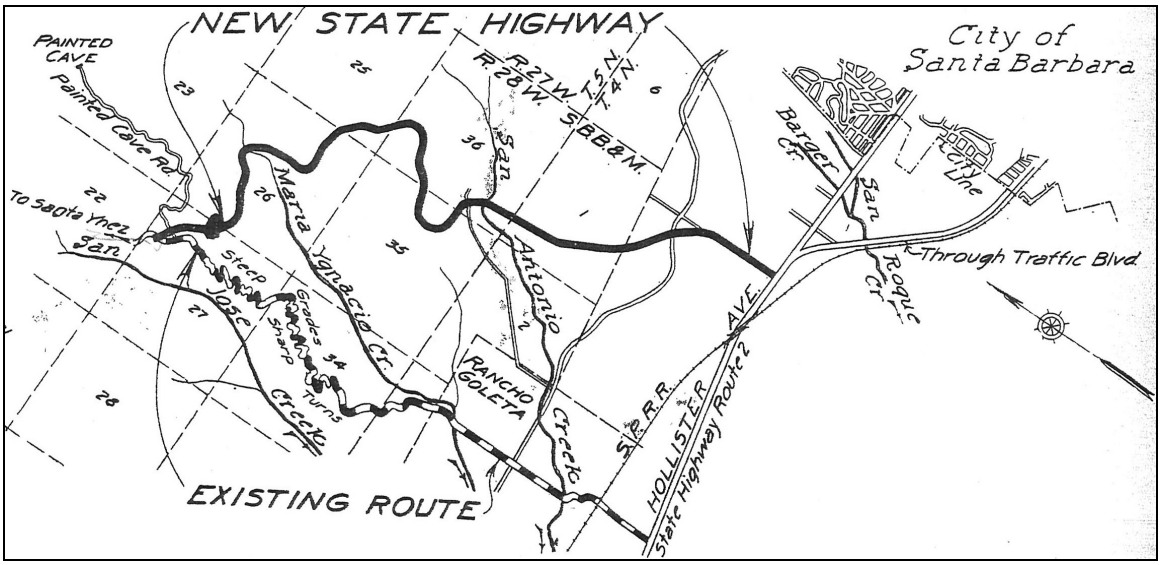
10:2 (Spring 1964); John C. Fremont, "California Battalion Trip from Monterey to Los Angeles," excerpt from *Memoirs of My Life* (1887); and Walker A. Tompkins, "The Foxen-Fremont Fable," *Noticias*, 26:1 (Spring 1980).

[5] Newton H. Chittenden, *Health Seekers', Tourists' and Sportsmen's Guide, Health and Pleasure Resorts, Pacific Coast*, (San Francisco: C.A. Mubdock & Co. Printers, 1884) 80.

[6] Caltrans, HRER San Marcos Pass Road (1993). The HRER references to the early history of the roadway include: Walker Tompkins, *Stagecoach Days in Santa Barbara County* (Santa Barbara: McNally & Loftin West, 1982) and Stella H. Rouse, "San Marcos Pass History," *Noticias*, 26:2 (Summer 1980).

[7] "Way It Was," *Santa Barbara News-Press*, February 5, 1989; Walker A. Tompkins, *San Marcos Pass*, Neighborhood Series, No., 11, Santa Barbara Board of Realtors, 1980, np; and Caltrans, HRER San Marcos Pass Road. The early road over San Marcos Pass began in Goleta. This road was alternatively called San Marcos Road.

construction of a new 24-foot-wide asphalt surfaced highway, drainage features, and some small bridges. This new highway included excavated cuts through and along hillsides that created a roadway that was less steep and winding than its nineteenth century predecessor. The route westward from Painted Cave Road through San Marcos Pass and down through Cold Spring Canyon to the Santa Ynez Valley floor, however, remained largely unchanged from the county highway the state had acquired.[8]



[*California Highways and Public Works*, February 1935, 4. Route 2 is US101. San Marcos Pass and Cold Spring Canyon are located northwest of the end of the new highway illustrated.]

As traffic along San Marcos Pass Road grew steadily during the mid-twentieth century, the inadequacy of the route for auto travel became more pronounced. Vehicles traveled this inland route between Santa Barbara and north county communities such as Lompoc and Solvang as well as to Vandenberg Air Base, which became the West Coast's missile center in 1956.[9] Traffic grew as the county's population grew in the 1950s. Population growth occurred in the north county area around Vandenberg, which had a growing demand for workers, and along the coast around the new University of California Santa Barbara campus near Goleta.[10] Residential development along San Marcos Pass Road further increased during this period, as demand grew for hillside houses with ocean views.[11] The roadway also provided access to the recreational area at Lake Cachuma, which the United States Bureau of Reclamation (USBR) built in the late 1940s

[8] H.L. Cooper, "Building a Highway Over Santa Ynez Range Via Historic San Marcos Pass," *California Highways and Public Works*, February 1935, 4-5 and 15; L.E. McGougal, "Highway Completed Through Historic San Marcos Pass on New Alignment," *California Highway and Public Works*, January 1936, 4-5 and 16.

[9] "Cold Spring Canyon Arch," *California Highways and Public Works*, September-October 1963, 15.

[10] Development of UC Santa Barbara and Vandenberg Air Force Base was covered well in the local press, as is evident in Dewey Scharman, editor, *Headlines: A History of Santa Barbara from Pages of Its News Paper, 1855-1982*, (Santa Barbara: News-Press Publishing Co, 1982).

[11] J.M. Sturgeon, "San Marcos Pass, Modern Highway Built Through Historic Area," *California Highway and Public Works*, May-June 1964, 13-14.

and early 1950s as a water storage and flood control project. The USBR built the dam forming Lake Cachuma in 1953 (later renamed Bradbury Dam).[12] In response, county infrastructure and roadways needed to be improved to handle growing demands.

The Division of Highways upgraded, realigned, and straightened San Marcos Pass Road in three phases, finally renumbering the roadway as SR154 in 1963. The first phase occurred in 1951 when the Division of Highways built a new alignment to replace the old road that was to be inundated by the new Lake Cachuma. The second phase occurred in 1956 when the Division of Highways upgraded the portion of roadway between Painted Cave Road and San Marcos Pass. The latter portion was a 1.9-mile stretch of new highway that abandoned portions of the old San Marcos Pass Road and created a new straighter roadway.[13]

By the end of the 1950s, the seven-mile stretch of the old highway winding down from the crest of San Marco Pass to the Santa Ynez Valley floor, that included the area around Cold Spring Canyon, needed to be upgraded. This stretch included many sharp curves, some with radii of less than 200 feet. The Division of Highways sought to reduce the number of curves and steep grades on the highway, concluding that the new alignment should be built uphill from the old route. The highway designers decided, however, that an alignment through Cold Spring Canyon following the old route could not sufficiently eliminate the sharp curve near the Cold Spring Tavern. Thus a bridge to span Cold Spring Canyon was necessary. The Division of Highways built the Cold Spring segment of highway, which became SR154 and is shown in the map below, between June 1962 and February 1964.[14] Realignment of San Marcos Pass Road near Cold Spring passed through both public and private land, including land owned by Emmet J. Kinevan, son of Patrick Kinevan who had operated the stagecoach stop near San Marcos Pass decades before.[15]

Construction of this seven-mile segment of SR154 completed the Division of Highways' more than decade long upgrade to the highway, enhancing safety and speed of travel on this inland route to and from the City of Santa Barbara and communities in northern Santa Barbara County. The series of projects on SR154 from 1951 through 1964 coincided with similar developments on other state highways across Santa Barbara County, and were part of long-planned upgrades of

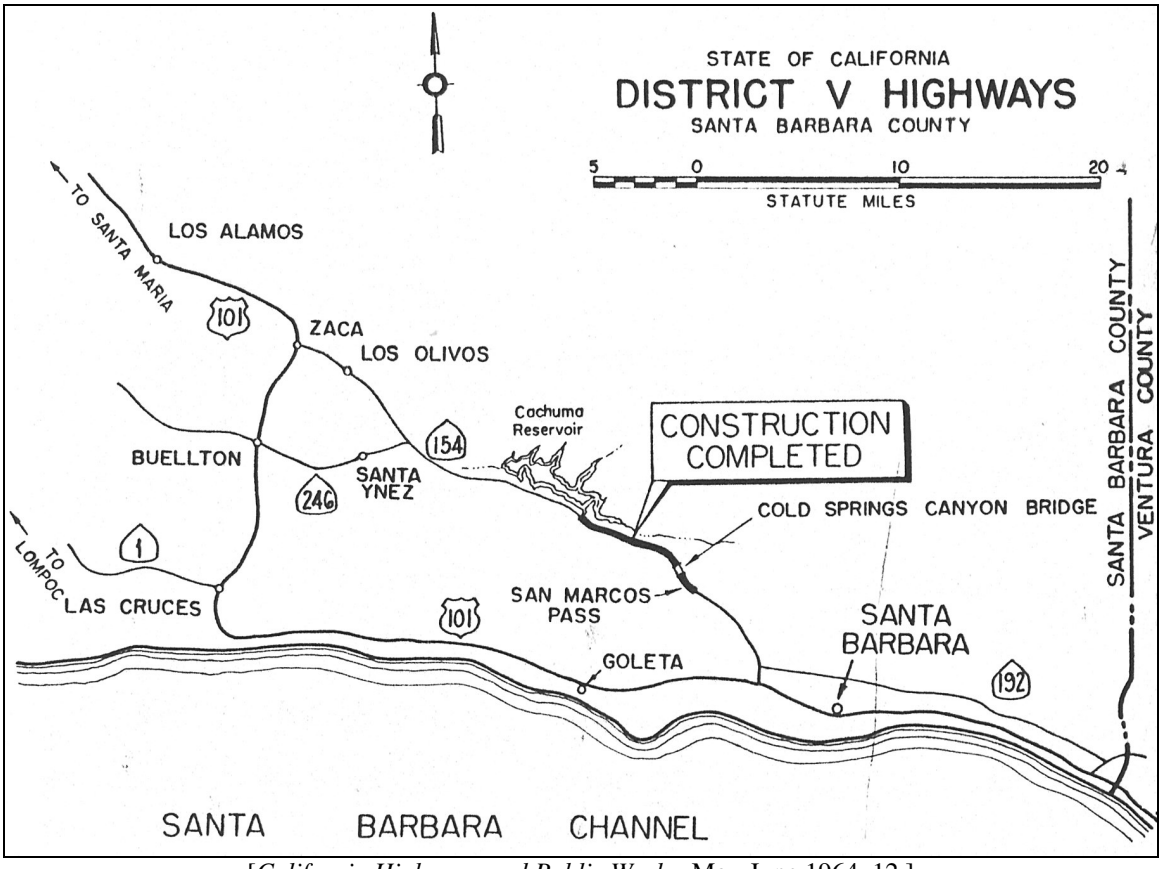
[12] A.M. Nash, "Report from District V," *California Highways and Public Works*, September-October 1958, 17; Ed Ainsworth, "High Bridge Aids Growth of City," *Los Angeles Times*, June 25, 1963, A2; California Department of Water Resources, Division of Flood Management, California Dams Database, Bradbury Dam, available online at: http://cdec.water.ca.gov/cgi-progs/damMeta?dam_id=160 (accessed January 2007); and E.J.L. Peterson, "Story of San Marcos Pass Told in State Highway Journal," *Santa Barbara News-Press*, September 1, 1955, B-2.

[13] *California Highway and Public Works*, May-June 1964, 13; Caltrans District 5 records, "From Painted Cave Road to San Marcos Pass, EA 55-5VC18-F, Final Report, June 25, 1956."

[14] *California Highway and Public Works*, May-June 1964, 14-15.

[15] Kinevan's property is noted on the as-built plans for the Cold Spring Canyon Bridge. Emmet Kinevan is listed as son of Patrick Kinevan in the 1900 US Census. United States Census Bureau, *Twelfth Census of the United States, 1900.* 1900 Population Schedule, Township 3, Santa Barbara, California.

former county highways. Projects to widen and improve older roadways and highways to modern standards included: segments of US101 in Santa Barbara and from Goleta to Santa Maria; SR1 and SR246 through and near Lompoc; and SR166 east of Santa Maria to New Cuyama. The highway improvement project on SR154 did, however, leave remnants of the old route in place, portions of which are extant and still in use for local traffic under the Cold Spring Canyon Bridge. These remnants are part of what is now Old San Marcos Pass Road / Stagecoach Road.[16]



[*California Highways and Public Works*, May-June 1964, 12.]

3.2. Design and Construction of the Cold Spring Canyon Bridge

The Division of Highways designed and built the Cold Spring Canyon Bridge as an integral part of the 1962 to 1964 project to upgrade and realign the seven-mile stretch of SR154 from San Marcos Pass to the Santa Ynez Valley floor, but executed the bridge on a separate contract than

[16] State of California Division of Highways, District V, "1964 Highways Newsletter For Santa Barbara County," January 1964; and State of California, Department of Public Works, Division of Highways, *Statistical Supplement portion of Eighteenth Annual Report to the Governor of California by the Director of Public Works*, January 1965, list of completed contracts for Santa Barbara County. Also see, Santa Barbara County Planning Commission, *The Master Plan of County Roads & Highways, Santa Barbara County, California*, November 15, 1938. Many of the roads and highways proposed for improvement in this master plan were upgraded in the 1950s and 1960s.

the rest of the project. The 1956 announcement of the new alignment, for what was then signed SR150, called for a 1,400-foot-long bridge at Cold Spring Canyon.[17] The Division of Highways completed designs for the Cold Spring Canyon Bridge in Fall 1961, approved the design in January 1962, and awarded the contract for construction in April 1962. Construction of the bridge began in May 1962 and was completed eighteen months later in December 1963. The bridge did not open for traffic until February 1964 when the Division of Highways completed the realignment project.[18]

3.2.1. Design of Cold Spring Canyon Bridge

The Division of Highways Bridge Department in Sacramento designed the Cold Spring Canyon Bridge. Multiple engineers and bridge department staff contributed to the design and planning for the structure. Associate engineer Marvin A. Shulman was largely responsible for the design of the bridge, but he left the department prior to completion of its design. Raymond L. Whitaker completed the engineering on the structure and signed the project plans as the project designer. George A. Hood, Jr., was the department section supervisor for this bridge and is listed as the chief designer, although most of the engineering, planning, and design calculations were performed by Shulman and Whitaker. Among others who contributed to the design process were George Fung who checked the plans and C.F. Johnson who detailed the plans.

The Bridge Department engineers of the California Division of Highways designed the Cold Spring Canyon Bridge within the milieu of a corporate culture that promoted and placed a high value on quality, appearance, and good engineering performance to achieve not only structurally efficient and economically feasible bridges, but also aesthetically pleasing structures. The department encouraged its engineers to be innovative and to propose bridge designs that took advantage of various technologies that had been well-used for decades as well as those that emerged in prominence during the mid-twentieth century, such as welded steel and prestressed concrete. Among the structures that likely influenced the design of the Cold Spring Canyon Bridge was the USBR's Glen Canyon Colorado River Bridge in Arizona, completed in 1959, which possesses a general configuration and column design similar to the Santa Barbara county structure.[19] The graceful lines and aesthetic appearance of Swiss engineer Robert Maillart's 1920s bridges also served as inspiration for the design.[20] The department's culture of quality is evident not only in the Cold Spring Canyon Bridge, but also in others, such as the Vincent Thomas Bridge (53 1471, also known as the San Pedro Terminal Island Bridge) in Los Angeles. Evidence of this pride of work is indicated as well by Shulman and the Bridge Department's

[17] "State Would Alter Route of San Marcos Pass Road," *Los Angeles Times*, November 11, 1956, A11.

[18] I. O. Jahlstrom, "Report of Completion for the Construction of Cold Spring Canyon Bridge, County of Santa Barbara, Contract No. 63-14V13C2, Road V-SB-80-B," June 17, 1964.

[19] Raymond L. Whitaker, oral interview with Christopher McMorris and Stephen Wee, JRP, March 12, 2007.

[20] Marvin A. Shulman, oral interview with Christopher McMorris and Stephen Wee, JRP, March 19, 2007.

having submitted the bridge to various industry organizations to compete for awards and recognition, which it received.[21]

Marvin A. Shulman received his civil engineering degree from the University of California, Berkeley in 1951 and joined the Bridge Department at the Division of Highways the same year. His early career included recognition in the American Institute of Steel Construction (AISC) bridge design competitions, including awards for the design of a bridge on SR96 over the Trinity River in 1957 (04 0137) and for a steel girder overpass structure design in the "Steel Highway Bridge Design Competition," sponsored by the American Bridge Division of US Steel in 1959. He was recognized for his work on the Cold Spring Canyon Bridge and for several more bridges in the 1960s and early 1970s. Shulman remained with the Bridge Department until 1975, except for a few years when he worked for Aerojet Corporation in Rancho Cordova, near Sacramento, in the early 1960s after he had finished most of the design for the Cold Spring Canyon Bridge. He went to the State Architect's office structural safety section in 1975, where he engineered mostly hospitals and schools. He eventually became principal structural engineer of that office and retired from the state in 1992.[22]

Raymond L. Whitaker also joined the Division of Highways Bridge Department in 1951, following completion of his engineering degree from the University of Nevada, Reno. He worked in bridge construction supervision for a few years and then moved to the bridge design office in Sacramento. One of the best known bridges he helped design, prior to working on the Cold Spring Canyon Bridge, was the Vincent Thomas Bridge, which was also completed in 1963. He was one of the principal designers of the suspension system of that structure. In 1964, Whitaker moved to the California Department of Water Resources (DWR) where he headed up that department's bridge office. At DWR, he oversaw completion of the design computations and construction of the Bidwell Bar suspension bridge (12 0188, carrying SR162 over the Middle Fork of the Feather River), which was completed in 1965. During this period he also consulted on the SPINK Corporation's design of the pedestrian suspension bridge at California State University Sacramento, known as the Guy A. West Bridge, which was completed in 1967. Whitaker became acquainted with a vice president of US Steel during the design of the Cold Spring Canyon Bridge who encouraged him several years later to investigate a position with Wilbur Smith Associates in South Carolina. Whitaker followed this advice and took a position with Wilbur Smith Associates in 1966, where he spent the rest of his career, eventually becoming chief structural engineer in the firm's home office in Columbia, South Carolina.[23]

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[21] Whitaker, oral interview, March 12, 2007.

[22] *California Highways and Public Works*, November-December 1959, 45; *California Highways and Public Works*, September-October 1964, 59; and Shulman, oral interview, March 19, 2007. Mr. Shulman's name is mis-spelled as "Schulman" in various articles and documents.

[23] Whitaker, oral interview, March 12, 2007; and "The (Green) and Golden Gate," *Sacramento State Bulletin*, October 17, 2005, available online at: http://www.csus.edu/bulletin/bulletin101705/bulletin101705bridge.htm (accessed March 2007).

George A. Hood, Jr., joined the Division of Highways Bridge Department in 1948 after a short stint with the Bureau of Reclamation in Denver. He joined the department's design division in 1953 and was promoted from bridge designer to section supervisor prior to his work on Cold Spring Canyon Bridge. Among his designs, prior to the Cold Spring Canyon Bridge, were two all-welded steel structures at Lake Berryessa on Knoxville-Berryessa Road. These bridges are the Pope Creek Bridge (21C0013) and the Putah Creek Bridge (21C0014) which were constructed in 1957. The latter of the two was widened in 1958. Hood retired from the Bridge Department in 1984.[24]

The Division of Highways district highways design division laid out the new route for SR154 and selected the site for the bridge department. Several factors went into the choice of the steel arch design for Cold Spring Canyon including consideration of construction costs, maintenance demands and costs, span layout, and designated design loads. Shulman maintains that the magnitude of the site, including its picturesque location, demanded a structure to complement the setting. From an engineering perspective, steel arches were, and still are, a suitable and economical choice in steep canyons, such as the Cold Spring Canyon. There was also limited access to the lower canyon area for machinery and equipment, which made it all the more apparent that a long span structure was required. In addition, the Los Padres National Forest area around the bridge was susceptible to fire, so little to no timber falsework could be located in the canyon during construction. Such falsework would have been required for a reinforced concrete structure, for example.[25] Reinforced concrete and prestressed concrete designs were also not seriously considered because such structures would have been much heavier than the steel arch, and the allowable bearing pressure for the foundations would not have supported such structures.

With input from Hood and others, Shulman concluded that a steel arch was the most suitable and economically feasible structure for this site. Its selection, Shulman recalls, was "a natural for the site."[26] Shulman coordinated with the Bridge Department architects on the layout and design of the Cold Spring Canyon Bridge, taking advice on ways to enhance the aesthetic qualities of the bridge. In particular, Shulman received input from the architects regarding the appearance and spacing of the columns and other visual components, including the exclusion of cross bracing in the towers. He worked with Bridge Department cost estimators to evaluate construction costs, including calculating estimated quantities of materials based on preliminary layout designs and estimates for the cost of materials and labor, including provisions to account for the bridge's location / setting and the quantity of work expected. The Cold Spring Canyon Bridge was also

[24] George A. Hood, Jr., oral interview with Christopher McMorris, JRP, March 28, 2007.

[25] Marvin Allen Shulman, "California Scenic Bridge Features 700 Ft. Welded Steel Arch," *Modern Welded Structures*, Vol. II, (Cleveland, OH: James F. Lincoln Arc Welding Foundation, 1965), A-16; Shulman, oral interview, March 19, 2007; and Hood, oral interview, March 28, 2007. George Hood reiterated the restrictions for building falsework in the canyon because of fire hazards in a National Forest.

[26] Shulman, oral interview, March 19, 2007.

among the first structures for which the Bridge Department (and Shulman) used computers to provide data on the complicated computations required for the structural design.[27]

The emphasis of the design was on the arch structure and the stability of the structure to withstand the loads to be placed on it from traffic and possible seismic events, for example. In addition to the forces carried to the ground by the arch itself, the design of the structure's deck acted as a horizontal stiffening element. This, in turn, permitted the supporting columns and towers to be slender. In contrast to the intricate calculations and design necessary for the arch, towers, columns and deck structure, the railings used on the bridge were a standard type. No particular requirements were considered for their selection, besides those of the basic highway bridge engineering and safety that were inherent in the standard type design. The Bridge Department did not consider a specially designed railing for this structure, although the decision to use the type that is on the bridge may have been seen to provide for improved views from the bridge.[28]

After Shulman's (temporary) departure from the department, Whitaker took over the project to complete the design. Whitaker changed little of the design and only had to complete computations of some design elements to improve the performance of the bridge under various types of loading. This included altering the design of the K-shaped cross bracing between the arch ribs from one to two sets of cross bracing, along with adding the cable system at the apex of the arch.[29]

As construction was coming to a completion, Whitaker assessed the structure's aesthetic qualities, describing the "two gracefully curved box-shaped arch rib sections" of the bridge and listing the structure's important qualities to include its all-welded sections, "unusual arch proportions," picturesque setting, and "generally pleasing appearance" as contributing to its being a "notable addition to the California highway scene."[30] At the time of the bridge's construction, views of the canyon from the bridge and surrounding countryside were considered

[27] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007. The Division of Highways' set standards for bridge type selection from the early 1960s is described in: Division of Highways Bridge Department, Manual of Bridge Design Practice, State of California: Highway Transportation Agency, Department of Public Works, 2nd edition, 1963, 1-3 to 1-21. The Division of Highways head Bridge Engineer for Planning, Arthur Elliot, also mentioned the use of computers in this project in a paper delivered to the Western Association of State Highway Officials (WASHO) conference in 1961, "Bridge Building in an Electronic Age." (available at the Caltrans Transportation Library, Sacramento). Elliot also described the general process for bridge design during this period in "California's Way to Aesthetic Bridges," *Esthetics in Concrete Bridge Design*, (Detroit: American Concrete Institute, 1990), 119-131.

[28] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007; F. H. Yoshino and R.L. Whitaker, *California Highways and Public Works*, September-October 1963, 15 and 20.

[29] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007.

[30] *California Highways and Public Works*, September-October 1963, 15 and 20.

to be among the most beautiful and impressive in California and considered an asset to the structure's design.[31]

The bridge's design included all-welded components for the arches, girders, columns, towers, and floorbeam system. It was calculated as having saved at least $400,000 in comparison to other bridge designs and provided several other advantages in addition to cost savings. The use of all-welded components helped create a more functional design, quicker and easier shop fabrication, faster field erection of the structure, less dead load (weight of the bridge structure itself) resulting in smaller foundations, less expected maintenance, and a longer life expectancy for the structure. The all-welded design also was an important component of the aesthetic design, contributing to the trim, smooth, uncluttered appearance of the bridge.[32] Shulman used welded components, for example, because he did not want the complicated appearance that would have resulted with lattice-formed columns or diagonal bracing between the columns. The "open and clean" appearance of the bridge is formed by the slender individual components in the arch ribs, towers, and columns, all of which were more slender than they otherwise would have been if rivets and bolts had been necessary.[33]

3.2.2. Construction of the Cold Spring Canyon Bridge

The American Bridge Division of US Steel was the prime contractor for the erection of the Cold Spring Canyon Bridge, and Division of Highways engineer Fred Yoshino served as the project's resident engineer, with four assistant resident engineers. The Massman Construction Company of Kansas City, Missouri, was the contractor for construction of the approach fills, substructure excavation, concrete, and the concrete deck construction. Massman hired Coxco, Inc., for construction of the roadway embankment. The structural steel for the bridge was manufactured by Consolidated Western Division of US Steel in Los Angeles and by the American Bridge Division of US Steel in Gary, Indiana. The design and construction of the bridge cost over $2 million.[34]

The American Bridge Company was originally founded in 1870 in Chicago, Illinois, and operated as an independent company in the Midwest. In the late 1890s independent bridge

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[31] *California Highways and Public Works*, September-October 1963, 15.

[32] Shulman, "California Scenic Bridge Features 700 Ft. Welded Steel Arch," *Modern Welded Structures*, A-16; Shulman, oral interview, March 19, 2007; Whitaker, oral interview, March 12, 2007; "Giant Slingshot Used to Help Build San Marcos Pass Bridge," *Los Angeles Times*, April 10, 1972, D1.

[33] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007.

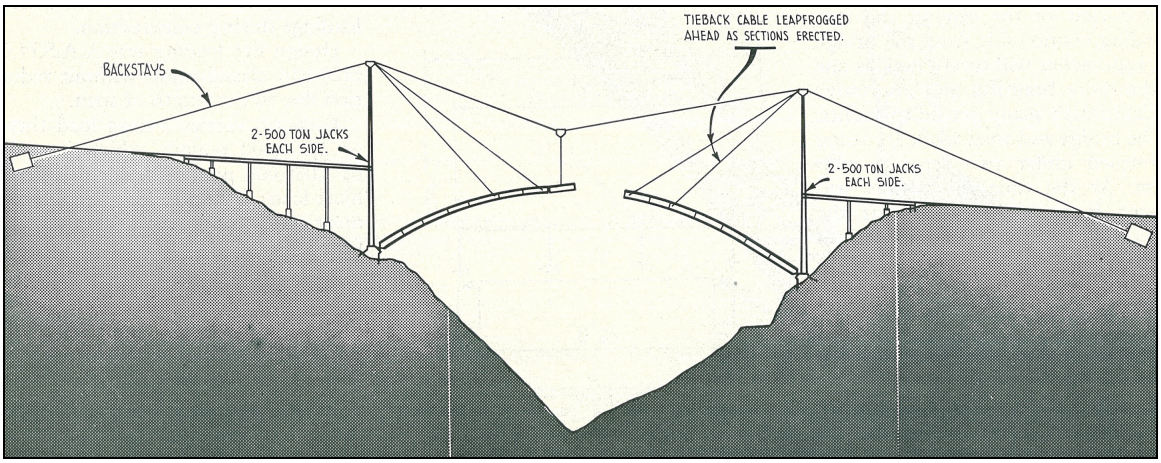
[34] Jahlstrom, "Report of Completion for the Construction of Cold Spring Canyon Bridge" June 17, 1964; "Long Steel Arch Bridge to be Completed Soon," *Los Angeles Times*, November 28, 1963, 16; "Cold Spring Canyon Bridge Not Open Yet," *Los Angeles Times*, February 2, 1964, F2; *California Highways and Public Works*, September-October 1964, 59. Fred Yoshino died in Sacramento in 2002. Ancestry.com, *Social Security Death Index* (Provo, UT: The Generations Network, Inc., 2006). Shulman and Hood also stated that they believed Yoshino had died.

companies began consolidating, and in 1900 twenty-eight of the largest steel fabricators and constructors consolidated into the American Bridge Company, taking the name of one of the contributing companies. The following year American Bridge Company became a subsidiary of United States Steel Corporation, the corporation formed by J.P. Morgan that virtually controlled the United States steel industry. American Bridge Company became the American Bridge Division of US Steel and remained a subsidiary of the US Steel Corporation until 1987 and is now privately owned. Because of its financial backing, immediately after consolidation in 1900 the new company commanded a great percentage of steel bridge building projects across the country and won major contracts throughout the world, using the projects to further develop the use of steel in bridge construction. American Bridge built many bridges in California, including several of the most well known steel structures in the state, such as the I Street Bridge in Sacramento (22C0153) built in 1911, both the original 1927 Carquinez Strait Crossing (23 0015L) (now being dismantled) and the second Carquinez Strait bridge (23 0015R) built in 1958, the cantilever 1941 Pit River Bridge and Overhead (06 0021) on I-5 at Lake Shasta, and the Schuyler Heim Lift Bridge at the Port of Los Angeles (53 2618) built in 1946. American Bridge continued to build and repair bridges in California throughout the twentieth century, including the seismic retrofit of the Cold Spring Canyon Bridge in 1996-1997, discussed below.

The eighteen month construction of the Cold Spring Canyon Bridge between May 1962 and December 1963 occurred in four phases: substructure; erection of the steel structure and deck on the approach spans; erection of the steel arch span; and deck construction over the arch. The diagram below illustrates the erection method to construct this bridge. The contractors were limited in their use of heavy equipment for excavation and construction of the bridge substructure because of the difficult locations of the footings. The contractors used a giant slingshot comprised of elastic rubber bands to fling the first line across the canyon in order to pull the initial chains across the divide.[35] As shown in **Photograph 1**, American Bridge used a "stiff leg" derrick to erect the steel on the approach spans, and they used railroad rails mounted on top of the approach span girders to move a traveler for construction of subsequent bents and span girders. The bridge builders then used a highline approach on the arch portion of the structure, which included construction of two 117-foot-tall temporary towers placed on top of the girders flanking where the arch span would be built. This was followed by the use of a cantilever method of support to build the arch ribs outward from either end towards the middle. The towers were tied back to anchor blocks buried in the approach fill to take the cantilever loads. American Bridge lifted the arch span sections into place by crane from trucks situated on the road below the new bridge. Work occurred on both sides of the canyon so that the loads on the arches and tiebacks were balanced. **Photograph 2** shows the arch after it was completed in July 1963, three months behind schedule. This delay was because some of the arch ribs fabricated in Gary, Indiana, were flawed and required corrective work. Work was slower on this

[35] *California Highways and Public Works*, September-October 1963, 18.

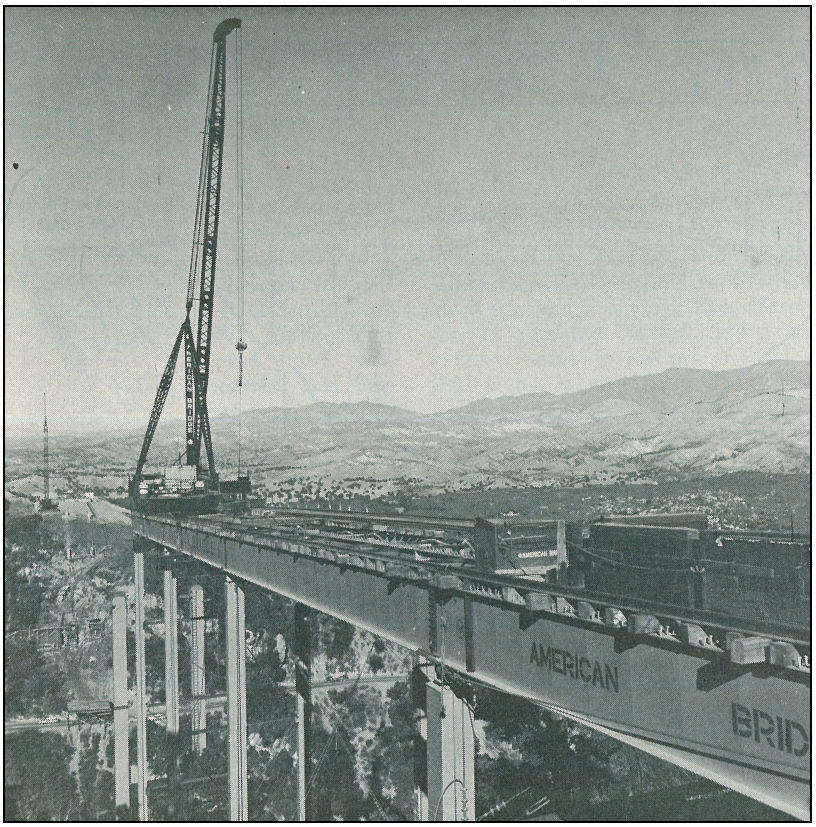
bridge than on conventional bridges because various operations could not be done concurrently, but rather had to follow a specific sequence. No portion of the concrete deck could be built, for example, until all steel for the arch span was in place, and painting of the steel had to wait until the concrete pours and curing on the deck stopped dripping water. The challenging location and design of the structure, as well as concerns to follow adequate safety procedures, prevented the contractor from speeding up the progress of construction.[36] **Photograph 3** is an aerial view taken near the end of the construction period and shows the route of the old highway in the foreground.



Cold Spring Canyon Bridge Erection Method Diagram[37]

[36] Division of Highways Bridge Department, As-built plans, Cold Spring Canyon Bridge, 1963; Jahlstrom, "Report of Completion for the Construction of Cold Spring Canyon Bridge, June 17, 1964. The roadway's new number is also provided in this report as V-SB-154. Also see, *California Highways and Public Works*, September-October 1963, 19; "Amended Plan on San Marcos Highway Okd," *Los Angeles Times*, January 8, 1962, A14; "Long Steel Arch Bridge to be Completed Soon," *Los Angeles Times*, November 28, 1963, 16; "Cold Spring Canyon Bridge Not Open Yet," *Los Angeles Times*, February 2, 1964, F2; "Bridge to Open at Cold Springs," *Los Angeles Times*, February 7, 1964, A2; *California Highways and Public Works*, September-October 1964, 59. Construction of the Cold Spring Canyon Bridge was covered by major newspapers. See, for example, "Bridge at Halfway Point," *New York Times*, March 26, 1963. The *Santa Barbara News-Press* covered the bridge's construction at various points, but did not publish articles about the bridge when it was completed or when it opened. The newspaper also described the design and construction of Cold Spring Canyon Bridge in: Bill Griggs, "Dream Design Bridges Reality at Cold Spring," *Santa Barbara News-Press*, May 10, 1987, B-1 to B-2.

[37] Published in *California Highways and Public Works*, September-October 1963.



Photograph 1: Cold Spring Canyon Bridge approaches under construction. Caltrans Negative # 9386-1.[38]

Photograph 2: Cold Spring Canyon Bridge under construction, completion of arch. Caltrans Negative # 10182-4.[39]

[38] Published in *California Highways and Public Works*, September-October 1963.

Photograph 3: Cold Spring Canyon Bridge, aerial view facing northeast, 1963. [*California Highways and Public Works*, May-June 1964, page 14].

3.3. Steel Arches and Welding Technology

The Cold Spring Canyon Bridge is one of the few steel arch bridges on California roadways. It is the longest of its type in the state with its 700-foot-long main span, which, at the time it was built, was twice as long as the state's previously longest steel arch bridge.[40] It is also one of only two steel arch bridges on California roadways built with all-welded steel components. Generally, steel arches are more difficult and expensive to fabricate and erect than other types of bridges, such as the concrete box girder and prestressed concrete which were innovations developed in the mid-twentieth century. Some steel arches, however, were built as the most economical and effective design, particularly where construction of reinforced concrete was not economically feasible. In some circumstances, the arch form was chosen for aesthetic reasons. Although steel arch bridges built during the early to mid-twentieth century generally followed the forms developed for this bridge type in the nineteenth century, refinements to their designs and simplifications of their forms resulted from the application of increased scientific testing and mathematical rigor as well as improved quality of steel and steel construction methods. Some of the best-known twentieth century steel arches in the country are massive structures with intricate webs of truss supports, such as the Hell Gate Bridge and Bayonne Bridge built in New York in 1916 and 1931, respectively. Others were built with more delicate forms, with slender support

[39] Published in *California Highways and Public Works*, September-October 1963.

[40] The Pulga Bridge (12 0038), carrying SR70 over the Feather River in Butte County, was built in 1932 with a 350-foot-main span and was the longest steel arch bridge in California when it was built.

members, shallow deck girders, and open and light spandrel areas. Such improvements led to designs with greater purity of the arch form and a more refined appearance of structural elements, as is seen in the Cold Spring Canyon Bridge.[41]

There are two designs of steel arches found in California: spandrel-braced and solid-ribbed arches. Spandrel-braced arches have webbed triangular members like trusses, but with a rounded bottom chord that forms an arch. They are built in deck form with spandrel columns and lateral braces. Two of the other large steel arch bridges on California roadways, besides Cold Spring Canyon Bridge, are spandrel-braced arches. These structures are the Pulga Bridge (12 0038) in Butte County, built in 1932, that carries SR70 over the Feather River, and the Maple Canyon Bridge (57C0416) in San Diego, built in 1932. The oldest steel arch bridges in California are also spandrel-braced structures. They are the Edwards Bridge (17C0006) in Nevada County, built in 1904, and the San Lorenzo River Bridge (36C0085) in Santa Cruz County, built in 1912. Later examples include the Gerald Desmond Bridge in Long Beach (53C0065), constructed in 1968, and the Gault Bridge (17C0001) near Nevada City which is a 1906 bridge that was reconstructed in 1996. Solid-ribbed arches, like the Cold Spring Canyon Bridge, have girders cast in a curved form with the deck supported by metal posts or suspenders attached to the arch form. Other examples of this bridge type include the George E. Tyron Bridge (01C0005), built in 1948, carrying South Fork Road over the South Fork of the Smith River in Del Norte County, and the Bluff Creek Bridge (04 0225), carrying SR96 in Humboldt County, built in 1967. The Tyron Bridge is structurally similar to the Cold Spring Canyon Bridge, albeit much smaller, and is the other all-welded steel arch in the state. The Bluff Creek Bridge is much shorter than the Cold Spring Canyon structure and its arch is formed by a plate girder design. There are also solid-ribbed arches that carry the deck on the bottom chord, forming a through-style bridge. Examples of these types of solid-ribbed arches include the Sixth Street Viaduct over the Los Angeles River (53C1880), built in 1932, and the Howells Bridge (09 0009), carrying SR 70 over the Feather River in Plumas County, built in 1934.[42]

Another large arch bridge, the San Roque Canyon Bridge (51 0104), was formerly located in Santa Barbara until it was demolished in the early 1980s and replaced in 1984 with a concrete structure. The San Roque Canyon Bridge, built in 1931 in what was then an unincorporated area of the county, was a steel plate girder arch with steel stringer approaches. It had two sets of arches, carried two lanes, was 482 feet long, and was 28 feet wide. Santa Barbara County Surveyor and civil engineer Ulysses Sumner Grant designed the structure and it was built by C.

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[41] Carl Condit, *American Building: Materials and Techniques from the Beginning of the Colonial Settlements to the Present*, 2d ed (Chicago: University of Chicago Press, 1982), 214, 228-233.

[42] JRP Historical Consulting, "Caltrans Historic Bridges Inventory Update: Metal Truss, Movable, and Steel Arch Bridges," Volume 1, prepared for Caltrans, March 2004, 36-37. Arch bridges can also be characterized by their degree of articulation, i.e., the number and location of pin connections or hinges at the supports and arch crown. The Cold Spring Canyon Bridge is a two-hinge arch. This characterization of arch bridges, however, is less generally important than the form of arch using either ribs or truss forms.

B. Davison for the county. This bridge was constructed on a foothill route, SR192, between Santa Barbara and Goleta, and was built to help relieve traffic congestion on the coast highway, US101. The county chose the steel arch design, in part, because it was substantially less expensive at the time than the concrete arch bridge, suspension bridge, and truss bridge designs that were also considered.[43]

The Cold Spring Canyon Bridge was one of the ten longest steel arch bridges in the United States when constructed and one of the few with its arch units entirely fabricated from arc welded steel.[44] The Santa Barbara County structure was discussed in engineering publications from the 1960s and 1970s along with other steel arches built across the country during the mid-twentieth century, some of which were much longer. Among the Cold Spring Canyon Bridge's contemporaries is the structurally comparable Lewiston-Queenston Bridge over the Niagara River in Lewiston, New York, at the border crossing into Canada. This solid-ribbed deck arch was completed in 1962 over a large canyon and is strikingly similar in layout and form to the Cold Spring Canyon Bridge with its open uncluttered appearance formed by slender arch ribs, roadway deck, and columns with no cross bracing. Smaller steel arch structures with similar architectural qualities, but built as overpasses to highways for example, include the Old State Route 8 Bridge on the Ohio Turnpike, built in 1955, and the South Street Bridge over I-84 in Middlebury, Connecticut, built in 1964.[45] The New River Gorge Bridge in West Virginia, a deck style solid-ribbed arch with a truss-formed arch, was the longest steel arch bridge in the world from when it was constructed in 1975 until the steel arch Lupu Bridge was completed in 2002 in Shanghai, China.[46]

The use of all-welded components in the Cold Spring Canyon Bridge illustrates a maturation of welding technology and its acceptance and use in major structures. Its implementation here was not innovative, but rather evolutionary in demonstrating confidence and proficiency in the application of this technology to achieve a structurally feasible, economically sensible, and aesthetically pleasing design. The established use of welding for major buildings and important bridges can be seen in other buildings and structures across the county contemporary with the

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[43] John Snyder, "Historic American Engineering Record, CA-17, San Roque Canyon Bridge," 1979.

[44] *World Almanac*, 1963 cited in *California Highways and Public Works*, September-October 1963, 14; *California Highways and Public Works*, September-October 1964, 59.

[45] Frederick S. Merritt, *Structural Steel Designers' Handbook*, (New York: McGraw-Hill Book Company, 1972) 13-12, 13-22, and 13-40; The New York State Historic Preservation Officer determined the Lewiston-Queenston Bridge eligible for listing in the NRHP in 2001 under Criterion C and Criteria Consideration G. Claire Ross, NY SHPO National Register and Survey Unit Coordinator for Niagara County, personal communications with Christopher McMorris, JRP, March 9, 2007.

[46] National Park Service, "New River Gorge Bridge," informational pamphlet, New River Gorge National River, November 1998; "Superstar opens super bridge," *China Daily*, online at: http://www.chinadaily.com.cn/en/doc/2003-06/30/content_241993.htm. The West Virginia State Historic Preservation Officer considers the New River Gorge Bridge eligible for listing in the NRHP, although no evaluation has been completed on the structure. Ginger Williford, Structural Historian, West Virginia, State Historic Preservation Office, personal communications with Christopher McMorris, JRP, March 8, 2007.

Cold Spring Canyon Bridge. Among them, for example, are the Chicago Civic Center built in 1963-1965 and the Ash Street / Pillsbury Road Bridge on I-93 in New Hampshire. The Chicago Civic Center's bold design is apparent in the dimensions of spans (both in width and height) and the creation of a portal framing system that forms a rigid frame evenly dividing the tensile and compressive stresses among connected members.[47] New Hampshire Department of Transportation's engineer Robert Prowse designed the all-welded steel rigid frame Ash Street / Pillsbury Road Bridge as a conceptual bridge competition design, and the state of New Hampshire built the structure in 1964. It is composed of "five frames or bents designed to function as a series of parallel two-hinged rigid frames." Its design permitted the welded forms to take on sculptural qualities that reflected its internal stresses and to unite the overall structure.[48]

Welding developed in the early twentieth century and was one of the most important innovations in steel bridge construction that emerged in the 1930s. Welding, or electric arc-welding, was originally invented in the 1880s by French inventor Auguste de Meritens, but was not used in building construction until the early twentieth century. Welding was used for sporadic purposes and in some building projects in the United States during the 1920s and was first used on California bridges during the 1930s. By the end of that decade, state engineers in California were studying and experimenting with welding to improve techniques and applications. Welded bridges promised to be lighter and easier to construct than riveted structures because they did not require rivets, tie plates, and lacing bars, and they could be constructed on the ground and moved into place. Welded bridges also promised to provide cost savings by decreasing the volume of metal necessary. Implementing the use of welding in bridge construction, however, required investment in welding equipment plus skilled designers and welders. Proponents not only considered welding economically viable, but they also claimed there would be aesthetic advantages to constructing such bridges. Welding was not used widely at first because engineers tended to design with known and proved methods which welding had yet to become. Furthermore, there were difficulties in inspecting it externally for defects, and early welding techniques were, at times, structurally weak.[49]

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[47] Condit, *American Building*, 193-195.

[48] Ken Story, Preservation Company, and James L. Garvin, New Hampshire Division of Historical Resources, "Ash Street Bridge (Robert J. Prowse Memorial Bridge) Bridge No. 140/120," New Hampshire Division of Historical Resources, Individual Inventory Form, NHDHR Inventory #LON0116, September 2001 and December 2002, available at the State of New Hampshire, Department of Transportation, Bureau of Environment; and Federal Highway Administration, "Final List of Nationally and Exceptionally Significant Features of the Federal Interstate Highway System" November 1, 2006, online at: http://www.environment.fhwa.dot.gov/histpres/highways_list.asp (accessed March 2007).

[49] Condit, *American Building*, 192-193; and "Three State Engineers Win Awards in Welding Design Competition," *California Highways and Public Works*, November 1938, 16, 17, and 28; P. Van Rensselaer and F. Sax, ASCE, "Why Not More Welded Structures?" *Civil Engineering*, August 1960, 53; Omer W. Blodgett, *Design of Welded Structures*, (Cleveland, OH: James F. Lincoln Welding Foundation, 1966), 1.1-1 to 1.1-3.

In the 1950s, welded bridges became more common in California as construction practices were improved and engineers recognized the safety of welded structures. Welding was boosted into a more prominent role in bridge construction during the early 1950s when the federal government limited the use of rolled steel in bridges during war restrictions for the Korean conflict. With fewer large rolled steel members available, the Division of Highways developed welding practices to build up structural elements of large bridge projects. The Bridge Department became instrumental in promoting the use of all-welded girders, largely for their potential economic benefit, as well as for the use of composite girders where bolts were welded to the top flange to improve the integration of the girder with concrete decks. The advantages of welding – including time savings in construction, reduced materials, improved durability of steel components, and aesthetic enhancements – became more readily apparent, and welded structures were increasingly considered for bridge designs. By the mid-1950s and early 1960s, the Division of Highways regularly constructed all-welded structures, such as the viaduct for the elevated Bayshore Freeway in San Francisco, built in 1954 (34 0077) and the George C. Cole Memorial Bridge carrying US101 over the South Fork of the Eel River at Myers Flat (04 0123), built in 1962, both of which won awards from the American Institute of Steel Construction.[50]

Dissemination of information regarding welding and promotion of its use was, in large part, the result of publications from and competitions sponsored by the James F. Lincoln Arc Welding Foundation. Established in 1936 to promote the art and science of arc welding, the foundation was a spin off of the Lincoln Electric Company in Cleveland, Ohio, which pursued this technology when it was relatively new, shifting its emphasis to manufacturing welding equipment. The company saw the need to encourage greater practical experience if the technology was to reach its potential. This led to the formation of the non-profit foundation which disseminated information and stimulated research by sponsoring awards programs for innovative uses and designs for welded structures. The first awards contest was held in 1938 with subsequent awards presented in 1943 and afterward. The foundation began publishing its own texts in 1954. The foundation later awarded Marvin Shulman and the Division of Highways Bridge Department an award for the Cold Spring Canyon Bridge.[51] In addition to providing engineers technical data to satisfy potential structural situations, the James F. Lincoln Foundation also promoted welding by illustrating its economic benefits and its applications in contemporary design. In 1966, a Lincoln Foundation publication explained that welding provided designers the

[50] H.D. Stover to F.W. Panhorst, letter regarding welding processes reports and list of welded bridges in California, November 2, 1944, Structures Maintenance Historical Collection, General Information File, California Department of Transportation Library, Sacramento; Division of Highways, *Sixth Annual Report*, 1953, 157; Arthur L. Elliot, "California Captures Four AISC Steel Bridge Awards," presentation ca. 1961, available in "aesthetics" file at the Caltrans Transportation Library Sacramento; and Shulman, oral interview, March 19, 2007. The award-winning section of the Bayshore Freeway was at the 9th and 10th Street Viaducts, now considered part of the Central Viaduct in San Francisco.

[51] J.F. Lincoln Foundation, "About Us, History & Profile," J.F. Lincoln Foundation website, online at: http://www.jflf.org/about/history.asp (accessed January 2007); "Award Winning Bridges," *California Highways and Public Works*, January-February 1965, 40.

freedom "to employ the most elementary or most daring concepts of form, proportion, and balance to satisfy the need for greater aesthetic value." It went on to describe contemporary buildings with exposed steel framing used as part of the "artistic scheme" that illustrated the "unencumbered simplicity of form essential to the modern look in architecture."[52]

It was in this environment, although not overtly recognized as such, that the Division of Highways Bridge Department engineers considered welding and its aesthetic benefits for creating a pleasing structure, such as occurred with the Cold Spring Canyon Bridge. Shulman, Whitaker, and Hood did not identify that they were working in a "Modernist" aesthetic, but their efforts to design an open, uncluttered, graceful steel arch design that took advantage of welding's various benefits are indicative of the era in which the Cold Spring Canyon Bridge was designed and built – a period when building and structural designers sought to achieve economy, efficiency, and functional and material honesty, along with appropriate structural balance.

The Cold Spring Canyon Bridge also illustrates an engineering design that can be understood from a historical perspective because, in part, few arch bridges were built subsequent to this structure. There are likely several reasons for this. There may have been few situations on California roadways that called for the use of a steel arch, as was needed for Cold Spring Canyon. The Cold Spring Canyon Bridge was also designed and built prior to other innovations and structural testing that are now prevalent in bridge construction. These include innovations in steel manufacturing that have allowed other structural types to be used for long spans, including "weathering steel" developed in the mid-1960s and "high-performance steel," which was developed in the early 1990s. The latter type has greater strength, is lighter in weight, and has greater atmospheric resistance than conventional steel.[53] In addition, bridge design innovations such as large segmental prestressed concrete structures and cable-stay suspension structures were also likely responsible, in part, for few steel arches of similar size and scale as the Cold Spring Canyon Bridge being built subsequent to this bridge's construction. The structure's value as illustrating a design aesthetic that can be viewed with a historical perspective is discussed below.

None of the key engineers on the Cold Spring Canyon Bridge project, Shulman, Whitaker, and Hood, ever worked on another major steel arch bridge. Their work on the Cold Spring Canyon Bridge, however, provided insight and confidence in using all-welded designs in subsequent projects. Whitaker later used welded components for several major projects on the East Coast, including curved steel girder bridges built in Knoxville for the World's Fair in the early 1980s, a bridge widening over the Ashley River in Charleston, South Carolina, and in the William-Brice

[52] Blodgett, *Design of Welded Structures*, 1.1-1 to 1.1-7.

[53] Shulman, oral interview, March 19, 2007; Whitaker, oral interview, March 12, 2007; Hood, oral interview March 28, 2007; Whitaker, oral interview, March 12, 2007; Robert A.P. Sweeney, Chairman of the Committee on Steel Bridges, "Steel Bridges," Transportation for a New Millennium. Available from the Transportation Research Board, "Millennium Papers" http://www.trb.org/TRB/publications/MillenniumPapers.asp (accessed January 2007).

football stadium of the University of South Carolina in Columbia, South Carolina.[54] Shulman's later designs included many all-welded girder bridges. Among the most prominent of his later designs were the Elkhorn bridges on I-80 over the Sacramento River, built in 1969 (22 0025L and 22 0025R).[55]

3.4. Bridge Aesthetics and Modern-era Design

The Cold Spring Canyon Bridge illustrates the maturation of bridge design that encompasses an aesthetic influenced by the Modern-era design of the post World War II period. It also demonstrates a collaborative effort in the Bridge Department that encompasses the engineering and architectural values of its period. The simple geometry, graceful lines, slender components, and open uncluttered appearance are indicative, as noted above, of the era in which the bridge was designed and built – a period that can now be viewed with sufficient historical perspective.

Bridge design in California generally corresponded with architectural trends of the twentieth century. By the mid-1930s, the architectural and design aesthetic for prominent new buildings and structures in California had started to shift away from the Beaux Arts and City Beautiful Neoclassicism of the early part of the century towards the aesthetic of the Moderne or International Modern styles that were more abstract, stripped-down, and unadorned. These styles were promoted as symbols of twentieth century technological progress and were a reaction to the perceived excesses of ornament adopted during the late nineteenth and early twentieth centuries.[56] While many bridges across the state continued to be constructed using utilitarian designs, the Division of Highways Bridge Department emerged during this period as a national leader in the design of not only boldly engineered bridges, but also of structures with aesthetic appeal that responded to the changing visual sensibilities of professionals and the public at the time. Such spectacular aesthetic examples of this shift in taste from the 1930s include the San Francisco-Oakland Bay Bridge, the Bixby Creek Arch (44 0019), and the Tower Bridge in Sacramento (22 0021).

As in many design fields during the mid-twentieth century, bridge engineers of the period sought to design structures that would not only be functional and efficient but also represent the essence of their material, eschewing concealment and extraneous decoration for simplicity and clean, graceful lines. These efforts were inherent in their work, and while engineers may have not overtly recognized their work as such, these values expressed many of the tenets of Modern-era design. This was expressed by the Bridge Department starting in the mid-1930s as a desire to

[54] Whitaker, oral interview, March 12, 2007.

[55] Shulman, oral interview, March 19, 2007.

[56] Arthur L. Elliot, "Fifty Years of Freeway Structures," 1988, Bridges file, California Department of Transportation Library, Sacramento, 3-5 [Edited version of essay printed in *Going Places*, July-August 1989, 12-17], 2; Wilbur J. Watson, "Architectural Principles of Bridge Design," *Civil Engineering*, March 1938, 181 and 184; and Aymar Embury II, "Esthetic Design of Steel Structures," *Civil Engineering*, April 1938, 262.

design bridges without "archaic bric-a-brac" adornment, aiming instead for bridges whose components were "pleasingly proportioned and harmoniously arranged."[57] Early on, the Bridge Department appears to have been influenced by the designs and concepts of Alfred Eichler, who worked for the Division of Architecture in the Department of Public Works from the 1920s to the 1960s. It was Eichler who pointed out that, not only did applied architectural elements such as moldings, cornices, brackets, and pilasters add cost to bridge design, it was difficult to properly apply those classical forms in bridge design, resulting in typically unsuccessful compositions. The trend, thus, was away from using historical precedents in hopes that the new structures would transcend the shifts of taste from one generation to another. Later, Bridge Department chief of bridge planning Arthur Elliot promoted serious consideration of aesthetics in bridge design that likely spread throughout the culture of the department.[58]

Although one can see a shift in aesthetics and taste in mid-twentieth century bridge design, many bridges constructed during this period, particularly after World War II, were designed for the greatest economy with less emphasis on the aesthetics of siting, formal expression, viewer and driver experience, or their place as civic monuments. Some of the innovations, and the economies achieved through their application, led to increased standardization of bridge design across the state and thus, in the eyes of critics, greater visual monotony. The result was a dual effect. Bridge standardization coincided with post-World War II aesthetic values that sought form to follow function, yet Modern design qualities were co-opted for mass production of bridges in the postwar period. The Division of Highways was aware that some of its designs had aesthetic shortcomings and began to use their architects more frequently in the 1950s to work on enhancing the visual effects of bridges. This led to increased aesthetic review of new bridges at the Bridge Department in the 1960s.

The Bridge Department's efforts in the 1960s to improve the aesthetics of bridge design were centered around the concept of structures' compatibility with their surroundings. Bridge Department chief of bridge planning Arthur Elliot promoted aesthetics in bridge design and freeway development. Elliot emphasized that aesthetics was not about concealing structures or adding unnecessary architectural treatment. He stressed the need for engineers to go beyond the basic computations to find the intuitive proportions of structures. He sought to not increase the cost of structures for the purposes of aesthetics, but rather to find forms and modest architectural treatment that would provide a more pleasing structure. District engineers in particular were sensitive to the issue of designing structures that would meet with approval from local governments and citizenry. Coordination between engineers and the staff architects in the

[57] *Civil Engineering*, March 1938, 183; and Division of Highways, *Eleventh Biennial Report*, 1938, 54.

[58] Leonard C. Hollister, "The Modern Highway Bridge, as Expressed by Recent Designs of the California Division of Highways," *Roads and Streets*, October 1937, 45-50; Arthur L. Elliot, "Aesthetics of Highway Bridges," *Civil Engineering*, June 1968, 64-69. See "aesthetics" file at the Caltrans Transportation Library in Sacramento for Arthur Elliot's presentations and documents pertaining to bridge aesthetics from the 1960s and 1970s.

Bridge Department became standard practice that was enhanced by the architects typically understanding the principals of bridge engineering. While structures like the Cold Spring Canyon Bridge were the result of this interaction, other results were more modest and largely go unnoticed now, such as textured concrete walls and tapered concrete columns for freeway overpasses.[59]

It was in this environment that the Division of Highways Bridge Department engineers designed the Cold Spring Canyon Bridge. While the engineers did not recognize this atmosphere as working in the "Modernist" aesthetic, their efforts to design an open, uncluttered, graceful steel arch design corresponded to the tenets of mid-twentieth century Modernism that sought economy and efficiency of form, functional and material honesty, and structural balance that was harmonious with its setting. Procedures initiated at this time for reviewing bridge design aesthetics have continued, and some aspects of the trends that emerged in the mid-twentieth century have continued. Caltrans continues to assess the aesthetic compatibility of structures and continues to strive for structures that are economical and structurally reliable.[60] The Cold Spring Canyon Bridge illustrates the maturation of the Bridge Department's designs meeting many of the Modern aesthetic goals and is an excellent representation of the Division of Highways' response in the late 1950s and early 1960s to produce pleasing structures that are designed with meticulous application of established engineering forms and fabrication methods.

3.5. Awards for the Cold Spring Canyon Bridge and Bridge Department Recognition

The Cold Spring Canyon Bridge has been widely recognized for its structural design and aesthetics. The bridge was noted as a "spectacular engineering feat" and as an "engineering marvel" in the popular press when it was originally constructed and for years afterward.[61] Engineers also referred to the structure as a "classically beautiful bridge," and the bridge was discussed along with other major steel arches nation-wide in engineering journals and manuals during the 1960s and 1970s.[62] Shulman recalled that one of the judges that awarded the bridge

[59] *Civil Engineering*, June 1968, 64-69; Shulman, oral interview, March 19, 2007; Hood, oral interview, March 28, 2007. See "aesthetics" file at the Caltrans Transportation Library in Sacramento for Arthur Elliot's presentations and documents pertaining to bridge aesthetics from the 1960s and 1970s, such as "What Does Aesthetics Mean in the Division of Highways, Phase I, Aesthetics Program?" January 25, 1966.

[60] A.L. Elliot, "California's Way to Aesthetic Bridges," *Esthetics in Concrete Bridge Design*, (Detroit: American Concrete Institute, 1990), 119-131; and James E. Roberts, "Caltrans Considers Aesthetics Important," *Roads & Bridges*, November 1988, 73.

[61] Ed Ainsworth, "High Bridge Aids Growth of City," *Los Angeles Times*, June 25, 1963, A2; "Long-span bridge an impressive gateway to valley," *Los Angeles Times*, April 28, 1979, K5. Also see an appreciation of the bridge in: Joan Bolton, "Five Million Pounds of Steel," *Santa Barbara Magazine*, January-February 1989, 14-20.

[62] Cinco Linears, Vol. 2, No. 2, February 1, 1977; Leo J. Ritter, Jr. and Radnor J. Paquette, *Highway Engineering*, (New York: Ronald Press Company, 1967) 203-204; Merritt, *Structural Steel Designers' Handbook*, 13-22 and 13-23; William F. Hollingsworth, "Fifty-Year Development: Construction of Steel Arch Bridges," *Journal of the Construction Division, Proceedings of the American Society of Civil Engineers*, Golden Jubilee Issue, No. 1, March 1975, 85-103.

recognition remarked about the bridge's aesthetic quality by stating that "by its simplicity, it has beauty." This recognition came at a time when California was among the leading states receiving awards for their bridges from organizations like the AISC, James F. Lincoln Foundation, Portland Cement Association, Prestressed Concrete Institute, American Iron and Steel Institute, US Steel Company, and the Federal Department of Transportation.[63]

Marvin Shulman was honored with a national welding award from the James L. Lincoln Foundation for the Cold Spring Canyon Bridge, soon after completion of construction. AISC honored the bridge in 1963-1964 as the Most Beautiful Steel Bridge (Long Span); the plaque for this designation is on the west end of the bridge and is shown in **Photograph 4**.[64]

Photograph 4: Cold Spring Canyon Bridge AISC Award, 2/14/07.

The Cold Spring Canyon Bridge was also one of 77 awardees of Governor Edmund (Pat) Brown's Governor's Design Awards in 1966. Division of Highways' bridge designers Marvin A. Shulman and George A. Hood, Jr., were honored for the structure. The jury included prominent designers of the period including Nathaniel Owings, of Skidmore, Owings, and

[63] List of awards for California Bridges, as of June 1973 (available in the "Aesthetics" folder at the Caltrans Transportation Library in Sacramento). This list was likely compiled by Arthur Elliot, former head of Bridge Engineering Planning at the Division of Highways.

[64] "Long Steel Arch Bridge to be Completed Soon," *Los Angeles Times*, November 28, 1963, 16; "Long-span bridge an impressive gateway to valley," *Los Angeles Times*, April 28, 1979, K5; *California Highways and Public Works*, September-October 1964, 59.

Merrill, as well as T.Y. Lin, UC Berkeley civil engineering professor and prominent bridge designer.[65]

Furthermore, SR154 itself was recognized. The State of California designated SR154 from Santa Barbara into the Santa Ynez Valley as a Scenic Highway in 1968. In addition, the non-profit organization Scenic America rated a 32-mile section on SR154 from Santa Barbara through the Santa Ynez Valley as one of the top ten most scenic highways in the United States.[66]

The American Society of Civil Engineers (ASCE), Santa Barbara-Ventura Section, designated the structure as Historic Civil Engineering Landmark #44 in October 1976. ASCE emphasized this recognition in 2004 by mounting a plaque on a monument located on Old San Marcos Pass Road, northeast of the bridge.[67] In addition, Buckland & Taylor, Ltd., was given two awards in 1999 for its work on the seismic retrofit of the bridge. The two awards were the CELSOC Engineering Excellence Award of Merit and the ACEC Engineering Excellence Honor Award.[68]

Some bridges designed by the Division of Highways Bridge Department have been recognized as the "work of a master" under NRHP criteria. This recognition has been for the Bridge Department as a collective group, rather than for individual engineers in the department. Both the state-wide historic bridge inventory completed in the mid-1980s and the recent historic bridge inventory update (2002-2006) identified bridges that were significant, at least in part, because they were important works of the Bridge Department. Examples of steel bridges include bridges on SR70 in Feather River Canyon, built in 1932-1936; San Francisco-Oakland Bay Bridge, 1936; Albion River Bridge on SR1 in Mendocino County, 1944; and Schuyler Heim Bridge in Los Angeles, 1946. There are others built in concrete that have been similarly recognized. As discussed in Section 5, the Cold Spring Canyon Bridge appears to be similarly significant as an important structure designed by the Division of Highways Bridge Department.

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[65] "Governor Presents 15 Design Awards," *Los Angeles Times*, January 1, 1967, H2. These so-called annual awards appear to have only been given out once at the end of the Brown administration. Neither the Reagan administration nor any other subsequent administration appears to have pursued recognition of engineering structures in this manner.

[66] *Santa Barbara News-Press*, January 3, 1995, 35A; Division of Highways, *Scenic Highway Corridor Survey*, 1968; and Santa Barbara Route 154 file at Caltrans Transportation Library. The scenic route designation signing occurred November 22, 1968.

[67] Russ Pyros, Chairperson, History and Heritage Committee, ASCE, letter to E.F. "Frank" Gregory, District Director of Transportation, Caltrans, December 21, 1976 on file at Caltrans District Five and Caltrans Transportation Library.

[68] Buckland & Taylor, Ltd., Bridge Engineering, "Cold Spring Canyon Bridge," webpage: http://www.b-t.com/projects.cldsprg.htm (accessed November 2005).

3.6. Repairs and Alterations to the Cold Spring Canyon Bridge

The Cold Spring Canyon Bridge has been repaired over the years, and was seismically retrofitted in 1997-1998. In the early 1990s, bridge investigations revealed that the reinforced concrete skewbacks, at the base of the two towers at either end of the arch, had deteriorated with wide cracks visible in the concrete. Caltrans repaired the skewbacks by sealing the cracks in 1990 and 1995. The department also reduced the vegetation adjacent to the bridge, as a fire safety precaution, and sealed the bridge deck at that time. Caltrans laid new asphalt concrete on SR154 between PM 21 and 23.2, including over the Cold Spring Canyon Bridge, in 2000, and built an additional concrete K-rail along the roadway over the southwest abutment in 2006.[69]

Buckland & Taylor, Ltd., Bridge Engineering designed and the American Bridge Company built the seismic retrofit of the structure under contract with Caltrans in 1997-1998, several elements of which are shown in **Photograph 5.**

Photograph 5: Cold Spring Canyon Bridge west end, camera facing north, 2/14/07.

[69] Caltrans District 5 records.

Bridge investigations had indicated that the bridge's arch ribs and main towers could be overstressed in a seismic event and that the arches might not resist an uplifting force at the connection with the footing. The investigation also recommended stronger lateral cables between the deck and arch. This project included the installation of steel reinforcing plates constructed up from the arch ends on the top and bottom chords. The project also included installation of new bolts, bolsters flanking the abutment seats, and anchors placed diagonally along the tangent of the arch and below the anchor bent. The arch ribs and main towers were strengthened along with new concrete encased around the skewbacks and modifications to tie-downs for the arches.[70]

[70] American Bridge, "Cold Spring Canyon Bridge – Seismic Retrofit," online summary available at http://www.americanbridge.net (accessed January 2007); Buckland & Taylor Ltd., Bridge Engineering, "Cold Spring Canyon Bridge," online summary available at http://www.b-t.com/projects/cldsprg.htm. (Accessed October 2006).

4. DESCRIPTION OF RESOURCES

The Cold Spring Canyon Bridge (51 0037) is a deck style steel arch bridge, completed in 1963 and opened to traffic in 1964. It is located on SR154 at post miles 22.95/23.19, approximately 13.5 miles northwest of the City of Santa Barbara, just northwest of the San Marcos Pass. As shown in **Photograph 6**, the structure has nine spans including one arch span and eight steel girder approach spans. The bridge is 1,218 feet long, with the arch mainspan of 700 feet. It rises over 400 feet above the canyon floor. The deck is supported by slender steel column bents and two 134-foot-tall towers. The arch supports steel girder sub-spans on steel column bents. The towers have four-foot squared legs connected by three cross struts. The column bents have two-foot squared box legs that are hinged at the top and bottom to allow for relative movement of the deck during temperature changes and unsymmetrical loading. The tallest of these slender columns is 93 feet tall. The steel plates that form the towers, columns, floor beams, girders and arches are welded steel. The foundations are reinforced concrete with one abutment on steel pilings. The arch and main towers are supported with pinned steel castings that rest on reinforced concrete skewbacks. The reinforced concrete composite slab deck, shown in **Photograph 7**, is seven feet deep, supporting a 28-foot-wide roadway between curbs. The bridge is 34 feet wide from railing to railing. Sections of the roadway's embankment at the bridge ends were constructed along with the bridge structure. The railings on the bridge are a Division of Highways standard type of their period, called type II barrier railings. Each railing is 3 feet, 7 inches tall and has three-foot-wide barrier curbs in front of them.[71]

The bridge's arch was formed using 1,440 tons of steel plate formed into curved box-shaped arch rib sections, each nine feet deep and three feet wide. It is a two-hinged arch. All shop splices for the steel members were welded and high-strength bolts were used for field connections of members. As shown in **Photograph 8**, steel truss K-bracing connects the two arch ribs, which are 26 feet apart. The steel pedestals were welded to the ribs to form the column bases. The arch ribs were connected to the deck by cables located near the crown of the arch. The columns were designed to stand without bracing and fabricated full length without field splices, which enhanced their slender qualities.[72]

This structure is described, with additional photographs, on DPR 523 forms in Appendix B.

[71] Jahlstrom, "Report of Completion for the construction of Cold Spring Canyon Bridge, County of Santa Barbara," June 17, 1964; *California Highways and Public Works*, September-October 1963, 15-17.

[72] *California Highways and Public Works*, September-October 1963, 15-17.

Photograph 6: Cold Spring Canyon Bridge (51 0037), camera facing northeast, 2/14/07.

Photograph 7: Cold Spring Canyon Bridge (51 0037) deck, camera facing north, 2/14/07.

Photograph 8: Cold Spring Canyon Bridge substructure, camera facing southeast, 2/14/07.

5. FINDINGS AND CONCLUSIONS

5.1. Findings

This report concludes that the Cold Spring Canyon Bridge, built in 1962-1963 and opened to traffic in 1964, appears to meet the criteria for listing in the NRHP. The structure is significant at the state level under NRHP Criterion C, and it has exceptional importance that meets the standards of Criteria Consideration G for properties that have achieved significance within the past fifty years. The structure is also significant under CRHR Criterion 3 and under the CRHR special consideration for historical resources achieving significance within the past fifty years. Its period of significance is 1962-1964 when the structure was built, completed, and opened to traffic. In addition to its historical significance, the Cold Spring Canyon Bridge also retains historic integrity to convey its significance. Therefore, the bridge should be considered a historic property for the purposes of Section 106 compliance and as a historical resource for the purposes of CEQA. In addition, the Cold Spring Canyon Bridge appears to meet the criteria for listing as a Santa Barbara County Landmark, under Santa Barbara County Code, Chapter 18A, Historical Landmarks Advisory Commission.

The following summarizes the conclusions of this report:

Properties listed in the National Register: None

Properties previously determined eligible for the National Register: None

Properties previously determined not eligible for the National Register: None

Properties determined eligible for the National Register as a result of the current study:

Name	Address	City	OHP Status Code	Map Reference
Cold Spring Canyon Bridge (51 0037)	SR154, PM 22.95/23.19		3s	1

Properties for which further study is needed because evaluation was not possible: None

Resources that are historical resources for the purposes of CEQA:

Name	Address	City	OHP Status Code	Map Reference
Cold Spring Canyon Bridge (51 0037)	SR154, PM 22.95/23.19		3s	1

Properties determined not eligible for the National Register as a result of the current study: None

Resources that are not historical resources under CEQA, per CEQA guidelines §15064.5, because they do not meet the California Register criteria outlined in PRC §5024.1: None

5.2. Conclusions

The Cold Spring Canyon Bridge (51 0037), built in 1962-1963, appears to meet the criteria for listing in the NRHP because: a) it is significant, at the state level, under Criterion C; b) it has exceptional importance that meets the standards under Criteria Consideration G for properties that have achieved significance within the past fifty years; and c) it retains historic integrity to convey its significance. Its period of significance is 1962 to 1964, when it was constructed, completed, and opened to traffic. The structure is significant for its type, period, and method of construction as an important example of bridge design and engineering that demonstrates a maturation of steel arch bridge design and welded steel technology in California, and it represents a high aesthetic quality of contemporary design from its period. It is also an important work of the Division of Highways Bridge Department which is considered a "master" engineer of the period, and it is an important work of the American Bridge Division of US Steel which is considered a "master" builder of the period. Furthermore, the bridge has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, and it appears to meet the significance criteria as outlined in those guidelines.

The Cold Spring Canyon Bridge does not appear to be significant under Criterion A. This structure is associated with development of San Marcos Pass Road and SR154 when it was upgraded and realigned in the 1950s and early 1960s and was specifically part of a project constructed between 1962 and 1964. The route that became SR154 was a well-established inland route between the City of Santa Barbara and north Santa Barbara County communities. The Division of Highways' improvements on SR154 during this period were among many

similar projects throughout Santa Barbara County during the mid-twentieth century where old routes were upgraded and realigned for improved contemporary use. While the Cold Spring Canyon Bridge contributed to the improved safety, ease of travel, and decreased travel times on SR154, it did not fundamentally change the existing transportation corridor or itself specifically lead to additional growth or development of areas near San Marcos Pass, in Santa Barbara, or in the Santa Ynez Valley. Demand for and the effects of its construction, therefore, were similar to those of many other bridges built throughout the county and state during the 1950s and 1960s. Thus, the structure is not important for its association with significant historic events and/or trends related to its construction or use.

The Cold Spring Canyon Bridge also does not appear to be significant under Criterion B or Criterion D. Bridges are infrequently, if ever, evaluated as significant under these two criteria. Important historic persons associated with bridges are usually involved with their design, making them significant under Criterion C, rather than Criterion B. Historic buildings and structures can occasionally be recognized for the important information they yield, or might yield, regarding historic construction materials or technologies, thus making them significant under Criterion D. Bridges in California, however, particularly those built in the mid-twentieth century, can be studied through various written sources and documented construction types, so the structures themselves do not appear to be principal sources of important information in this regard.

The Cold Spring Canyon Bridge is significant under Criterion C for its engineering and architectural design and as an important work of the Division of Highways Bridge Department and the American Bridge Division of US Steel. The structure's significance lies in both its engineering value related to its structural type and design and importance as an aesthetic achievement. It is significant at the state-wide level, in part, because it is the largest steel arch in California and it was one of the first in the country to be built entirely of all-welded steel components. The Bridge Department devised an interesting and well-received design for the Cold Spring Canyon Bridge within the economic and physical confines of the project. It is an important example of its type and method of construction for its period because it exhibits a maturation of steel arch bridge design and welded steel technology employed on bridges in California, and it represents a high aesthetic quality that illustrates contemporary Modern-era architectural principles that extolled the virtues of unadorned and efficient designs along with material and functional honesty. The Bridge Department used well-established structural components – including steel arch, welded steel components, and reinforced concrete deck – but executed the overall design in a manner that captures aspects of the highest quality of work in bridge engineering in California at that time. The assemblage of its arch design, its all-weld components, and its clean, open, uncluttered appearance provides a structural continuity with all of its elements acting together in a singular form that creates a beautiful bridge that transcends its practical utilitarian function.

Both the Division of Highways Bridge Department and the American Bridge Steel Division of US Steel have been identified as masters, as defined under Criterion C. The Bridge Department is noted for its exceptional long-term bridge design program that resulted in highly functional and architecturally significant bridges throughout the state and that promoted innovative and architecturally significant structures starting in the 1930s, such as the bridges on SR70 in Feather River Canyon, 1932-1936, and the San Francisco-Oakland Bay Bridge, 1936. The department's high quality work in designing the state's major structures continued at least into the 1970s. American Bridge has a long history of building major bridges in California, including structures built prior to the construction of the Cold Spring Canyon Bridge, such as the Schuyler Heim Lift Bridge at the Port of Los Angeles (53 2618), built in 1946, and others that were also Bridge Department designs. Their work on the Cold Spring Canyon Bridge structure illustrates their experienced and precise construction methods and procedures that only a handful of companies possessed at the time. The Cold Spring Canyon Bridge exemplifies the same monumental characteristics of other major bridges designed by the Division of Highways Bridge Department, but in an architectural expression that reflects its period of design and construction in the early 1960s, as well as those constructed in California by the American Bridge Division of US Steel. The Cold Spring Canyon Bridge is thus an important work of the Bridge Department and of American Bridge, which, as discussed in the historic overview, are considered "master" engineers and bridge builders of this period.

The Cold Spring Canyon Bridge also possesses exceptional importance that meets the standards of Criteria Consideration G, for properties that have achieved significance within the past fifty years.[73] The structure's significance can be viewed with historical perspective because the structure illustrates a defined period of bridge engineering and architecture in California that, while influential to subsequent bridge engineering and design, reflects the refined development of steel arch bridge technology and the aesthetic of the post-World War II Modern era. The Cold Spring Canyon Bridge possesses enduring value as an engineering accomplishment and one that both design professionals and the public continue to appreciate for its engineering and aesthetic qualities. As discussed in the historic overview, the bridge has been recognized with many awards and citations, most notably by organizations in the engineering profession such as AISC and the James F. Lincoln Arc Welding Foundation, and there is a body of scholarly comparative analysis demonstrating the bridge's relative importance for its engineering design and aesthetic achievement. The bridge is also an ASCE designated Historic Civil Engineering Landmark.

In addition to its significance under Criterion C and its exceptional importance under Criteria Consideration G, the Cold Spring Canyon Bridge (51 0037) also retains historic integrity that

[73] Guidelines for applying the standards of exceptional importance under Criteria Consideration G are in: National Park Service, "Guidelines for Evaluating and Nominating Properties That Have Achieved Significance within the Past Fifty Years," National Register Bulletin 22 (Washington DC: US Department of the Interior) 1979, revised through 1998.

conveys its engineering significance. The Division of Highways has maintained the structure and has not made any major changes or repairs, except for the seismic retrofit which did not diminish the historic integrity of the bridge. The structure is in its original location with its original design, materials, and workmanship intact, which provides one with a clear sense of its integrity of feeling and association.

Thus, the Cold Spring Canyon Bridge appears to meet the criteria for listing in the NRHP. Furthermore, the structure has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, and it appears to meet the significance criteria as outlined in those guidelines. The structure is significant under CRHR Criterion 3 as well as under the CRHR special consideration for properties that have achieved significance within the past fifty years, and the bridge retains historic integrity. Furthermore, the Cold Spring Canyon Bridge also appears to meet the criteria for listing as a Santa Barbara County Landmark, under Santa Barbara County Code, Chapter 18A, Historic Landmarks Advisory Commission. The bridge appears to be significant under the county landmark ordinance because it demonstrates a "distinctive style, type, period or method of construction/craftsmanship," represents the work of a notable designer and builder, has "unique physical characteristics representing an established and familiar visual feature," and embodies "elements of architectural design, detail, materials or craftsmanship that represent a significant structural or architectural achievement."[74]

The character-defining features of the Cold Spring Canyon Bridge are its components that are part of its original design, including the arch ribs with their cross bracing, the columns and towers, floorbeam girders, abutments, and railings. The design of the reinforced concrete skewbacks is also included in the structure's character-defining features, even though the skewbacks have been encased with new materials. Some of these original design features play a more significant role in conveying the bridge's significance. These would include the arch ribs, columns, towers, and road deck girders. Of lesser importance are the standard type railings and concrete road deck. The elements of the bridge at the roadway are included in the bridge's character-defining features because they are part of its original design and overall design effect. The features of the bridge that were added during the seismic retrofit of the structure in the 1990s do not contribute to the structure's significance and are not part of the bridge's character-defining features. These include the concrete bolsters flanking the abutments and steel clips on the roadway girders at the top of the towers. Along with the metal guardrails flanking the bridge approaches, the concrete extension of the south side railing on the east end of the bridge also appears to have been added and would not be considered to be a character-defining feature.

[74] Santa Barbara County Code, Section 18A-3; and County of Santa Barbara, Planning and Development, Historic Landmarks Advisory Commission webpage: http://www.sbcountyplanning.org/boards/hlac/about.cfm#eligible (accessed March 2007).

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7. PREPARERS' QUALIFICATIONS

JRP Principal Stephen R. Wee (MA in History, University of California, Davis) provided general direction for this project. Mr. Wee has more than 25 years experience conducting these types of studies. Based on his level of education and experience, Mr. Wee qualifies as an architectural historian and historian under the United States Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

JRP Partner Christopher McMorris (MS in Historic Preservation, Columbia University) conducted this project's fieldwork, research, historic evaluations, and report preparation. Mr. McMorris has been with JRP since 1998 and based on his education and experience also qualifies as a historian/architectural historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

Research assistants Jarma Jones and Shawn Riem assisted with research and technical production for this report.

ATTACHMENTS

APPENDIX A

Figures

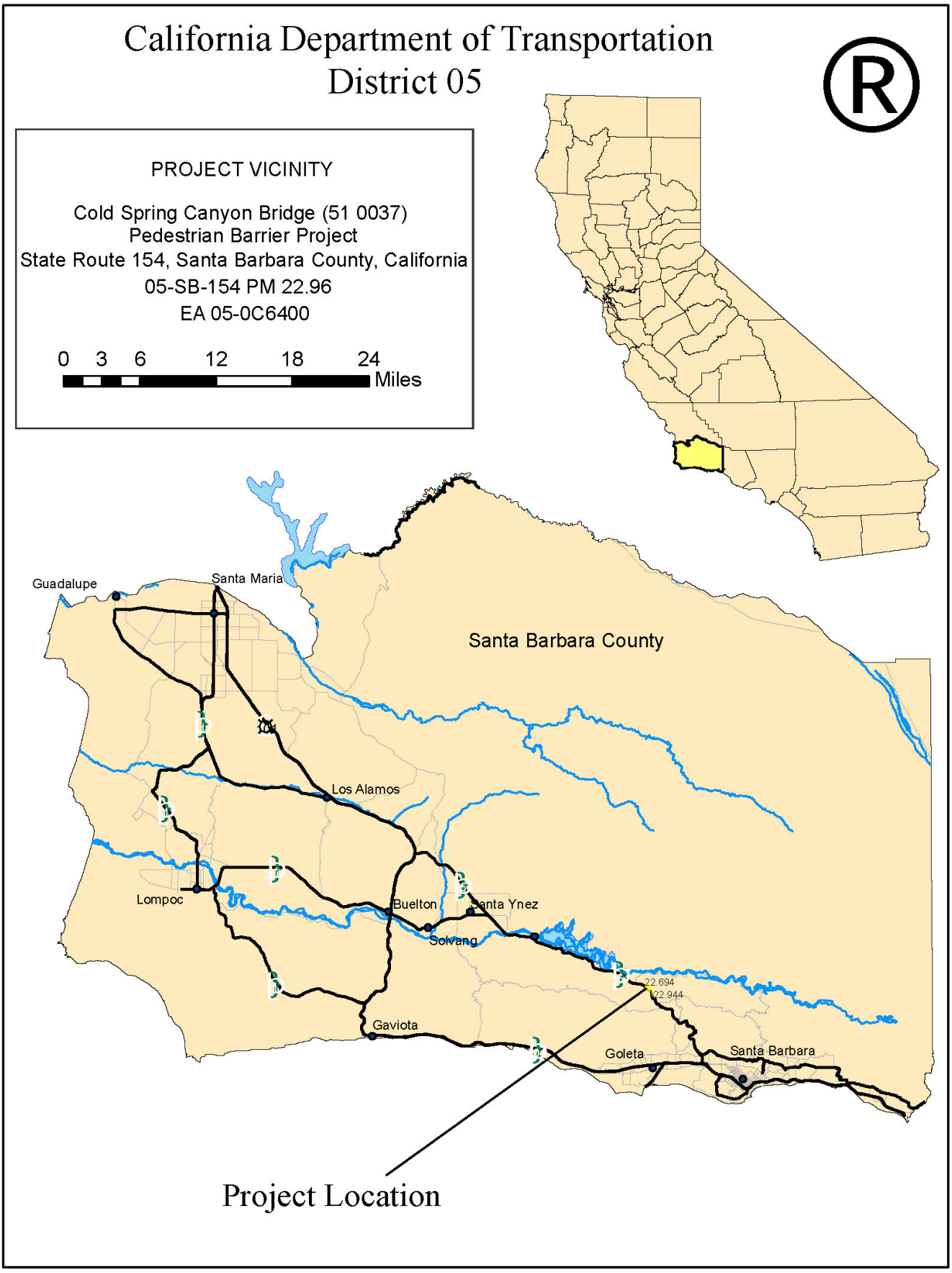


Figure 1: Project Location Map, Cold Spring Canyon Bridge Pedestrian Bridge Project

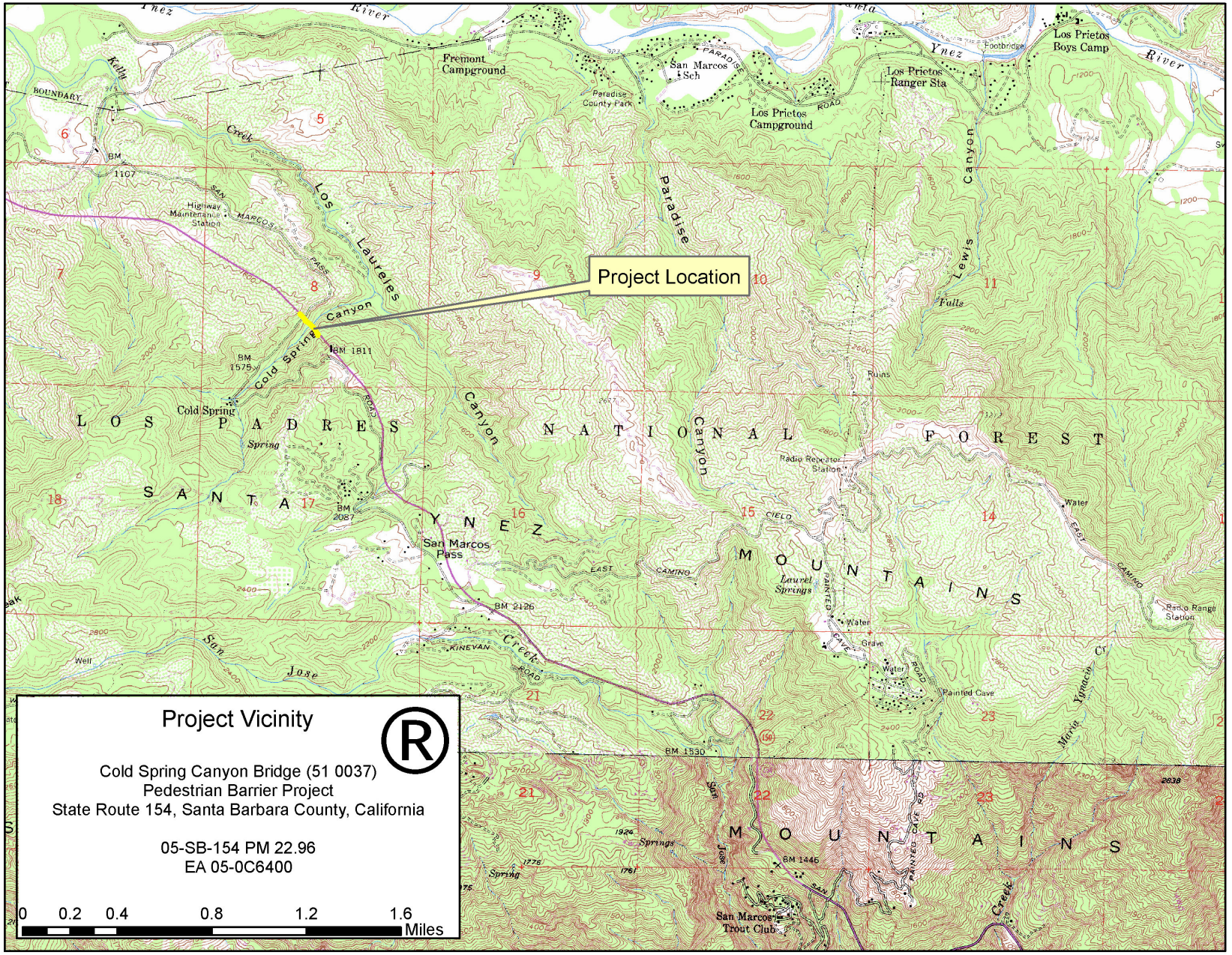


Figure 2: Project Vicinity Map, Cold Spring Canyon Bridge Pedestrian Bridge Project

Figure 3. Area of Potential Effects

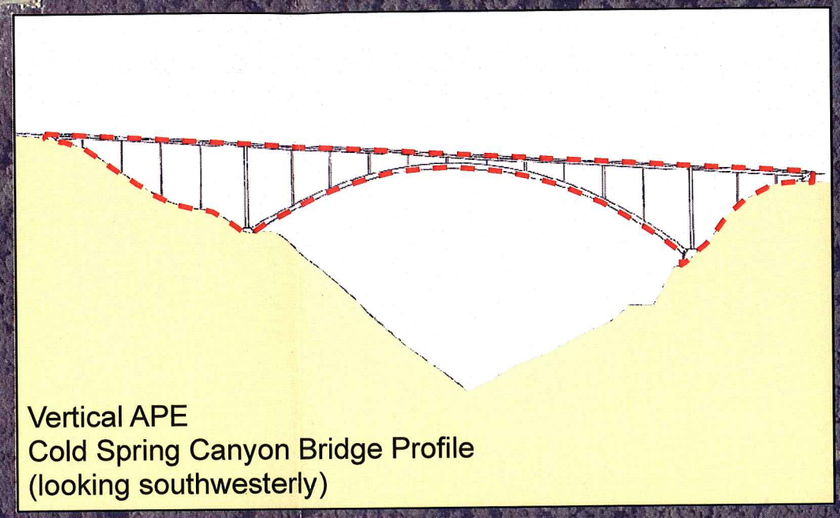
Cold Spring Canyon Bridge (51 0037)
Pedestrian Barrier Project
State Route 154, Santa Barbara County, California

05-SB-154 PM 22.95/23.19
EA 05-0P9100

Archaeological APE
Architectural APE

N
W E
S

0 0.025 0.05 0.1 Miles



154

PM 22.95

PM 23.19

Stagecoach Rd (former SR154)

Cold Spring Canyon

Stagecoach Rd (former SR154)

154

Recommended for Approval by:

Valerie Levulett 6/12/07

Valerie Levulett — Date
Caltrans District 5 Heritage Resources Coordinator

Approved by:

Sara von Schwind 6/12/07

Sara von Schwind — Date
Caltrans District 5 Project Manager

APPENDIX B

DPR 523 Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code: 3S
Other Listings
Review Code | Reviewer | Date

***Resource Name or #:** Cold Spring Canyon Bridge **Caltrans Map Reference No.:**
P1. Other Identifier: Bridge 51 0037
***P2. Location: *a. County** Santa Barbara County **County/Route/Postmile:** SB 154 PM 22.95/23.19
b. Address State Route 154, PM 22.95/23.19
City **Zip**
***c. UTM: USGS Quad:** San Marcos Pass Quadrangle, 1995 **d. UTM:**
***e. Other Locational Data (APN #)** 13.5 miles northwest of the City of Santa Barbara
***P3a. Description:** (Briefly describe resource below)

The Cold Spring Canyon Bridge (51 0037) is a deck style steel arch bridge, completed in 1963 and opened to traffic in 1964. It is located on SR154 at post miles (PM) 22.95/23.19, approximately 13.5 miles northwest of the City of Santa Barbara, just northwest of the San Marcos Pass. As shown in **Photograph 1**, the structure has nine spans including one arch span and eight steel girder approach spans. The bridge is 1,218 feet long, with the arch mainspan of 700 feet. It rises over 400 feet above the canyon floor. The deck is supported by slender steel column bents and two 134-foot-tall towers. The arch supports steel girder sub-spans on steel column bents. The towers have four-foot squared legs connected by three cross struts. The column bents have two-foot squared box legs that are hinged at the top and bottom to allow for relative movement of the deck during temperature changes and unsymmetrical loading. The tallest of these slender columns is 93 feet tall. The steel plates that form the towers, columns, floor beams, girders and arches are welded steel.

The foundations are reinforced concrete with one abutment on steel pilings. The arch and main towers are supported with pinned steel castings that rest on reinforced concrete skewbacks. The reinforced concrete composite slab deck, shown in **Photograph 2**, is seven feet deep supporting a 28-foot-wide roadway between curbs. (See Continuation Sheet.)

***P3b. Resource Attibutes:** HP11 Bridge
****P4. Resources Present:** ___ Building X Structure ___ Object ___ Site ___ District ___ Elements of District ___ Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: Camera facing northeast, 2/14/07
***P6. Date Constructed/Age:** 1963, Caltrans records
x Historic ___ Prehistoric ___ Both
***P7. Owner and Address:** Caltrans District 5, 50 Higuera Street, San Luis Obispo, CA 93401
***P8. Recorded by:** Christopher McMorris, JRP Historical Consulting, LLC, 1490 Drew Avenue, Suite 110, Davis, CA 95618
***P9. Date Recorded:** 2/14/07
***P10. Type of Survey:** x Intensive ___ Reconnaissance ___ Other **Describe:**

***P11. Report Citation:** JRP Historical Consulting, LLC, "Historical Resources Evaluation Report, Cold Spring Canyon Bridge (51 0037) Pedestrian Barrier Project, State Route 154, Santa Barbara County, California," 2007.

***Attachments:** ___ NONE ___ Map Sheet X Continuation Sheet X Building, Structure and Object Record ___ Linear Resource Record ___ Archaeological Record ___ District Record ___ Milling Station Record ___ Rock Art Record ___ Artifact Record ___ Photograph Record ___ Other (List):

*Required Information.

State of California — The Resources Agency: Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#:

BUILDING, STRUCTURE, AND OBJECT RECORD

See Office of Historic Preservation Recording Historical Resources for instructions.

Map Reference No.:

***Resource Identifier:** Cold Spring Canyon Bridge ***NRHP Status Code:** 3S

B1. Historic Name: Cold Spring Canyon Bridge

B2. Common Name: Cold Spring Canyon Bridge or Cold Spring Canyon Arch **County/Route/Postmile:** SB 154 22.95/23.19

B3. Original Use: Bridge **B4. Present Use:** Bridge

***B5. Architectural Style:** Modern

***B6. Construction History:** Construction began in May 1962 and was completed in December 1963. Bridge opened to traffic in February 1964. Repairs were made to the bridge in 1990, 1995, and 2000. Seismic retrofit was conducted in 1997-1998. Additional concrete barrier at south abutment was added in 2006.

***B7. Moved?** X No ___ Yes ___ Unknown **Date:** **Original Location:**

***B8. Related Features** (describe below): None

B9a. Architect: Division of Highways Bridge Department **B9b. Builder:** American Bridge Division of US Steel

***B10. Significance: Theme:** Bridge Engineering **Area:** Santa Barbara County and California

Period of Significance: 1962-1964 **Property Type:** Bridge **Applicable Criteria:** NRHP C,G / CRHR 3

The Cold Spring Canyon Bridge (51 0037) appears to meet the criteria for listing in the National Register of Historic Places (NRHP). The structure is significant at the state level under NRHP Criterion C, and it has exceptional importance that meets the standards of Criteria Consideration G for properties that have achieved significance within the past fifty years. Its period of significance is 1962-1964 when the structure was built, completed, and opened to traffic. In addition to its historical significance, the Cold Spring Canyon Bridge retains historic integrity to convey its significance. The bridge also has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, and it appears to meet the significance criteria as outlined in those guidelines. (See Continuation Sheet.)

B11. Additional Resource Attributes:

B12. References:

California Highways and Public Works; California Historical Society Quarterly; Caltrans District 5 records; *Civil Engineering;* Condit, Carl W. *American Building: Materials and Techniques from the Beginning of the Colonial Settlements to the Present*. 2d ed. Chicago: University of Chicago Press, 1982; Division of Highways Bridge Department. As-built plans, Cold Spring Canyon Bridge, 1963; Jahlstrom, I.O. "Report of Completion for the Construction of Cold Spring Canyon Bridge, County of Santa Barbara, Contract No. 63-14V13C2, Road V-SB-80-B," June 17, 1964; *Journal of the Construction Division, Proceedings of the American Society of Civil Engineers; Los Angeles Times;* Merritt, Frederick S. *Structural Steel Designers' Handbook*. New York: McGraw-Hill Book Company, 1972; *Santa Barbara News-Press*. Plus oral interviews. Also see footnotes of B10.

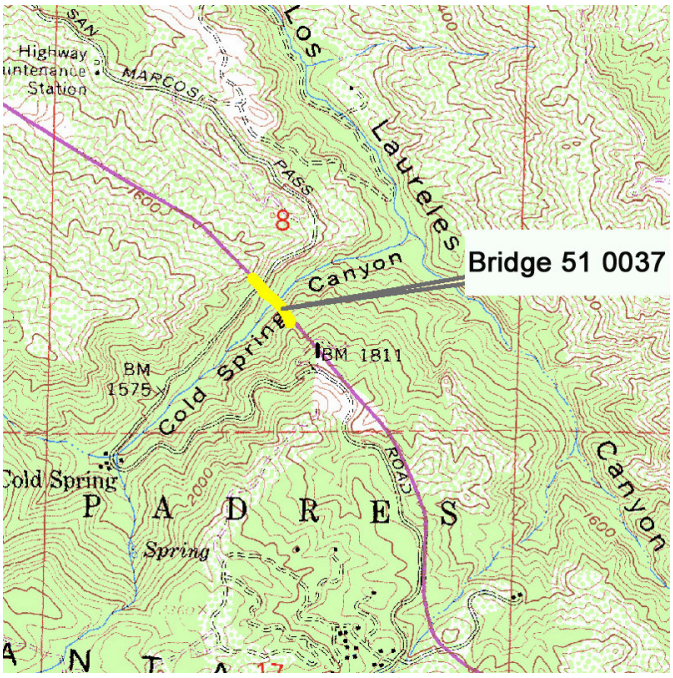
B13. Remarks:

B14. Evaluator: Christopher McMorris

Date of Evaluation: April 2007

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



*Required Information

***P3a. Description:** (Continued)

The bridge is 34 feet wide from railing to railing. Sections of the roadway's embankment at the bridge ends were constructed along with the bridge structure. The railings on the bridge are a Division of Highways standard type of their period, called type II barrier railings. Each railing is 3 feet, 7 inches tall and has three-foot-wide barrier curbs in front of them.[1]

The bridge's arch was formed using 1,440 tons of steel plate formed into curved box-shaped arch rib sections, each nine feet deep and three feet wide. It is a two-hinged arch. All shop splices for the steel members were welded and high-strength bolts were used for field connections of members. As shown in **Photograph 3**, steel truss K-bracing connects the two arch ribs, which are 26 feet apart. The steel pedestals were welded to the ribs to form the column bases. The arch ribs were connected to the deck by cables located near the crown of the arch, as shown in **Photograph 4**. The columns were designed to stand without bracing and fabricated full length without field splices, which enhanced their slender qualities.[2]

***B10. Significance:** (Continued)

HISTORIC CONTEXT

The Cold Spring Canyon Bridge (51 0037) was an integral part of a California Division of Highways project to upgrade, relocate, and realign a seven mile segment of SR154 in the early 1960s. The bridge was designed in 1961. Its construction began in May 1962 and was completed in December 1963. The bridge opened to traffic in February 1964. The Division of Highways Bridge Engineering Department in Sacramento designed the bridge, and the American Bridge Division of United States Steel built the structure. It is the largest steel arch bridge in California, and it was one of the first major arch structures in the United States comprised of all-welded steel components.

The following overview provides a historic context for the route over San Marcos Pass, on which Cold Spring Canyon Bridge is located, as well as context for the bridge's design and construction. Included in this overview is information on the bridge's design that contributes to its engineering and aesthetic qualities, including a discussion regarding welding technology and the architectural character of the structure.

San Marcos Pass Road and the Development of State Route 154

The Cold Spring Canyon Bridge is located on SR154 (San Marcos Pass Road) approximately 13.5 miles northwest of the City of Santa Barbara in the Santa Ynez Mountains and is situated just northwest of San Marcos Pass. The Santa Ynez Mountains are a coastal range that separates the northern part of Santa Barbara County from its coastline, which generally runs east-west from the Ventura County line to the area west of Lompoc before turning north. Historically, travelers traversed the mountains at one of several passes, including (from east to west) San Marcos Pass, Refugio Pass, and Gaviota Pass, the latter two of which are located 15 to 20 miles west of San Marcos Pass. SR154 ascends from US101 in Santa Barbara and proceeds in a northwesterly direction into the Santa Ynez Valley, passing Lake Cachuma, and through the communities of Santa Ynez and Los Olivos before intersecting again with US101 approximately six miles north of Buellton and Solvang. After leaving the suburban area north of US101 in Santa Barbara, one ascends into the Los Padres National Forest. On the way up from Santa Barbara to San Marcos Pass, the highway is intersected and flanked by several smaller roads, some of which were bypassed when the contemporary roadway was constructed. One sizeable intersection about halfway from US101 northwest to San Marcos Pass and the Cold Spring Canyon Bridge is with Old San Marcos Pass Road and Painted Cave Road. Several miles later one crests San Marcos Pass and begins to descend into the Santa Ynez Valley as the highway takes vehicles over the Cold Spring Canyon on the bridge that is the subject of this report.

[1] Jahlstrom, "Report of Completion for the construction of Cold Spring Canyon Bridge, County of Santa Barbara," June 17, 1964; *California Highways and Public Works*, September-October 1963, 15-17.

[2] *California Highways and Public Works*, September-October 1963, 15-17.

The Native American Chumash are the first known people to traverse what are now the Santa Ynez Mountains through San Marcos Pass. The earliest historical records of San Marcos Pass date to the early nineteenth century, documenting the route that connected the Santa Barbara Mission with its farm on the San Marcos Rancho, which was established in 1804. The pass is noted as the location where, during the United States war with Mexico, John C. Fremont and his troops passed over the coastal mountains in 1846 on their way from Monterey to Los Angeles to meet up with forces on their way north from San Diego under the command of Commodore Robert F. Stockton. The legend is that Fremont chose the route through San Marcos Pass following a warning not to use the more traveled Gaviota Pass because of a possible ambush there by Mexican armed forces. Although much has been written about this event, there does not appear to be any specific evidence that such an attack was imminent.[3]

The San Marcos Pass was used infrequently during the early period following California statehood in 1850, but by the late 1860s demand grew for improved roadways between Santa Barbara and areas to the north. In response, the Santa Barbara and Santa Ynez Turnpike Road Company incorporated in 1868 with Llewellyn Bixby as one of its directors. Bixby and Thomas Flint operated a stagecoach company that was contracted to carry mail. The turnpike road company built the road over San Marcos Pass, completing the roadway around 1870.[4] Among the noted stops on the stagecoach route was Patrick Kinevan's house, which was situated near the pass, and the Cold Spring Tavern, which is extant upstream from the Cold Spring Canyon Bridge. This tavern began operating in the 1890s. The turnpike operated as the stagecoach route. The county acquired the road in 1898 and the stage line operated until 1901 when the Southern Pacific Railroad completed its line from San Francisco to Los Angeles, connecting San Luis Obispo to Santa Barbara via rail. The stagecoach era ended because stagecoaches could not compete with the comfort and speed of the railroad.[5]

Although the railroad provided passenger and freight service from Santa Barbara to towns to the north, there was growing demand in the early twentieth century for improved roads. Santa Barbara County began improving the highway over San Marcos Pass in the 1900s-1910s, building a bridge on this route at the Santa Ynez River in 1912 for example. In addition to the demand for a better motor vehicle road from Santa Barbara into the Santa Ynez Valley, communities grew along San Marcos Pass Road, including the residential development that accompanied the San Marcos Trout Club in the mid-1920s and Painted Cave Village, which began in 1930. As vehicle traffic increased along the San Marcos Pass Road and speeds increased with improved automobiles and trucks, this twisting, narrow, and largely unimproved road became very dangerous.[6]

The California Division of Highways added San Marcos Pass Road to the state highway system in 1931 and it became State Route (also referred to as Legislative Route) 80. Locally, the road was signed as Highway 150. The Division of Highways upgraded and realigned portions of the roadway in 1935 and 1936 from Santa Barbara up to Painted Cave Road and in the vicinity of Los Olivos in the Santa Ynez Valley. As shown in the map below, the state moved the road's intersection with the coast highway from Goleta closer to Santa Barbara. This project included construction of a new 24 foot wide asphalt surfaced highway, drainage features, and some small bridges. This new highway included excavated cuts through and along hillsides that created a roadway that was less steep and winding than its nineteenth century predecessor. The route westward from Painted Cave Road through San Marcos Pass

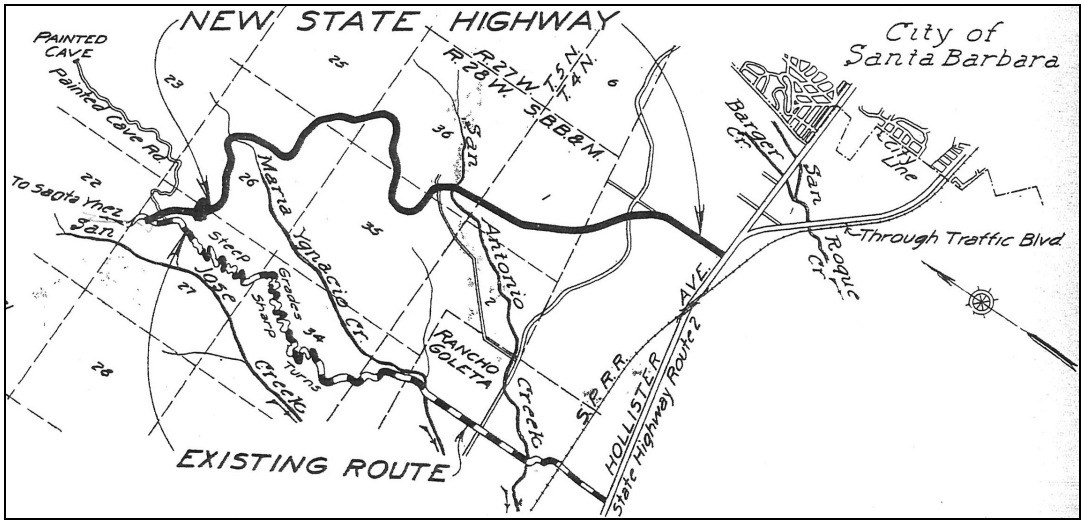
[3] Erwin G. Gudde, *California Place Names: The Origins and Etymology of Current Geographical Names*, (Berkeley: University of California Press, 1949) 309; and *California Inventory of Historic Resources*, 185. The story of Fremont proceeding through the San Marcos Pass is recounted in "How San Marcos Pass Saved California to U.S," *California Highways and Public Works*, August 1936, 6-8 and 30-32 and "Fremont and the San Marcos Pass," *California Highways and Public Works*, September 1950, 42-44. The early history of San Marcos Pass is also presented in Caltrans, Historic Resource Evaluation Report San Marcos Pass Road, January 1993. This HRER includes references to Maynard Geiger, "Some Observations on Santa Barbara County's Early Roads," *Noticias*, 10:2 (Spring 1964); John C. Fremont, "California Battalion Trip from Monterey to Los Angeles," excerpt from *Memoirs of My Life* (1887); and Walker A. Tompkins, "The Foxen-Fremont Fable," *Noticias*, 26:1 (Spring 1980).

[4] Newton H. Chittenden, *Health Seekers', Tourists' and Sportsmen's Guide, Health and Pleasure Resorts, Pacific Coast*, (San Francisco: C.A. Mubdock & Co. Printers, 1884) 80.

[5] Caltrans, HRER San Marcos Pass Road (1993). The HRER references to the early history of the roadway include: Walker Tompkins, *Stagecoach Days in Santa Barbara County* (Santa Barbara: McNally & Loftin West, 1982) and Stella H. Rouse, "San Marcos Pass History," *Noticias*, 26:2 (Summer 1980).

[6] "Way It Was," *Santa Barbara News-Press*, February 5, 1989; Walker A. Tompkins, *San Marcos Pass*, Neighborhood Series, No., 11, Santa Barbara Board of Realtors, 1980, np; and Caltrans, HRER San Marcos Pass Road. The early road over San Marcos Pass began in Goleta. This road was alternatively called San Marcos Road.

and down through Cold Spring Canyon to the Santa Ynez Valley floor, however, remained largely unchanged from the county highway the state had acquired.[7]



[*California Highways and Public Works*, February 1935, 4. Route 2 is US101. San Marcos Pass and Cold Spring Canyon are located northwest of the end of the new highway illustrated.]

As traffic along San Marcos Pass Road grew steadily during the mid-twentieth century, the inadequacy of the route for auto travel became more pronounced. Vehicles traveled this inland route between Santa Barbara and north county communities such as Lompoc and Solvang as well as to Vandenberg Air Base, which became the West Coast's missile center in 1956.[8] Traffic grew as the county's population grew in the 1950s. Population growth occurred in the north county area around Vandenberg, which had a growing demand for workers, and along the coast around the new University of California Santa Barbara campus near Goleta.[9] Residential development along San Marcos Pass Road further increased during this period, as demand grew for hillside houses with ocean views.[10] The roadway also provided access to the recreational area at Lake Cachuma, which the United States Bureau of Reclamation (USBR) built in the late 1940s and early 1950s as a water storage and flood control project. The USBR built the dam forming Lake Cachuma in 1953 (later renamed Bradbury Dam).[11] In response, county infrastructure and roadways needed to be improved to handle growing demands.

The Division of Highways upgraded, realigned, and straightened San Marcos Pass Road in three phases, finally renumbering the roadway as SR154 in 1963. The first phase occurred in 1951 when the Division of Highways built a new alignment to replace the old road that was to be inundated by the new Lake Cachuma. The second phase occurred in 1956 when the Division of Highways

[7] H.L. Cooper, "Building a Highway Over Santa Ynez Range Via Historic San Marcos Pass," *California Highways and Public Works*, February 1935, 4-5 and 15; L.E. McGougal, "Highway Completed Through Historic San Marcos Pass on New Alignment," *California Highway and Public Works*, January 1936, 4-5 and 16.

[8] "Cold Spring Canyon Arch," *California Highways and Public Works*, September-October 1963, 15.

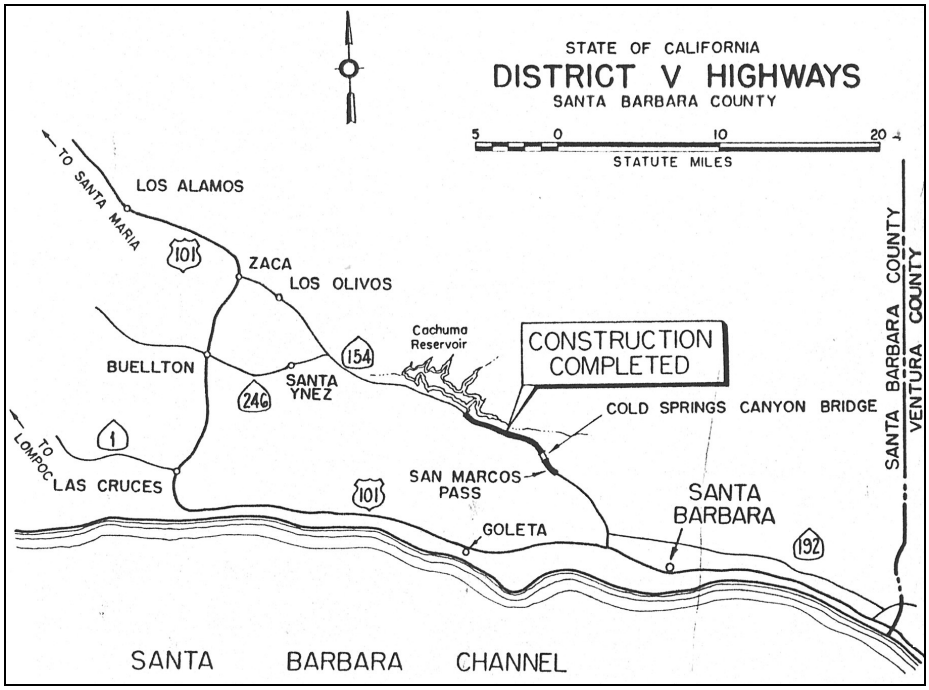
[9] Development of UC Santa Barbara and Vandenberg Air Force Base was covered well in the local press, as is evident in Dewey Scharman, editor, *Headlines: A History of Santa Barbara from Pages of Its News Paper, 1855-1982*, (Santa Barbara: NewsPress Publishing Co, 1982).

[10] J.M. Sturgeon, "San Marcos Pass, Modern Highway Built Through Historic Area," *California Highway and Public Works*, May-June 1964, 13-14.

[11] A.M. Nash, "Report from District V," *California Highways and Public Works*, September-October 1958, 17; Ed Ainsworth, "High Bridge Aids Growth of City," *Los Angeles Times*, June 25, 1963, A2; California Department of Water Resources, Division of Flood Management, California Dams Database, Bradbury Dam, available online at: http://cdec.water.ca.gov/cgi-progs/damMeta?dam_id=160 (accessed January 2007); and E.J.L. Peterson, "Story of San Marcos Pass Told in State Highway Journal," *Santa Barbara News-Press*, September 1, 1955, B-2.

upgraded the portion of roadway between Painted Cave Road and San Marcos Pass. The latter portion was a 1.9 mile stretch of new highway that abandoned portions of the old San Marcos Pass Road and created a new straighter roadway.[12]

By the end of the 1950s, the seven mile stretch of the old highway winding down from the crest of San Marco Pass to the Santa Ynez Valley floor, that included the area around Cold Spring Canyon, needed to be upgraded. This stretch included many sharp curves, some with radii of less than 200 feet. The Division of Highways sought to reduce the number of curves and steep grades on the highway, concluding that the new alignment should be built uphill from the old route. The highway designers decided, however, that an alignment through Cold Spring Canyon following the old route could not sufficiently eliminate the sharp curve near the Cold Spring Tavern. Thus a bridge to span Cold Spring Canyon was necessary. The Division of Highways built the Cold Spring segment of highway, which became SR154 and is shown in the map below, between June 1962 and February 1964.[13] Realignment of San Marcos Pass Road near Cold Spring passed through both public and private land, including land owned by Emmet J. Kinevan, son of Patrick Kinevan who had operated the stagecoach stop near San Marcos Pass decades before.[14]



[*California Highways and Public Works*, May-June 1964, 12.]

Construction of this seven-mile segment of SR154 completed the Division of Highways' more than decade long upgrade to the highway, enhancing safety and speed of travel on this inland route to and from the City of Santa Barbara and communities in northern Santa Barbara County. The series of projects on SR154 from 1951 through 1964 coincided with similar developments on other state highways across Santa Barbara County, and were part of long-planned upgrades of former county highways. Projects to widen and improve older roadways and highways to modern standards included: segments of US101 in Santa Barbara and from Goleta to Santa Maria, SR1 and SR246 through and near Lompoc; and SR166 east of Santa Maria to New Cuyama. The highway improvement project on SR154 did, however, leave remnants of the old route in place, portions of which are extant and still in use

[12] *California Highway and Public Works*, May-June 1964, 13; Caltrans District 5 records, "From Painted Cave Road to San Marcos Pass, EA 55-5VC18-F, Final Report, June 25, 1956."

[13] *California Highway and Public Works*, May-June 1964, 14-15.

[14] Kinevan's property is noted on the as-built plans for the Cold Spring Canyon Bridge. Emmet Kinevan is listed as son of Patrick Kinevan in the 1900 US Census. United States Census Bureau, *Twelfth Census of the United States, 1900.* 1900 Population Schedule, Township 3, Santa Barbara, California.

for local traffic under the Cold Spring Canyon Bridge. These remnants are part of what is now Old San Marcos Pass Road / Stagecoach Road.[15]

Design and Construction of the Cold Spring Canyon Bridge

The Division of Highways designed and built the Cold Spring Canyon Bridge as an integral part of the 1962 to 1964 project to upgrade and realign the seven-mile stretch of SR154 from San Marcos Pass to the Santa Ynez Valley floor, but executed the bridge on a separate contract than the rest of the project. The 1956 announcement of the new alignment, for what was then signed SR150, called for a 1,400-foot-long bridge at Cold Spring Canyon.[16] The Division of Highways completed designs for the Cold Spring Canyon Bridge in Fall 1961, approved the design in January 1962, and awarded the contract for construction in April 1962. Construction of the bridge began in May 1962 and was completed eighteen months later in December 1963. The bridge did not open for traffic until February 1964 when the Division of Highways completed the realignment project.[17]

Design of Cold Spring Canyon Bridge

The Division of Highways Bridge Department in Sacramento designed the Cold Spring Canyon Bridge. Multiple engineers and bridge department staff contributed to the design and planning for the structure. Associate engineer Marvin A. Shulman was largely responsible for the design of the bridge, but he left the department prior to completion of its design. Raymond L. Whitaker completed the engineering on the structure and signed the project plans as the project designer. George A. Hood, Jr. was the department section supervisor for this bridge and is listed as the chief designer, although most of the engineering, planning, and design calculations were performed by Shulman and Whitaker. Among others who contributed to the design process were George Fung who checked the plans and C.F. Johnson who detailed the plans.

The Bridge Department engineers of the California Division of Highways designed the Cold Spring Canyon Bridge within the milieu of a corporate culture that promoted and placed a high value on quality, appearance, and good engineering performance to achieve not only structurally efficient and economically feasible bridges, but also aesthetically pleasing structures. The department encouraged its engineers to be innovative and to propose bridge designs that took advantage of various technologies that had been well-used for decades as well as those that emerged in prominence during the mid-twentieth century, such as welded steel and prestressed concrete. Among the structures that likely influenced the design of the Cold Spring Canyon Bridge was the USBR's Glen Canyon Colorado River Bridge in Arizona, completed in 1959, which possesses a general configuration and column design similar to the Santa Barbara county structure.[18] The graceful lines and aesthetic appearance of Swiss engineer Robert Maillart's 1920s bridges also served as inspiration for the design.[19] The department's culture of quality is evident not only in the Cold Spring Canyon Bridge, but also in others, such as the Vincent Thomas Bridge (53 1471, also known as the San Pedro Terminal Island Bridge) in Los Angeles. Evidence of this pride of work is indicated as well by Shulman and the Bridge Department's having submitted the bridge to various industry organizations to compete for awards and recognition, which it received.[20]

Marvin A. Shulman received his civil engineering degree from the University of California, Berkeley in 1951 and joined the Bridge Department at the Division of Highways the same year. His early career included recognition in the American Institute of Steel Construction (AISC) bridge design competitions, including awards for the design of a bridge on SR96 over the Trinity River in 1957

[15] State of California Division of Highways, District V, "1964 Highways Newsletter For Santa Barbara County," January 1964; and State of California, Department of Public Works, Division of Highways, *Statistical Supplement portion of Eighteenth Annual Report to the Governor of California by the Director of Public Works*, January 1965, list of completed contracts for Santa Barbara County. Also see, Santa Barbara County Planning Commission, *The Master Plan of County Roads & Highways, Santa Barbara County, California*, November 15, 1938. Many of the roads and highways proposed for improvement in this master plan were upgraded in the 1950s and 1960s.

[16] "State Would Alter Route of San Marcos Pass Road," *Los Angeles Times*, November 11, 1956, A11.

[17] I. O. Jahlstrom, "Report of Completion for the Construction of Cold Spring Canyon Bridge, County of Santa Barbara, Contract No. 63-14V13C2, Road V-SB-80-B," June 17, 1964.

[18] Raymond L. Whitaker, oral interview with Christopher McMorris and Stephen Wee, JRP, March 12, 2007.

[19] Marvin A. Shulman, oral interview with Christopher McMorris and Stephen Wee, JRP, March 19, 2007.

[20] Whitaker, oral interview, March 12, 2007.

(04 0137) and for a steel girder overpass structure design in the "Steel Highway Bridge Design Competition," sponsored by the American Bridge Division of US Steel in 1959. He was recognized for his work on the Cold Spring Canyon Bridge and for several more bridges in the 1960s and early 1970s. Shulman remained with the Bridge Department until 1975, except for a few years when he worked for Aerojet Corporation in Rancho Cordova, near Sacramento, in the early 1960s after he had finished most of the design for the Cold Spring Canyon Bridge. He went to the State Architect's office structural safety section in 1975, where he engineered mostly hospitals and schools. He eventually became principal structural engineer of that office and retired from the state in 1992.[21]

Raymond L. Whitaker also joined the Division of Highways Bridge Department in 1951, following completion of his engineering degree from the University of Nevada, Reno. He worked in bridge construction supervision for a few years and then moved to the bridge design office in Sacramento. One of the best known bridges he helped design, prior to working on the Cold Spring Canyon Bridge, was the Vincent Thomas Bridge, which was also completed in 1963. He was one of the principal designers of the suspension system of that structure. In 1964, Whitaker moved to the California Department of Water Resources (DWR) where he headed up that department's bridge office. At DWR, he oversaw completion of the design computations and construction of the Bidwell Bar suspension bridge (12 0188, carrying SR162 over the Middle Fork of the Feather River), which was completed in 1965. During this period he also consulted on the SPINK Corporation's design of the pedestrian suspension bridge at California State University Sacramento, known as the Guy A. West Bridge, which was completed in 1967. Whitaker became acquainted with a vice president of US Steel during the design of the Cold Spring Canyon Bridge who encouraged him several years later to investigate a position with Wilbur Smith Associates in South Carolina. Whitaker followed this advice and took a position with Wilbur Smith Associates in 1966, where he spent the rest of his career, eventually becoming chief structural engineer in the firm's home office in Columbia, South Carolina.[22]

George A. Hood, Jr., joined the Division of Highways Bridge Department in 1948 after a short stint with the Bureau of Reclamation in Denver. He joined the department's design division in 1953 and was promoted from bridge designer to section supervisor prior to his work on Cold Spring Canyon Bridge. Among his designs, prior to the Cold Spring Canyon Bridge, were two all-welded steel structures at Lake Berryessa on Knoxville-Berryessa Road. These bridges are the Pope Creek Bridge (21C0013) and the Putah Creek Bridge (21C0014) which were constructed in 1957. The latter of the two was widened in 1958. Hood retired from the Bridge Department in 1984.[23]

The Division of Highways district highways design division laid out the new route for SR154 and selected the site for the bridge department. Several factors went into the choice of the steel arch design for Cold Spring Canyon including consideration of construction costs, maintenance demands and costs, span layout, and designated design loads. Shulman maintains that the magnitude of the site, including its picturesque location, demanded a structure to complement the setting. From an engineering perspective, steel arches were, and still are, a suitable and economical choice in steep canyons, such as the Cold Spring Canyon. There was also limited access to the lower canyon area for machinery and equipment, which made it all the more apparent that a long span structure was required. In addition, the Los Padres National Forest area around the bridge was susceptible to fire, so little to no timber falsework could be located in the canyon during construction. Such falsework would have been required for a reinforced concrete structure, for example.[24] Reinforced concrete and prestressed concrete designs were also not seriously considered because such structures would have been much heavier than the steel arch, and the allowable bearing pressure for the foundations would not have supported such structures.

[21] *California Highways and Public Works*, November-December 1959, 45; *California Highways and Public Works*, September-October 1964, 59; and Shulman, oral interview, March 19, 2007. Mr. Shulman's name is mis-spelled as "Schulman" in various articles and documents.

[22] Whitaker, oral interview, March 12, 2007; and "The (Green) and Golden Gate," *Sacramento State Bulletin*, October 17, 2005, available online at: http://www.csus.edu/bulletin/bulletin101705/bulletin101705bridge.htm (accessed March 2007).

[23] George A. Hood, Jr., oral interview with Christopher McMorris, JRP, March 28, 2007.

[24] Marvin Allen Shulman, "California Scenic Bridge Features 700 Ft. Welded Steel Arch," *Modern Welded Structures*, Vol. II, (Cleveland, OH: James F. Lincoln Arc Welding Foundation, 1965), A-16; Shulman, oral interview, March 19, 2007; and Hood, oral interview, March 28, 2007. George Hood reiterated the restrictions for building falsework in the canyon because of fire hazards in a National Forest.

With input from Hood and others, Shulman concluded that a steel arch was the most suitable and economically feasible structure for this site. Its selection, Shulman recalls, was "a natural for the site."[25] Shulman coordinated with the Bridge Department architects on the layout and design of the Cold Spring Canyon Bridge, taking advice on ways to enhance the aesthetic qualities of the bridge. In particular, Shulman received input from the architects regarding the appearance and spacing of the columns and other visual components, including the exclusion of cross bracing in the towers. He worked with Bridge Department cost estimators to evaluate construction costs, including calculating estimated quantities of materials based on preliminary layout designs and estimates for the cost of materials and labor, including provisions to account for the bridge's location / setting and the quantity of work expected. The Cold Spring Canyon Bridge was also among the first structures for which the Bridge Department (and Shulman) used computers to provide data on the complicated computations required for the structural design.[26]

The emphasis of the design was on the arch structure and the stability of the structure to withstand the loads to be placed on it from traffic and possible seismic events, for example. In addition to the forces carried to the ground by the arch itself, the design of the structure's deck acted as a horizontal stiffening element. This, in turn, permitted the supporting columns and towers to be slender. In contrast to the intricate calculations and design necessary for the arch, towers, columns and deck structure, the railings used on the bridge were a standard type. No particular requirements were considered for their selection, besides those of the basic highway bridge engineering and safety that were inherent in the standard type design. The Bridge Department did not consider a specially designed railing for this structure, although the decision to use the type that is on the bridge may have been seen to provide for improved views from the bridge.[27]

After Shulman's (temporary) departure from the department, Whitaker took over the project to complete the design. Whitaker changed little of the design and only had to complete computations of some design elements to improve the performance of the bridge under various types of loading. This included altering the design of the K-shaped cross bracing between the arch ribs from one to two sets of cross bracing, along with adding the cable system at the apex of the arch.[28]

As construction was coming to a completion, Whitaker assessed the structure's aesthetic qualities, describing the "two gracefully curved box-shaped arch rib sections" of the bridge and listing the structure's important qualities to include its all-welded sections, "unusual arch proportions," picturesque setting, and "generally pleasing appearance" as contributing to its being a "notable addition to the California highway scene."[29] At the time of the bridge's construction, views of the canyon from the bridge and surrounding countryside were considered to be among the most beautiful and impressive in California and considered an asset to the structure's design.[30]

The bridge's design included all-welded components for the arches, girders, columns, towers, and floorbeam system. It was calculated as having saved at least $400,000 in comparison to other bridge designs and provided several other advantages in addition to cost savings. The use of all-welded components helped create a more functional design, quicker and easier shop fabrication, faster field erection of the structure, less dead load (weight of the bridge structure itself) resulting in smaller foundations, less expected maintenance, and a longer life expectancy for the structure. The all-welded design also was an important component of the aesthetic

[25] Shulman, oral interview, March 19, 2007.

[26] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007. The Division of Highways' set standards for bridge type selection from the early 1960s is described in: Division of Highways Bridge Department, Manual of Bridge Design Practice, State of California: Highway Transportation Agency, Department of Public Works, 2nd edition, 1963, 1-3 to 1-21. The Division of Highways head Bridge Engineer for Planning, Arthur Elliot, also mentioned the use of computers in this project in a paper delivered to the Western Association of State Highway Officials (WASHO) conference in 1961, "Bridge Building in an Electronic Age." (available at the Caltrans Transportation Library, Sacramento). Elliot also described the general process for bridge design during this period in "California's Way to Aesthetic Bridges," *Esthetics in Concrete Bridge Design*, (Detroit: American Concrete Institute, 1990), 119-131.

[27] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007; F. H. Yoshino and R.L. Whitaker, *California Highways and Public Works*, September-October 1963, 15 and 20.

[28] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007.

[29] *California Highways and Public Works*, September-October 1963, 15 and 20.

[30] *California Highways and Public Works*, September-October 1963, 15.

design, contributing to the trim, smooth, uncluttered appearance of the bridge.[31] Shulman used welded components, for example, because he did not want the complicated appearance that would have resulted with lattice-formed columns or diagonal bracing between the columns. The "open and clean" appearance of the bridge is formed by the slender individual components in the arch ribs, towers, and columns, all of which were more slender than they otherwise would have been if rivets and bolts had been necessary.[32]

Construction of the Cold Spring Canyon Bridge

The American Bridge Division of US Steel was the prime contractor for the erection of the Cold Spring Canyon Bridge, and Division of Highways engineer Fred Yoshino served as the project's resident engineer, with four assistant resident engineers. The Massman Construction Company of Kansas City, Missouri, was the contractor for construction of the approach fills, substructure excavation, concrete, and the concrete deck construction. Massman hired Coxco, Inc., for construction of the roadway embankment. The structural steel for the bridge was manufactured by Consolidated Western Division of US Steel in Los Angeles and by the American Bridge Division of US Steel in Gary, Indiana. The design and construction of the bridge cost over $2 million.[33]

The American Bridge Company was originally founded in 1870 in Chicago, Illinois, and operated as an independent company in the Midwest. In the late 1890s independent bridge companies began consolidating, and in 1900 twenty-eight of the largest steel fabricators and constructors consolidated into the American Bridge Company, taking the name of one of the contributing companies. The following year American Bridge Company became a subsidiary of United States Steel Corporation, the corporation formed by J.P. Morgan that virtually controlled the United States steel industry. American Bridge Company became the American Bridge Division of US Steel and remained a subsidiary of the US Steel Corporation until 1987 and is now privately owned. Because of its financial backing, immediately after consolidation in 1900 the new company commanded a great percentage of steel bridge building projects across the country and won major contracts throughout the world, using the projects to further develop the use of steel in bridge construction. American Bridge built many bridges in California, including several of the most well known steel structures in the state, such as the I Street Bridge in Sacramento (22C0153) built in 1911, both the original 1927 Carquinez Strait Crossing (23 0015L) (now being dismantled) and the second Carquinez Strait bridge (23 0015R) built in 1958, the cantilever 1941 Pit River Bridge and Overhead (06 0021) on I-5 at Lake Shasta, and the Schuyler Heim Lift Bridge at the Port of Los Angeles (53 2618) built in 1946. American Bridge continued to build and repair bridges in California throughout the twentieth century, including the seismic retrofit of the Cold Spring Canyon Bridge in 1996-1997, discussed below.

The eighteen month construction of the Cold Spring Canyon Bridge between May 1962 and December 1963 occurred in four phases: substructure; erection of the steel structure and deck on the approach spans; erection of the steel arch span; and deck construction over the arch. The diagram below illustrates the erection method to construct this bridge. The contractors were limited in their use of heavy equipment for excavation and construction of the bridge substructure because of the difficult locations of the footings. The contractors used a giant slingshot comprised of elastic rubber bands to fling the first line across the canyon in order to pull the initial chains across the divide.[34] As shown in **Photograph 5**, American Bridge used a "stiff leg" derrick to erect the steel on the approach spans, and they used railroad rails mounted on top of the approach span girders to move a traveler for construction of subsequent bents and span girders. The bridge builders then used a highline approach on the arch portion of the structure, which included construction of two 117-foot-tall temporary towers placed on top of the girders flanking where the arch span would be built. This was followed by the use of a cantilever method of support to build the arch ribs outward from either end towards the middle. The

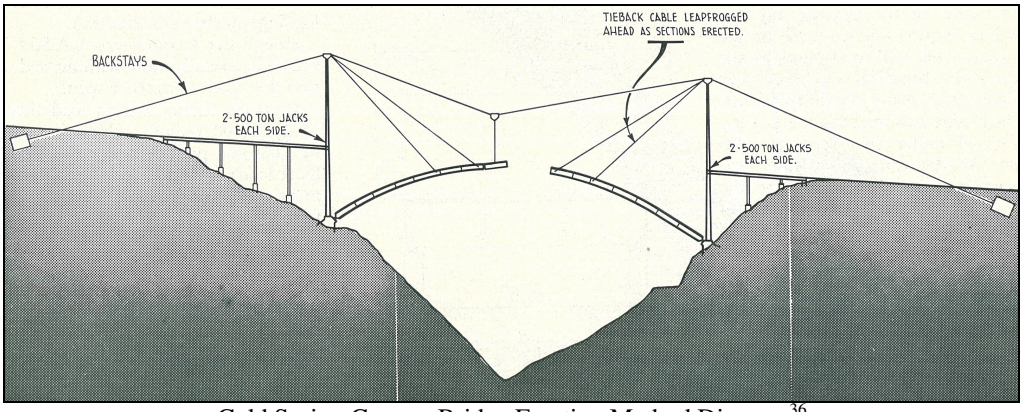
[31] Shulman, "California Scenic Bridge Features 700 Ft. Welded Steel Arch," *Modern Welded Structures*, A-16; Shulman, oral interview, March 19, 2007; Whitaker, oral interview, March 12, 2007; "Giant Slingshot Used to Help Build San Marcos Pass Bridge," *Los Angeles Times*, April 10, 1972, D1.

[32] Whitaker, oral interview, March 12, 2007; Shulman, oral interview, March 19, 2007.

[33] Jahlstrom, "Report of Completion for the Construction of Cold Spring Canyon Bridge" June 17, 1964; "Long Steel Arch Bridge to be Completed Soon," *Los Angeles Times*, November 28, 1963, 16; "Cold Spring Canyon Bridge Not Open Yet," *Los Angeles Times*, February 2, 1964, F2; *California Highways and Public Works*, September-October 1964, 59. Fred Yoshino died in Sacramento in 2002. Ancestry.com, *Social Security Death Index* (Provo, UT: The Generations Network, Inc., 2006). Shulman and Hood also stated that they believed Yoshino had died.

[34] *California Highways and Public Works*, September-October 1963, 18.

towers were tied back to anchor blocks buried in the approach fill to take the cantilever loads. American Bridge lifted the arch span sections into place by crane from trucks situated on the road below the new bridge. Work occurred on both sides of the canyon so that the loads on the arches and tiebacks were balanced. **Photograph 6** shows the arch after it was completed in July 1963, three months behind schedule. This delay was because some of the arch ribs fabricated in Gary, Indiana, were flawed and required corrective work. Work was slower on this bridge than on conventional bridges because various operations could not be done concurrently, but rather had to follow a specific sequence. No portion of the concrete deck could be built, for example, until all steel for the arch span was in place, and painting of the steel had to wait until the concrete pours and curing on the deck stopped dripping water. The challenging location and design of the structure, as well as concerns to follow adequate safety procedures, prevented the contractor from speeding up the progress of construction.[35] **Photograph 7** is an aerial view taken near the end of the construction period and shows the route of the old highway in the foreground.



Cold Spring Canyon Bridge Erection Method Diagram[36]

Steel Arches and Welding Technology

The Cold Spring Canyon Bridge is one of the few steel arch bridges on California roadways. It is the longest of its type in the state with its 700 foot long main span, which, at the time it was built, was twice as long as the state's previously longest steel arch bridge.[37] It is also one of only two steel arch bridges on California roadways built with all-welded steel components. Generally, steel arches are more difficult and expensive to fabricate and erect than other types of bridges, such as the concrete box girder and prestressed concrete which were innovations developed in the mid-twentieth century. Some steel arches, however, were built as the most economical and effective design, particularly where construction of reinforced concrete was not economically feasible. In some circumstances, the arch form was chosen for aesthetic reasons. Although steel arch bridges built during the early to mid-twentieth century generally followed the forms developed for this bridge type in the nineteenth century, refinements to their designs and simplifications of their forms resulted from the application of increased scientific testing and mathematical rigor as well as improved quality of steel and steel construction methods. Some of the best-known twentieth century steel arches in the country are massive

[35] Division of Highways Bridge Department, As-built plans, Cold Spring Canyon Bridge, 1963; Jahlstrom, "Report of Completion for the Construction of Cold Spring Canyon Bridge, June 17, 1964. The roadway's new number is also provided in this report as V-SB-154. Also see, *California Highways and Public Works*, September-October 1963, 19; "Amended Plan on San Marcos Highway Okd," *Los Angeles Times*, January 8, 1962, A14; "Long Steel Arch Bridge to be Completed Soon," *Los Angeles Times*, November 28, 1963, 16; "Cold Spring Canyon Bridge Not Open Yet," *Los Angeles Times*, February 2, 1964, F2; "Bridge to Open at Cold Springs," *Los Angeles Times*, February 7, 1964, A2; *California Highways and Public Works*, September-October 1964, 59. Construction of the Cold Spring Canyon Bridge was covered by major newspapers. See, for example, "Bridge at Halfway Point," *New York Times*, March 26, 1963. The *Santa Barbara News Press* covered the bridge's construction at various points, but did not publish articles about the bridge when it was completed or when it opened. The newspaper also described the design and construction of Cold Spring Canyon Bridge in: Bill Griggs, "Dream Design Bridges Reality at Cold Spring," *Santa Barbara News-Press*, May 10, 1987, B-1 to B-2.

[36] Published in *California Highways and Public Works*, September-October 1963.

[37] The Pulga Bridge (12 0038), carrying SR70 over the Feather River in Butte County, was built in 1932 with a 350 foot main span and was the longest steel arch bridge in California when it was built.

structures with intricate webs of truss supports, such as the Hell Gate Bridge and Bayonne Bridge built in New York in 1916 and 1931, respectively. Others were built with more delicate forms, with slender support members, shallow deck girders, and open and light spandrel areas. Such improvements led to designs with greater purity of the arch form and a more refined appearance of structural elements, as is seen in the Cold Spring Canyon Bridge.[38]

There are two designs of steel arches found in California: spandrel-braced and solid-ribbed arches. Spandrel-braced arches have webbed triangular members like trusses, but with a rounded bottom chord that forms an arch. They are built in deck form with spandrel columns and lateral braces. Two of the other large steel arch bridges on California roadways, besides Cold Spring Canyon Bridge, are spandrel-braced arches. These structures are the Pulga Bridge (12 0038) in Butte County, built in 1932, that carries SR70 over the Feather River, and the Maple Canyon Bridge (57C0416) in San Diego, built in 1932. The oldest steel arch bridges in California are also spandrel-braced structures. They are the Edwards Bridge (17C0006) in Nevada County, built in 1904, and the San Lorenzo River Bridge (36C0085) in Santa Cruz County, built in 1912.

Later examples include the Gerald Desmond Bridge in Long Beach (53C0065), constructed in 1968, and the Gault Bridge (17C0001) near Nevada City which is a 1906 bridge that was reconstructed in 1996. Solid-ribbed arches, like the Cold Spring Canyon Bridge, have girders cast in a curved form with the deck supported by metal posts or suspenders attached to the arch form. Other examples of this bridge type include the George E. Tyron Bridge (01C0005), built in 1948, carrying South Fork Road over the South Fork of the Smith River in Del Norte County, and the Bluff Creek Bridge (04 0225), carrying SR96 in Humboldt County, built in 1967. The Tyron Bridge is structurally similar to the Cold Spring Canyon Bridge, albeit much smaller, and is the other all-welded steel arch in the state. The Bluff Creek Bridge is much shorter than the Cold Spring Canyon structure and its arch is formed by a plate girder design. There are also solid-ribbed arches that carry the deck on the bottom chord, forming a through-style bridge. Examples of these types of solid-ribbed arches include the Sixth Street Viaduct over the Los Angeles River (53C1880), built in 1932, and the Howells Bridge (09 0009), carrying SR 70 over the Feather River in Plumas County, built in 1934.[39]

Another large arch bridge, the San Roque Canyon Bridge (51 0104), was formerly located in Santa Barbara until it was demolished in the early 1980s and replaced in 1984 with a concrete structure. The San Roque Canyon Bridge, built in 1931 in what was then an unincorporated area of the county, was a steel plate girder arch with steel stringer approaches. It had two sets of arches, carried two lanes, was 482 feet long, and was 28 feet wide. Santa Barbara County Surveyor and civil engineer Ulysses Sumner Grant designed the structure and it was built by C. B. Davison for the county. This bridge was constructed on a foothill route, SR192, between Santa Barbara and Goleta, and was built to help relieve traffic congestion on the coast highway, US101. The county chose the steel arch design, in part, because it was substantially less expensive at the time than the concrete arch bridge, suspension bridge, and truss bridge designs that were also considered.[40]

The Cold Spring Canyon Bridge was one of the ten longest steel arch bridges in the United States when constructed and one of the few with its arch units entirely fabricated from arc welded steel.[41] The Santa Barbara County structure was discussed in engineering publications from the 1960s and 1970s along with other steel arches built across the country during the mid-twentieth century, some of which were much longer. Among the Cold Spring Canyon Bridge's contemporaries is the structurally comparable Lewiston-Queenston Bridge over the Niagara River in Lewiston, New York, at the border crossing into Canada. This solid-ribbed deck arch was completed in 1962 over a large canyon and is strikingly similar in layout and form to the Cold Spring Canyon Bridge with its open uncluttered appearance formed by slender arch ribs, roadway deck, and columns with no cross bracing. Smaller steel arch structures with similar architectural qualities, but built as overpasses to highways for example, include the Old State Route 8 Bridge

[38] Carl Condit, *American Building: Materials and Techniques from the Beginning of the Colonial Settlements to the Present*, 2d ed (Chicago: University of Chicago Press, 1982), 214, 228-233.

[39] JRP Historical Consulting, "Caltrans Historic Bridges Inventory Update: Metal Truss, Movable, and Steel Arch Bridges," Volume 1, prepared for Caltrans, March 2004, 36-37. Arch bridges can also be characterized by their degree of articulation, i.e. the number and location of pin connections or hinges at the supports and arch crown. The Cold Spring Canyon Bridge is a two-hinge arch. This characterization of arch bridges, however, is less generally important than the form of arch using either ribs or truss forms.

[40] John Snyder, "Historic American Engineering Record, CA-17, San Roque Canyon Bridge," 1979.

[41] *World Almanac*, 1963 cited in *California Highways and Public Works*, September-October 1963, 14; *California Highways and Public Works*, September-October 1964, 59.

on the Ohio Turnpike, built in 1955, and the South Street Bridge over I-84 in Middlebury, Connecticut, built in 1964.[42] The New River Gorge Bridge in West Virginia, a deck style solid-ribbed arch with a truss-formed arch, was the longest steel arch bridge in the world from when it was constructed in 1975 until the steel arch Lupu Bridge was completed in 2002 in Shanghai, China.[43]

The use of all-welded components in the Cold Spring Canyon Bridge illustrates a maturation of welding technology and its acceptance and use in major structures. Its implementation here was not innovative, but rather evolutionary in demonstrating confidence and proficiency in the application of this technology to achieve a structurally feasible, economically sensible, and aesthetically pleasing design. The established use of welding for major buildings and important bridges can be seen in other buildings and structures across the county contemporary with the Cold Spring Canyon Bridge. Among them, for example, are the Chicago Civic Center built in 1963-1965 and the Ash Street / Pillsbury Road Bridge on I-93 in New Hampshire. The Chicago Civic Center's bold design is apparent in the dimensions of spans (both in width and height) and the creation of a portal framing system that forms a rigid frame evenly dividing the tensile and compressive stresses among connected members.[44] New Hampshire Department of Transportation's engineer Robert Prowse designed the all-welded steel rigid frame Ash Street / Pillsbury Road Bridge as a conceptual bridge competition design, and the state of New Hampshire built the structure in 1964. It is composed of "five frames or bents designed to function as a series of parallel two-hinged rigid frames." Its design permitted the welded forms to take on sculptural qualities that reflected its internal stresses and to unite the overall structure.[45]

Welding developed in the early twentieth century and was one of the most important innovations in steel bridge construction that emerged in the 1930s. Welding, or electric arc-welding, was originally invented in the 1880s by French inventor Auguste de Meritens, but was not used in building construction until the early twentieth century. Welding was used for sporadic purposes and in some building projects in the United States during the 1920s and was first used on California bridges during the 1930s. By the end of that decade, state engineers in California were studying and experimenting with welding to improve techniques and applications. Welded bridges promised to be lighter and easier to construct than riveted structures because they did not require rivets, tie plates, and lacing bars, and they could be constructed on the ground and moved into place. Welded bridges also promised to provide cost savings by decreasing the volume of metal necessary. Implementing the use of welding in bridge construction, however, required investment in welding equipment plus skilled designers and welders. Proponents not only considered welding economically viable, but they also claimed there would be aesthetic advantages to constructing such bridges. Welding was not used widely at first because engineers tended to design with known and proved methods which welding had yet to become. Furthermore, there were difficulties in inspecting it externally for defects, and early welding techniques were, at times, structurally weak.[46]

In the 1950s, welded bridges became more common in California as construction practices were improved and engineers recognized the safety of welded structures. Welding was boosted into a more prominent role in bridge construction during the early 1950s when the federal government limited the use of rolled steel in bridges during war restrictions for the Korean conflict. With fewer large

[42] Frederick S. Merritt, *Structural Steel Designers' Handbook*, (New York: McGraw-Hill Book Company, 1972) 13-12, 13-22, and 13-40; The New York State Historic Preservation Officer determined the Lewiston-Queenston Bridge eligible for listing in the NRHP in 2001 under Criterion C and Criteria Consideration G. Claire Ross, NY SHPO National Register and Survey Unit Coordinator for Niagara County, personal communications with Christopher McMorris, JRP, March 9, 2007.

[43] National Park Service, "New River Gorge Bridge," informational pamphlet, New River Gorge National River, November 1998; "Superstar opens super bridge," *China Daily*, online at: http://www.chinadaily.com.cn/en/doc/2003-06/30/content_241993.htm. The West Virginia State Historic Preservation Officer considers the New River Gorge Bridge eligible for listing in the NRHP, although no evaluation has been completed on the structure. Ginger Williford, Structural Historian, West Virginia, State Historic Preservation Office, personal communications with Christopher McMorris, JRP, March 8, 2007.

[44] Condit, *American Building*, 193-195.

[45] Ken Story, Preservation Company, and James L. Garvin, New Hampshire Division of Historical Resources, "Ash Street Bridge (Robert J. Prowse Memorial Bridge) Bridge No. 140/120," New Hampshire Division of Historical Resources, Individual Inventory Form, NHDHR Inventory #LON0116, September 2001 and December 2002, available at the State of New Hampshire, Department of Transportation, Bureau of Environment; and Federal Highway Administration, "Final List of Nationally and Exceptionally Significant Features of the Federal Interstate Highway System" November 1, 2006, online at: http://www.environment.fhwa.dot.gov/histpres/highways_list.asp (accessed March 2007).

[46] Condit, *American Building*, 192-193; and "Three State Engineers Win Awards in Welding Design Competition," *California Highways and Public Works*, November 1938, 16, 17, and 28; P. Van Rensselaer and F. Sax, ASCE, "Why Not More Welded Structures?" *Civil Engineering*, August 1960,53; Omer W. Blodgett, *Design of Welded Structures*, (Cleveland, OH: James F. Lincoln Welding Foundation, 1966),1.1-1 to 1.1-3.

rolled steel members available, the Division of Highways developed welding practices to build up structural elements of large bridge projects. The Bridge Department became instrumental in promoting the use of all-welded girders, largely for their potential economic benefit, as well as for the use of composite girders where bolts were welded to the top flange to improve the integration of the girder with concrete decks. The advantages of welding – including time savings in construction, reduced materials, improved durability of steel components, and aesthetic enhancements – became more readily apparent, and welded structures were increasingly considered for bridge designs. By the mid-1950s and early 1960s, the Division of Highways regularly constructed all-welded structures, such as the viaduct for the elevated Bayshore Freeway in San Francisco, built in 1954 (34 0077) and the George C. Cole Memorial Bridge carrying US101 over the South Fork of the Eel River at Myers Flat (04 0123), built in 1962, both of which won awards from the American Institute of Steel Construction.[47]

Dissemination of information regarding welding and promotion of its use was, in large part, the result of publications from and competitions sponsored by the James F. Lincoln Arc Welding Foundation. Established in 1936 to promote the art and science of arc welding, the foundation was a spin off of the Lincoln Electric Company in Cleveland, Ohio, which pursued this technology when it was relatively new, shifting its emphasis to manufacturing welding equipment. The company saw the need to encourage greater practical experience if the technology was to reach its potential. This led to the formation of the non-profit foundation which disseminated information and stimulated research by sponsoring awards programs for innovative uses and designs for welded structures. The first awards contest was held in 1938 with subsequent awards presented in 1943 and afterward. The foundation began publishing its own texts in 1954. The foundation later awarded Marvin Shulman and the Division of Highways Bridge Department an award for the Cold Spring Canyon Bridge.[48] In addition to providing engineers technical data to satisfy potential structural situations, the James F. Lincoln Foundation also promoted welding by illustrating its economic benefits and its applications in contemporary design. In 1966, a Lincoln Foundation publication explained that welding provided designers the freedom "to employ the most elementary or most daring concepts of form, proportion, and balance to satisfy the need for greater aesthetic value." It went on to describe contemporary buildings with exposed steel framing used as part of the "artistic scheme" that illustrated the "unencumbered simplicity of form essential to the modern look in architecture."[49]

It was in this environment, although not overtly recognized as such, that the Division of Highways Bridge Department engineers considered welding and its aesthetic benefits for creating a pleasing structure, such as occurred with the Cold Spring Canyon Bridge. Shulman, Whitaker, and Hood did not identify that they were working in a "Modernist" aesthetic, but their efforts to design an open, uncluttered, graceful steel arch design that took advantage of welding's various benefits are indicative of the era in which the Cold Spring Canyon Bridge was designed and built – a period when building and structural designers sought to achieve economy, efficiency, and functional and material honesty, along with appropriate structural balance.

The Cold Spring Canyon Bridge also illustrates an engineering design that can be understood from a historical perspective because, in part, few arch bridges were built subsequent to this structure. There are likely several reasons for this. There may have been few situations on California roadways that called for the use of a steel arch, as was needed for Cold Spring Canyon. The Cold Spring Canyon Bridge was also designed and built prior to other innovations and structural testing that are now prevalent in bridge construction. These include innovations in steel manufacturing that have allowed other structural types to be used for long spans, including "weathering steel" developed in the mid-1960s and "high-performance steel," which was developed in the early 1990s. The latter type has greater strength, is lighter in weight, and has greater atmospheric resistance than conventional steel.[50] In addition,

[47] H.D. Stover to F.W. Panhorst, letter regarding welding processes reports and list of welded bridges in California, November 2, 1944, Structures Maintenance Historical Collection, General Information File, California Department of Transportation Library, Sacramento; Division of Highways, *Sixth Annual Report*, 1953, 157; Arthur L. Elliot, "California Captures Four AISC Steel Bridge Awards," presentation ca. 1961, available in "aesthetics" file at the Caltrans Transportation Library Sacramento; and Shulman, oral interview, March 19, 2007. The award winning section of the Bayshore Freeway was at the 9th and 10th Street Viaducts, now considered part of the Central Viaduct in San Francisco.

[48] J.F. Lincoln Foundation, "About Us, History & Profile," J.F. Lincoln Foundation website, online at: http://www.jflf.org/about/history.asp (accessed January 2007); "Award Winning Bridges," *California Highways and Public Works*, January-February 1965, 40.

[49] Blodgett, *Design of Welded Structures*, 1.1-1 to 1.1-7.

[50] Shulman, oral interview, March 19, 2007; Whitaker, oral interview, March 12, 2007; Hood, oral interview March 28, 2007; Whitaker, oral interview, March 12, 2007; Robert A.P. Sweeney, Chairman of the Committee on Steel Bridges, "Steel Bridges," Transportation for a New Millennium. Available from the Transportation Research Board, "Millennium Papers" http://www.trb.org/TRB/publications/MillenniumPapers.asp (accessed January 2007).

bridge design innovations such as large segmental prestressed concrete structures and cable-stay suspension structures were also likely responsible, in part, for few steel arches of similar size and scale as the Cold Spring Canyon Bridge being built subsequent to this bridge's construction. The structure's value as illustrating a design aesthetic that can be viewed with a historical perspective is discussed below.

None of the key engineers on the Cold Spring Canyon Bridge project, Shulman, Whitaker, and Hood, ever worked on another major steel arch bridge. Their work on the Cold Spring Canyon Bridge, however, provided insight and confidence in using all-welded designs in subsequent projects. Whitaker later used welded components for several major projects on the East Coast, including curved steel girder bridges built in Knoxville for the World's Fair in the early 1980s, a bridge widening over the Ashley River in Charleston, South Carolina, and in the William-Brice football stadium of the University of South Carolina in Columbia, South Carolina.[51] Shulman's later designs included many all-welded girder bridges. Among the most prominent of his later designs were the Elkhorn bridges on I-80 over the Sacramento River, built in 1969 (22 0025L and 22 0025R).[52]

Bridge Aesthetics and Modern-era Design

The Cold Spring Canyon Bridge illustrates the maturation of bridge design that encompasses an aesthetic influenced by the Modern-era design of the post World War II period. It also demonstrates a collaborative effort in the Bridge Department that encompasses the engineering and architectural values of its period. The simple geometry, graceful lines, slender components, and open uncluttered appearance are indicative, as noted above, of the era in which the bridge was designed and built – a period that can now be viewed with sufficient historical perspective.

Bridge design in California generally corresponded with architectural trends of the twentieth century. By the mid-1930s, the architectural and design aesthetic for prominent new buildings and structures in California had started to shift away from the Beaux Arts and City Beautiful Neoclassicism of the early part of the century towards the aesthetic of the Moderne or International Modern styles that were more abstract, stripped-down, and unadorned. These styles were promoted as symbols of twentieth century technological progress and were a reaction to the perceived excesses of ornament adopted during the late nineteenth and early twentieth centuries.[53] While many bridges across the state continued to be constructed using utilitarian designs, the Division of Highways Bridge Department emerged during this period as a national leader in the design of not only boldly engineered bridges, but also of structures with aesthetic appeal that responded to the changing visual sensibilities of professionals and the public at the time. Such spectacular aesthetic examples of this shift in taste from the 1930s include the San Francisco-Oakland Bay Bridge, the Bixby Creek Arch (44 0019), and the Tower Bridge in Sacramento (22 0021).

As in many design fields during the mid-twentieth century, bridge engineers of the period sought to design structures that would not only be functional and efficient but also represent the essence of their material, eschewing concealment and extraneous decoration for simplicity and clean, graceful lines. These efforts were inherent in their work, and while engineers may have not overtly recognized their work as such, these values expressed many of the tenets of Modern-era design. This was expressed by the Bridge Department starting in the mid-1930s as a desire to design bridges without "archaic bric-a-brac" adornment, aiming instead for bridges whose components were "pleasingly proportioned and harmoniously arranged."[54] Early on, the Bridge Department appears to have been influenced by the designs and concepts of Alfred Eichler, who worked for the Division of Architecture in the Department of Public Works from the 1920s to the 1960s. It was Eichler who pointed out that, not only did applied architectural elements such as moldings, cornices, brackets, and pilasters add cost to bridge design, it was difficult to properly apply those classical forms in bridge design, resulting in typically unsuccessful compositions. The trend, thus, was away from using historical precedents in hopes that the new structures would transcend the shifts of taste from one generation to another. Later, Bridge Department chief of bridge planning

[51] Whitaker, oral interview, March 12, 2007.

[52] Shulman, oral interview, March 19, 2007.

[53] Arthur L. Elliot, "Fifty Years of Freeway Structures," 1988, Bridges file, California Department of Transportation Library, Sacramento, 3-5 [Edited version of essay printed in *Going Places*, July-August 1989, 12-17], 2; Wilbur J. Watson, "Architectural Principles of Bridge Design," *Civil Engineering*, March 1938, 181 and 184; and Aymar Embury II, "Esthetic Design of Steel Structures," *Civil Engineering*, April 1938, 262.

[54] *Civil Engineering*, March 1938, 183; and Division of Highways, *Eleventh Biennial Report*, 1938, 54.

Arthur Elliot promoted serious consideration of aesthetics in bridge design that likely spread throughout the culture of the department.[55]

Although one can see a shift in aesthetics and taste in mid-twentieth century bridge design, many bridges constructed during this period, particularly after World War II, were designed for the greatest economy with less emphasis on the aesthetics of siting, formal expression, viewer and driver experience, or their place as civic monuments. Some of the innovations, and the economies achieved through their application, led to increased standardization of bridge design across the state and thus, in the eyes of critics, greater visual monotony. The result was a dual effect. Bridge standardization coincided with post-World War II aesthetic values that sought form to follow function, yet Modern design qualities were co-opted for mass production of bridges in the postwar period. The Division of Highways was aware that some of its designs had aesthetic shortcomings and began to use their architects more frequently in the 1950s to work on enhancing the visual effects of bridges. This led to increased aesthetic review of new bridges at the Bridge Department in the 1960s.

The Bridge Department's efforts in the 1960s to improve the aesthetics of bridge design were centered around the concept of structures' compatibility with their surroundings. Bridge Department chief of bridge planning Arthur Elliot promoted aesthetics in bridge design and freeway development. Elliot emphasized that aesthetics was not about concealing structures or adding unnecessary architectural treatment. He stressed the need for engineers to go beyond the basic computations to find the intuitive proportions of structures. He sought to not increase the cost of structures for the purposes of aesthetics, but rather to find forms and modest architectural treatment that would provide a more pleasing structure. District engineers in particular were sensitive to the issue of designing structures that would meet with approval from local governments and citizenry. Coordination between engineers and the staff architects in the Bridge Department became standard practice that was enhanced by the architects typically understanding the principals of bridge engineering. While structures like the Cold Spring Canyon Bridge were the result of this interaction, other results were more modest and largely go unnoticed now, such as textured concrete walls and tapered concrete columns for freeway overpasses.[56]

It was in this environment that the Division of Highways Bridge Department engineers designed the Cold Spring Canyon Bridge. While the engineers did not recognize this atmosphere as working in the "Modernist" aesthetic, their efforts to design an open, uncluttered, graceful steel arch design corresponded to the tenets of mid-twentieth century Modernism that sought economy and efficiency of form, functional and material honesty, and structural balance that was harmonious with its setting. Procedures initiated at this time for reviewing bridge design aesthetics have continued, and some aspects of the trends that emerged in the mid-twentieth century have continued. Caltrans continues to assess the aesthetic compatibility of structures and continues to strive for structures that are economical and structurally reliable.[57] The Cold Spring Canyon Bridge illustrates the maturation of the Bridge Department's designs meeting many of the Modern aesthetic goals and is an excellent representation of the Division of Highways' response in the late 1950s and early 1960s to produce pleasing structures that are designed with meticulous application of established engineering forms and fabrication methods.

Awards for the Cold Spring Canyon Bridge and Bridge Department Recognition

The Cold Spring Canyon Bridge has been widely recognized for its structural design and aesthetics. The bridge was noted as a "spectacular engineering feat" and as an "engineering marvel" in the popular press when it was originally constructed and for years

[55] Leonard C. Hollister, "The Modern Highway Bridge, as Expressed by Recent Designs of the California Division of Highways," *Roads and Streets*, October 1937, 45-50; Arthur L. Elliot, "Aesthetics of Highway Bridges," *Civil Engineering*, June 1968, 64-69. See "aesthetics" file at the Caltrans Transportation Library in Sacramento for Arthur Elliot's presentations and documents pertaining to bridge aesthetics from the 1960s and 1970s.

[56] *Civil Engineering*, June 1968, 64-69; Shulman, oral interview, March 19, 2007; Hood, oral interview, March 28, 2007. See "aesthetics" file at the Caltrans Transportation Library in Sacramento for Arthur Elliot's presentations and documents pertaining to bridge aesthetics from the 1960s and 1970s, such as "What Does Aesthetics Mean in the Division of Highways, Phase I, Aesthetics Program?" January 25, 1966.

[57] A.L. Elliot, "California's Way to Aesthetic Bridges," *Esthetics in Concrete Bridge Design*, (Detroit: American Concrete Institute, 1990), 119-131; and James E. Roberts, "Caltrans Considers Aesthetics Important," *Roads & Bridges*, November 1988, 73.

afterward.[58] Engineers also referred to the structure as a "classically beautiful bridge," and the bridge was discussed along with other major steel arches nation-wide in engineering journals and manuals during the 1960s and 1970s.[59] Shulman recalled that one of the judges that awarded the bridge recognition remarked about the bridge's aesthetic quality by stating that "by its simplicity, it has beauty." This recognition came at a time when California was among the leading states receiving awards for their bridges from organizations like the AISC, James F. Lincoln Foundation, Portland Cement Association, Prestressed Concrete Institute, American Iron and Steel Institute, US Steel Company, and the Federal Department of Transportation.[60]

Marvin Shulman was honored with a national welding award from the James L. Lincoln Foundation for the Cold Spring Canyon Bridge, soon after completion of construction. AISC honored the bridge in 1963-1964 as the Most Beautiful Steel Bridge (Long Span); the plaque for this designation is on the west end of the bridge and is shown in **Photograph 8**.[61]

The Cold Spring Canyon Bridge was also one of 77 awardees of Governor Edmund (Pat) Brown's Governor's Design Awards in 1966. Division of Highways' bridge designers Marvin A. Shulman and George A. Hood, Jr., were honored for the structure. The jury included prominent designers of the period including Nathaniel Owings, of Skidmore, Owings, and Merrill, as well as T.Y. Lin, UC Berkeley civil engineering professor and prominent bridge designer.[62]

Furthermore, SR154 itself was recognized. The State of California designated SR154 from Santa Barbara into the Santa Ynez Valley as a Scenic Highway in 1968. In addition, the non-profit organization Scenic America rated a 32-mile section on SR154 from Santa Barbara through the Santa Ynez Valley as one of the top ten most scenic highways in the United States.[63]

The American Society of Civil Engineers (ASCE), Santa Barbara-Ventura Section, designated the structure as Historic Civil Engineering Landmark #44 in October 1976. ASCE emphasized this recognition in 2004 by mounting a plaque on a monument located on Old San Marcos Pass Road, northeast of the bridge, as shown in **Photograph 9**.[64] In addition, Buckland & Taylor, Ltd., was given two awards in 1999 for its work on the seismic retrofit of the bridge. The two awards were the CELSOC Engineering Excellence Award of Merit and the ACEC Engineering Excellence Honor Award.[65]

Some bridges designed by the Division of Highways Bridge Department have been recognized as the "work of a master" under NRHP criteria. This recognition has been for the Bridge Department as a collective group, rather than for individual engineers in the department. Both the state-wide historic bridge inventory completed in the mid-1980s and the recent historic bridge inventory update (2002-2006) identified bridges that were significant, at least in part, because they were important works of the Bridge Department. Examples of steel bridges include bridges on SR70 in Feather River Canyon, built in 1932-1936; San Francisco-Oakland Bay Bridge,

[58] Ed Ainsworth, "High Bridge Aids Growth of City," *Los Angeles Times*, June 25, 1963, A2; "Long-span bridge an impressive gateway to valley," *Los Angeles Times*, April 28, 1979, K5. Also see an appreciation of the bridge in: Joan Bolton, "Five Million Pounds of Steel," *Santa Barbara Magazine*, January-February 1989, 14-20.

[59] Cinco Linears, Vol. 2, No. 2, February 1, 1977; Leo J. Ritter, Jr. and Radnor J. Paquette, *Highway Engineering*, (New York: Ronald Press Company, 1967) 203-204; Merritt, *Structural Steel Designers' Handbook*, 13-22 and 13-23; William F. Hollingsworth, "Fifty-Year Development: Construction of Steel Arch Bridges," *Journal of the Construction Division, Proceedings of the American Society of Civil Engineers*, Golden Jubilee Issue, No. 1, March 1975, 85-103.

[60] List of awards for California Bridges, as of June 1973 (available in the "Aesthetics" folder at the Caltrans Transportation Library in Sacramento). This list was likely compiled by Arthur Elliot, former head of Bridge Engineering Planning at the Division of Highways.

[61] "Long Steel Arch Bridge to be Completed Soon," *Los Angeles Times*, November 28, 1963, 16; "Long-span bridge an impressive gateway to valley," *Los Angeles Times*, April 28, 1979, K5; *California Highways and Public Works*, September-October 1964, 59.

[62] "Governor Presents 15 Design Awards," *Los Angeles Times*, January 1, 1967, H2. These so-called annual awards appear to have only been given out once at the end of the Brown administration. Neither the Reagan administration nor any other subsequent administration appears to have pursued recognition of engineering structures in this manner.

[63] *Santa Barbara News-Press*, January 3, 1995, 35A; Division of Highways, *Scenic Highway Corridor Survey*, 1968; and Santa Barbara Route 154 file at Caltrans Transportation Library. The scenic route designation signing occurred November 22, 1968.

[64] Russ Pyros, Chairperson, History and Heritage Committee, ASCE, letter to E.F. "Frank" Gregory, District Director of Transportation, Caltrans, December 21, 1976 on file at Caltrans District Five and Caltrans Transportation Library.

[65] Buckland & Taylor, Ltd. Bridge Engineering, "Cold Spring Canyon Bridge," webpage: http://www.b-t.com/projects.cldsprg.htm (accessed November 2005).

1936; Albion River Bridge on SR1 in Mendocino County, 1944; and Schuyler Heim Bridge in Los Angeles, 1946. There are others built in concrete that have been similarly recognized. As discussed in Section 5, the Cold Spring Canyon Bridge appears to be similarly significant as an important structure designed by the Division of Highways Bridge Department.

Repairs and Alterations to the Cold Spring Canyon Bridge

The Cold Spring Canyon Bridge has been repaired over the years, and was seismically retrofitted in 1997-1998. In the early 1990s, bridge investigations revealed that the reinforced concrete skewbacks, at the base of the two towers at either end of the arch, had deteriorated with wide cracks visible in the concrete. Caltrans repaired the skewbacks by sealing the cracks in 1990 and 1995. The department also reduced the vegetation adjacent to the bridge, as a fire safety precaution, and sealed the bridge deck at that time. Caltrans laid new asphalt concrete on SR154 between PM 21 and 23.2, including over the Cold Spring Canyon Bridge, in 2000, and built an additional concrete K-rail along the roadway over the southwest abutment in 2006.[66]

Buckland & Taylor, Ltd., Bridge Engineering designed and the American Bridge Company built the seismic retrofit of the structure under contract with Caltrans in 1997-1998, several elements of which are shown in **Photograph 10.**

Bridge investigations had indicated that the bridge's arch ribs and main towers could be overstressed in a seismic event and that the arches might not resist an uplifting force at the connection with the footing. The investigation also recommended stronger lateral cables between the deck and arch. This project included the installation of steel reinforcing plates constructed up from the arch ends on the top and bottom chords. The project also included installation of new bolts, bolsters flanking the abutment seats, and anchors placed diagonally along the tangent of the arch and below the anchor bent. The arch ribs and main towers were strengthened along with new concrete encased around the skewbacks and modifications to tie-downs for the arches.[67]

EVALUATION

The Cold Spring Canyon Bridge (51 0037), built in 1962-1963, appears to meet the criteria for listing in the NRHP because: a) it is significant, at the state level, under Criterion C; b) it has exceptional importance that meets the standards under Criteria Consideration G for properties that have achieved significance within the past fifty years; and c) it retains historic integrity to convey its significance. Its period of significance is 1962 to 1964, when it was constructed, completed, and opened to traffic. The structure is significant for its type, period, and method of construction as an important example of bridge design and engineering that demonstrates a maturation of steel arch bridge design and welded steel technology in California, and it represents a high aesthetic quality of contemporary design from its period. It is also an important work of the Division of Highways Bridge Department which is considered a "master" engineer of the period, and it is an important work of the American Bridge Division of US Steel which is considered a "master" builder of the period.

The Cold Spring Canyon Bridge does not appear to be significant under Criterion A. This structure is associated with development of San Marcos Pass Road and SR154 when it was upgraded and realigned in the 1950s and early 1960s and was specifically part of a project constructed between 1962 and 1964. The route that became SR154 was a well-established inland route between the City of Santa Barbara and north Santa Barbara County communities. The Division of Highways' improvements on SR154 during this period were among many similar projects throughout Santa Barbara County during the mid-twentieth century where old routes were upgraded and realigned for improved contemporary use. While the Cold Spring Canyon Bridge contributed to the improved safety, ease of travel, and decreased travel times on SR154, it did not fundamentally change the existing transportation corridor or itself specifically lead to additional growth or development of areas near San Marcos Pass, in Santa Barbara, or in the Santa Ynez Valley. Demand for and the effects of its construction, therefore, were similar to those of many other bridges built throughout the county and state during the 1950s and 1960s. Thus, the structure is not important for its association with significant historic events and/or trends related to its construction or use.

[66] Caltrans District 5 records.

[67] American Bridge, "Cold Spring Canyon Bridge – Seismic Retrofit," online summary available at http://www.americanbridge.net (accessed January 2007); Buckland & Taylor Ltd., Bridge Engineering, "Cold Spring Canyon Bridge," online summary available at http://www.b-t.com/projects/cldsprg.htm. (Accessed October 2006).

The Cold Spring Canyon Bridge also does not appear to be significant under Criterion B or Criterion D. Bridges are infrequently, if ever, evaluated as significant under these two criteria. Important historic persons associated with bridges are usually involved with their design, making them significant under Criterion C, rather than Criterion B. Historic buildings and structures can occasionally be recognized for the important information they yield, or might yield, regarding historic construction materials or technologies, thus making them significant under Criterion D. Bridges in California, however, particularly those built in the mid-twentieth century, can be studied through various written sources and documented construction types, so the structures themselves do not appear to be principal sources of important information in this regard.

The Cold Spring Canyon Bridge is significant under Criterion C for its engineering and architectural design and as an important work of the Division of Highways Bridge Department and the American Bridge Division of US Steel. The structure's significance lies in both its engineering value related to its structural type and design and importance as an aesthetic achievement. It is significant at the state-wide level, in part, because it is the largest steel arch in California and it was one of the first in the country to be built entirely of all-welded steel components. The Bridge Department devised an interesting and well-received design for the Cold Spring Canyon Bridge within the economic and physical confines of the project. It is an important example of its type and method of construction for its period because it exhibits a maturation of steel arch bridge design and welded steel technology employed on bridges in California, and it represents a high aesthetic quality that illustrates contemporary Modern-era architectural principles that extolled the virtues of unadorned and efficient designs along with material and functional honesty. The Bridge Department used well-established structural components – including steel arch, welded steel components, and reinforced concrete deck – but executed the overall design in a manner that captures aspects of the highest quality of work in bridge engineering in California at that time. The assemblage of its arch design, its all-weld components, and its clean, open, uncluttered appearance provides a structural continuity with all of its elements acting together in a singular form that creates a beautiful bridge that transcends its practical utilitarian function.

Both the Division of Highways Bridge Department and the American Bridge Steel Division of US Steel have been identified as masters, as defined under Criterion C. The Bridge Department is noted for its exceptional long-term bridge design program that resulted in highly functional and architecturally significant bridges throughout the state and that promoted innovative and architecturally significant structures starting in the 1930s, such as the bridges on SR70 in Feather River Canyon, 1932-1936, and the San Francisco-Oakland Bay Bridge, 1936. The department's high quality work in designing the state's major structures continued at least into the 1970s. American Bridge has a long history of building major bridges in California, including structures built prior to the construction of the Cold Spring Canyon Bridge, such as the Schuyler Heim Lift Bridge at the Port of Los Angeles (53 2618), built in 1946, and others that were also Bridge Department designs. Their work on the Cold Spring Canyon Bridge structure illustrates their experienced and precise construction methods and procedures that only a handful of companies possessed at the time. The Cold Spring Canyon Bridge exemplifies the same monumental characteristics of other major bridges designed by the Division of Highways Bridge Department, but in an architectural expression that reflects its period of design and construction in the early 1960s, as well as those constructed in California by the American Bridge Division of US Steel. The Cold Spring Canyon Bridge is thus an important work of the Bridge Department and of American Bridge, which, as discussed in the historic overview, are considered "master" engineers and bridge builders of this period.

The Cold Spring Canyon Bridge also possesses exceptional importance that meets the standards of Criteria Consideration G, for properties that have achieved significance within the past fifty years.[68] The structure's significance can be viewed with historical perspective because the structure illustrates a defined period of bridge engineering and architecture in California that, while influential to subsequent bridge engineering and design, reflects the refined development of steel arch bridge technology and the aesthetic of the post-World War II Modern era. The Cold Spring Canyon Bridge possesses enduring value as an engineering accomplishment and one that both design professionals and the public continue to appreciate for its engineering and aesthetic qualities. As discussed in the historic overview, the bridge has been recognized with many awards and citations, most notably by organizations in the engineering profession such as AISC and the James F. Lincoln Arc Welding Foundation, and there is a body of

[68] Guidelines for applying the standards of exceptional importance under Criteria Consideration G are in: National Park Service, "Guidelines for Evaluating and Nominating Properties That Have Achieved Significance within the Past Fifty Years," National Register Bulletin 22 (Washington DC: US Department of the Interior) 1979, revised through 1998.

scholarly comparative analysis demonstrating the bridge's relative importance for its engineering design and aesthetic achievement. The bridge is also an ASCE designated Historic Civil Engineering Landmark.

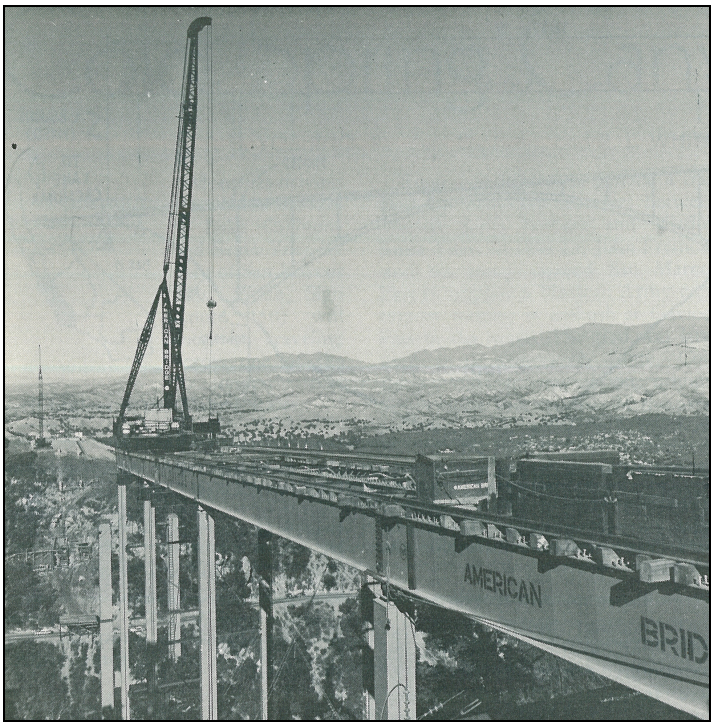
In addition to its significance under Criterion C and its exceptional importance under Criteria Consideration G, the Cold Spring Canyon Bridge (51 0037) also retains historic integrity that conveys its engineering significance. The Division of Highways has maintained the structure and has not made any major changes or repairs, except for the seismic retrofit which did not diminish the historic integrity of the bridge. The structure is in its original location with its original design, materials, and workmanship intact, which provides one with a clear sense of its integrity of feeling and association.

The character-defining features of the Cold Spring Canyon Bridge are its components that are part of its original design, including the arch ribs with their cross bracing, the columns and towers, floorbeam girders, abutments, and railings. The design of the reinforced concrete skewbacks is also included in the structure's character-defining features, even though the skewbacks have been encased with new materials. Some of these original design features play a more significant role in conveying the bridge's significance. These would include the arch ribs, columns, towers, and road deck girders. Of lesser importance are the standard type railings and concrete road deck. The elements of the bridge at the roadway are included in the bridge's character-defining features because they are part of its original design and overall design effect. The features of the bridge that were added during the seismic retrofit of the structure in the 1990s do not contribute to the structure's significance and are not part of the bridge's character-defining features. These include the concrete bolsters flanking the abutments and steel clips on the roadway girders at the top of the towers. Along with the metal guardrails flanking the bridge approaches, the concrete extension of the south side railing on the east end of the bridge also appears to have been added and would not be considered to be a character-defining feature.

Photograph 2: Cold Spring Canyon Bridge deck, camera facing north, 2/14/07

Photograph 3: Cold Spring Canyon Bridge substructure, camera facing southeast, 2/14/07.

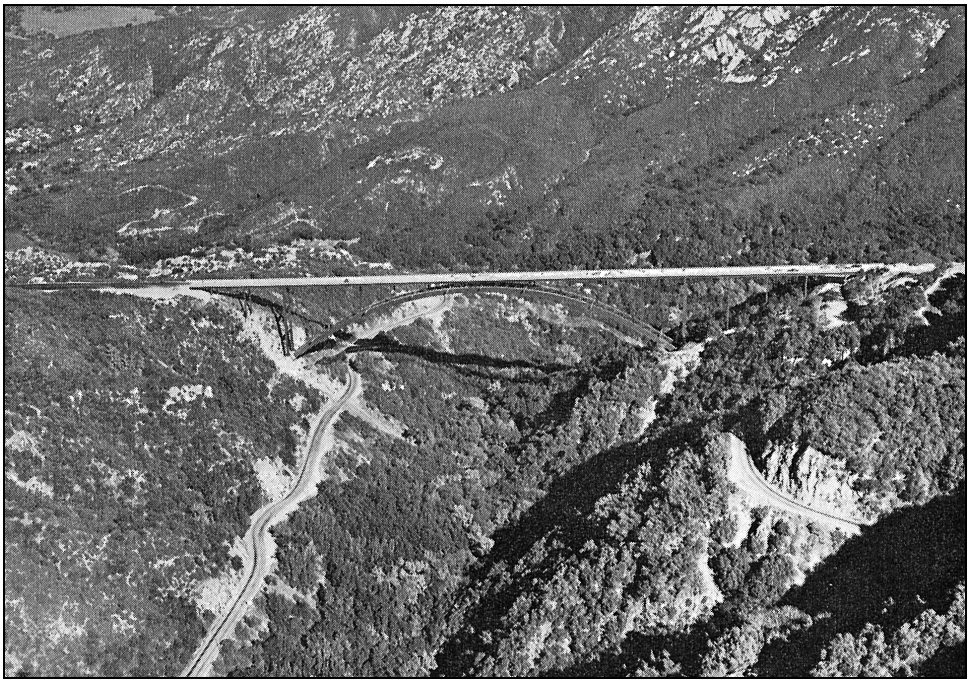
Photograph 4: Cold Spring Canyon Bridge arch apex, camera facing northeast, 2/14/07.



Photograph 5: Cold Spring Canyon Bridge approaches under construction. Caltrans Negative # 9386-1.[69]

Photograph 6: Cold Spring Canyon Bridge under construction, completion of arch. Caltrans Negative # 10182-4.[70]

[69] Published in *California Highways and Public Works*, September-October 1963.

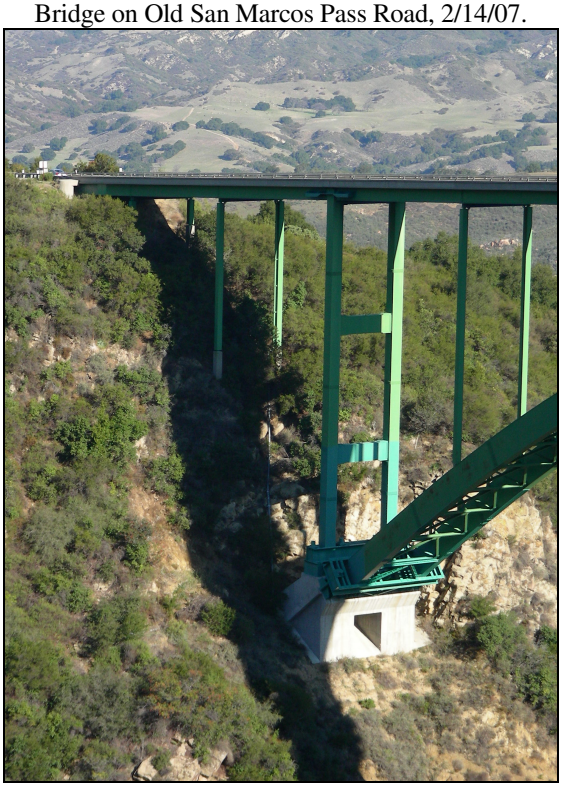


Photograph 7: Cold Spring Canyon Bridge, aerial view facing northeast, 1963. [*California Highways and Public Works*, May-June 1964, page 14].

Photograph 8: Cold Spring Canyon Bridge AISC Award, 2/14/07.

[70] Published in *California Highways and Public Works*, September-October 1963.

Photograph 9: ASCE plaque at Cold Spring Canyon Bridge on Old San Marcos Pass Road, 2/14/07.



Photograph 10: Cold Spring Canyon Bridge west end, camera facing north, 2/14/07.

[APPENDIX C

Letters to Interested Parties
and
Responses]

PLEASE SEE ATTACHMENT 5 OF THIS HPSR

ATTACHMENT 4

Native American Consultation

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY
ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TDD (805) 549-3259
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

1 May 2007

Rob Wood
Native American Heritage Commission
915 Capitol Mall, Rm. 364
Sacramento, CA 95814

Cold Spring Canyon Bridge Pedestrian Barrier
05-SB-154 PM 22.95/23.19
EA 05-0P910

RE: Request for SACRED LANDS SEARCH and NATIVE AMERICAN CONTACT LIST for the Cold Spring Canyon Bridge Pedestrian Barrier

Dear Rob,

The California Department of Transportation (Caltrans) proposes to install a pedestrian barrier on the Cold Spring Canyon Bridge on State Route 154 in Santa Barbara County, the location of which is shown on the enclosed map. The project is intended to significantly deter non-vehicular pedestrian fatalities (suicides) at the bridge while minimizing impacts to the environment, including the aesthetic and historical character of the structure and setting. The specific design of the barrier is yet to be determined.

As the study location offers an expansive view of the Santa Ynez River Valley we are interested if any resources have been documented in the area. Therefore at this time, I would like to request from the Native American Heritage Commission a search of the Sacred Lands Inventory for any locations within the project area that may be of importance to Native Americans. I would also like a list of names with known connections to the project area. The project area is attached on Figures 1 and 2, situated on the San Marcos Pass 7.5′ Quadrangle.

Thank you very much for your assistance with this request. The requested information can be faxed to me at (805) 549-3233. If you have any questions about the project, please feel free to contact me at (805) 549-3778.

Sincerely,

TL Joslin

Terry L. Joslin
Archaeologist
Native American Coordinator

Encs. Figure 1: Project Location Map
Figure 2: Project Vicinity Map

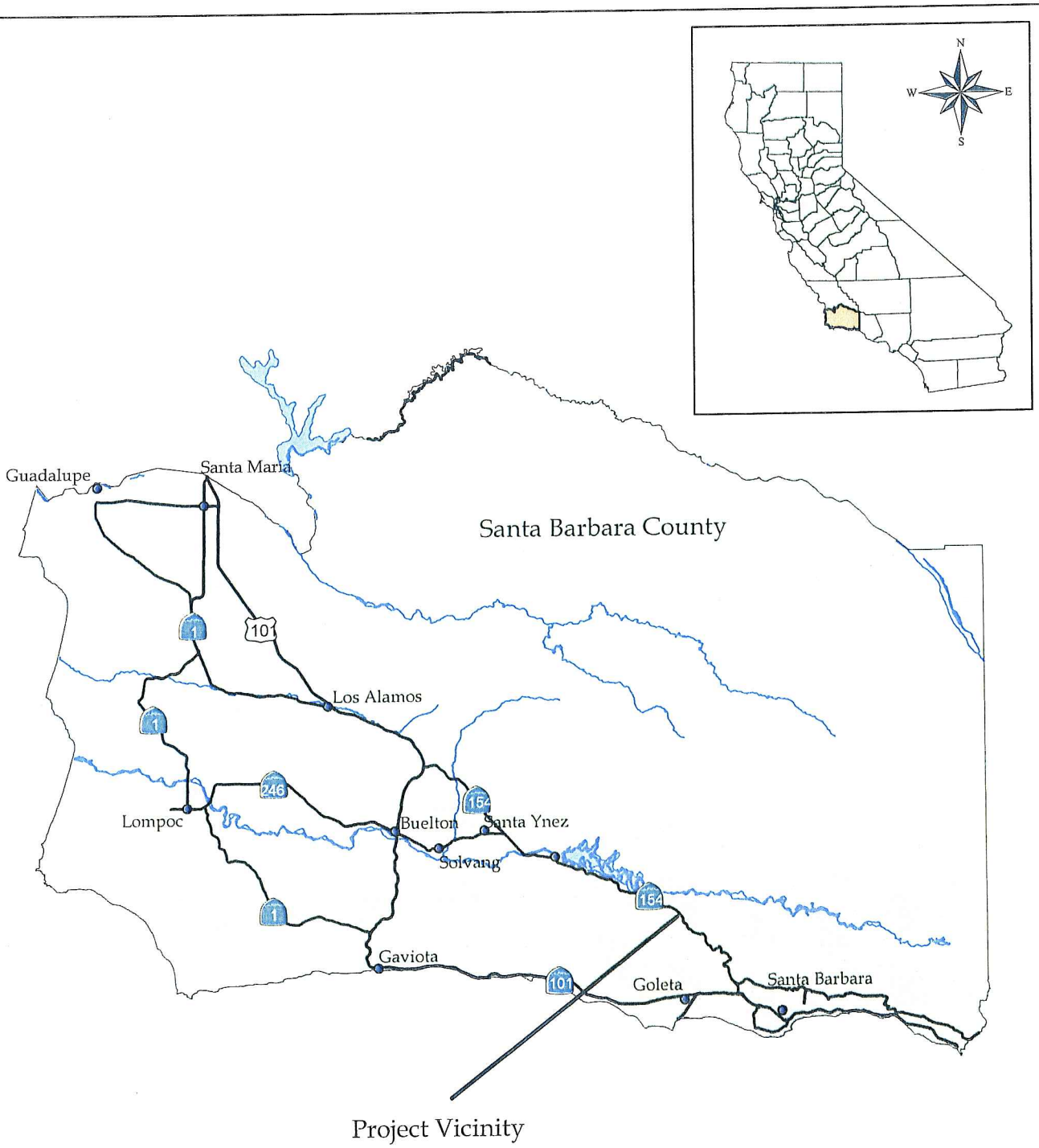


Figure 1. Project Vicinity Map for the Cold Spring Bridge Pedestrian Barrier Project, Santa Barbara County, California.
Located on State Route 154 between Post Mile 22.95 and 23.19.
Project EA 05-0P9100

0 3.5 7 14 21 28
Miles

DISTRICT 5
TRANSPORTATION

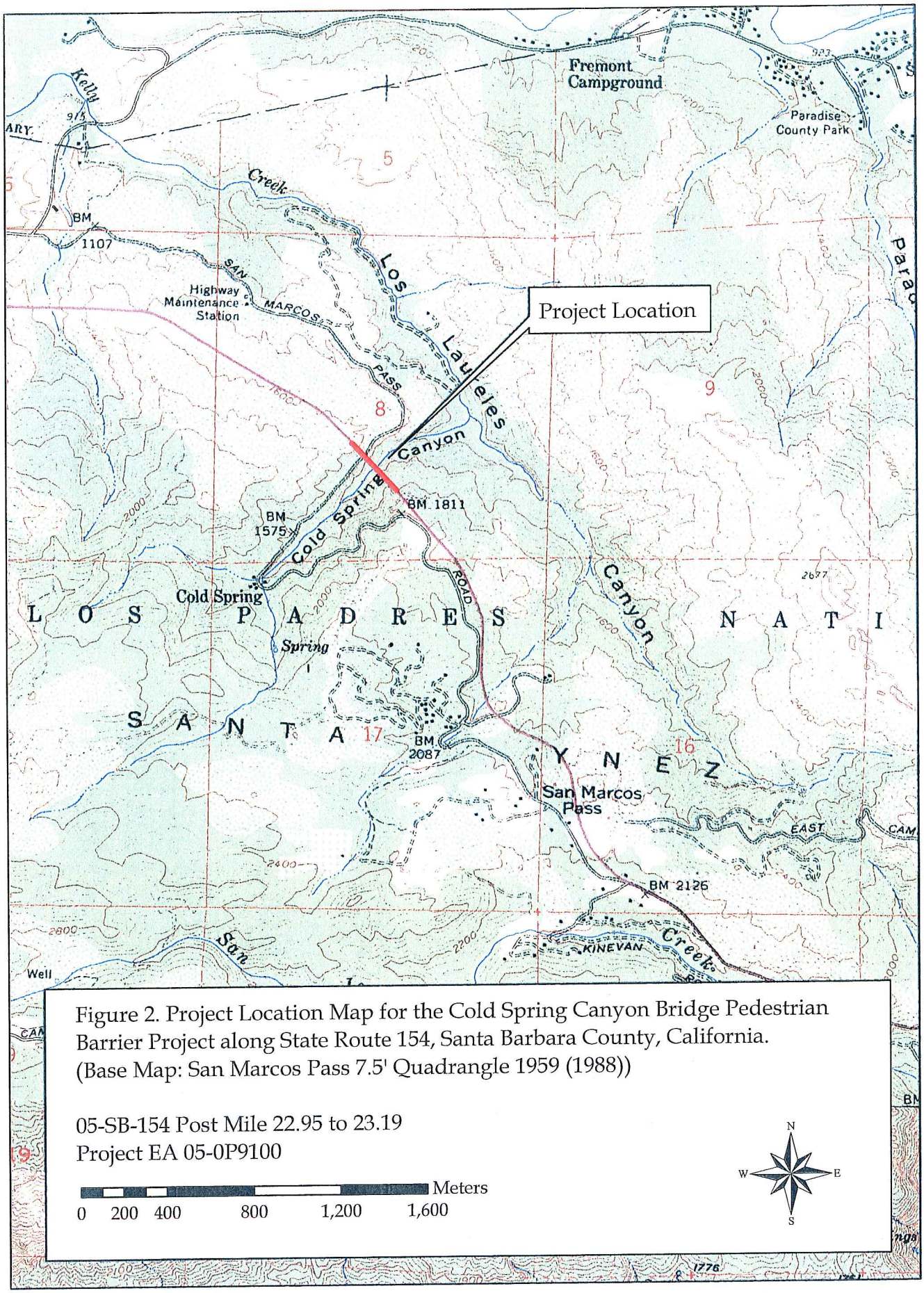


Figure 2. Project Location Map for the Cold Spring Canyon Bridge Pedestrian Barrier Project along State Route 154, Santa Barbara County, California.
(Base Map: San Marcos Pass 7.5' Quadrangle 1959 (1988))

05-SB-154 Post Mile 22.95 to 23.19
Project EA 05-0P9100

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390

May 3, 2007

Terry L. Joslin
Archaeologist
Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401-5415

Sent by Fax: 805-549-3329
Number of Pages: 4

RE: Proposed Cold Spring Canyon Bridge Pedestrian Barrier, Santa Barbara County.

Dear Mr. Joslin:

A record search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been receive

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4040.

Sincerely,

Katy Sanchez

Katy Sanchez
Program Analyst

Native American Contacts
Santa Barbara County
May 3, 2007

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Chumash

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805 492-7255
Chumash
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Fernandeño

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365 North Pole Ave
Ojai , CA 93023
jtumamait@hotmail.com
(805) 646-6214
Chumash

Clan
D.. Kote & Lin A-Lul'Koy Lotah
48825 Sapaque Road
Bradley , CA 93426
(805) 472-9536
Chumash

Patrick Tumamait
992 El Camino Corto
Ojai , CA 93023
yanahea2@aol.com
(805) 640-0481
(805) 216-1253 Cell
Chumash

nta Ynez Band of Mission Indians
ncent Armenta, Chairperson
P.O. Box 517
nta Ynez , CA 93460
menta@santaynezchumash.org
(805) 688-7997
05) 686-9578 Fax
Chumash

San Luis Obispo County Chumash Council
Chief Mark Steven Vigil
1030 Ritchie Road
Grover Beach , CA 93433
pshoemaker@santaynezchumash.org
(805) 481-2461
(805) 474-4729 - Fax
Chumash

is list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

is list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed ld Spring Canyon Bridge Pedestrian Barrier; Santa Barbara County.

Native American Contacts
Santa Barbara County
May 3, 2007

ohn Ruiz
8 3 Stanwood Drive
Sa ta Barbara , CA 93103
805) 965-8983
Chumash

Stephen William Miller
189 Cartagena
Camarillo , CA 93010
(805) 484-2439
Chumash

lohn Sespe
P. Box 303
a , CA 92059
760) 742-2274
Chumash

Santa Ynez Tribal Elders Council
Adelina Alva-Padilla, Chair Woman
P.O. Box 365
Santa Ynez , CA 93460
elders@santaynezchumash.org
(805) 688-8446
(805) 693-1768 FAX
Chumash

Gilbert M. Unzueta Jr.
1 Citation Way
Thousand , CA 91320
(805) 375-7229
Chumash

Randy Guzman - Folkes
233 Maclay Street, PO BOX 308
San Fernando , CA 91340
ndnrandy@hotmail.com
(805) 501-5279 (cell)
Chumash
Fernandeño
Tataviam
Shoshone Paiute
Yaqui

ne Napoleone and Associates
Diane Napoleone
6997 Vista del Rincon
Conchita , CA 93001
dnaassociates@sbcglobal.net
805-643-7492
Chumash

Charles S. Parra
P.O. Box 6612
Oxnard , CA 93031
(805) 340-3134 (Cell)
(805) 488-0481 (Home)
Chumash

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Cold Spring Canyon Bridge Pedestrian Barrier; Santa Barbara County.

Native American Contacts
Santa Barbara County
May 3, 2007

Richard Angulo
P.O. Box 182 Chumash
Ha ne , AZ 85348

Sa a Ynez Band of Mission Indians
Sam Cohen, Tribal Administrator
P.O. Box 517 Chumash
Sa a Ynez , CA 93460
(805) 688-7997
(805) 686-9578 Fax

Carol A. Pulido
165 Mountainview Street Chumash
Oak View , CA 93022
805-649-2743 (Home)

Vanessa M. Para-Hernandez
119 North Balsam Street Chumash
Oxnard , CA 93030
805-988-9171

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Cold Spring Canyon Bridge Pedestrian Barrier; Santa Barbara County.

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TDD (805) 549-3259
http://www.dot.ca.gov/dist05/

Flex your power!
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May 8, 2007
Cold Spring Canyon Bridge
05-SB-154 PM 22.95/23.19
EA 05-0P910

Gilbert Unzueta
571 Citation Way
Thousand Oaks, CA 91320

RE: Project Introduction and Request for Comments on the Cold Spring Canyon Bridge Pedestrian Barrier

Dear Gilbert,

The California Department of Transportation (Caltrans) proposes to install a pedestrian barrier on the Cold Spring Canyon Bridge on State Route 154 in Santa Barbara County, the location of which is shown on the enclosed maps. The project is intended to significantly deter non-vehicular pedestrian fatalities (suicides) at the bridge while minimizing impacts to the environment, including the aesthetic and historical character of the structure and setting. The specific design of the barrier is yet to be determined.

I would like to take this opportunity to assure you that we are working to develop alternatives that meet the many constraints placed on this project. The barrier must respect the historical and aesthetic properties of the bridge structure, it must be effective in meeting the purpose and need of the project, it must not jeopardize the safety of rescue personnel, it must be feasible from an engineering standpoint, and it must avoid or minimize impacts to the environment, including cultural resources. The study area has been surveyed by numerous archaeologist, and no archaeological resources are known in or in the immediate vicinity of the proposed construction or staging areas.

This letter is intended as a means of seeking comment and information from you pertaining to the project's potential to affect archaeological resources or other places of significance to you. Caltrans has also begun planning for a Public Information Meeting scheduled for the latter half of July. The purpose of that meeting will be to introduce the public the various design constraints that we have identified to date, and to invite participants to inform us of any other constraints not identified. We welcome your perspective in addressing these complex issues and hope that you or your representative will be able to attend this Public Information Meeting. The Department has not yet selected the exact date and location for this meeting; we will, however, provide you with the date and location as soon as they have been determined.

Again, let me assure you that we are devoted to our role in planning this critical safety project in a manner that balances the preservation of human life with the preservation of a unique and remarkable resource. We look forward to receiving your comments. If you have comments or information regarding the Cold Spring Canyon Bridge Project, please contact me in writing at 50

Higuera Street, CA 93401-5415 or call me at (805) 549-3778 by the first part of June 2007.

Sincerely,

Terry L. Joslin
Archaeologist
District Native American Coordinator

Encs. Figure 1: Project Location Map
Figure 2: Project Vicinity Map

cc:
Vincent Armenta
Richard Angulo
Ernestine DeSoto
Beverly Salazar Folkes
Randy Guzman- Folkes
Stephen Miller
Diane Napoleone
Charles S. Parra
Melissa M. Para-Hernandez
Carol Pulido
John Ruiz
John Sespe
Joe Talaugon
Julie Tumamait
Patrick Tumamait
Gilbert Unzueta

ATTACHMENT 5

Letters to Interested Parties

COLD SPRING CANYON BRIDGE PROJECT

Interested Parties for Section106
Historic Architectural Resources

County of Santa Barbara
Historic Landmarks Advisory Commission
c/o Planning & Development Department
123 East Anapamu Street
Santa Barbara, CA 93101
Attn: Star Schatz (HLAC Secretary)

City of Santa Barbara Historic Landmarks Commission
630 Garden Street
Santa Barbara, CA 93101
Attn: Susan Gantz (Staff Liaison)

David S. Bisol
Executive Director
Santa Barbara Historical Society
136 E. De la Guerra Street
Santa Barbara, CA 93102

Jarrell C. Jackman
Executive Director
Santa Barbara Trust for Historic Preservation
P.O. Box 388
Santa Barbara CA 93102

Goleta Valley Historical Society
304 Los Carneros Road
Goleta, CA 93117

Santa Ynez Valley Historical Society
P.O. Box 181, 3596 Sagunto Street,
Santa Ynez, CA 93460
Attn: Chris Bashforth (Executive Director)

Public History Information Unit
University of California, Santa Barbara
Santa Barbara, CA 93106

Clark Adams and Andy Machen, Co-Chairs
History and Heritage Committee
American Society of Civil Engineers
Los Angeles Section
1405 Warner Avenue
Tustin, CA 92780

Lauren J. Doyel, President
American Society of Civil Engineers
Santa Barbara/Ventura Branch
Fugro West, Inc
4820 McGrath Street, Suite 100
Ventura, CA 93003

Gloria Brown, Forest Supervisor
Los Padres National Forest
6755 Hollister Avenue, Suite 150
Goleta, CA 93117

Los Angeles Conservancy
Modern Committee "Modcom"
52523 W. Sixth St., Suite 826
Los Angeles, CA 90014

Society of Architectural Historians
Southern California Chapter
PO Box 56478
Sherman Oaks, CA 91413

Morgan Yates, Archivist
Automobile Club of Southern California
2601 South Figueroa Street, H-118
Los Angeles, CA 90007

Partners
Rand E. Herbert
Stephen R. Wee
Meta Gunse
Christopher McMorris

JRP HISTORICAL CONSULTING, LLC

February 2, 2007

County of Santa Barbara
Historic Landmarks Advisory Commission
c/o Planning & Development Department
123 East Anapamu Street
Santa Barbara, CA 93101
Attn: Star Schatz (HLAC Secretary)

Dear Commissioners:

The California Department of Transportation (Caltrans) proposes to install a pedestrian barrier on the Cold Spring Canyon Bridge (Bridge 51 0037) on State Route 154 in Santa Barbara County, the location of which is shown on the enclosed map. The project will significantly deter suicide attempts at the bridge while minimizing impacts to the environment, including the aesthetic and historical character of the structure and setting. The specific design of the barrier is yet to be determined. We are contacting your organization as part of Caltrans' compliance with Section 106 of the National Historic Preservation Act and are requesting your input regarding the potential for this project to affect historic properties.

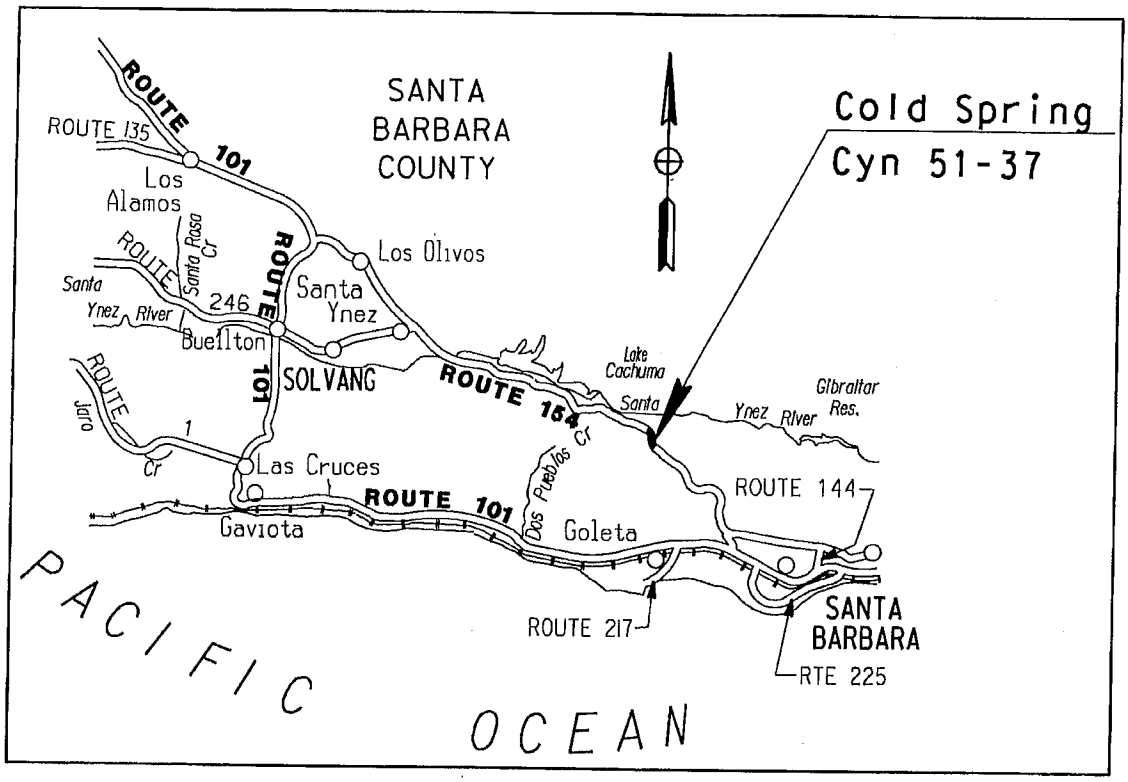
JRP Historical Consulting, LLC is currently under contract with Caltrans to evaluate the historic significance of the Cold Spring Canyon Bridge to assess whether the structure meets the criteria for listing in the National Register of Historic Places (NRHP). If the bridge meets the criteria for listing in the NRHP, the bridge would be considered as a historic property under the Section 106 regulations and further steps would be required. These additional steps would include an assessment of effects the project may have on the bridge's character-defining features and measures to mitigate adverse effects, if any, that the project may have on those features.

This letter is intended as a means to seek comment and information pertaining to the bridge's potential historic significance and the potential effect the barrier project may have on the structure's character-defining features. If you, or your organization, has comments or information regarding the Cold Spring Canyon Bridge, please contact us in writing by March 15, 2007. Thank you.

Sincerely,

Christopher McMorris
Partner / Architectural Historian

Enclosures: Project vicinity map and list of recipients



Cold Spring Canyon Bridge, near San Marcos Pass in Santa Barbara County

COUNTY OF SANTA BARBARA
HISTORIC LANDMARKS ADVISORY COMMISSION

MEMORANDUM

TO: Christopher McMorris

FROM: Star Schatz, HLAC Secretary

DATE: February 14, 2007

RE: Potential Historic Significance for Cold Spring Canyon Bridge

The Historic Landmarks Advisory Commission of Santa Barbara County, will be addressing the (Caltrans) proposal to install a pedestrian barrier on the Cold Spring Canyon (Bridge 51 0037) on State Route 154, at their March 12, 2007, hearing.

The commission will send a letter addressing their comments or concerns after the March 12, 2007, hearing.

If you have, any questions feel free to call me at 805-568-2084.

Thank you,

Star Schatz

Star Schatz
Secretary for the Historic Landmarks Advisory Commission

123 East Anapamu Street Santa Barbara, CA 93101 (805) 568-2084 (805) 568-2030 Fax
Email: sschatz@co.santa-barbara.ca.us

COUNTY OF SANTA BARBARA
HISTORIC LANDMARKS ADVISORY COMMISSION

AGENDA
March 12, 2007
10:00 a.m.

Meeting Location
Board of Supervisors' Conference Room
105 East Anapamu Street
Santa Barbara, CA 93101

SUE ADAMS, BARBARA LOWENTHAL; JOHN WOODWARD, AT-LARGE MEMBER	1st District
MICHAEL CERVIN, VICE-CHAIR	2nd District
VACANT, RANDY MELCOMBE	3rd District
JAMES LOWSLEY; EILEEN WYCKOFF, CHAIR	4th District
VACANT, BARRY STOTTS	5th District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this hearing, please contact the HLAC secretary at (805)568-2084. Notification at least 48 hours prior to the hearing will enable the secretary to make reasonable arrangements.

ADMINISTRATIVE AGENDA

1. **Roll Call:**

2. **Review of Unapproved Minutes of February 12, 2007.**
(Present: Adams, Cervin, Lowenthal, Lowsley, Melcombe, Stone, Woodward, Wyckoff)

3. **Public Comments**: *Public Comment time is set aside in order to allow public testimony on items not being heard on today's agenda. Each speaker is allocated 5 minutes. Total time allocated for public comments is 15 minutes.*

DISCUSSION ITEMS

4. Recommendations concerning the Draft Feasibility Study for the Jonata Bridge replacement requested by Dace Morgan from Santa Barbara County Public Works.

5. Potential Historic Significance for Cold Spring Canyon Bridge. The commission will be addressing Caltrans proposal of installing a pedestrian barrier on Cold Spring Canyon Bridge.

6. Ortega Street Bridge replacement.

7. Proposed Laguna Blanca School Campus Improvement Plan, Hope Ranch Campus.

8. Resignation of Commissioner David Stone.

COMMISSION BUSINESS AND PROCEDURES

9. HLAC Monthly Budget Report and Decisions

Budget Report

- Staff Support and Office Expense:
- Travel:
- Historic Surveys & Contracts: **Survey proposal on potentially historic elements. Presented by Michel Nellis (Continued from February 12, 2007)**
  Budget:

10. SB County Bridges exhibit sponsored by the Trust for Historic Preservation, and discussion of newspaper article in the Sun on Bridges of SB County. **Presented by Michel Nellis (Continued from February 12, 2007)**

11. Abandoned bridge on the northbound side of 101. **Presented by Michel Nellis (Continued from February 12, 2007.)**

12. District Reports: *Individual Commissioners may present brief reports that would be of interest to the public and/or Commission as a whole. No official action shall be taken on any individual matter.*

13. Next Meeting of the Historic Landmarks Advisory Commission

Date:	**April 9, 2007**
Location:	**Administration/Engineering Building Complex** **105/123 East Anapamu Street, Santa Barbara**

In the event HLAC holds a special meeting before the April 9, 2007 meeting, notice of such special meeting will be provided pursuant to California Government Code Section 54956.

For additional information about this agenda or any Historic Landmarks Advisory Commission business, please Call Star Schatz at (805) 568-2084.
http://applications.sbcountyplanning.org/boards/hlac/hlac.cfm

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COUNTY OF SANTA BARBARA
HISTORIC LANDMARKS ADVISORY COMMISSION

Approved Minutes
March 12, 2007
10:00 a.m.

Meeting Location
Board of Supervisors' Conference Room
105 East Anapamu Street
Santa Barbara, CA 93101

SUE ADAMS, BARBARA LOWENTHAL; JOHN WOODWARD, AT-LARGE MEMBER	1st District
MICHAEL CERVIN, VICE-CHAIR	2nd District
VACANT, RANDY MELCOMBE	3rd District
JAMES LOWSLEY; EILEEN WYCKOFF, CHAIR	4th District
VACANT, BARRY STOTTS	5th District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this hearing, please contact the HLAC secretary at (805)568-2084. Notification at least 48 hours prior to the hearing will enable the secretary to make reasonable arrangements.

ADMINISTRATIVE AGENDA

1. **Roll Call: Lowenthal, Lowsley, Melcombe, Woodward, Wyckoff (Adams arrived 10:10)**
   Absent: Cervin, Stotts

2. **Review of Unapproved Minutes of February 12, 2007.**
   (Present: Adams, Cervin, Lowenthal, Lowsley, Melcombe, Stone, Woodward, Wyckoff)

   Action: Motion by Commissioner Lowsley, seconded by Commissioner Lowenthal and carried with a vote of 5-0-0 to approve the minutes of February 12, 2007.

3. **Public Comments**: None

DISCUSSION ITEMS

4. Recommendations concerning the Draft Feasibility Study for the Jonata Bridge replacement requested by Dace Morgan from Santa Barbara County Public Works.

   At the Historic Landmark Advisory Commission meeting on March 12, 2007, the Commission discussed the design features of bridge 51C-0226, which is on Jonata Park Road at Zaca Creek. The Commission agreed to implement option 1 as shown in the feasibility report prepared by Dokken Engineering for your department. However, the Commission also provided the following comments concerning the design:

   1. **The Commission would like to see open ballisters.**
   2. **The Commission would like to see a hunched girder design.**
   3. **The Commission would prefer the application of PCC pavement in the project area.**

4. **The Commission would like some type of commorative plaque either on or near the replacement bridge indicating the historic significance of the original bridge. The Commission would like to work with Public Works to determine if and where an appropriate site for a plaque could be incorporated near the new bridge structure.**

5. Potential Historic Significance for Cold Spring Canyon Bridge. The commission will be addressing Caltrans proposal of installing a pedestrian barrier on Cold Spring Canyon Bridge.

The commission sent a letter to JRP Historical Consulting, LLC, Caltrans, Public Works requesting the opportunity to provide additional input on this project and asked that JRP and Caltrans contact Star with an answer to which meeting (April or May) they would be able to attend. Alex Tuttle will contact Public Works.

6. Ortega Street Bridge replacement.

The commission has no jurisdiction over this project.

7. Proposed Laguna Blanca School Campus Improvement Plan, Hope Ranch Campus.

This item is going to the Planning Commission on April 25, 2007. Project will return to the commission once finalized.

8. Resignation of Commissioner David Stone.
Commissioner Adams and Star will draft a letter of appreciation on behalf of the commission.

COMMISSION BUSINESS AND PROCEDURES

9. **HLAC Monthly Budget Report and Decisions**
Budget Report
   - Staff Support and Office Expense: **Remaining Balance: $3883.00**
   - Travel: **Remaining Balance: $2477.00**
   - Historic Surveys & Contracts: **Survey proposal on potentially historic elements with Maria Herold oral and video history. Presented by Michel Nellis (Continued to April 9, 2007)**
   Budget: Remaining Balance for Surveys and Contracts: $1500.00

10. SB County Bridges exhibit sponsored by the Trust for Historic Preservation, and discussion of newspaper article in the Sun on Bridges of SB County. **Presented by Michel Nellis. (Continued from February 12, 2007.)**

Michel Nellis suggested that the commission come up with ideas of future sites to visit and contact her when they want her to visit the selected sites.

11. Abandoned bridge on the northbound side of 101. **Presented by Michelle Gibbs. (Continued from February 12, 2007.)**

Item continued to April 9, 2007 meeting.

12. **District Reports**: Commissioner Adams will draft letter to Greg Rice of Key Stone Investments regarding the condition of the Barnsdall-Rio Grande gasoline station in Goleta.

13. **Next Meeting of the Historic Landmarks Advisory Commission**

Date:	**April 9, 2007**
Location:	**Administration/Engineering Building Complex**
	105/123 East Anapamu Street, Santa Barbara

In the event HLAC holds a special meeting before the April 9, 2007 meeting, notice of such special meeting will be provided pursuant to California Government Code Section 54956.

Respectfully submitted by,

Star Schatz
Secretary for HLAC

For additional information about this agenda or any Historic Landmarks Advisory Commission business, please Call Star Schatz at (805) 568-2084.
http://applications.sbcountyplanning.org/boards/hlac/hlac.cfm

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Santa Barbara County
Historic Landmarks Advisory Commission

Mr. Christopher McMorris
JRP Historical Consulting, LLC
1490 Drew Avenue, Suite 110
Davis, CA 95618

Re: **Cold Spring Canyon Bridge**

Dear Mr. McMorris:

Thank you for your letter of February 2, 2007 regarding the Caltrans proposal to install a pedestrian barrier on the Cold Spring Canyon Bridge on State Route 154 in Santa Barbara County.

The Santa Barbara County Historic Landmarks Advisory Commission considers the Cold Spring Canyon Bridge to have a high level of historic and aesthetic significance to the County of Santa Barbara. While we understand the important safety considerations involved in the proposed project, we believe that any alterations to this historic resource should be sensitive to potential aesthetic impacts on the character-defining features of the bridge.

The Commission would appreciate the opportunity to provide additional input in the design phase of the project, including review of plans for the proposed pedestrian barrier as they are developed.

Our Commission meets the second Monday of each month. Our next meeting is April 9, 2007, or May 14, 2007. We would like to review the plans for this project with you and a (Caltrans) representive. Please contact our Secretary at 805-568-2084 and let her know which agenda date would work for you. Please keep the Commission apprised of progress on this project, and feel free to contact us if we can be of further assistance.

Sincerely,

Eileen H. Wyckoff

Eileen Wyckoff
Chair

cc: Public Works, Caltrans, Planning and Development

COUNTY OF SANTA BARBARA
HISTORIC LANDMARKS ADVISORY COMMISSION

AGENDA
April 9, 2007
10:00 a.m.

Meeting Location
Board of Supervisors' Conference Room
105 East Anapamu Street
Santa Barbara, CA 93101

SUE ADAMS, BARBARA LOWENTHAL; JOHN WOODWARD, AT-LARGE MEMBER	1st District
MICHAEL CERVIN, VICE-CHAIR	2nd District
VACANT, RANDY MELCOMBE	3rd District
JAMES LOWSLEY; EILEEN WYCKOFF, CHAIR	4th District
VACANT, BARRY STOTTS	5th District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this hearing, please contact the HLAC secretary at (805)568-2084. Notification at least 48 hours prior to the hearing will enable the secretary to make reasonable arrangements.

ADMINISTRATIVE AGENDA

1. **Roll Call:**

2. **Review of Unapproved Minutes of March 12, 2007.**
(Present: Adams, Lowenthal, Lowsley, Melcombe, Woodward, Wyckoff)

3. **Public Comments**: *Public Comment time is set aside in order to allow public testimony on items not being heard on today's agenda. Each speaker is allocated 5 minutes. Total time allocated for public comments is 15 minutes.*

DISCUSSION ITEMS

4. Review of proposed final plans, including landscape plans, and the status of condition compliance for build out of Phase I of the Music Academy of the West Master Plan associated with the 2004 approval of a revised Conditional Use Permit (90-CP-111 RV01). Phase I development has been modified and scaled back from the anticipated phasing schedule in the approved CUP and involves reconstruction of the recital hall (Abravanel Hall) and construction of detached restrooms for the hall, most of the site improvements including the main allee, lower parking area, permiter landscaping, and the emergency access road. The following structures currently exist on the parcel: Main house, Abravanel Hall, Claeyssens Hall, Wood 1 and Wood 2 Studio Buildings, Harger Studio, The Rack, Treasure House and two residences. The property is a 9.04 acre parcel zoned 1-E-1 and shown as Assessor's Parcel Numbers 009-282-029 and -030, located at 1070 The Fairway in Montecito area, First Supervisorial District.
Presented by Suzanne Elledge, agent, and Alex Cole, architectural historian.
Presentation Time: 20 minutes.

5. Potential Historic Significance for Cold Spring Canyon Bridge. The commission will be addressing Caltrans proposal of installing a pedestrian barrier on Cold Spring Canyon Bridge. **(Continued from March 12, 2007 Review Michelle Gibbs email)**

6. Resignation of Commissioner David Stone. Review draft letter of appreciation. **(Continued from March 12, 2007)**

COMMISSION BUSINESS AND PROCEDURES

7. **HLAC Monthly Budget Report and Decisions**
   Budget Report
   - Staff Support and Office Expense:
   - Travel:
   - Historic Surveys & Contracts: **Survey proposal on potentially historic elements. Presented by Michel Nellis Survey proposal on potentially historic elements with Maria Herold oral and video history. Presented by Michel Nellis (Continued from March 12, 2007)**
   Budget:

8. Abandoned bridge on the northbound side of 101. **(Continued from March 12, 2007)**

9. **District Reports**: *Individual Commissioners may present brief reports that would be of interest to the public and/or Commission as a whole. No official action shall be taken on any individual matter.*

10. **Next Meeting of the Historic Landmarks Advisory Commission**

Date:	**May 14, 2007**
Location:	**Administration/Engineering Building Complex** **105/123 East Anapamu Street, Santa Barbara**

In the event HLAC holds a special meeting before the May 14, 2007 meeting, notice of such special meeting will be provided pursuant to California Government Code Section 54956.

For additional information about this agenda or any Historic Landmarks Advisory Commission business, please Call Star Schatz at (805) 568-2084.
http://applications.sbcountyplanning.org/boards/hlac/hlac.cfm

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TDD (805) 549-3259
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

April 16, 2007

Eileen Wyckoff, Chair
Santa Barbara County Historic Landmarks Advisory Commission
Planning and Development Department
123 East Anapamu Street
Santa Barbara, CA 93101

SUBJECT: COLD SPRING CANYON BRIDGE (BRIDGE NO. 51- 0037)

Dear Ms. Wyckoff:

Thank you for your recent letter (undated) to Mr. McMorris of JRP Historical Consulting, LLC. As consultants under contract to the Department of Transportation (Department), Mr. McMorris and JRP are conducting technical studies on our behalf. These studies are being performed in connection with the proposed installation of a pedestrian barrier on the Cold Spring Canyon Bridge for the purpose of reducing the potential for suicides and suicide attempts from the bridge. JRP's studies include archival research and oral interviews to develop an historical context for the bridge, and an evaluation of the bridge for National Register eligibility.

The Department wishes to take this opportunity to assure the Historic Landmarks Advisory Commission that we are cognizant of and sensitive to the historical and aesthetic values of the Cold Spring Canyon Bridge. Our Department has been working to develop alternatives that meet the many constraints placed on this project. The barrier must respect the historical and aesthetic properties of the bridge structure, it must be effective in meeting the purpose and need of the project, it must not jeopardize the safety of rescue personnel, and it must be feasible from an engineering standpoint. We are in the preliminary stages of analyzing these various constraints in conjunction with proposed alternatives.

The Department has also begun planning for a Public Information Meeting scheduled for the latter half of July. The purpose of that meeting will be to introduce the public and project stakeholders to the various design constraints that we have identified to date, and to invite participants to inform the Department of any other constraints not identified. We welcome the HLAC's perspective in addressing these complex issues and hope that members of your Commission will be able to attend this Public Information Meeting. The Department has not yet selected the exact date and location for this meeting; we will, however, provide you with the date and location as soon as they have been determined.

Again, let me assure you that the Department takes seriously its role in planning this critical safety project in a manner that balances the preservation of human life with the preservation of a unique and remarkable resource. If you have any questions at this time, please direct them to the Associate Environmental Planner for the project, Chris Shaeffer, at 805.549.3376.

Sincerely,

JOHN LUCHETTA
Senior Environmental Planner

COUNTY OF SANTA BARBARA
HISTORIC LANDMARKS ADVISORY COMMISSION

AGENDA
May 14, 2007
10:00 a.m.

Meeting Location
Board of Supervisors' Conference Room
105 East Anapamu Street
Santa Barbara, CA 93101

SUE ADAMS, BARBARA LOWENTHAL; JOHN WOODWARD, AT-LARGE MEMBER	1st District
MICHAEL CERVIN, VICE-CHAIR DEBORAH L. SCHWARTZ	2nd District
VACANT, RANDY MELCOMBE	3rd District
JAMES LOWSLEY; EILEEN WYCKOFF, CHAIR	4th District
VACANT, BARRY STOTTS	5th District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this hearing, please contact the HLAC secretary at (805)568-2084. Notification at least 48 hours prior to the hearing will enable the secretary to make reasonable arrangements.

ADMINISTRATIVE AGENDA

1. **Roll Call:**

2. **Review of Unapproved Minutes of April 9, 2007.**
   (Present: Adams, Cervin, Lowenthal, Melcombe, Schwartz, Woodward, Wyckoff)

3. **Review of Unapproved Minutes of April 12, 2007 Special Meeting/Site Visit (Recital Hall (Hahn Hall), 1070 The Fairway, Montecito, CA 93108)**
   (Present: Cervin, Lowenthal, Melcombe, Schwartz, Woodward)

4. **Public Comments**: *Public Comment time is set aside in order to allow public testimony on items not being heard on today's agenda. Each speaker is allocated 5 minutes. Total time allocated for public comments is 15 minutes.*

DECISION ITEMS-Historic Property Decisions—Other than Landmark or Place of Historic Merit Designations

5. Discuss and approve the hiring of a professional photographer to photo document the San Jose Winery in Goleta, a Santa Barbara County Historical Landmark.

6. Application review and decision on proposal to add addition to the Rancho El Alamo Pintado Adobe (County Historic Landmark No. 12). The addition would be entirely self-supporting, with a 2-inch space between the adobe and the proposed addition. The only portion of the proposed addition that would touch the adobe is roof flashing to divert storm water. **Presented by Brian Tetley, Planner. Presentation Time: 20 minutes.**

DISCUSSION ITEMS –HISTORIC PROPERTY

7. Consideration of nomination for Place of Historic Merit for Rancho La Purisima /Pleasant Valley School House located at 2085 Jonata Park Road, Buellton, CA/APN# 099-640-06. **Presented by Robert Ooley, Agent. Presentation Time: 20 minutes.**

DISCUSSION ITEMS

8. Potential Historic Significance for Cold Spring Canyon Bridge. The commission will be addressing Caltrans proposal of installing a pedestrian barrier on Cold Spring Canyon Bridge. **(Continued from April 9, 2007 Review letter from Caltrans)**

COMMISSION BUSINESS AND PROCEDURES

9. **HLAC Monthly Budget Report and Decisions**
Budget Report
. Staff Support and Office Expense:
. Travel:
. Historic Surveys & Contracts:
Budget:

10. Abandoned bridge on the northbound side of 101. **(Continued from April 9, 2007)**

11. **District Reports**: *Individual Commissioners may present brief reports that would be of interest to the public and/or Commission as a whole. No official action shall be taken on any individual matter.*

12. **Next Meeting of the Historic Landmarks Advisory Commission**

Date:	**June 11, 2007**
Location:	**Administration/Engineering Building Complex**
	105/123 East Anapamu Street, Santa Barbara

In the event HLAC holds a special meeting before the June 11, 2007 meeting, notice of such special meeting will be provided pursuant to California Government Code Section 54956.

For additional information about this agenda or any Historic Landmarks Advisory Commission business, please Call Star Schatz at (805) 568-2084.
http://applications.sbcountyplanning.org/boards/hlac/hlac.cfm

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COUNTY OF SANTA BARBARA
HISTORIC LANDMARKS ADVISORY COMMISSION AGENDA

Meeting of June 11, 2007
10:00 a.m.

Meeting Location
Board of Supervisors' Conference Room
105 East Anapamu Street
Santa Barbara, CA 93101

SUE ADAMS; BARBARA LOWENTHAL; JOHN WOODWARD, AT-LARGE MEMBER	1st District
MICHAEL CERVIN, VICE-CHAIR; DEBORAH L. SCHWARTZ	2nd District
VACANT, RANDY MELCOMBE	3rd District
JAMES LOWSLEY; EILEEN WYCKOFF, CHAIR	4th District
VACANT, BARRY STOTTS	5th District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this hearing, please contact Hearing Support staff at (805) 568-2000. Notification at least 48 hours prior to the hearing will enable the secretary to make reasonable arrangements.

ADMINISTRATIVE AGENDA

1. **Roll Call**

2. **Review of Unapproved Minutes of May 14, 2007.**
(Present: Cervin, Lowenthal, Lowsley, Melcombe, Schwartz, Woodward, Wyckoff)

3. **Public Comment**: *Public Comment time is set aside in order to allow public testimony on items not being heard on today's agenda. Each speaker is allocated 5 minutes. Total time allocated for public comments is 15 minutes.*

DECISION ITEMS

Place of Historic Merit Designations and Landmark Designations

4. The County Historic Landmarks Advisory Commission (HLAC) will nominate Rancho La Purisima/Pleasant Valley School House as a Place of Historic Merit. The property involves AP No. 099-640-006, located at 2085 Jonata Park Road, Buellton, Third Supervisorial District. **(Continued from 5/14/07)**

Historic Property Decisions - Other than Landmark or Place of Historic Merit Designations

5. The County Historic Landmarks Advisory Commission (HLAC) will discuss and approve the hiring of a professional photographer to photo document the San Jose Winery in Goleta, a Santa Barbara County Historical Landmark. **(Continued from 5/14/07)**

COMMISSION BUSINESS AND PROCEDURES

6. HLAC Monthly Budget Report and Decisions

Budget Report
- Staff Support and Office Expense
- Travel
- Historic Surveys & Contracts

7. District Reports: *Individual Commissioners may present brief reports that would be of interest to the public and/or Commission as a whole. No official action shall be taken on any individual matter.*

DISCUSSION ITEMS

8. Potential Historic Significance for Cold Spring Canyon Bridge. The commission will be addressing Caltrans proposal of installing a pedestrian barrier on Cold Spring Canyon Bridge. **(Continued from 4/9/07 and 5/14/07)**

9. Next Meeting of the Historic Landmarks Advisory Commission

Date: **July 9, 2007**
Location: **Administration/Engineering Building Complex**
105/123 East Anapamu Street, Santa Barbara

In the event HLAC holds a special meeting before the July 9, 2007 regular meeting, notice of such special meeting will be provided pursuant to California Government Code Section 54956.

For additional information about this agenda or any Historic Landmarks Advisory Commission business, please contact the HLAC Secretary at (805) 568-2026.

http://applications.sbcountyplanning.org/boards/hlac/hlac.cfm

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ATTACHMENT 6

Previous Section 106 Consultation

ATE OF CALIFORNIA — THE RESOURCES AGENCY

PETE WILSON, Governor

FICE OF HISTORIC PRESERVATION
PARTMENT OF PARKS AND RECREATION
O. BOX 942896
CRAMENTO 94296-0001
(916) 653-8624
AX: (916) 653-8624

July 8, 1996

Reply To: FHWA960129A

Mr. Fred Hemple
Division Administrator
California Division
Federal Highway Administation
980 Ninth Street, Suite 400
Sacramento CA 95814-2724

Re: SR 154 Improvements PM 12.2/17.9, 17.9/21.4,, SBA Co

Dear Mr. Hemple:

This letter will serve to clarify several matters not fully addressed in our correspondence of April 22, 1996 to you about the subject undertaking.

1. FHWA's efforts to identify and evaluate historic properties were adequate in that they met the required and recommended standards and guidelines set forth in 36 CFR 800.4.

2. FHWA efforts to avoid 8 sites by zoning them as ESAs and ensuring that appopriate steps are taken to guard against inadvertent effects are adequate.

3. I concur that the historic component of SBA-2203H does not contribute to the National Register eligibility of this site.

4. I concur that the San Marcos Pass historic road system is not eligible for inclusion in the National Register owing chiefly to a lack of adequate integrity.

5. I acknowledge that SBA-2203H will be affected by the undertaking.

Please let Hans Kreutzberg [653-9107] of my staff know if you need any additional assistance with this matter at this time.

Sincerely,

Cherilyn Widell
State Historic Preservation Officer

Post-it™ Fax Note 7671	Date 7/9/96	# of pages ▶ 1
To V. LEVALLETT	From H. KREUTZBERG	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #		

Attachment 2

Transmittal Letter to SHPO for HPSR 6/14/07

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
[illegible] (805) 549-3329
[illegible] (805) 549-3259
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

June 14, 2007

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001

Cold Spring Canyon Bridge Pedestrian Barrier
05-SB-154 PM 22.95/23.19
EA 05-0P910

RE: Determination of Eligibility

The California Department of Transportation (Caltrans), under the authority of the Federal Highway Administration (FHWA), is initiating consultation with the State Historic Preservation Officer (SHPO) regarding the Cold Spring Canyon Bridge Pedestrian Barrier Project. This consultation is taken in accordance with the January 1, 2004; *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

Enclosed you will find a Historic Property Survey Report (HPSR) for the proposed undertaking. Under the Section 106 PA, Caltrans is responsible for ensuring the appropriateness of the Area of Potential Effects (Stipulation VIII.A) and the adequacy of efforts to identify historic properties (Stipulation VIII.B). We are consulting with you at the present time under Stipulation VIII.C.5 of the PA, which requires that we seek your concurrence on Caltrans' determinations of eligibility for potential historic properties.

In conjunction with the FHWA, Caltrans proposes to install a pedestrian barrier on the Cold Spring Canyon Bridge (Bridge No. 51 0037), located between post miles 22.95 and 23.19 on State Route 154 in the Santa Ynez Mountains of Santa Barbara County. The bridge currently has the highest spot location of fatalities in District 5. The pedestrian barrier project is intended to significantly deter non-vehicular pedestrian fatalities (suicides) at the bridge while minimizing impacts to the environment. The specific design of the barrier is yet to be determined.

The project APE includes the entire structure and superstructure of the Cold Spring Canyon Bridge, and two adjacent areas of land that will be used for equipment and materials staging. The bridge is the only historic resource identified within the project APE. Although the Cold Spring Canyon Bridge, which was constructed in 1962-1963 and opened to through traffic in 1964, is

only 43 years old, it was formally evaluated in connection with this project for the following reasons: it is a notable structure; it is central to the pedestrian barrier project; and sufficient time has elapsed since its construction to be able to assess its place in the historic record.

Pursuant to Stipulation VIII.C of the PA, Caltrans requests your concurrence that the Cold Spring Canyon Bridge (Bridge No. 51 0037) is eligible for listing in the National Register of Historic Places, at the state level of significance, under Criterion C and under Criteria Consideration G:

> Under Criterion C the bridge is significant for its type, period and method of construction as an important example of bridge design and engineering that demonstrates a maturation of steel arch bridge design and welded steel technology in California, and that represents a high aesthetic quality of contemporary design from its period. It is also significant as an important work of the Division of Highways Bridge Department, which is considered a master engineer of the period, and it is an important work of the American Bridge Division of US Steel, which is considered a master builder of the period.
>
> Furthermore, the bridge has exceptional importance that meets the standards under Criteria Consideration G for properties that have achieved significance within the past fifty years.
>
> The period of significance is defined as 1962-1964, and the historic property boundaries are the horizontal and vertical footprints of the bridge structure. The character-defining features include all of the original components of the structure and superstructure of the bridge (i.e., all of the components dating to the period of significance).

We look forward to receiving your response within 30 days of your receipt of this submittal, in accordance with Stipulation VIII.C.5.a of the PA. If you need any additional information, please do not hesitate to contact Caltrans Associate Environmental Planner (Architectural History) Paula Juelke Carr (phone: 805-549-3239; FAX: 805-549-3233; e-mail: paula_carr@dot.ca.gov). Thank you for your assistance with this undertaking.

Sincerely,

Valerie A. Levulett

VALERIE A. LEVULETT
Chief, Central Region Technical Studies Branch
District 5
Enc: Historic Property Survey Report
cc: Dominic Hoang, FHWA
Jill Hupp, Caltrans Headquarters

Attachment 3

SHPO concurrence Letter on HPSR 8/13/07

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov

August 13, 2007 Reply To: FHWA070618A

Valerie Levulett
Chief, Central Region Technical Studies Branch
Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401-5415

Re: Determination of Eligibility for the Proposed Cold Spring Canyon Bridge Pedestrian Barrier, Santa Barbara County, CA [05-SB-154 PM 22.95/23.19, EA 05-0P910]

Dear Ms. Levulett:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

The California Department of Transportation (Caltrans) is requesting my concurrence, pursuant to Stipulation VIII.C.5 of the PA, that the Cold Spring Canyon Bridge (bridge No. 51 0037) is eligible for the National Register of Historic Places (NRHP) under criterion C at the state level of significance as an important example of bridge design and welded steel technology in California, and that represents a high aesthetic quality of contemporary design from its period. It is also significant as an important work of the Division of Highways Bridge Department, which is considered a master engineer of the period, and it is an important work of the American Bridge Division of US Steel, which is considered a master builder of the period.

The bridge has exceptional importance that meets the standards under Criteria Consideration G for properties that have achieved significance within the past fifty years. The period of significance is 1962-1964 and the historic property boundaries are the horizontal and vertical footprints of the bridge structure.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

Attachment 4

Finding of Adverse Effect Document

FINDING OF ADVERSE EFFECT

for the

Cold Spring Canyon Bridge (Bridge No. 51 0037) Suicide Barrier
State Route 154, Santa Barbara County, California

05-SB-154 PM 22.9 – 23.1
05-0P9100

MAY 2008

The environmental review, consultation and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

FINDING OF ADVERSE EFFECT

for the

Cold Spring Canyon Bridge (Bridge No. 51 0037) Suicide Barrier State Route 154, Santa Barbara County, California

05-SB-154 PM 22.9 – 23.1
05-0P9100

prepared by:

Christopher McMorris and Stephen R. Wee
Partners / Architectural Historians
JRP Historical Consulting, LLC
1490 Drew Avenue, Suite 110
Davis, CA 95618

approved by:

Valerie A. Levulett
Chief, Central Coast Technical Studies Branch
California Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

July 12, 2008
Date

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1. INTRODUCTION

The Cold Spring Canyon Bridge is the largest steel arch bridge in California. It has a main span of 700 feet and a total length of more than 1,200 feet and rises more than 400 feet above the canyon floor. At the time it was built, in 1962-1963, it was one of the ten longest steel arch bridges in the United States, and it was twice as long as any existing steel arch bridge in California. The Cold Spring Canyon Bridge was also one of the first major arch structures in the United States, and one of only two steel arch bridges on California roadways to be constructed with all-welded steel components.

In the forty-four years since the bridge was opened to traffic, forty-four people have committed suicide from the bridge. According to the Santa Barbara County Sheriff/Coroner, thirty-one suicides have occurred in the past twenty-five years. The bridge has the highest concentration of fatalities for any spot location on the State highway system in Caltrans District 5 (comprising Santa Barbara, San Luis Obispo, Monterey, Santa Cruz, and San Benito counties). There are also serious risks involved when law enforcement, emergency personnel, and search and rescue teams respond to a suicide-related incident on the bridge.

Caltrans and Santa Barbara County Sheriff/Coroner records indicate that the only fatalities associated with the Cold Spring Canyon Bridge to date have all been the result of suicide by jumping from the bridge deck. A multidisciplinary task force consisting of the California Highway Patrol, Santa Barbara County Sheriff's office, emergency services, Santa Barbara County Association of Governments, Caltrans, and experts in the field of suicidology was formed to investigate what could be done to prevent future suicides at this location. The task force recommended that the safety improvement of installing physical barriers would be an effective method to reduce fatalities on this state roadway.

The California Department of Transportation (Caltrans) proposes to install a physical suicide barrier (barrier) on the Cold Spring Canyon Bridge (Bridge No. 51 0037), located between post miles (PM) 22.9 and 23.1 on State Route 154 in Santa Barbara County (Appendix A, Figures 1 and 2). The project is intended to reduce the number of suicides at the state-owned bridge, and reduce associated risks to emergency personnel, while minimizing impacts to the environment, including the aesthetic and historical character of the structure and setting. The proposed project would be built under the state's Highway Safety Improvement Program. The purpose of this program is to reduce the number and severity of accidents on the State's highway system by implementing safety improvements to existing roadways. The program includes projects at locations where the accident history indicates a pattern that is likely to be corrected by a safety improvement.

1.1 Section 106 Compliance Activities to Date

Caltrans prepared a Historic Property Survey Report (HPSR) for this project in June 2007. As part of the HPSR process, Caltrans conducted a records search at the Central Coast Information Center at the University of California, Santa Barbara, and prepared an Archaeological Survey Report (ASR). Caltrans conducted the Native American consultation and sent a consultation letter to the Native American Heritage Commission (NAHC). Caltrans retained JRP Historical Consulting, LLC (JRP) to contact other interested parties, to prepare the Historical Resources Evaluation Report (HRER) for inclusion in the HPSR, and to prepare this Finding of Effect (FOE).

As documented in the HPSR, Caltrans determined that the Cold Spring Canyon Bridge is eligible for listing in the National Register of Historic Places (NRHP) under Criterion C, for its architectural engineering qualities, and under Criteria Consideration G, as a property that has achieved significance within the past fifty years (see detailed discussions of both eligibility criteria in Section 5, below). In August 2007 the California State Historic Preservation Officer (SHPO) concurred with Caltrans' conclusions regarding the historic significance of the Cold Spring Canyon Bridge and its eligibility for listing in the NRHP. An assessment of the proposed project's effects on the bridge – a finding of effect (FOE) – was therefore required. This FOE concludes that the project will have a direct adverse effect on the Cold Spring Canyon Bridge as a result of the introduction of new structural elements on the bridge that alter the bridge's historic integrity of design, feeling and association. These adverse effects are discussed in more detail in Section 6, below.

1.2 Request for SHPO Concurrence in a Finding of Adverse Effect

Caltrans has prepared this FOE report to assess the effects the proposed Cold Spring Canyon Bridge Barrier project will have on the historic property. In applying the Criteria of Adverse Effect (36 CRF 800.5), Caltrans has determined that the undertaking, the Cold Spring Canyon Bridge Suicide Barrier project, will have an Adverse Effect on historic properties pursuant to the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA) Stipulation X. Caltrans is therefore requesting concurrence from the SHPO in a Finding of Adverse Effect for the Cold Spring Canyon Bridge Suicide Barrier project.

2. DESCRIPTION OF UNDERTAKING

Caltrans proposes to install a physical barrier on the Cold Spring Canyon Bridge, on State Route 154 near San Marcos Pass in Santa Barbara County. The project location and project vicinity maps are found in Appendix A, Figures 1 and 2. The project area of potential effect (APE), which includes both the archaeological APE and the architectural APE, was delineated in accordance with Attachment 3 of the Section 106 PA and was established in consultation with Valerie A. Levulett, Chief, Central Coast Technical Studies Branch, and Sara von Schwind, Project Manager, in May 2007 (Appendix A, Figure 3). The bridge is the only historic property in the APE. The APE has both vertical and horizontal aspects: it includes the entire structure and superstructure of the Cold Spring Canyon Bridge. The archaeological APE includes adjacent land that will be used for equipment staging areas.

State Route 154 is 32.2 miles in length. For the most part it is a 2-lane conventional highway with 2-lane and 4-lane expressway sections; there is a small 2-lane section of freeway in the city limits of Santa Barbara. State Route 154 is a rural scenic highway that provides a connection between the south coast and the Santa Ynez Valley.

2.1 Purpose and Need

The purpose of the proposed project is to:

1. Reduce the number of suicides at the Cold Spring Canyon Bridge.
2. Reduce the risks to emergency personnel such as law enforcement officers or search and rescue teams when attempting to prevent a suicide or when recovering a body.

Since the bridge was built in 1963, at least 44 people have committed suicide at this location. In the past 25 years, at least 31 deaths have occurred. The Cold Spring Canyon Bridge has the highest concentration of fatalities for any spot in Caltrans District 5, which includes the Central Coast counties of Monterey, San Benito, Santa Cruz, San Luis Obispo, and Santa Barbara.

The safety of emergency personnel such as law enforcement, ambulance staff, and search and rescue teams is also compromised by the current design of the bridge. According to the Santa Barbara County Sheriff's office, there have been approximately 162 incidents within the past eight years where law enforcement has responded to a suicide-related call at this location. The Sheriff has stated that for public safety, any call that puts law enforcement personnel on the bridge is considered a potential danger because of the low bridge rail, narrow roadway, and bridge swaying that occurs from cars or wind. If a despondent person is contacted on the bridge and struggles, it endangers both the officer and the person.

2.2 Alternatives

Two project alternatives were developed by the project development team to achieve the project purpose while avoiding or minimizing environmental impacts. Several criteria were taken into consideration when evaluating the various alternatives for the proposed project, including the project purpose and need, cost, and environmental impacts.

2.2.1 Build Alternatives

The build alternatives consist of the Grid/Mesh Alternative and the Vertical Alternative. Both build alternatives would construct a physical barrier on Cold Spring Canyon Bridge to deter suicides.

Common Design Features of the Build Alternatives

Experts in the field of suicidology and mental health recommend a physical barrier with the following configuration to be the most effective method to reduce suicides on a bridge. The barrier should include the following features:

- The height should be a minimum of 6 feet
- The top of the barrier should curve inward from 6 feet or higher
- The pickets or members should be difficult to climb and placed a maximum of 6 to 8 inches apart
- The barrier should run the entire span of the bridge

Both build alternatives under consideration meet this configuration criteria and the project's Purpose and Need:

- Height **-** The barrier would have a total height of approximately 6 feet above the existing steel pipe railing; the barrier would curve inward towards traffic at around 6 feet. The resulting rail height above the bridge deck/roadway surface would be approximately 9 feet, 7 inches.
- Anchorage **-** The barrier would be connected to the top of the concrete barrier by a horseshoe-shaped base plate with threaded rods and a steel base plate at each existing steel post.
- Frame **-** The frame would have vertical main posts and top and bottom horizontal members between adjacent anchorages.
- Aesthetic treatment **-** Galvanizing is currently the proposed finish for all variations of the barrier, based on preliminary concepts. The final color is to be determined during the design stage and will be addressed in the Memorandum of Agreement for this project.

Unique Features of the Build Alternatives

- Grid/Mesh Alternative **-** This option consists of welded wire or other material in a square grid pattern, spaced approximately 1 to 2 inches apart.
- Vertical Alternative **-** This alternative consists of vertical steel rods/pickets, spaced from 6 to 8 inches apart.

Existing views and visual simulations of both build alternatives from three different viewpoints are shown in Appendix B.

2.2.2 No-Build Alternative

The No-Build Alternative provides a baseline for consideration of other alternatives and may be preferred if the other alternatives and/or variations have significant impacts on the environment, do not serve the project's purpose and need, or are not economically feasible.

With this alternative, there would be no improvements within the project limits and it is probable that suicide attempts and deaths at this location would continue.

2.2.3 Comparison of Alternatives

Criteria for evaluating alternatives include the project's purpose and need issues and potential environmental effects of the proposed project. The two build alternatives are similar for many of the evaluation criteria and meet the project's stated purpose and need. Both of the build alternatives would reduce the number of suicides at the bridge by providing a physical barrier approximately 9 feet, 7 inches in height with an inward curve. Correspondingly, by reducing the number of suicides at the bridge, risks to law enforcement, emergency personnel, and search and rescue teams would be reduced.

With the No-Build Alternative, the bridge would remain the same; there would be no improvement to the safety of the bridge and it would continue to be considered safety deficient. This alternative would not meet the project's purpose and need; it is reasonable to assume that suicides and suicide attempts, as well as risks to emergency services as a result of these incidents, would continue to occur at the bridge without the installation of a barrier. The Grid/Mesh Alternative has been shown to be the environmentally superior alternative because it would have less of an impact on views of and from the bridge.

Table 1: Comparison of Alternatives

Evaluation Criteria	Grid/Mesh Alternative	Vertical Alternative	No-Build Alternative
Reduce number of suicides	Helps reduce number of suicides; meets project purpose and need	Helps reduce number of suicides; meets project purpose and need	Suicides would most likely continue; does not meet purpose and need
Reduce risks to emergency personnel	Reduces risks because of reduced number of suicides; meets project purpose and need	Reduces risks because of reduced number of suicides; meets project purpose and need	Suicides would most likely continue; does not meet purpose and need
Visual/aesthetic resources	Lower level of adverse effects on the views of and from the bridge	Higher level of adverse effects on the views of and from the bridge	The appearance of the bridge would not change
Cultural resources	Adverse effects would diminish the property's historic qualities	Adverse effects would diminish the property's historic qualities	The appearance of the bridge would not change
Cost	$1,064,000	$1,037,000	Maintenance costs only

3. COORDINATION AND PUBLIC PARTICIPATION

Caltrans has conducted a multi-year effort to involve members of the public, local government, and other interested parties in this project and to seek input on the Cold Spring Canyon Bridge Suicide Barrier Project and its potential effect on the bridge.

In November 2005, Caltrans and other stakeholders organized a multi-agency Cold Spring Arch Bridge Suicide Prevention Committee, in response to a community-based request for a suicide deterrent, spearheaded by The Glendon Association, a Santa Barbara mental health organization. The first meeting of the task force was held in the Santa Barbara County Supervisors' Office in Santa Barbara on November 9, 2005, and was attended by representatives from Caltrans, The Glendon Association, Santa Barbara County Association of Governments (SBCAG), California State Assembly (35th District), Santa Barbara County Board of Supervisors (Third District), Santa Barbara County Alcohol, Drug and Mental Health Services, Santa Barbara County Health and Human Services, CHP, and the Santa Barbara County Office of the Sheriff. A second meeting was held in the SBCAG offices in Santa Barbara on January 12, 2006; representatives from the agencies listed above attended the meeting, along with representatives from the Santa Barbara County Executive Office, Planning and Development, and Public Works. KEYT-TV was also present at the January 12 meeting. A third meeting was held in the Santa Barbara County Supervisors' Offices on March 8, 2006.

Caltrans held two early public information meetings in May 2006. The first was held in the North County at the Solvang Veterans Memorial Building on May 10, and the second was held at Santa Barbara City College on May 22.

During preparation of the Historic Resources Evaluation Report, JRP sent letters to interested parties on February 2, 2007, seeking comment and information pertaining to the bridge's potential historic significance and the potential effect the barrier project might have on the structure's character-defining features. The following is a list of the interested parties that received a letter about this project:

- County of Santa Barbara, Historic Landmarks Advisory Commission (HLAC)
- City of Santa Barbara Historic Landmarks Commission
- David S. Bisol, Executive Director, Santa Barbara Historical Society
- Jarrell C. Jackman, Executive Director, Santa Barbara Trust for Historic Preservation
- Goleta Valley Historical Society
- Santa Ynez Valley Historical Society
- Public History Information Unit, University of California, Santa Barbara
- Clark Adams and Andy Machen, Co-Chairs, History and Heritage Committee, American Society of Civil Engineers, Los Angeles Section
- Lauren J. Doyel, President, American Society of Civil Engineers, Santa Barbara/Ventura Branch
- Gloria Brown, Forest Supervisor, Los Padres National Forest
- Los Angeles Conservancy, Modern Committee "Modcom"
- Society of Architectural Historians, Southern California Chapter
- Morgan Yates, Archivist, Automobile Club of Southern California

Following the letters mailed to interested parties on February 2, 2007, Caltrans received a response from the Santa Barbara County Historic Landmarks Advisory Commission (HLAC) and initiated an ongoing consultation effort with them about this project. In late April 2007, Caltrans asked JRP to conduct follow-up communications via telephone with the other interested parties who had not yet responded to the letter JRP sent on February 2, 2007. On April 27, 2007, Christopher McMorris (JRP) telephoned the City of Santa Barbara Historic Landmarks Commission; Santa Barbara Historical Society; Santa Barbara Trust for Historic Preservation; Goleta Valley Historical Society; Santa Ynez Valley Historical Society; Public History Information Unit, University of California, Santa Barbara; American Society of Civil Engineers, Los Angeles Section and Santa Barbara/Ventura Branch; Los Padres National Forest; Los Angeles Conservancy "Modcom"; Society of Architectural Historians, Southern California Chapter; and the Automobile Club of Southern California. JRP also sent a copy of the Los Angeles Conservancy "Modcom" letter to the conservancy's staff member Jay Platt via email. Mr. McMorris spoke to Jarrell Jackman of the Santa Barbara Trust for Historic Preservation on April 27, 2007. Dr. Jackman expressed interest in seeing the design of the pedestrian barrier for the Cold Spring Canyon Bridge. Lauren Doyel, of the American Society of Civil Engineers,

Santa Barbara/Ventura Branch, called JRP back on April 30, 2007 and spoke to Mr. McMorris. Ms. Doyel emphasized her understanding for the need to alter bridges, even historic bridges, if there are sufficient needs for public safety.

3.1 Public Information Meetings

The public scoping process began with the Public Notice published in the *Santa Barbara Independent* and *El Tiempo de la Costa Central* newspapers on July 12, 2007. The Public Information Meeting/Open House was held on July 25, 2007, in the Santa Barbara Library at 40 East Anapamu Street, Santa Barbara. In attendance were interested citizens, staff from Caltrans, The Glendon Association, and other officials. Caltrans staff were present to answer specific questions about the project. A court reporter and a Spanish translator were available. Invitations were mailed to all of the interested parties previously notified and identified to date. The purpose of the meeting was to discuss the project need and strategies to deter suicides on the bridge, obtain the public's ideas, comments, and concerns about this proposed project, and introduce the public to the members of the project team.

Public comments at the July 25, 2007, meeting were overwhelmingly, but not exclusively, supportive of the proposed barrier. Subsequent emails, letters, public comments, internet blogs, and phone calls have ranged from strong support to strong opposition to the proposed barrier. Several Santa Barbara County-based groups, as well as several individuals, have expressed opposition to the project. Emails, letters, and phone calls that have been directed specifically to Caltrans have been answered by the Project Manager and by the District 5 Public Information Office.

Caltrans mailed a Notice of Preparation (NOP) to state and federal agencies and the State Clearinghouse on January 14, 2008. The NOP was also mailed or emailed (if the mailing address was not provided) to over 90 local governmental departments, associations, and interested individuals. The NOP informed the recipients of Caltrans' intention to prepare an Environmental Impact Report and provided the project description, alternatives under consideration, and the environmental resources the project has the potential to affect. On May 9, 2008, Caltrans released the Draft Environmental Impact Report/Environmental Assessment and Section 4(f) Evaluation, announced a 45-day public comment period (ending June 24, 2008), and also announced that two open forum public hearings will be held.

The public hearings are being held to coincide with the circulation of this draft environmental document for the purpose of receiving additional public input. The first public hearing will be held on June 9, 2008, in Santa Barbara, and the second will be held the following day, June 10, 2008, in Solvang.

3.2 Aesthetics Design Advisory Committee

Caltrans formed an Aesthetics Design Advisory Committee (ADAC) in February 2008 in order to encourage further public participation, public outreach, and input on the barrier design. The ADAC is scheduled to meet approximately five times between March and August of 2008. To date, the committee has met on March 19, April 9, and May 7, 2008. The committee is working as a team to help design the proposed physical barrier alternatives, examining important visual and historic issues that relate to the project. The ADAC will advise Caltrans on the final design details of a physical barrier in a manner that will be consistent with community values and that would minimize the adverse effect the project may have on the bridge. The team is composed of a broad spectrum of members from the area including a representative of the Santa Barbara County Historic Landmarks Advisory Commission, architects, landscape architects, and County Public Works and Planning staff. Caltrans staff facilitates the ADAC group process. The ADAC performs in an advisory capacity to the Caltrans project development team. Recommendations made by the ADAC will be forwarded to the project development team for further action. The Caltrans design team attends the meetings to receive the committee's recommendations and provide professional input on prospective designs.

Aesthetics Design Advisory Committee Participants

Participants	Agency/Business
Deborah Schwartz	HLAC representative
Bethany Clough	BCLA Incorporated
Evans Jones	Jones & Jones
Laurie Romano	Arcadia Studio
Keith Rivera	B3 Architects
Anne Almy	County of Santa Barbara-Planning
Dacé Morgan	County of Santa Barbara- Public Works
Bob Carr	Caltrans, Landscape Architecture
Paula Juelke Carr	Caltrans, Environmental (Architectural History)
Sara von Schwind	Caltrans, Project Management
Wai Kwan	Caltrans, Structure Design
Isaac Tasabia	Caltrans, Bridge Architecture and Aesthetics
Mike Jacob	Caltrans, Environmental Planner
Jim Espinosa	Caltrans, Design
Chris McMorris	JRP Historical Consulting

3.3 Santa Barbara County Historic Landmarks Advisory Commission

Caltrans made a formal presentation to the Historic Landmarks Advisory Commission (HLAC) in Santa Barbara on August 13, 2007. This presentation focused on explaining the results of the

Historic Resources Evaluation Report, including the determinations of National Register eligibility and SHPO concurrence. On February 11, 2008, Caltrans staff attended another meeting of the HLAC in Santa Barbara. In addition to the commissioners, approximately 15 members of the public and local government attended. Caltrans staff provided an update on the Cold Spring Canyon Suicide Barrier project, explained the proposed formation of the ADAC, and invited the Commission to appoint a representative to participate on the committee. During the presentation and also in response to questions, Caltrans staff clarified that, in agreeing to participate, ADAC members would not be endorsing any particular alternative but would be providing input on design ideas to help minimize adverse effects that a physical barrier would have on the Cold Spring Canyon Bridge, should a physical barrier be chosen as the preferred alternative. After some discussion, the HLAC voted (9-0) "to strongly urge Caltrans to seriously consider an alternative to a physical barrier," and also voted (9-0) to nominate Commissioner Schwartz as their representative on the ADAC.

4. IDENTIFICATION EFFORTS

Efforts to identify historic properties in the APE were previously detailed in the June 2007 HPSR for this project. During preparation of the ASR, Caltrans conducted a records search at the Central Coast Information Center at the University of California, Santa Barbara and contacted the Native American Heritage Commission and 16 local Native American representatives. No archaeological resources are present in the project APE. During preparation of the HRER, and in addition to the letters to interested parties mailed out in February 2007 (see Section 3, above), research was conducted at the following locations: Caltrans District 5 offices in San Luis Obispo; Caltrans Transportation Library and History Center in Sacramento; California State Library; University of California, Davis; University of California, Berkeley; University of California, Santa Barbara; Santa Barbara County Historical Society, and Santa Barbara Public Library. Interviews were also conducted with former Division of Highways Bridge Department engineers who were key members of the team that designed the Cold Spring Canyon Bridge: Marvin A. Shulman, Raymond L. Whitaker, and George A. Hood, Jr.

5. DESCRIPTION OF HISTORIC PROPERTIES

The Cold Spring Canyon Bridge, built in 1962-1963, is the only historic property in the project APE. The bridge meets the criteria for listing in the National Register of Historic Places because: a) it is significant, at the state level, under Criterion C; b) it has exceptional importance that meets the standards under Criteria Consideration G for properties that have achieved significance within the past fifty years; and c) it retains historic integrity to convey its significance. Its period of significance is 1962 to 1964, when it was constructed, completed, and opened to traffic. The structure is significant for its type, period, and method of construction as an important example of bridge design and engineering that demonstrates a maturation of steel

arch bridge design and welded steel technology in California, and it represents a high aesthetic quality of contemporary design from its period. It is also an important work of the Division of Highways Bridge Department (Bridge Department), which is considered a "master" engineer of the period, and it is an important work of the American Bridge Division of US Steel (American Bridge) which is considered a "master" builder of the period.

Furthermore, the bridge has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, and it meets the significance criteria as outlined in those guidelines. On August 13, 2007, the SHPO concurred that the Cold Spring Canyon Bridge is eligible for listing on the National Register of Historic Places under Criterion C, at the state level of significance, and under Criteria Consideration G. The SHPO further concurred that the period of significance is 1962-1964 and that the historic property boundaries are the horizontal and vertical footprints of the bridge structure (FHWA070618A).

The Cold Spring Canyon Bridge, shown in Photographs 1-3, below, is significant under Criterion C for its engineering and architectural design as well as an important work of the Bridge Department and American Bridge. The structure's significance lies in both its engineering value related to its structural type and design and importance as an aesthetic achievement. It is significant at the state-wide level, in part, because it is the largest steel arch in California and it was one of the first in the country to be built entirely of all-welded steel components. The Bridge Department devised an interesting and well-received design for the Cold Spring Canyon Bridge within the economic and physical confines of the project.

It is an important example of its type and method of construction for its period because it exhibits a maturation of steel arch bridge design and welded steel technology employed on bridges in California, and it represents a high aesthetic quality that illustrates contemporary Modern-era architectural principles that extolled the virtues of unadorned and efficient designs along with material and functional honesty. The Bridge Department used well-established structural components – including steel arch, welded steel components, and reinforced concrete deck – but executed the overall design in a manner that captures aspects of the highest quality of work in bridge engineering in California at that time. The assemblage of its arch design, its all-weld components, and its clean, open, uncluttered appearance provide a structural continuity with all of its elements acting together in a singular form that creates a beautiful bridge that transcends its practical utilitarian function.

Photograph 1: Cold Spring Canyon Bridge, camera facing northeast, 2/14/07.

Photograph 2: Cold Spring Canyon Bridge deck, camera facing north, 2/14/07.

Photograph 3: Cold Spring Canyon Bridge substructure, camera facing southeast, 2/14/07.

Both the Bridge Department and American Bridge have been identified as masters, as defined under Criterion C. The Bridge Department is noted for its exceptional long-term bridge design program that resulted in highly functional and architecturally significant bridges throughout the state and that promoted innovative and architecturally significant structures starting in the 1930s, such as the bridges on SR70 in Feather River Canyon, 1932-1936, and the San Francisco-Oakland Bay Bridge, 1936. The department's high quality work in designing the state's major structures continued at least into the 1970s. American Bridge has a long history of building major bridges in California, including structures built prior to the construction of the Cold Spring Canyon Bridge, such as the Schuyler Heim Lift Bridge at the Port of Los Angeles built in 1946 and others that were also Bridge Department designs. Their work on the Cold Spring Canyon Bridge structure illustrates their experienced and precise construction methods and procedures that only a handful of companies possessed at the time. The Cold Spring Canyon Bridge exemplifies the same monumental characteristics of other major bridges designed by the Bridge Department, but in an architectural expression that reflects its period of design and construction in the early 1960s, as well as those constructed in California by American Bridge. The Cold Spring Canyon Bridge is thus an important work of the Bridge Department and of American Bridge which are considered "master" engineers and bridge builders of this period.

The Cold Spring Canyon Bridge also possesses exceptional importance that meets the standards of Criteria Consideration G, for properties that have achieved significance within the past fifty

years.[1] The structure's significance can be viewed with historical perspective because the structure illustrates a defined period of bridge engineering and architecture in California that, while influential to subsequent bridge engineering and design, reflects the refined development of steel arch bridge technology and the aesthetic of the post-World War II Modern era. The Cold Spring Canyon Bridge possesses enduring value as an engineering accomplishment and one that both design professionals and the public continue to appreciate for its engineering and aesthetic qualities. The bridge has been recognized with many awards and citations, most notably by organizations in the engineering profession such as the American Institute of Steel Construction and the James F. Lincoln Arc Welding Foundation, and there has been scholarly comparative analysis demonstrating the bridge's relative importance for its engineering design and aesthetic achievement. The bridge is also an American Society of Civil Engineers designated Historic Civil Engineering Landmark.

In addition to its significance under Criterion C and its exceptional importance under Criteria Consideration G, the Cold Spring Canyon Bridge also retains historic integrity that conveys its engineering significance. The Division of Highways (Caltrans after 1972) has maintained the structure and has not made any major changes or repairs, except for the seismic retrofit, completed in 1997-1998, which did not diminish the historic integrity of the bridge. The structure is in its original location with its original design, materials, and workmanship intact which provides one with a clear sense of its integrity of feeling and association.

The character-defining features of the Cold Spring Canyon Bridge comprise those components that are part of its original design, including the arch ribs with their cross bracing, the columns and towers, floorbeam girders, abutments, and railings. The design of the reinforced concrete skewbacks is also included in the structure's character-defining features, even though the skewbacks have been encased with new materials. Some of these original design features play a more significant role in conveying the bridge's significance. These would include the arch ribs, columns, towers, and road deck girders. Of lesser importance are the standard type railings and concrete road deck. The elements of the bridge at the roadway are included in the bridge's character-defining features because they are part of its original design and overall design effect. The features of the bridge that were added during the seismic retrofit of the structure in the 1990s do not contribute to the structure's significance and are not part of the bridge's character-defining features. These include the concrete bolsters flanking the abutments and steel clips on the roadway girders at the top of the towers. Along with the metal guardrails flanking the bridge approaches, the concrete extension of the south side railing on the east end of the bridge also appears to have been added and would not be considered to be a character-defining feature.

[1] Guidelines for applying the standards of exceptional importance under Criteria Consideration G are in: National Park Service, "Guidelines for Evaluating and Nominating Properties That Have Achieved Significance within the Past Fifty Years," National Register Bulletin 22 (Washington DC: US Department of the Interior) 1979, revised through 1998.

6. APPLICATION OF CRITERIA OF ADVERSE EFFECT

Stipulation IX.B of the Section 106 PA states that if there are historic properties in the APE which may be affected by a federal undertaking, Caltrans shall assess adverse effects, if any, in accordance with Section 106 PA Stipulation X, which enjoins Caltrans to apply the Criteria of Adverse Effect set forth in 36 CFR 800.5(a)(1). This regulation states that an "adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." Application of the criteria of adverse effect is largely an assessment of an undertaking's impacts on the historic integrity of a historic property and how an undertaking will affect those features of a historic property that contribute to its eligibility for listing in the NRHP. Effects can be direct, indirect, and cumulative. Direct effects include physical destruction or damage and can include alterations to the original design of a historic property. Indirect effects include the introduction of visual, auditory, or vibration impacts as well as neglect to a historic property, and cumulative effects are the impacts of this project taken into account with known past or present projects as well as foreseeable future projects. This section of the FOE assesses the effects the Cold Spring Canyon Bridge Suicide Barrier Project may have on the Cold Spring Canyon Bridge, the only historic property in the project APE.

The character-defining features that make the Cold Spring Canyon Bridge eligible for listing in the NRHP are those components that are part of its original design and overall design effect, including the arch ribs with their cross bracing, the towers and columns, floor beam girders, skewbacks, abutments, railings, and road deck. Some of these original design features (the arch ribs, towers, columns, and girders, for example) are more significant than others (such as the standard type railings and concrete road deck) in conveying the bridge's significance. These differences in relative significance are taken into account in assessing the proposed project's effects on this historic property.

Caltrans designed the build alternatives in a manner that would minimize the effect the project may have on the historic property by following the SOI Standards for the Treatment of Historic Properties as much as possible. Caltrans examined other bridges in California, throughout the United States, and elsewhere in the world to assess potential designs for the barrier on this bridge. Caltrans also coordinated with JRP architectural historians during the design process and formed the ADAC to refine the design. The appropriate treatment to guide the design of this project was identified as Rehabilitation and is further discussed below, in Section 6.2. Preservation, Restoration, and Reconstruction treatments were not appropriate for this project.

There are several aspects of the bridge's historic integrity that will not be adversely affected by the project. The project will not affect the bridge's historic integrity of location and setting, as it

will not cause the structure to be moved, and it will not impact the physical environment around the historic property. The structure's integrity of materials and workmanship would also not be significantly diminished. The attachment of the barrier's base plates along the top of the concrete railing will be accomplished with bolts inserted into the concrete avoiding impact with the steel strengthening rebar embedded in the concrete, and at limited locations where there are no important design elements. The railing will retain its function as a roadway barrier and will retain most of its visual appearance because the barrier will not conceal the existing railing. The barrier will have no effect on the vast majority of materials on this structure, particularly those elements of the sub-structure that exhibit the most important components of the bridge's structural type and design and the primary components that demonstrate the structure's aesthetic achievement. As noted below, the construction of the barrier, with the base plate anchorage, is reversible. If the barrier were removed in the future, Caltrans could repair the holes where the bolts attached the base plates to the railing and the bridge would retain its essential form and historic integrity.

6.1 Direct, Indirect, and Cumulative Effects

The barrier project will have a direct adverse effect on the Cold Spring Canyon Bridge. The addition of a physical barrier will be an alteration to the historic property that is not consistent with the Secretary of Interior's (SOI) Standards for the Treatment of Historic Properties, as discussed in Section 6.2, and that introduces a visual element that diminishes the property's historic integrity of design, feeling, and association.

The Cold Spring Canyon Bridge Suicide Barrier project will not have indirect effects or cumulative effects on the historic property that could be considered adverse. The project does not include construction of buildings, structures, or objects in the area around or adjacent to the bridge, and thus the project will not introduce visual elements that would impact the structure's historic integrity of setting. Nor will the project introduce new auditory elements at the bridge. The project's construction and/or the operation of the bridge with the barrier will not cause vibration impacts that could potentially damage the structure in a manner that would reduce its ability to convey its historic significance. The project will also not lead to neglect of the historic property, as Caltrans will continue to monitor, inspect, and repair the bridge. This includes no interruption in Caltrans' Division of Structure Maintenance and Investigation's continuing use of an Under Bridge Inspection Truck (UBIT) (also referred to as a "snooper truck) to inspect the Cold Spring Canyon Bridge. This vehicle has a boom with a bucket that carries personnel over the side of bridges for visual and physical inspection of structural members. The design of the proposed barrier will allow for the UBIT boom to clear the barrier at either end of the bridge and be driven to various locations along the bridge.

Furthermore, taking into account known past or present projects as well as projects in the foreseeable future, the project will not have a cumulative effect on the bridge. Besides regular inspection and maintenance to the structure, Caltrans has conducted only one major project, a seismic retrofit, on the Cold Spring Canyon Bridge and there are no known projects in the foreseeable future on this bridge besides the barrier.

Caltrans seismically retrofitted the bridge in 1997-1998. The seismic retrofit project included:

- Installation of steel reinforcing plates constructed up from the arch ends on the top and bottom chords;
- Installation of new bolts, as necessary. New and old bolts currently have a very similar appearance.
- Installation of bolsters flanking the abutment seats.
- Installation of anchors placed diagonally along the tangent of the arch and below the anchor bent. These features are located below grade adjacent to the skewbacks and are not visible.
- Strengthening of the arch ribs and main towers. Elements added to the bridge were the clips at the top of the towers at the deck girders and replacement cables of similar type and design as the original cables at apex of arch.
- New concrete encased around the skewbacks and modifications to tie-downs for the arches. The tie-downs are below grade and are not visible.

The changes made to the bridge during the seismic retrofit project did not diminish the historic integrity of the bridge and made only modest visible alterations to the structure. The elements added and changes made during the seismic retrofit project do not obscure from view the bridge's character-defining features or alter the character-defining features such that they cannot convey the bridge's engineering significance.

Photographs 4 and 5, below, are detail photographs of the bridge's railings and concrete barrier that flank the roadway and onto which the proposed barrier would be built.

Photograph 4: Cold Spring Canyon Bridge, railing detail on bridge deck, camera facing north, 2/14/07.

Photograph 5: Cold Spring Canyon Bridge, side view of railing, camera facing southeast, 2/14/07.

6.2 Direct Adverse Effects and Application of the Secretary of the Interior's Standards for Rehabilitation

Although the Cold Spring Canyon Bridge Suicide Barrier project will have a direct adverse effect on the historic property, the project design does comply with three of the SOI Standards of Rehabilitation (Standards 1, 3, and 10), and five of the standards were not applicable to this project (Standards 4, 5,6, 7, 8). The project was unable to fully comply with two of the Standards of Rehabilitation (Standards 2 and 9), and thus the project will diminish the bridge's historic integrity of design, feeling, and association. The following table summarizes the project's compliance with the SOI Standards for Rehabilitation:

Table 2: Project Compliance with SOI Standards of Rehabilitation

Standard	Compliance Conclusion
1	Complies
2	Does not comply
3	Complies
4	Not applicable
5	Not applicable
6	Not applicable
7	Not applicable
8	Not applicable
9	Does not comply
10	Complies

The project will allow the historic property to continue to be used as it was historically (Standard 1). The new barrier will not create a false sense of historical development, as the new construction will not entail adding conjectural features, adding elements from other historic properties, and its design is sufficiently contemporary to not appear as if it were part of the bridge's original design (Standard 3). Furthermore, the design is generally appropriate for the bridge and its significance as an expression of mid-twentieth century Modernism. To minimize the impact the proposed barrier will have on the Cold Spring Canyon Bridge, the barrier will not include decorative elements, such as finials along the top, or undulating, cross patterned, or shaped metalwork along the barrier. Such decorative elements would further detract from the unadorned, efficient, and open design of the original bridge. The proposed design appropriately responds to the existing structure and its character-defining features, rather than emulating barriers used on other bridges. The new addition also will be constructed in a manner that, if removed in the future, the essential form and historic integrity of the bridge would be unimpaired (Standard 10).

SOI standards 4, 5, 6, 7, and 8 are not applicable to this project. These standards related to changes to the historic property that have acquired their own historic significance, preservation of distinctive construction techniques / craftsmanship, replacement of deteriorated features, use of chemical treatments, and preservation of archaeological resources.

In order to meet the project's purpose and need, the barrier design was unable to fully comply with the remaining two standards, Standard 2 and Standard 9. Standard 2 states that the "alteration of features, spaces, and spatial relationships that characterize a property will be avoided." Standard 9 says that new additions to historic properties should not "destroy historic . . . spatial relationships that characterize the property" and that new additions should be compatible with the historic "features, size, scale, and proportion, and massing to protect the integrity of the property." The following presents analysis regarding the project's adverse effect that does not comply with Standards 2 and 9.

Although Caltrans designed the build alternatives to avoid effects to the bridge's historic character-defining features, designing a physical barrier to be appropriate with the existing structure, the construction of the proposed barrier will impact the form, plan, and proportions of the bridge, along with spatial relationship of its components and the arrangement of spaces between the bridge's various essential physical features. The impact will occur because the addition of the barrier will reduce the open, uncluttered, uncomplicated, and efficient appearance of the bridge that is formed by its slender components of welded steel and its trim concrete deck with its short roadway railing. It will also visually thicken the deck's appearance in relation to the remainder of the bridge. This reduces the ability of the bridge to convey its significance as an aesthetic expression of mid-twentieth century Modernism and as an important work of a "master," i.e. the significant work of the Bridge Department and American Bridge. These factors contribute to the diminished historic integrity of feeling and association that will be caused by the project. As discussed in the project HRER, the views from vehicles on the bridge were not part of the design of the structure, but were considered a benefit of the chosen design that included the short standard-type railing. The addition of the barrier also diminishes the open and uncluttered views from the bridge. The combination of these factors is sufficiently substantial to assess that the suicide barrier on the Cold Spring Canyon Bridge will cause an adverse effect to the historic property.

The barrier alternatives have different effects on the bridge from various views, as shown in the visual photosimulations in Appendix B. These photosimulations include views of the Cold Spring Canyon Bridge with both the vertical picket option and the mesh/grid option. The views provided illustrate the three types of vantage points by which a person can look at or experience the bridge. The views are from below the bridge on Stagecoach Road (camera facing northeast), adjacent the west end of the bridge (camera facing east), and on the deck of the bridge (camera facing northwest).

Both of the proposed barrier alternatives have little overall impact to the design of the bridge as viewed from below the bridge on Stagecoach Road. The vertical option is largely unnoticeable from this vantage point, while the mesh option is slightly more visible, resulting in a modest thickening of the bridge deck's appearance from this vantage point.

The side view of the proposed barrier alternatives illustrates the effect the new structure will have on those aspects of the bridge's design that highlight its efficiency and unadorned appearance. The openness of the bridge would be diminished. This is particularly true with the vertical picket option, which creates visual stacking of vertical elements that creates a wall effect. This view also shows that that the vertical option would have a slightly greater effect on the design of the structure than the mesh option. The vertical option presents a more substantial appearance that thickens the proportions of the roadway deck in relationship to the rest of the bridge. The mesh option retains the openness of the roadway deck better.

The deck view of the proposed barrier alternatives also illustrates the effect the structure will have on the aspects of the bridge's design that highlight its efficiency and unadorned appearance. Views from the bridge were a benefit following construction, but were not part of the design process and are not considered to be a character-defining element of the bridge. The effect of the vertical picket option creates a more closed in feeling and has a greater effect on the design and spatial relationship of the bridge deck. The diminished openness caused by the visual stacking of the vertical elements creates a wall effect as one traverses the structure. While traversing the bridge the vertical pickets would be less visible as one looks straight out, but the driver's experience would be altered along the roadway. The diminished visibility of the pickets as one traverses the bridge would help retain a portion of the existing open feeling. The mesh option retains more of the openness of the existing structure as viewed from the ends of the bridge or along the roadway.

7 CONCLUSIONS

In August 2007 the SHPO concurred with Caltrans' determination that the Cold Spring Canyon Bridge is eligible for listing in the NRHP. The bridge is the only historic property in the APE. In applying the Criteria of Adverse Effect, as required by Stipulation X of the Section 106 PA, Caltrans finds that the project (undertaking) to construct a physical barrier on this structure will have a direct adverse effect on the Cold Spring Canyon Bridge.

Caltrans has prepared this FOE report to assess the effects the proposed Cold Spring Canyon Bridge Barrier project will have on the historic property. In applying the Criteria of Adverse Effect (36 CRF 800.5), Caltrans has determined that the undertaking, the Cold Spring Canyon Bridge Suicide Barrier Project, will have an Adverse Effect on historic properties pursuant to the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on*

Historic Preservation, the California State Historic Preservation Officer and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (Section 106 PA) Stipulation X. Caltrans is therefore requesting concurrence from the SHPO in a Finding of Adverse Effect for the Cold Spring Canyon Bridge Suicide Barrier project.

ATTACHMENTS

APPENDIX A

Figures

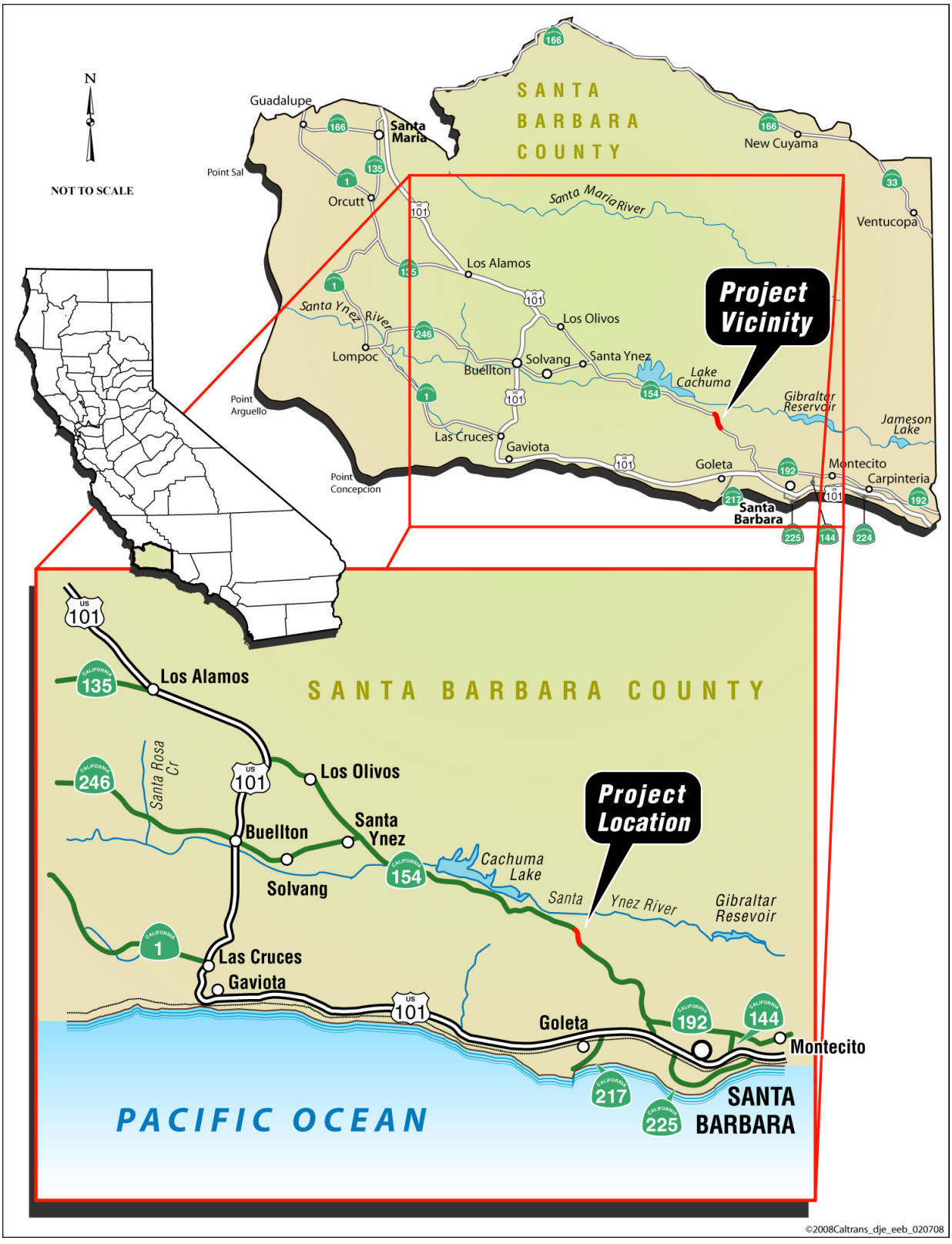

Figure 1. Project Location

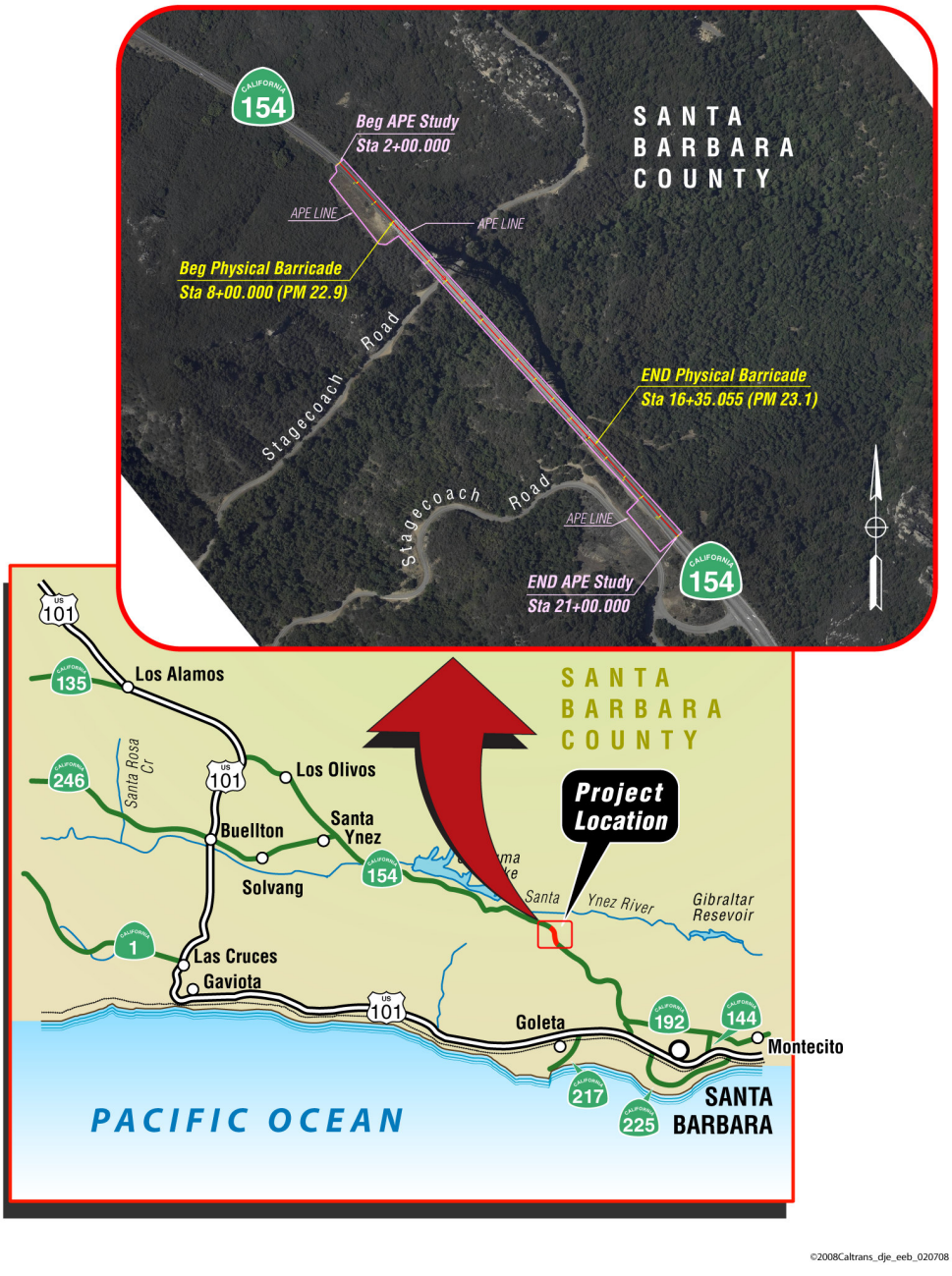

Figure 2. Project Location

Figure 3. Area of Potential Effects

Cold Spring Canyon Bridge (51 0037)
Pedestrian Barrier Project
State Route 154, Santa Barbara County, California

05-SB-154 PM 22.95/23.19
EA 05-0P9100

Archaeological APE
Architectural APE

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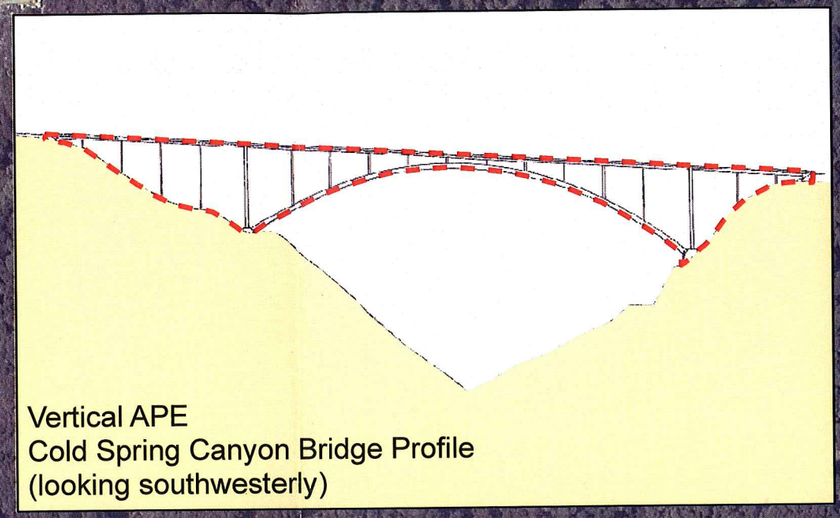
0 0.025 0.05 0.1 Miles



154

PM 22.95

PM 23.19

Stagecoach Rd (former SR154)

Cold Spring Canyon

Stagecoach Rd (former SR154)

154

Recommended for Approval by:

Valerie Levulett 6/12/07

Valerie Levulett — Date
Caltrans District 5 Heritage Resources Coordinator

Approved by:

Sara von Schwind 6/12/07

Sara von Schwind — Date
Caltrans District 5 Project Manager

APPENDIX B

Photosimulations

Figure 1

Cold Spring Canyon Bridge - Highway 154
Safety Barrier Project

Viewpoint Location Map

Existing view

Figure 2

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 1
View from the bridge on westbound Highway 154

Conceptual view of vertical picket alternative.

Figure 3

Caltrans

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 1
View from the bridge on westbound Highway 154

Conceptual view of grid/ mesh alternative.

Figure 4

Caltrans

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 1
View from the bridge on westbound Highway 154

Existing view

Figure 5

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 2
View from the eastbound pullout adjacent to the bridge

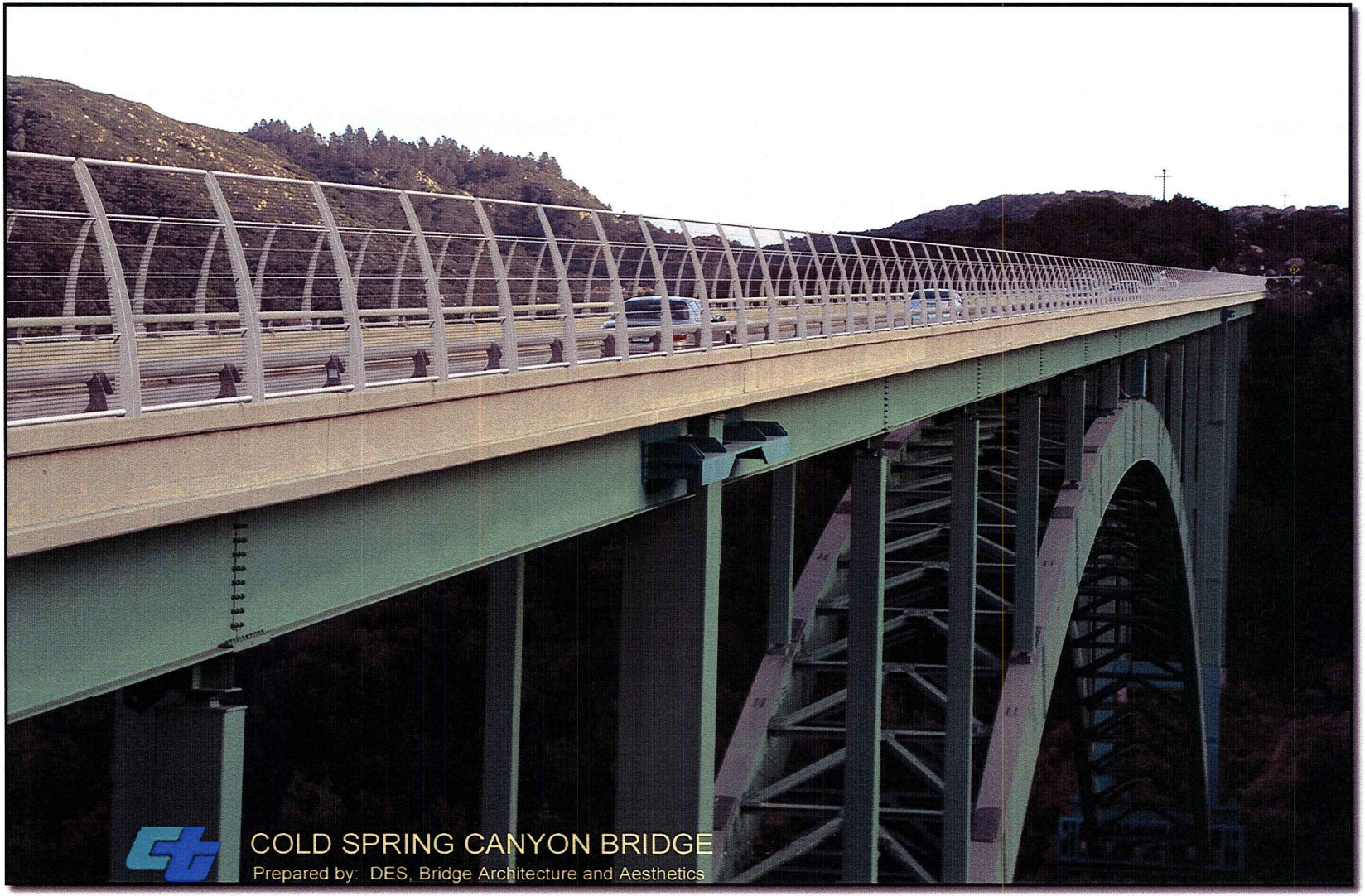
Conceptual view of vertical picket alternative.

Figure 6

Caltrans

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 2
View from the eastbound pullout adjacent to the bridge



Conceptual view of grid/ mesh alternative.

Figure 7

Caltrans

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 2
View from the eastbound pullout adjacent to the bridge

Existing view

Figure 8

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 3
View from Stagecoach Road below the bridge

Conceptual view of vertical picket alternative.

Figure 9

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 3
View from Stagecoach Road below the bridge

Conceptual view of grid/ mesh alternative.

Figure 10

Conceptual Photo-Simulations
Cold Spring Canyon Bridge - Highway 154

Viewpoint 3
View from Stagecoach Road below the bridge

APPENDIX C

Previous Section 106 Correspondence

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P O BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086

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June 12, 2008

Mr. Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
P. O. Box 942896
Sacramento, CA 94296-0001

05-SB-154
PM 22.9-23.1
EA05-0P9100
Cold Springs Canyon Bridge
Suicide Barrier Project

Dear Mr. Donaldson:

Subject: Finding of Adverse Effect for the Cold Springs Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California (FHWA070618A) Section 106 and PRC 5024.5 Consultation

The California Department of Transportation (Caltrans) is continuing consultation with the State Historic Preservation Officer (SHPO) regarding our finding of effect for the above referenced project. This consultation is undertaken in accordance with the January 2004 *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (PA). We are consulting with you under Stipulation X.C.1.a of the PA, which requires consultation with the SHPO regarding a finding of adverse effect.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

Caltrans proposes to install a physical suicide barrier on the Cold Springs Canyon Bridge, located on State Route 154 near San Marcos Pass in Santa Barbara County. In consultation with the SHPO, Caltrans determined that the Cold Springs Canyon Bridge (#51-0037) is eligible for the National Register of Historic Places (NRHP) under criterion C at the state level of significance as an important example of bridge design and welded steel technology in California, and that represents a high aesthetic quality of contemporary design from its period. It is also significant

as an important work of the Division of Highways Bridge Department and of the American Bridge Division of US Steel.

The bridge has exceptional importance that meets the NRHP standards under Criteria Consideration G for properties that have achieved significance within the past fifty years. The period of significance is 1952-1964 and the historic property boundaries are the horizontal and vertical footprints of the bridge structure. The SHPO concurred with the above determination on August 13, 2007.

In applying the Criteria of Adverse Effect pursuant to Stipulation X of the PA, Caltrans finds that the proposed undertaking will have an adverse effect on the historic property. A copy of the Finding of Effect report supporting this conclusion is enclosed. Caltrans is consulting with the SHPO pursuant to stipulation X.C.1 of the PA and requests your concurrence with the Finding of Adverse Effect for the proposed undertaking.

Caltrans is also requesting that the SHPO add the Cold Spring Canyon Bridge to the Master List of Historical Resources pursuant to PRC §5024(d). Additionally, under PRC §5024.5, Caltrans is providing notice to and seeks comments from the SHPO regarding the proposed suicide barrier project.

We look forward to receiving your response within 30 days of receipt of this submittal. Caltrans will be continuing consultation with the SHPO regarding the resolution of the adverse effect. Thank you for your continued assistance with this undertaking. If you have any questions, please contact Jill Hupp at (916)654-3567/jill_hupp@dot.ca.gov, or District 5 architectural historian Paula Juelke Carr at (805)542-4659/paula_carr@dot.ca.gov.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

c: VLevulett – D5; PCarr – D5; GScott – CCSO; JHupp – CCSO

JH/jh

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

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To: GLORIA SCOTT
Chief, Historic Architecture Specialty Branch
PRC§5024

Date: May 30, 2008
File: Cold Spring Canyon
Bridge Suicide Barrier
05-SB-154 PM 22.9/23.1
EA 05-0P9100

From: PAULA JUELKE CARR
Associate Environmental Planner (Architectural History)
District 5

Subject: FINDING OF SIGNIFICANT ADVERSE IMPACT UNDER PRC§5024

District 5 recently submitted a Finding of Adverse Effect for the Cold Spring Canyon Bridge Suicide Barrier project to the Caltrans Cultural and Community Studies Office. The finding of effect (FOE) document addressed Caltrans' responsibilities under Section 106 of the National Historic Preservation Act but did not specifically refer to our consideration of project effects on historical resources under Public Resource Code (PRC)§5024.

The purpose of this memorandum is to document that Caltrans has also duly considered project effects pursuant to PRC§5024. Caltrans has concluded that the proposed Cold Spring Canyon Bridge Suicide Barrier project would have an adverse effect on the characteristics that qualify the Cold Spring Canyon Bridge – the sole historic property in the project area of potential effects – for inclusion in the National Register of Historic Places. The project would introduce a visual element that would significantly alter the bridge's character-defining features and that would diminish the property's historic integrity of design, feeling and association.

Measures to avoid or minimize these significant impacts have been investigated, including an analysis of the nature of the effects the project alternatives would have on the bridge's historic qualities and the ways in which the project does, and does not, meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. Of the four treatment standards that are recognized, Caltrans has determined that rehabilitation is the most appropriate for the proposed project. However, Caltrans realizes that the addition of a physical barrier of any kind appears to be an alteration to the historic property/historical resource that is not entirely consistent with the Secretary of the Interior's Standards for Rehabilitation. It is not possible to reduce the unavoidable impacts to a less than significant level. For these reasons, additional off-site mitigation measures are being developed for a Memorandum of Agreement.

District 5 has also considered whether the State Historic Building Code applies to this project. The project elects to install a physical barrier to deter suicides at the Cold Spring Canyon Bridge. The bridge itself does not have specific code or design standard deficiencies that are triggering upgrades either apart from or as a part of the current barrier project. In other words, the proposed rehabilitation of the bridge is not for the purpose of bringing the bridge up to current standards, but entirely for the purpose of

deterring suicides and enhancing the safety of rescue personnel and the traveling public whose safety is compromised by suicide-related incidents on the bridge. There are no existing Caltrans design standards for suicide barriers. Caltrans has concluded that the State Historic Building Code does not apply in this case.

Under PRC§5024(f), Caltrans is providing notice to, and seeking comment from, the SHPO regarding the effects of the proposed project on the Cold Spring Canyon Bridge and asks that the SHPO refer to the information contained in the Finding of Adverse Effect.

Under PRC§5024(d), Caltrans is also requesting that the SHPO add the Cold Spring Canyon Bridge to the Master List of Historical Resources.

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

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To: GREG KING
Office Chief
Cultural and Community Studies Office

Date: May 20, 2008

File: 05-SB-154 PM 22.9/23.1
Cold Spring Canyon Bridge
Suicide Barrier Project
EA 05-0P9100

From: VALERIE A. LEVULETT
Heritage Resources Coordinator
District 5

Subject: FINDING OF ADVERSE EFFECT

The California Department of Transportation (Caltrans) proposes to install a barrier on the Cold Spring Canyon Bridge (Bridge No. 51 0037) near San Marcos Pass on State Route 154 in Santa Barbara County. The bridge, which was constructed in 1962-1963 and opened to through traffic in 1964, is a dramatic structure spanning a distance of more than 1,200 feet and towering more than 400 feet above the rugged canyon floor. According to the Santa Barbara County Sheriff-Coroner, at least 44 people have committed suicide by jumping from the bridge; 31 of those fatalities have occurred in the last 25 years.

Cold Spring Canyon Bridge has been shown to have the highest concentration of fatalities for any spot location on the State highway system in Caltrans District 5. There are also serious risks involved when law enforcement, emergency personnel, and search and rescue teams respond to a suicide incident at the bridge. Persons intent on committing suicide have also abandoned their vehicles on the bridge, putting other motorists at risk. During rescue and recovery operations, State Route 154 may be closed or traffic reduced to one lane.

The purpose of the Cold Spring Canyon Bridge Suicide Barrier Project is to reduce the number of suicides from the bridge and reduce the risks to emergency personnel and the traveling public that are associated with suicide incidents.

Two build alternatives—a grid/mesh alternative and a vertical alternative—as well as the no-build alternative, are being considered. The grid/mesh alternative would use welded wire in a square grid pattern, spaced approximately 1 to 2 inches apart. The vertical alternative would install vertical steel rods/pickets spaced at a maximum of 6 inches apart. The no-build alternative would leave the bridge as it is and therefore would not meet the purpose and need of the project.

A Historic Property Survey Report, prepared in 2007, identified the Cold Spring Canyon Bridge as the only historic property in the project area of potential effects. In applying the *Criteria of Adverse Effect*, as required by Stipulation X of the Section 106 PA, Caltrans finds that the undertaking will adversely affect the bridge.

Pursuant to the assumption of Federal Highway Administration Section 106 responsibilities by Caltrans under 23 U.S. Code 327, District 5 is transmitting a copy of the Finding of Effect report for the Cold Spring Canyon Bridge Suicide Barrier Project to you for your review. Caltrans has prepared this report to document the findings of effect for the undertaking on the Cold Spring Canyon Bridge and requests concurrence in a Finding of Adverse Effect for the undertaking as a whole. We are also requesting that you initiate consultation with the State Historic Preservation Officer regarding the project's effects.

If you have any questions, I can be reached at (805) 549-3669 (val_levulett@dot.ca.gov), or you may also contact Paula Juelke Carr, District 5 principal architectural historian, at (805) 542-4659 (paula_carr@dot.ca.gov).

Enc. Finding of Effect for the Cold Spring Canyon Bridge Suicide Barrier Project (May 2008)

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
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calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov

August 13, 2007 Reply To: FHWA070618A

Valerie Levulett
Chief, Central Region Technical Studies Branch
Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401-5415

Re: Determination of Eligibility for the Proposed Cold Spring Canyon Bridge Pedestrian Barrier, Santa Barbara County, CA [05-SB-154 PM 22.95/23.19, EA 05-0P910]

Dear Ms. Levulett:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

The California Department of Transportation (Caltrans) is requesting my concurrence, pursuant to Stipulation VIII.C.5 of the PA, that the Cold Spring Canyon Bridge (bridge No. 51 0037) is eligible for the National Register of Historic Places (NRHP) under criterion C at the state level of significance as an important example of bridge design and welded steel technology in California, and that represents a high aesthetic quality of contemporary design from its period. It is also significant as an important work of the Division of Highways Bridge Department, which is considered a master engineer of the period, and it is an important work of the American Bridge Division of US Steel, which is considered a master builder of the period.

The bridge has exceptional importance that meets the standards under Criteria Consideration G for properties that have achieved significance within the past fifty years. The period of significance is 1962-1964 and the historic property boundaries are the horizontal and vertical footprints of the bridge structure.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

DEPARTMENT OF TRANSPORTATION
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June 14, 2007

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001

Cold Spring Canyon Bridge Pedestrian Barrier
05-SB-154 PM 22.95/23.19
EA 05-0P910

RE: Determination of Eligibility

The California Department of Transportation (Caltrans), under the authority of the Federal Highway Administration (FHWA), is initiating consultation with the State Historic Preservation Officer (SHPO) regarding the Cold Spring Canyon Bridge Pedestrian Barrier Project. This consultation is taken in accordance with the January 1, 2004; *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

Enclosed you will find a Historic Property Survey Report (HPSR) for the proposed undertaking. Under the Section 106 PA, Caltrans is responsible for ensuring the appropriateness of the Area of Potential Effects (Stipulation VIII.A) and the adequacy of efforts to identify historic properties (Stipulation VIII.B). We are consulting with you at the present time under Stipulation VIII.C.5 of the PA, which requires that we seek your concurrence on Caltrans' determinations of eligibility for potential historic properties.

In conjunction with the FHWA, Caltrans proposes to install a pedestrian barrier on the Cold Spring Canyon Bridge (Bridge No. 51 0037), located between post miles 22.95 and 23.19 on State Route 154 in the Santa Ynez Mountains of Santa Barbara County. The bridge currently has the highest spot location of fatalities in District 5. The pedestrian barrier project is intended to significantly deter non-vehicular pedestrian fatalities (suicides) at the bridge while minimizing impacts to the environment. The specific design of the barrier is yet to be determined.

The project APE includes the entire structure and superstructure of the Cold Spring Canyon Bridge, and two adjacent areas of land that will be used for equipment and materials staging. The bridge is the only historic resource identified within the project APE. Although the Cold Spring Canyon Bridge, which was constructed in 1962-1963 and opened to through traffic in 1964, is

only 43 years old, it was formally evaluated in connection with this project for the following reasons: it is a notable structure; it is central to the pedestrian barrier project; and sufficient time has elapsed since its construction to be able to assess its place in the historic record.

Pursuant to Stipulation VIII.C of the PA, Caltrans requests your concurrence that the Cold Spring Canyon Bridge (Bridge No. 51 0037) is eligible for listing in the National Register of Historic Places, at the state level of significance, under Criterion C and under Criteria Consideration G:

> Under Criterion C the bridge is significant for its type, period and method of construction as an important example of bridge design and engineering that demonstrates a maturation of steel arch bridge design and welded steel technology in California, and that represents a high aesthetic quality of contemporary design from its period. It is also significant as an important work of the Division of Highways Bridge Department, which is considered a master engineer of the period, and it is an important work of the American Bridge Division of US Steel, which is considered a master builder of the period.
>
> Furthermore, the bridge has exceptional importance that meets the standards under Criteria Consideration G for properties that have achieved significance within the past fifty years.
>
> The period of significance is defined as 1962-1964, and the historic property boundaries are the horizontal and vertical footprints of the bridge structure. The character-defining features include all of the original components of the structure and superstructure of the bridge (i.e., all of the components dating to the period of significance).

We look forward to receiving your response within 30 days of your receipt of this submittal, in accordance with Stipulation VIII.C.5.a of the PA. If you need any additional information, please do not hesitate to contact Caltrans Associate Environmental Planner (Architectural History) Paula Juelke Carr (phone: 805-549-3239; FAX: 805-549-3233; e-mail: paula_carr@dot.ca.gov). Thank you for your assistance with this undertaking.

Sincerely,

Valerie A. Levulett

VALERIE A. LEVULETT
Chief, Central Region Technical Studies Branch
District 5
Enc: Historic Property Survey Report
cc: Dominic Hoang, FHWA
Jill Hupp, Caltrans Headquarters

Attachment 5

Transmittal Letter to SHPO for FOE 6/12/08

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
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June 12, 2008

Mr. Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
P. O. Box 942896
Sacramento, CA 94296-0001

05-SB-154
PM 22.9-23.1
EA05-0P9100
Cold Springs Canyon Bridge
Suicide Barrier Project

Dear Mr. Donaldson:

Subject: Finding of Adverse Effect for the Cold Springs Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California (FHWA070618A) Section 106 and PRC 5024.5 Consultation

The California Department of Transportation (Caltrans) is continuing consultation with the State Historic Preservation Officer (SHPO) regarding our finding of effect for the above referenced project. This consultation is undertaken in accordance with the January 2004 *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (PA). We are consulting with you under Stipulation X.C.1.a of the PA, which requires consultation with the SHPO regarding a finding of adverse effect.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

Caltrans proposes to install a physical suicide barrier on the Cold Springs Canyon Bridge, located on State Route 154 near San Marcos Pass in Santa Barbara County. In consultation with the SHPO, Caltrans determined that the Cold Springs Canyon Bridge (#51-0037) is eligible for the National Register of Historic Places (NRHP) under criterion C at the state level of significance as an important example of bridge design and welded steel technology in California, and that represents a high aesthetic quality of contemporary design from its period. It is also significant

as an important work of the Division of Highways Bridge Department and of the American Bridge Division of US Steel.

The bridge has exceptional importance that meets the NRHP standards under Criteria Consideration G for properties that have achieved significance within the past fifty years. The period of significance is 1962-1964 and the historic property boundaries are the horizontal and vertical footprints of the bridge structure. The SHPO concurred with the above determination on August 13, 2007.

In applying the Criteria of Adverse Effect pursuant to Stipulation X of the PA, Caltrans finds that the proposed undertaking will have an adverse effect on the historic property. A copy of the Finding of Effect report supporting this conclusion is enclosed. Caltrans is consulting with the SHPO pursuant to stipulation X.C.1 of the PA and requests your concurrence with the Finding of Adverse Effect for the proposed undertaking.

Caltrans is also requesting that the SHPO add the Cold Spring Canyon Bridge to the Master List of Historical Resources pursuant to PRC §5024(d). Additionally, under PRC §5024.5, Caltrans is providing notice to and seeks comments from the SHPO regarding the proposed suicide barrier project.

We look forward to receiving your response within 30 days of receipt of this submittal. Caltrans will be continuing consultation with the SHPO regarding the resolution of the adverse effect. Thank you for your continued assistance with this undertaking. If you have any questions, please contact Jill Hupp at (916)654-3567/jill_hupp@dot.ca.gov, or District 5 architectural historian Paula Juelke Carr at (805)542-4659/paula_carr@dot.ca.gov.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

c: VLevulett – D5; PCarr – D5; GScott – CCSO; JHupp – CCSO

JH/jh

Attachment 6

SHPO concurrence letter on FOE 7/24/08

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
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July 24, 2008 Reply To: FHWA070618A

Gregory P. King, Chief
Cultural and Community Studies Office
Division of Environmental Analysis
Department of Transportation
PO Box 942874
Sacramento, CA 94274-0001

Re: Finding of Effect for the Proposed Cold Springs Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, CA

Dear Mr. King:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

Caltrans is requesting my concurrence that the proposed project will have an adverse effect on historic properties, specifically the Cold Springs Canyon Bridge, a property previously determined eligible for the National Register of Historic Places under Criterion C at the state level of significance. The bridge has exceptional importance that meets the NRHP standards under Criterion Consideration G for properties that have achieved significance within the past fifty years. Additionally, under PRC §5024.5, Caltrans is providing notice to and seeking comments from me regarding the proposed suicide barrier project. Caltrans is also requesting that the SHPO add the Cold Springs Canyon Bridge to the Master List of Historical Resources pursuant to PRC §5024(d).

Based on my review of the submitted documentation I concur that the undertaking will have an adverse effect on historic properties. Please consider these comments to be my comments under PRC § 5024.5 as well. The Memorandum of Agreement written for this document in order to satisfy 36 CFR Part 800 will constitute prudent and feasible measures under 5024.5. In addition I will add the Cold Springs Canyon Bridge to the State's Master List of Historical Resources.

Thank you for considering historic properties as part of your project planning. If you have any questions, please contact Natalie Lindquist of my staff at your earliest convenience at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov or Dwight Dutschke at (916) 653-9134 or ddutschke@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

Attachment 7

MOA Drafts 1-4

This is the version of the MOA I sent to Natalie (formally transmitted to SHPD 7-29-08) & which she approved via email 9-8-08 (see email attachment)

MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE COLD SPRING CANYON BRIDGE SUICIDE BARRIER PROJECT ON STATE ROUTE 154 IN SANTA BARBARA COUNTY, CALIFORNIA

WHEREAS, the Federal Highway Administration (FHWA) has assigned and the California Department of Transportation (Caltrans) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007, and applies to this project; and

WHEREAS, Caltrans has determined that the Cold Spring Canyon Bridge Suicide Barrier Project (Undertaking) will have an adverse effect on the Cold Spring Canyon Bridge (Bridge No. 51 0037), which Caltrans has determined, in consultation with the California State Historic Preservation Officer (SHPO) to be eligible for inclusion in the National Register of Historic Places (National Register) and therefore a historic property as defined at 36 CFR§ 800.16(l)(1); and

WHEREAS, Caltrans has consulted with the SHPO pursuant to Stipulations X.C, and X.I of the January 1, 2004, *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA), and where the PA so directs, in accordance with 36 CFR §800, the regulations implementing Section 106 of the National Historic Preservation Act (16 USC Section 470f), as amended (NHPA), regarding the Undertaking's effects on historic properties and has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect finding pursuant to 36CFR§800.6(a)(1); and

WHEREAS, Caltrans has thoroughly considered alternatives to the Undertaking, has determined that the engineering constraints on the design of the Undertaking preclude the possibility of avoiding adverse effects to the historic property during the Undertaking's implementation; and has further determined that it will resolve adverse effects of the Undertaking on the subject historic property through the execution and implementation of this Memorandum of Agreement (MOA); and

WHEREAS, Caltrans District 5 (District 5) has participated in the consultation and has been invited to concur in this MOA;

NOW, THEREFORE, Caltrans and the SHPO agree that, upon Caltrans' decision to proceed with the Undertaking, Caltrans shall ensure that the Undertaking is implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on the historic property, and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

I. AREA OF POTENTIAL EFFECT

A. The Undertaking's area of potential effect (APE) is shown in Figure 3 of the May 2008 *Finding of Adverse Effect for the Cold Spring Canyon Bridge Suicide Barrier Project.* The APE includes the entirety of the bridge structure itself, which is the sole historic property.

B. If modifications to the Undertaking, subsequent to the execution of this MOA, necessitate the revision of the APE, Caltrans will consult with District 5 and the SHPO to facilitate mutual agreement on the proposed revisions. If Caltrans and the SHPO cannot reach such agreement, then the parties to this MOA shall resolve the dispute in accordance with Stipulation IV.D, below. If Caltrans, District 5, and the SHPO reach mutual agreement on the proposed revisions, then Caltrans will submit a final map of the revisions, consistent with the requirements of Stipulation VIII.A and Attachment 3 of the PA, no later than 30 days following such agreement.

II. TREATMENT OF HISTORIC PROPERTIES

A. Photography and Construction Drawings

1. Prior to the start of any work that could adversely affect characteristics that qualify the Cold Springs Bridge as a historic property Caltrans shall ensure that large-format (4" by 5" or larger negative size) photographs are taken showing the Cold Spring Canyon Bridge in context as well as details of its historic engineering features. Photographs shall be processed for archival permanence in accordance with the Historic American Engineering Record (HAER) photographic specifications. Views of the Cold Spring Bridge shall include:

   a. Contextual views showing the Cold Spring Bridge in its setting;

   b. Elevation views;

   c. Views of the Cold Spring Bridge approaches and abutments;

   d. Detail views of significant engineering and design elements.

e. Copies of the photographs and negatives will be retained by Caltrans District 5 and will be deposited with the Caltrans Transportation Library and History Center at Caltrans Headquarters in Sacramento. Copies of the photographs will also be deposited with the SHPO and offered to the University of California, Santa Barbara, Davidson Library, Special Collections; the Santa Barbara County Public Library; the Santa Barbara Historical Society Gledhill Library; and the Santa Ynez Valley Historical Society.

2. Caltrans shall photographically reproduce plans, elevations and selected details from these drawings in accordance with HAER photographic specifications. If they are legible in this format, reduced size (8 1/2" by 11") copies of construction drawings may be included as pages of the report cited in subsection B of this stipulation rather than photographed and included as photographic documentation.

B. Written Documentation following the NPS *HAER Guidelines for Preparing Written Historical and Descriptive Data*, September 1993.

A written historical and descriptive report for the Cold Spring Canyon Bridge will be completed. This report will provide a physical description of the bridge, discuss its construction and its significance under applicable National Register criteria, and address the historical context for its construction following the format and instructions in the above-referenced HAER guidelines for written documentation.

C. Distribution of Documentation

Caltrans will print 500 copies of the May 2007 Historic Resources Evaluation Report, produced in an illustrated booklet format. These copies will be offered to local historical societies and organizations including the following: Santa Barbara County Historic Landmarks Advisory Commission; City of Santa Barbara Historic Landmarks Commission; Santa Barbara County Public Library, Central Library and local branches; Santa Barbara Historical Society; Santa Barbara Trust for Historic Preservation; Santa Ynez Valley Historical Society; Goleta Valley Historical Society; University of California, Santa Barbara, Davidson Library, Special Collections; University of California, Santa Barbara, Public History Information Unit; Santa Barbara City College Library; American Society of Civil Engineers, Los Angeles Section, History and Heritage Committee; American Society of Civil Engineers, Santa Barbara/Ventura Branch; Los Padres National Forest; Los Angeles Conservancy, Modern Committee; Society of Architectural Historians, Southern California Chapter; and Automobile Club of Southern California, Archives). The report will also be posted on the District 5 website.

D. Interpretive Display

Four sets of a three-panel interpretive exhibit will be produced by Caltrans and distributed as follows: two sets to the Santa Barbara County Public Library, one set to the Santa Barbara County General Services Department, and one set to the District 5 Office. The exhibit panels will be drymounted and framed for greater permanence. The panels will feature text and illustrations on the history of San Marcos Pass, the construction history of the Cold Spring Canyon Bridge, and the bridge's enduring architectural engineering significance.

III. DISCOVERIES AND UNANTICIPATED EFFECTS

If Caltrans determines after construction of the Undertaking has commenced that the Undertaking will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans shall address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(c). Caltrans at its discretion may hereunder and in accordance with 36 CFR § 800.13(c), assume any discovered property to be eligible for inclusion in the National Register.

IV. ADMINISTRATIVE PROVISIONS

A. Standards.

1. **Professional Qualifications.** All activities prescribed by stipulations I and II of this MOA shall be carried out under the authority of Caltrans by or under the direct supervision of a person or persons meeting at a minimum the Secretary of Interior's Standards *Professional Qualifications Standards* (48 FR 44738-39, September 29, 1983) (PQS) in the appropriate disciplines. However, nothing in this stipulation may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.

2. **Historic Preservation Standards.** Written documentation of activities prescribed by stipulations I, II, and III of this MOA shall conform to the *Secretary of the Interior's Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44740) as well as applicable standards and guidelines established by the SHPO.

B. Resolving Objections.

1. Should the SHPO object at any time in writing to the manner in which the terms of this MOA are implemented, to any action carried out or proposed with respect to implementation of the MOA, or to any document prepared in accordance with and subject to the terms of the MOA, the SHPO shall immediately notify Caltrans of the objection, request their comments on the objection within 15 days

following receipt of notification, and proceed to consult with Caltrans for no more than 30 days to resolve the objection.

2. If the objection is resolved during the 30 day consultation period, Caltrans may proceed with the disputed action in accordance with the terms of such resolution.

3. If at the end of the 30 day consultation period, Caltrans determines that the objection cannot be resolved through such consultation, then Caltrans shall forward all documentation relevant to the objection, including a draft response to the objection, to the ACHP, with the expectation that the ACHP will, within 30 days after receipt of such documentation:

   a. Advise Caltrans that the ACHP concurs in Caltrans' proposed response to the objection, whereupon Caltrans will respond to the objection accordingly. The objection shall thereby be resolved; or

   b. Provide Caltrans with recommendations, which Caltrans will take into account in reaching a final decision regarding its response to the objection. The objection shall thereby be resolved; or

   c. Notify Caltrans that the objection will be referred for comment pursuant to 36 CFR §800.7(c) and proceed to refer the objection and comment. Caltrans shall take the resulting comments into account in accordance with 36 CFR §800.7(c)(4) and Section 110(1) of the NHPA. The objection shall thereby be resolved.

4. Should the ACHP not exercise one of the above options within 30 days after receipt of all pertinent documentation, Caltrans may assume the ACHP's concurrence in its proposed response to the objection and proceed to implement that response. The objection shall thereby be resolved.

5. Caltrans shall take into account any of the ACHP's recommendations or comments provided in accordance with this stipulation with reference only to the subject of the objection. Caltrans' responsibility to carry out all other actions under this MOA that are not the subject of the objection shall remain unchanged.

6. At any time during implementation of the measures stipulated in this MOA, should a member of the public raise an objection in writing pertaining to such implementation to either signatory party to this MOA, that signatory party shall immediately notify the other signatory party in writing of the objection. Either signatory party may choose to comment in writing on the objection to the other signatory party. Caltrans shall establish a reasonable time frame for this comment period. Caltrans shall consider the objection, and in reaching its decision, Caltrans will take all comments from the SHPO into account. Within 15 days following closure of the comment period, Caltrans will render a decision regarding the objection and respond to the objecting party. Caltrans will promptly notify SHPO of its decision in writing, including a copy of the response to the objecting party. Caltrans' decision regarding resolution of the objection will be final. Following issuance of its final decision, Caltrans may authorize the action

subject to dispute hereunder to proceed in accordance with the terms of that decision.

7. Caltrans shall provide SHPO, and the ACHP, if the ACHP has commented, and any parties that have objected pursuant to section B.6 of this stipulation, with a copy of its final written decision regarding any objection addressed pursuant to this stipulation.

8. Caltrans may authorize any action subject to objection under this stipulation to proceed after the objection has been resolved in accordance with the terms of this stipulation.

C. Amendments.

Either signatory party to this MOA may propose that this MOA be amended, whereupon both signatory parties shall consult to consider such amendment. The amendment will be effective on the date a copy signed by both of the original signatories is filed with the ACHP. If the signatories cannot agree to appropriate terms to amend the PA, either signatory may terminate the agreement in accordance with section D, below.

D. Termination.

1. If this MOA is not amended as provided for in section C of this stipulation, or if either signatory proposes termination of this MOA for other reasons, the signatory party proposing termination shall, in writing, notify the other MOA party, explain the reasons for proposing termination, and consult with the other party for at least 30 days to seek alternatives to termination. Such consultation shall not be required if Caltrans proposes termination because the Undertaking no longer meets the definition set forth in 36 CFR §800.16(y).

2. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with that agreement.

3. Should such consultation fail, the signatory party proposing termination may terminate this MOA by promptly notifying the other party in writing. Termination hereunder shall render this MOA without further force or effect.

4. If this MOA is terminated hereunder, and if Caltrans determines that the Undertaking will nonetheless proceed, then Caltrans shall comply with the requirements of 36 CFR 800.3-800.6.

E. Duration of MOA.

1. Unless terminated pursuant to section D of this stipulation, or unless it is superseded by an amended MOA, this MOA will be in effect following execution by the signatory parties until Caltrans, in consultation with the SHPO, determines that all of its stipulations have been satisfactorily fulfilled.

2. The terms of this MOA shall be satisfactorily fulfilled within ten years following the date of execution of this MOA by the signatory parties. If Caltrans determines that this requirement cannot be met, the MOA parties will consult to reconsider its

terms. Reconsideration may include continuation of the MOA as originally executed, amendment of the MOA or termination. In the event of termination, Caltrans will comply with section D.4 of this stipulation, if it determines that the Undertaking will proceed notwithstanding termination of this MOA.

3. If the Undertaking has not been implemented within ten years following execution of this MOA, this MOA shall automatically terminate and have no further force or effect. In such event, Caltrans shall notify the SHPO in writing and, if it chooses to continue with the Undertaking, shall reinitiate review of the Undertaking in accordance with 36 CFR §800.

F. Effective Date.

This MOA will take effect on the date that it has been executed by both Caltrans and the SHPO.

EXECUTION of this MOA by Caltrans and the SHPO, its filing with the ACHP in accordance with 36 CFR § 800.6(b)(1)(iv), and subsequent implementation of its terms, shall evidence, pursuant to 36 CFR § 800.6(c), that this MOA is an agreement with the ACHP for purposes of Section 110(1) of the NHPA, and shall further evidence that Caltrans has afforded the ACHP an opportunity to comment on the Undertaking and its effect on historic properties, and that Caltrans has taken into account the effects of the Undertaking on historic properties.

SIGNATORY PARTIES:

California Department of Transportation

By _____ Date_____
Jay Norvell, Chief
Division of Environmental Analysis

California State Historic Preservation Officer

By _____ Date_____
Milford Wayne Donaldson
State Historic Preservation Officer

CONCURRING PARTIES:

California Department of Transportation, District 5

By _____ Date_____
Richard Krumholz
District 5 Director

Cold Spring Canyon Bridge Suicide Barrier

On State Route 154 at Cold Spring Canyon Bridge
05-SB-154-PM 22.9/23.1
05-0P9100

Memorandum of Agreement Attachments:

Figures

Alternatives Considered But Rejected

July 2008

Proposed Undertaking

The California Department of Transportation (Caltrans) proposes to install a barrier to act as a physical barricade to deter suicides on the Cold Spring Canyon Bridge, on State Route 154 near San Marcos Pass in Santa Barbara County (see Figures 1 and 2). The purpose of the proposed project is to:

1. Reduce the number of suicides at the Cold Spring Canyon Bridge.
2. Reduce the risks to law enforcement, emergency personnel, state highway maintenance and traffic control personnel, and search and rescue teams when attempting to prevent a suicide or when recovering the remains if the suicide occurs.

Since the Cold Spring Canyon Bridge was built in 1963, at least 44 people have committed suicide at this location. In the past 25 years, at least 32 deaths have occurred. The bridge, a state owned structure, has the highest concentration of fatalities for any location in Caltrans District 5. A multidisciplinary project development team consisting of Caltrans, the California Highway Patrol, Santa Barbara County Sheriff, emergency services, Santa Barbara County Association of Governments, and experts in the field of suicidology was formed to investigate what could be done to prevent future fatalities on this state facility.

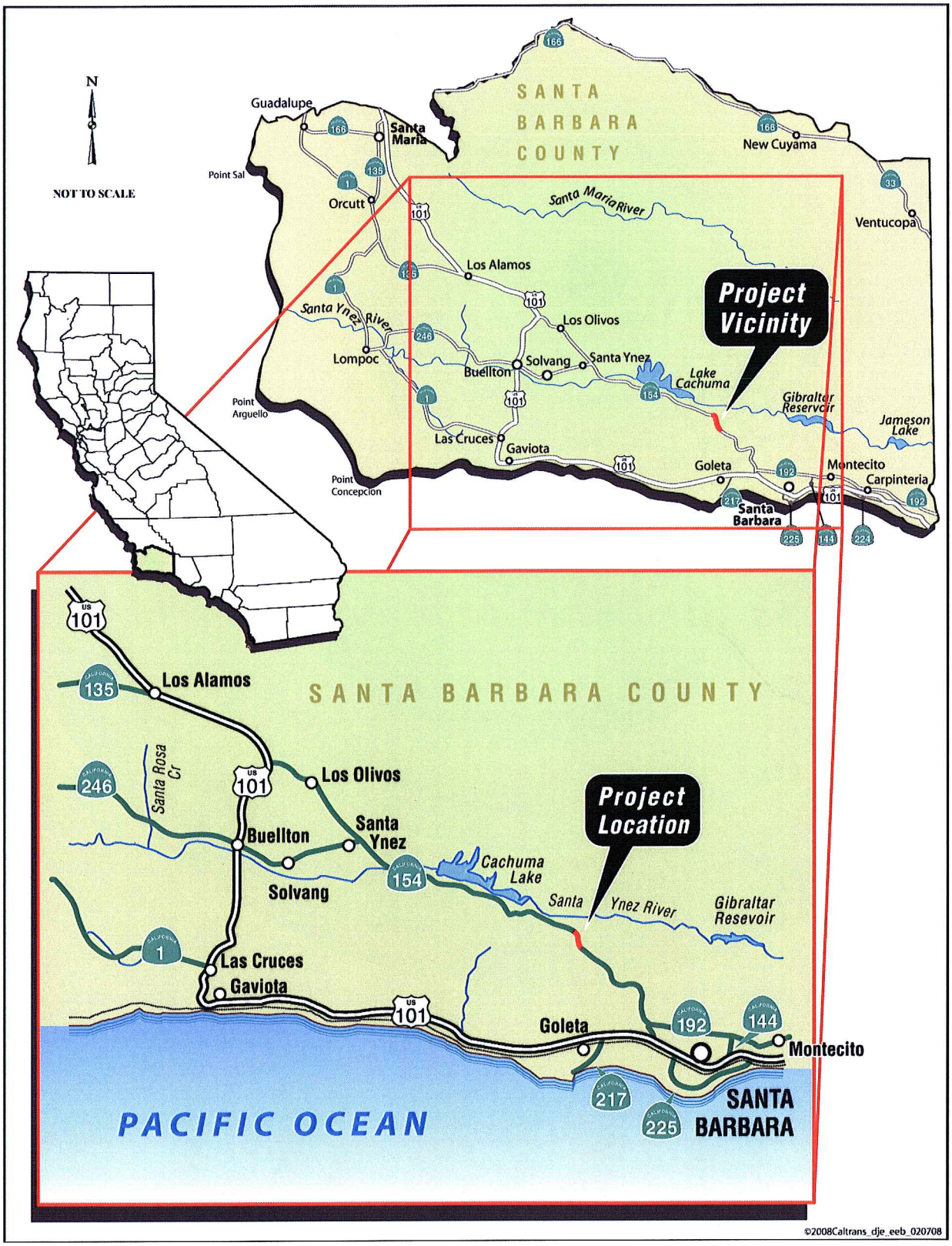

Figure 1. Project Vicinity and Location

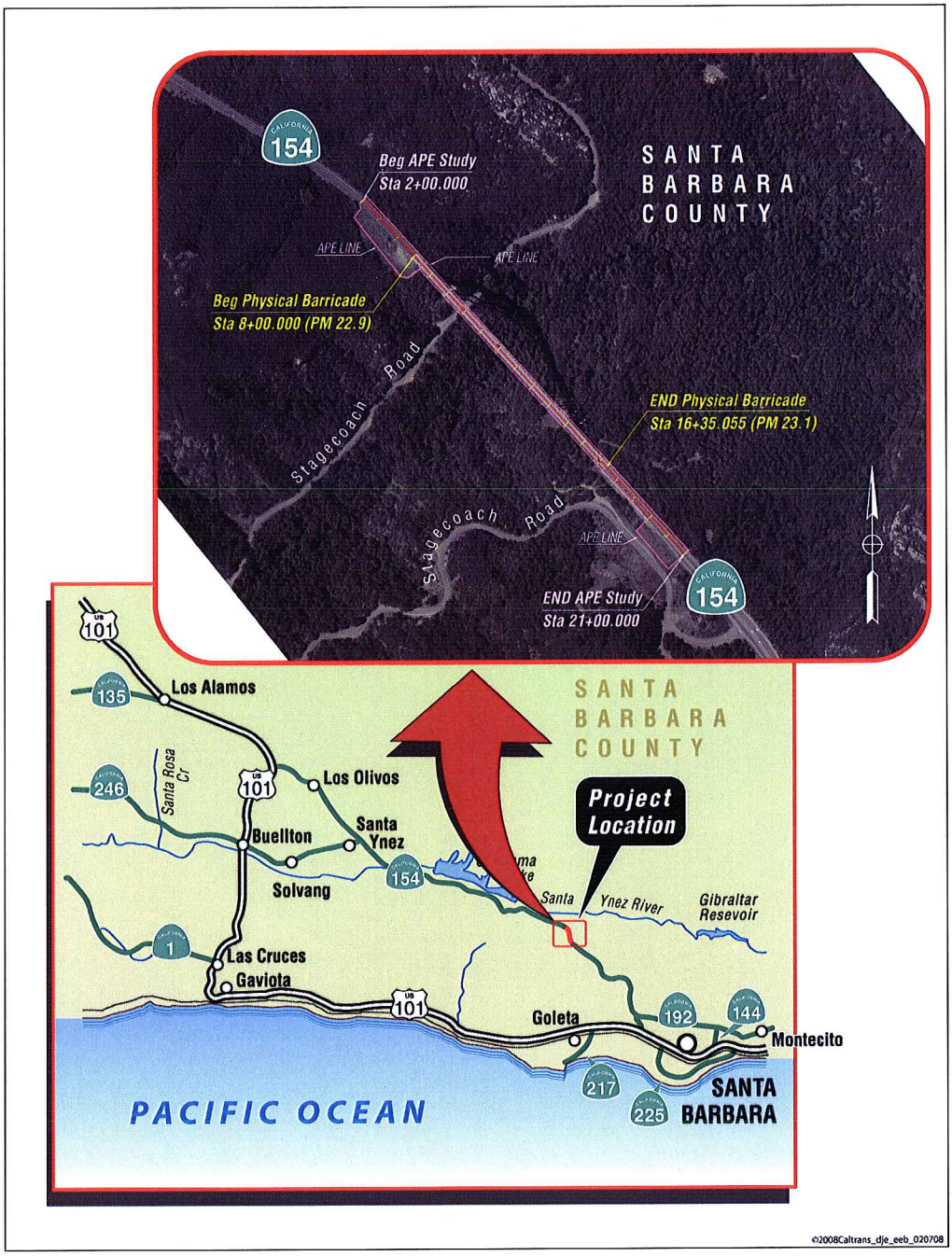

Figure 2. Project Location Detail

Build Alternative

The Build Alternative will be either the Grid/Mesh Alternative or the Vertical Alternative, as discussed in the Finding of Adverse Effect. Both would construct a barrier on the Cold Spring Canyon Bridge to deter suicides, and both have virtually identical adverse effects under the Criteria of Adverse Effect.

Experts in the field of suicidology recommend a physical barrier with the following configuration as being the most effective method to reduce suicides on a bridge.

- The barrier should be a minimum of 6 feet in height
- The top of the barrier should curve inward from 6 feet or higher
- The pickets or members should be difficult to climb and placed a maximum of 6 to 8 inches apart
- The barrier should run the entire span of the bridge

Common Design Features of the Grid/Mesh and Vertical Alternatives

- **Height** - The barrier would have a total height of approximately 6 feet above the existing steel pipe railing, the barrier would curve inward towards traffic at around 6 feet. The resulting rail height above the bridge deck/roadway surface would be approximately 9 foot 7 inches.

- **Anchorage** - The barrier would be connected to the top of the concrete barrier by a horseshoe-shaped base plate with threaded rods and a steel base plate at each existing steel post.

- **Frame** - The frame would have vertical main posts and top and bottom horizontal members between adjacent anchorages.

- **Aesthetic treatment** - Galvanizing is currently the proposed finish for all variations of the suicide barrier, based on preliminary concepts. The final color is to be determined during the design stage with input from an Aesthetics Design Advisory Committee

Unique Design Features of the Build Alternatives

- **Grid/Mesh Alternative** - This option consists of welded wire or other material in a square grid pattern. The wire may be spaced approximately 1 to 2 inches apart [Jill: TBD]

- **Vertical Alternative** - This alternative consists of vertical steel rods/pickets spaced from 6 to 8 inches between the main posts [Jill: TBD]

No-Build Alternative

With this alternative, there would be no improvements within the project limits and it is probable suicide attempts and deaths at this location would likely continue.

Comparison of Alternatives

Table 1 compares the two Build Alternatives, Grid/Mesh and Vertical, and the No-Build Alternative. Criteria for evaluating alternatives include the project's Purpose and Need issues and potential environmental effects of the proposed project. The two Build Alternatives are similar for many of the evaluation criteria and meet the project's stated Purpose and Need. Both of the Build Alternatives would reduce the number of suicides at the bridge by providing a physical barrier approximately 9 foot 7 inches in height with an inward curve. Correspondingly, by reducing the number of suicides at the bridge, risks to law enforcement, emergency personnel, state highway maintenance, traffic control personnel, and search and rescue teams will be reduced.

The No-Build Alternative does not correct the lack of physical barriers that causes the bridge to be considered safety deficient. It is reasonable to assume that people would continue to commit suicide from the Cold Spring Bridge unless a suicide deterrent is installed. Risks encountered in rescue attempts and recovery operations pose serious and unacceptable safety hazards to the traveling public and to emergency and safety personnel such as the Highway Patrol, Santa Barbara County Sheriff's office, Caltrans maintenance personnel, and the Santa Barbara County Search and Rescue team.

Table 1. Comparison of Alternatives

Evaluation Criteria	Grid/Mesh Alternative	Vertical Alternative	No-Build Alternative
Reduce Number of Suicides	Helps reduce suicides, meets Purpose and Need	Helps reduce suicides, meets Purpose and Need	Suicides will most likely continue- does not meet the Purpose and Need,
Reduce Risks to emergency personnel	Reduces risks due to reduced number of suicides, meets Purpose and Need	Reduces risks due to reduced number of suicides, meets Purpose and Need	Suicides will most likely continue- does not meet the Purpose and Need

Table 2. Summary of Major Potential Impacts from Alternatives

Potential Impacts	Grid/Mesh Alternative	Vertical Alternative	No-Build Alternative
Visual/Aesthetic Resources	Lower level of adverse effects of the view from and of the bridge (view blockage and visual intrusion)	Higher level of adverse effects of the view from and of the bridge (view blockage and visual intrusion))	The appearance of the bridge would not change
Cultural Resources	Adverse effects-diminishes the property's historic integrity	Adverse effect-diminishes the property's historic integrity.	The appearance of the bridge would not change

Alternatives Considered but Eliminated From Further Discussion

The following five alternatives were considered by the Project Development Team but eliminated from further discussion:

Horizontal Alternative

A six-foot physical barrier alternative with horizontal members and a total height of 9 feet 7 inches above the bridge roadway would be constructed on each side of the bridge. This alternative was considered but rejected because the horizontal design had a "ladder-like" configuration that gave the appearance it could be more easily scaled than the other two physical barrier alternatives under consideration.

Safety Net Alternative

A safety net alternative would be installed on each side of the bridge as a suicide deterrent. This alternative was considered but rejected due to the following reasons:

- Risks to the Santa Barbara County Search and Rescue team during a safety net rescue. Team members would rappel over the edge of the bridge into the net, using technical rescue equipment, a complex system of ropes and hardware. The safety net by design is difficult to walk on or stand in, thus maintaining balance while standing in the net may not be possible. The rescuer would attempt to secure the person for removal from the net. If the suicidal person is violent and possibly armed, subduing them while maintaining balance in the safety net and then securing and hoisting the person to the top of the bridge is very difficult. Search and Rescue team members are not in law enforcement or trained to confront potential combatants. Conversely, Sheriff's Deputies are not trained in the specialized field of search and rescue and depend on the Search and Rescue team for rescue and recovery.

- Constructability, replacement costs, and maintenance issues. Installing a safety net involves drilling holes in the face of the bridge, which could permanently alter the structure's appearance. If the net catches a person or heavy object, the netting becomes deformed from the impact, which reduces its effectiveness and it should be replaced.
- A safety net may constitute a possible lure to thrill seekers. A net located 400 feet above the ground designed for a human to fall into safely may be an attraction to that segment of the population.
- The safety net may be a danger to those who fall into it. If a suicide attempt occurs or the net catches a thrill seeker, the person may be stunned or injured by the impact. For suicide attempts that occur in darkness, the people may not be seen in the net for an extended period of time, exposing them to cold, heat, wind, and rain. Also, once they are located, the response time for emergency services may be lengthy, due to the bridge's remoteness.
- The safety net would be difficult and dangerous to maintain. Routine maintenance to remove vegetation, trapped animals, and litter that could collect in the netting material would require rappelling into the net to collect the material, securing the material in a container, hoisting it to the top of the bridge, and then the ascending back up ropes to the top of the bridge.
- The net strategy requires immediate response while those who fall into it are still stunned. The remote location of the bridge would not make this possible and a suicidal person could get to the edge of the net and jump again.

Partial Barrier Alternative

A partial barrier would not span the length of the bridge. This alternative was considered but rejected because this barrier configuration would not be effective, since it could be scaled or avoided.

Restricting Access Alternative

This alternative was considered but rejected because restricting pedestrian access would not be an effective means of deterring suicide, since the prohibition could be ignored.

- **Restricting pedestrian access**—The bridge was not designed to accommodate pedestrians: there are no sidewalks nor appropriate pedestrian safety rail, and the bridge is a narrow two-lane facility. If a sign is posted restricting pedestrians, it is not possible for law enforcement to effectively enforce this restriction. Individuals contemplating suicide can walk on to the narrow bridge and jump without impedance since the existing bridge rail is only 3 feet, 7 inches in height.

- **Restricting public parking at pull out areas**—It is not probable that restricting parking or closing pullout areas would reduce suicides. According to the Sheriff's Search and Rescue Team, at least three individuals have parked their vehicle on the middle of the bridge and jumped. Also, these roadside locations are necessary for emergency vehicles, disabled vehicles, roadside rests, sightseeing, and highway maintenance parking to help keep the traffic flowing on State Route 154 in a safe manner.

"Human Barrier" Alternative

The human barrier alternative has been proposed by interested citizens as a viable alternative to deter suicides at the Cold Spring Canyon Bridge. This alternative consists of non-physical barrier deterrents such as call boxes, video cameras, surveillance patrols, signs, lighting, and public education. Components of this alternative were previously considered but eliminated from discussion because research in the field of suicide prevention shows the human barrier approach has not been successful.

The human barrier approach was tried on the Golden Gate Bridge in San Francisco, which is the foremost suicide magnet location in the world. Even though the Golden Gate Bridge is adjacent to a large urban area and heavily patrolled, using this approach was found to be ineffective. Since 2005, the following human barrier methods have been used on the bridge to deter suicides:

- Closed-circuit television cameras monitored 24 hours a day
- Emergency telephones linked to suicide prevention/crisis intervention counselors
- Signs to direct people to the emergency crisis phones
- Public safety patrols and law enforcement patrols trained in suicide prevention/crisis intervention
- Employee training and education in suicide prevention/crisis intervention

Since 1993 when the bridge's first human barrier component, emergency telephones, was installed, there have been approximately 346 suicides from the Golden Gate Bridge. When anti-suicide patrols began in 1996, the San Francisco Suicide Prevention Agency commented that the bridge also needed better physical barriers, since the existing barriers are not difficult to climb at 4 feet in height. The bridge's Board of Directors voted in 2005 to explore installing a barrier. In 2006 more than 34 suicides occurred, the highest rate since 1994.

Human barrier solutions have also been tried at other bridges that attract suicide attempts. An increase in suicides on the Sunshine Skyway Bridge in Saint Petersburg, Florida led

officials to install crisis phones and start 24-hour patrols of the bridge in 2000. In 2002, 15 surveillance cameras were added. According to an article published October 3, 2003, in the *Saint Petersburg Times*, in spite of these safeguards, from 2000 to the date of the article in 2003, 22 people committed suicide from the bridge. Florida Highway Patrol officers said in the article that many of the people they try to talk down end up jumping.

On May 9, 1999, the *New York Times* published an article that focused on the troopers who respond to suicide attempts on the Sunshine Skyway. These officers face the risk of being taken over the bridge rail in their efforts to prevent a suicide. They also experience emotional trauma when their efforts fail. Those interviewed said that while they are able to talk some people down, others will jump without talking at all or while they are talking.

Analysis of the Coronado Bay Bridge in San Diego shows that call boxes and signs encouraging individuals to seek help by using the crisis hotlines have not been an effective suicide prevention strategy. Since the phones' installation in 1990, suicides by jumping from the Coronado Bridge have remained consistent.

At the Cold Spring Canyon Bridge, practical reasons would limit the effectiveness of the "Human Barrier" Alternative that has been proposed. The remote, rural location makes it difficult for law enforcement and emergency personnel to respond in a timely manner to the proposed video camera surveillance; the Santa Barbara County Sheriff's Office estimated average response time without the delay of any other activity, is around 15 minutes. The Sheriff also does not have the staff to continually monitor the surveillance video cameras or to heighten existing patrol efforts at the bridge.

Installing emergency telephones/call boxes adjacent to the Cold Spring Canyon Bridge would be impractical since the road at the bridge is narrow and there are no sidewalks or shoulders to provide a safe location on or next to the bridge for telephones, because the bridge was not designed for pedestrian usage.

Lighting is an additional human barrier feature that was considered. However, due to the bridge's remote location and lack of people at the bridge at any given time, additional lighting may not be a deterrent to suicides.

Another component of the human barrier approach is for law enforcement agencies to develop clear policy directives and training for officer safety when encountering suicidal persons. Law enforcement personnel already receive training in crisis and high-risk situations and are trained to help everyone; even those who wish to harm themselves. As

noted above with troopers at the Sunshine Skyway, Santa Barbara County Sheriff's deputies who respond to suicide attempts at the Cold Spring Canyon Bridge must also cope with emotional trauma when they don't succeed. A Commander with the Santa Barbara County Sheriff's Department has stated that despite specialized training and the officers' best efforts to prevent a person from taking their own life, witnessing someone jump from the bridge is a difficult experience to live with, and "These first-responders suffer ongoing psychological trauma and guilt following an incident and the memory of the event stays with them for the rest of their lives....The feeling that you could have done more is a reality, not just an academic study on a problem."

MEMORANDUM OF AGREEMENT
AMONG THE CALIFORNIA DEPARTMENT OF TRANSPORTATION,
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE COLD SPRING CANYON BRIDGE SUICIDE BARRIER PROJECT
ON STATE ROUTE 154 IN SANTA BARBARA COUNTY, CALIFORNIA

WHEREAS, the Federal Highway Administration (FHWA) has assigned and the California Department of Transportation (Caltrans) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007, and applies to this project; and

WHEREAS, Caltrans has determined that the Cold Spring Canyon Bridge Suicide Barrier Project (Undertaking) will have an adverse effect on the Cold Spring Canyon Bridge (Bridge No. 51 0037), which Caltrans has determined, in consultation with the California State Historic Preservation Officer (SHPO) to be eligible for inclusion in the National Register of Historic Places (National Register) and therefore a historic property as defined at 36 CFR§ 800.16(l)(1); and

WHEREAS, Caltrans has consulted with the SHPO and the Advisory Council on Historic Preservation (ACHP) pursuant to Stipulations X.C, and X.I of the January 1, 2004, *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA), and where the PA so directs, in accordance with 36 CFR §800, the regulations implementing Section 106 of the National Historic Preservation Act (16 USC Section 470f), as amended (NHPA), regarding the Undertaking's effects on historic properties and has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect finding pursuant to 36CFR§800.6(a)(1); and

WHEREAS, Caltrans has thoroughly considered alternatives to the Undertaking, has determined that the engineering constraints on the design of the Undertaking preclude the possibility of avoiding adverse effects to the historic property during the Undertaking's implementation; and has further determined that it will resolve adverse effects of the Undertaking on the subject historic property through the execution and implementation of this Memorandum of Agreement (MOA); and

WHEREAS, Caltrans District 5 (District 5) has participated in the consultation and has been invited to concur in this MOA;

NOW, THEREFORE, Caltrans, the SHPO and the ACHP agree that, upon Caltrans' decision to proceed with the Undertaking, Caltrans shall ensure that the Undertaking is implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on the historic property, and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

I. AREA OF POTENTIAL EFFECT

A. The Undertaking's area of potential effect (APE) is shown in Figure 3 of the May 2008 *Finding of Adverse Effect for the Cold Spring Canyon Bridge Suicide Barrier Project.* The APE includes the entirety of the bridge structure itself, which is the sole historic property.

B. If modifications to the Undertaking, subsequent to the execution of this MOA, necessitate the revision of the APE, Caltrans will consult with District 5 and the SHPO to facilitate mutual agreement on the proposed revisions. If Caltrans and the SHPO cannot reach such agreement, then the parties to this MOA shall resolve the dispute in accordance with Stipulation IV.D, below. If Caltrans, District 5, and the SHPO reach mutual agreement on the proposed revisions, then Caltrans will submit a final map of the revisions, consistent with the requirements of Stipulation VIII.A and Attachment 3 of the PA, no later than 30 days following such agreement.

II. TREATMENT OF HISTORIC PROPERTIES

A. Photography and Construction Drawings

1. Prior to the start of any work that could adversely affect characteristics that qualify the Cold Springs Bridge as a historic property Caltrans shall ensure that large-format (4" by 5" or larger negative size) photographs are taken showing the Cold Spring Canyon Bridge in context as well as details of its historic engineering features. Photographs shall be processed for archival permanence in accordance with the Historic American Engineering Record (HAER) photographic specifications. Views of the Cold Spring Bridge shall include:

   a. Contextual views showing the Cold Spring Bridge in its setting;

   b. Elevation views;

   c. Views of the Cold Spring Bridge approaches and abutments;

d. Detail views of significant engineering and design elements.

e. Copies of the photographs and negatives will be retained by Caltrans District 5 and will be deposited with the Caltrans Transportation Library and History Center at Caltrans Headquarters in Sacramento. Copies of the photographs will also be deposited with the SHPO and offered to the University of California, Santa Barbara, Davidson Library, Special Collections; the Santa Barbara County Public Library; the Santa Barbara Historical Society Gledhill Library; and the Santa Ynez Valley Historical Society.

2. Caltrans shall photographically reproduce plans, elevations and selected details from these drawings in accordance with HAER photographic specifications. If they are legible in this format, reduced size (8 1/2" by 11") copies of construction drawings may be included as pages of the report cited in subsection B of this stipulation rather than photographed and included as photographic documentation.

B. Written Documentation following the NPS *HAER Guidelines for Preparing Written Historical and Descriptive Data*, September 1993.

A written historical and descriptive report for the Cold Spring Canyon Bridge will be completed. This report will provide a physical description of the bridge, discuss its construction and its significance under applicable National Register criteria, and address the historical context for its construction following the format and instructions in the above-referenced HAER guidelines for written documentation.

C. Distribution of Documentation

Caltrans will print 500 copies of the May 2007 Historic Resources Evaluation Report, produced in an illustrated booklet format. These copies will be offered to local historical societies and organizations including the following: Santa Barbara County Historic Landmarks Advisory Commission; City of Santa Barbara Historic Landmarks Commission; Santa Barbara County Public Library, Central Library and local branches; Santa Barbara Historical Society; Santa Barbara Trust for Historic Preservation; Santa Ynez Valley Historical Society; Goleta Valley Historical Society; University of California, Santa Barbara, Davidson Library, Special Collections; University of California, Santa Barbara, Public History Information Unit; Santa Barbara City College Library; American Society of Civil Engineers, Los Angeles Section, History and Heritage Committee; American Society of Civil Engineers, Santa Barbara/Ventura Branch; Los Padres National Forest; Los Angeles Conservancy, Modern Committee; Society of Architectural Historians, Southern California Chapter; and Automobile Club of Southern California, Archives). The report will also be posted on the District 5 website.

D. Interpretive Display

Four sets of a three-panel interpretive exhibit will be produced by Caltrans and distributed as follows: two sets to the Santa Barbara County Public Library, one set to the Santa Barbara County General Services Department, and one set to the District 5 Office. The exhibit panels will be drymounted and framed for greater permanence. The panels will feature text and illustrations on the history of San Marcos Pass, the construction history of the Cold Spring Canyon Bridge, and the bridge's enduring architectural engineering significance.

III. DISCOVERIES AND UNANTICIPATED EFFECTS

If Caltrans determines after construction of the Undertaking has commenced that the Undertaking will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans shall address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(c). Caltrans at its discretion may hereunder and in accordance with 36 CFR § 800.13(c), assume any discovered property to be eligible for inclusion in the National Register.

IV. ADMINISTRATIVE PROVISIONS

A. Standards.

1. **Professional Qualifications.** All activities prescribed by stipulations I and II of this MOA shall be carried out under the authority of Caltrans by or under the direct supervision of a person or persons meeting at a minimum the Secretary of Interior's Standards *Professional Qualifications Standards* (48 FR 44738-39, September 29, 1983) (PQS) in the appropriate disciplines. However, nothing in this stipulation may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.

2. **Historic Preservation Standards**. Written documentation of activities prescribed by stipulations I, II, and III of this MOA shall conform to the *Secretary of the Interior's Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44740) as well as applicable standards and guidelines established by the SHPO.

B. Dispute Resolution

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, Caltrans shall consult with

such party to resolve the objection. If Caltrans determines that such objection cannot be resolved within 15 calendar days, Caltrans shall:

1. Forward all documentation relevant to the dispute, including Caltrans' proposed resolution, to the ACHP. Caltrans will also provide a copy to all signatories and concurring parties. The ACHP shall provide Caltrans with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, Caltrans shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. Caltrans will then proceed according to its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, Caltrans may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, Caltrans shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

3. Caltrans' responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

C. Amendments.

If any signatory party to this MOA proposes an amendment to its terms, that party shall consult with the other parties to consider such amendment. The amendment will be effective on the last date a copy of it is signed by all of the signatories in counterpoint. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with section D, below.

D. Termination.

1. If any signatory believes that the terms of this MOA are not being carried out or cannot be carried out, they may request that construction stop where historic properties are threatened while the terms of the MOA are amended per section C, above. If within thirty (30) days, or another time period agreed to by all signatories, an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

2. If this MOA is terminated for any reason, and Caltrans determines that the Undertaking will proceed, Caltrans will either execute a new MOA with the signatories under 36 CFR § 800.6(c)(1), or request, take into account, and respond to, the comments of the ACHP pursuant to 36 CFR § 800.7 Caltrans shall notify the signatories as to the course of action it will pursue.

E. Duration of MOA.

1. If Caltrans determines that construction of the Undertaking has not been initiated within ten years following execution of this MOA, the signatories shall consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment, or termination.

2. This MOA will be in effect through Caltrans' implementation of the Undertaking, and will terminate and have no further force or effect when Caltrans, in consultation with the other signatories, determines that the terms of this MOA have been fulfilled in a satisfactory manner. Caltrans shall provide the other signatories with written notice of its determination and of termination of this MOA.

F. Effective Date.

Caltrans shall ensure that each party is provided with a copy of the fully executed MOA. This MOA will become effective on the date that the last signatory has signed the MOA.

Execution and implementation of this MOA evidence that Caltrans has afforded the ACHP a reasonable opportunity to comment on the Undertaking and the effect of the Undertaking on historic properties, and have themselves taken into account the effect of the Undertaking on historic properties.

SIGNATORY PARTIES:

California Department of Transportation

By _____ Date 12/15/08
Jay Norvell, Chief
Division of Environmental Analysis

California State Historic Preservation Officer

By _____ Date 19 DEC 2008
Milford Wayne Donaldson
State Historic Preservation Officer

Advisory Council on Historic Preservation

By _____ Date _____
John Fowler
Executive Director

CONCURRING PARTIES:

California Department of Transportation, District 5

By _____ Date _____
Richard Krumholz
District 5 Director

MOA Attachment 1: *Barrier Design and Construction Minimization Measures*

Caltrans, with input from an Aesthetic Design Advisory Committee, has developed barrier design and construction measures to lessen the project's adverse effects. The barrier is designed to be reversible, with minimal permanent impact to the historic fabric of the bridge structure if the panels were to be removed. The barrier design and construction minimization measures are as follows:

1. Caltrans has selected the grid/mesh alternative. The physical barrier will consist of a continuous series of in-curving, steel grid/mesh panels framed and supported by steel posts and rails. The grid/mesh alternative will result in less view blockage than the vertical picket alternative because it avoids the "stacking" effect created when closely spaced vertical pickets are viewed from an oblique angle.
2. The barrier is designed in an unadorned style that is compatible with, but does not replicate, the Modern-era style for which the bridge is significant.
3. The in-curving grid/mesh panels will have two-inch-square openings, which is the largest opening possible that does not provide convenient finger-holds and toe-holds for climbing.
4. The cross-section dimensions of the vertical and horizontal framing members are minimized as much as possible without jeopardizing the structural integrity of the panels.
5. The horizontal length of the individual panels is increased as much as possible, to reduce the number of vertical elements, without jeopardizing structural integrity.
6. The barrier panels will be attached to the outside of the existing concrete railings to minimize physical impacts on the original rails.
7. The barrier panel attachment points and the lowest rail (bottom framing member) of the individual barrier panels will be situated below the top of the existing concrete barrier. The attachment points will be out of the line-of-sight of motorists on the bridge.
8. The individual barrier panels will be custom made to conform to the irregular intervals between the existing bridge-railing supports, so that the vertical supports will be in alignment, rather than staggered.
9. The steel will be coated with a low-reflectivity finish to help reduce glare and to allow the grid/mesh to recede visually.
10. The barriers will be placed on both sides (north and south railings) of the bridge.

MOA revised per ACHP comments of 1-6-09 letter, Wayne OK'd but did not want Att. 1 or ref. to "mesh" included.

MEMORANDUM OF AGREEMENT
AMONG THE CALIFORNIA DEPARTMENT OF TRANSPORTATION,
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE COLD SPRING CANYON BRIDGE SUICIDE BARRIER PROJECT
ON STATE ROUTE 154 IN SANTA BARBARA COUNTY, CALIFORNIA

WHEREAS, the Federal Highway Administration (FHWA) has assigned and the California Department of Transportation (Caltrans) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007, and applies to this project; and

WHEREAS, Caltrans has determined that the Cold Spring Canyon Bridge Suicide Barrier Project (Undertaking) will have an adverse effect on the Cold Spring Canyon Bridge (Bridge No. 51 0037), which Caltrans has determined, in consultation with the California State Historic Preservation Officer (SHPO) to be eligible for inclusion in the National Register of Historic Places (National Register) and therefore a historic property as defined at 36 CFR§ 800.16(l)(1); and

WHEREAS, Caltrans has consulted with the SHPO and the Advisory Council on Historic Preservation (ACHP) pursuant to Stipulations X.C, and X.I of the January 1, 2004, *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA), and where the PA so directs, in accordance with 36 CFR §800, the regulations implementing Section 106 of the National Historic Preservation Act (16 USC Section 470f), as amended (NHPA), regarding the Undertaking's effects on historic properties and has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect finding pursuant to 36CFR§800.6(a)(1); and

WHEREAS, Caltrans has thoroughly considered alternatives to the Undertaking, has determined that the engineering constraints on the design of the Undertaking preclude the possibility of avoiding adverse effects to the historic property during the Undertaking's implementation; and has further determined that it will resolve adverse effects of the Undertaking on the subject historic property through the execution and implementation of this Memorandum of Agreement (MOA); and

WHEREAS, Caltrans District 5 (District 5) has participated in the consultation and has been invited to concur in this MOA;

NOW, THEREFORE, Caltrans, the SHPO and the ACHP agree that, upon Caltrans' decision to proceed with the Undertaking, Caltrans shall ensure that the Undertaking is implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on the historic property, and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

I. AREA OF POTENTIAL EFFECT

A. The Undertaking's area of potential effect (APE) is shown in Figure 3 of the May 2008 *Finding of Adverse Effect for the Cold Spring Canyon Bridge Suicide Barrier Project.* The APE includes the entirety of the bridge structure itself, which is the sole historic property.

B. If modifications to the Undertaking, subsequent to the execution of this MOA, necessitate the revision of the APE, Caltrans will consult with District 5 and the SHPO to facilitate mutual agreement on the proposed revisions. If Caltrans and the SHPO cannot reach such agreement, then the parties to this MOA shall resolve the dispute in accordance with Stipulation IV.B, below. If Caltrans, District 5, and the SHPO reach mutual agreement on the proposed revisions, then Caltrans will submit a final map of the revisions, consistent with the requirements of Stipulation VIII.A and Attachment 3 of the PA, no later than 30 days following such agreement.

II. TREATMENT OF HISTORIC PROPERTIES

A. Photography and Construction Drawings

1. Prior to the start of any work that could adversely affect characteristics that qualify the Cold Springs Bridge as a historic property Caltrans shall ensure that large-format (4" by 5" or larger negative size) photographs are taken showing the Cold Spring Canyon Bridge in context as well as details of its historic engineering features. Photographs shall be processed for archival permanence in accordance with the Historic American Engineering Record (HAER) photographic specifications. Views of the Cold Spring Bridge shall include:

   a. Contextual views showing the Cold Spring Bridge in its setting;

   b. Elevation views;

   c. Views of the Cold Spring Bridge approaches and abutments;

d. Detail views of significant engineering and design elements.

e. Copies of the photographs and negatives will be retained by Caltrans District 5 and will be deposited with the Caltrans Transportation Library and History Center at Caltrans Headquarters in Sacramento. Copies of the photographs will also be deposited with the SHPO and offered to the University of California, Santa Barbara, Davidson Library, Special Collections; the Santa Barbara County Public Library; the Santa Barbara Historical Society Gledhill Library; and the Santa Ynez Valley Historical Society.

2. Caltrans shall photographically reproduce plans, elevations and selected details from these drawings in accordance with HAER photographic specifications that are not deemed confidential for security reasons. If they are legible in this format, reduced size (8 1/2" by 11") copies of construction drawings may be included as pages of the report cited in subsection B of this stipulation rather than photographed and included as photographic documentation.

B. Written Documentation following the NPS *HAER Guidelines for Preparing Written Historical and Descriptive Data*, September 1993.

1. A written historical descriptive report for the Cold Spring Canyon Bridge will be completed by Caltrans at the Professionally Qualified Staff level of Principal Architectural Historian. This report will provide a physical description of the bridge, discuss its construction and its significance under applicable National Register criteria, and address the historical context for its construction following the format and instructions in the above-referenced HAER guidelines for written documentation.

2. Caltrans will concurrently distribute the draft HAER report to the other MOA parties for review and comment. The other MOA parties will be afforded 30 days following receipt of the draft HAER report to submit any written comments to Caltrans. Caltrans will provide the other MOA parties with written documentation indicating whether and how the draft HAER report will be modified in accordance with any comments received from the other MOA parties. Unless any MOA party objects to this documentation in writing to Caltrans within 30 days following receipt, Caltrans may modify the draft report, as Caltrans may deem appropriate. Thereafter, Caltrans may issue the HAER report in final form and distribute this document in accordance with paragraph B.3 of this stipulation.

3. Copies of the documentation will be offered to the Santa Barbara County Historic Landmarks Advisory Commission; City of Santa Barbara Historic Landmarks Commission; Santa Barbara County Public Library, Central Library and local branches; University of California, Santa Barbara, Davidson Library, Special

Collections; University of California, Santa Barbara, Public History Information Unit; Santa Barbara City College Library; American Society of Civil Engineers, Los Angeles Section, History and Heritage Committee; and the American Society of Civil Engineers, Santa Barbara/Ventura Branch.

C. **Publication and Distribution of Historic Resource Evaluation Report: Cold Spring Canyon Bridge (51-0037), prepared by JRP Historical Consulting**

1. Caltrans will print 500 copies of the May 2007 Historic Resources Evaluation Report (HRER), produced in an illustrated booklet format.

2. Caltrans will concurrently distribute the 2007 HRER to the other MOA parties for review and comment. The other MOA parties will be afforded 30 days following receipt of the 2007 HRER to submit any written comments to Caltrans. Caltrans will provide the other MOA parties with written documentation indicating whether and how the 2007 HRER will be modified in accordance with any comments received from the other MOA parties. Unless any MOA party objects to this documentation in writing to Caltrans within 30 days following receipt, Caltrans may modify the HRER, as Caltrans may deem appropriate. Thereafter, Caltrans may issue the 2007 HRER in final form and distribute this document in accordance with paragraph C.3 of this stipulation.

3. Copies of this documentation will be offered to local historical societies and organizations including: Santa Barbara County Historic Landmarks Advisory Commission; City of Santa Barbara Historic Landmarks Commission; Santa Barbara County Public Library, Central Library and local branches; Santa Barbara Historical Society; Santa Barbara Trust for Historic Preservation; Santa Ynez Valley Historical Society; Goleta Valley Historical Society; University of California, Santa Barbara, Davidson Library, Special Collections; University of California, Santa Barbara, Public History Information Unit; Santa Barbara City College Library; American Society of Civil Engineers, Los Angeles Section, History and Heritage Committee; American Society of Civil Engineers, Santa Barbara/Ventura Branch; Los Padres National Forest; Los Angeles Conservancy, Modern Committee; Society of Architectural Historians, Southern California Chapter; and Automobile Club of Southern California, Archives). The report will also be posted on the District 5 website.

D. Interpretive Display

1. Four sets of a three-panel interpretive exhibit will be produced by Caltrans. The exhibit panels will be drymounted and framed for greater permanence. The panels will feature text and illustrations on the history of San Marcos Pass, the

construction history of the Cold Spring Canyon Bridge, and the bridge's enduring architectural engineering significance.

2. Caltrans will concurrently distribute the draft interpretive display to the other MOA parties for review and comment. The other MOA parties will be afforded 30 days following receipt of the proposed interpretive display to submit any written comments to Caltrans. Caltrans will provide the other MOA parties with written documentation indicating whether and how the interpretive display will be modified in accordance with any comments received from the other MOA parties. Unless any MOA party objects to this documentation in writing to Caltrans within 30 days following receipt, Caltrans may modify the interpretive display, as Caltrans may deem appropriate. Thereafter, Caltrans may issue the interpretive display in final form and distribute this document in accordance with paragraph D.3 of this stipulation.

3. **The exhibit will be distributed as follows: two sets to the Santa Barbara County Public Library, one set to the Santa Barbara County General Services Department, and one set to the District 5 Office.**

E. Design Review

1. Caltrans offices of Structure Design and Caltrans Bridge Architecture and Aesthetics shall ensure that design drawings at 30 percent (preliminary plans showing project geometry) and 60 percent (plans showing final geometry) are provided to Caltrans at the Professionally Qualified Staff level of Principal Architectural Historian, for review and comment. The Principal Architectural Historian shall review the plans for consistency with the project description and the *Barrier Design and Construction Minimization Measures* that are Attachment 1 to this MOA.

2. Caltrans shall subsequently transmit design drawings at 30 percent and 60 percent to the other MOA parties for review and comment regarding consistency with the project description and the *Barrier Design and Construction Minimization Measures* that are Attachment 1 to this MOA. The other MOA parties will be afforded 30 days following receipt to submit any written comments to Caltrans. Unless any MOA party objects in writing to Caltrans within 30 days following receipt, Caltrans may proceed with the design.

3. Attachment 1 set forth hereunder may be amended through consultation among the MOA parties without amending the MOA proper.

III. DISCOVERIES AND UNANTICIPATED EFFECTS

If Caltrans determines after construction of the Undertaking has commenced that the Undertaking will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans shall address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(b). Caltrans at its discretion may hereunder and in accordance with 36 CFR § 800.13(c), assume any discovered property to be eligible for inclusion in the National Register.

IV. ADMINISTRATIVE PROVISIONS

A. Standards.

1. **Professional Qualifications.** All activities prescribed by stipulations I and II of this MOA shall be carried out under the authority of Caltrans by or under the direct supervision of a person or persons meeting at a minimum the Secretary of Interior's Standards *Professional Qualifications Standards* (48 FR 44738-39, September 29, 1983) (PQS) in the appropriate disciplines. However, nothing in this stipulation may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.

2. **Historic Preservation Standards**. Written documentation of activities prescribed by stipulations I, II, and III of this MOA shall conform to the *Secretary of the Interior's Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44740) as well as applicable standards and guidelines established by the SHPO.

B. Dispute Resolution

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, Caltrans shall consult with such party to resolve the objection. If Caltrans determines that such objection cannot be resolved within 15 calendar days, Caltrans shall:

1. Forward all documentation relevant to the dispute, including Caltrans' proposed resolution, to the ACHP. Caltrans will also provide a copy to all signatories and concurring parties. The ACHP shall provide Caltrans with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, Caltrans shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. Caltrans will then proceed according to its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, Caltrans may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, Caltrans shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

3. Caltrans' responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

C. Amendments.

If any signatory party to this MOA proposes an amendment to its terms, that party shall consult with the other parties to consider such amendment. The amendment will be effective on the last date a copy of it is signed by all of the signatories in counterpoint. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with section D, below.

D. Termination.

1. If any signatory believes that the terms of this MOA are not being carried out or cannot be carried out, they may request that construction stop where historic properties are threatened while the terms of the MOA are amended per section C, above. If within thirty (30) days, or another time period agreed to by all signatories, an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

2. If this MOA is terminated for any reason, and Caltrans determines that the Undertaking will proceed, Caltrans will either execute a new MOA with the signatories under 36 CFR § 800.6(c)(1), or request, take into account, and respond to, the comments of the ACHP pursuant to 36 CFR § 800.7 Caltrans shall notify the signatories as to the course of action it will pursue.

E. Duration of MOA.

1. If Caltrans determines that construction of the Undertaking has not been initiated within ten years following execution of this MOA, the signatories shall consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment, or termination.

2. This MOA will be in effect through Caltrans' implementation of the Undertaking, and will have no further force or effect when Caltrans, in consultation with the other signatories, determines that the terms of this MOA have been fulfilled in a satisfactory manner. Caltrans shall provide the other signatories with written notice of its determination that the terms of the agreement have been fulfilled. In

the event that Caltrans is unable to comply with the terms of this MOA, Caltrans shall adhere to Stipulations IV.C or D as appropriate.

F. Effective Date.

Caltrans shall ensure that each party is provided with a copy of the fully executed MOA. This MOA will become effective on the date that the last signatory has signed the MOA.

Execution and implementation of this MOA evidence that Caltrans has afforded the ACHP a reasonable opportunity to comment on the Undertaking and the effect of the Undertaking on historic properties, and have themselves taken into account the effect of the Undertaking on historic properties.

SIGNATORY PARTIES:

California Department of Transportation

By _____ Date_____
Jay Norvell, Chief
Division of Environmental Analysis

California State Historic Preservation Officer

By _____ Date_____
Milford Wayne Donaldson
State Historic Preservation Officer

Advisory Council on Historic Preservation

By_____ Date_____
John Fowler
Executive Director

CONCURRING PARTIES:

California Department of Transportation, District 5

By _____ Date_____
Richard Krumholz
District 5 Director

ATTACHMENT I: Barrier Design and Construction Minimization Measures

MOA Attachment 1: *Barrier Design and Construction Minimization Measures*

Caltrans, with input from an Aesthetic Design Advisory Committee, has developed barrier design and construction measures to lessen the project's adverse effects. The barrier is designed to be reversible, with minimal permanent impact to the historic fabric of the bridge structure if the panels were to be removed. The barrier design and construction minimization measures are as follows:

1. Caltrans has selected the grid/mesh alternative. The physical barrier will consist of a continuous series of in-curving, steel grid/mesh panels framed and supported by steel posts and rails. The grid/mesh alternative will result in less view blockage than the vertical picket alternative because it avoids the "stacking" effect created when closely spaced vertical pickets are viewed from an oblique angle.
2. The barrier is designed in an unadorned style that is compatible with, but does not replicate, the Modern-era style for which the bridge is significant.
3. The in-curving grid/mesh panels will have two-inch-square openings, which is the largest opening possible that does not provide convenient finger-holds and toe-holds for climbing.
4. The cross-section dimensions of the vertical and horizontal framing members are minimized as much as possible without jeopardizing the structural integrity of the panels.
5. The horizontal length of the individual panels is increased as much as possible, to reduce the number of vertical elements, without jeopardizing structural integrity.
6. The barrier panels will be attached to the outside of the existing concrete railings to minimize physical impacts on the original rails.
7. The barrier panel attachment points and the lowest rail (bottom framing member) of the individual barrier panels will be situated below the top of the existing concrete barrier. The attachment points will be out of the line-of-sight of motorists on the bridge.
8. The individual barrier panels will be custom made to conform to the irregular intervals between the existing bridge-railing supports, so that the vertical supports will be in alignment, rather than staggered.
9. The steel will be coated with a low-reflectivity finish to help reduce glare and to allow the grid/mesh to recede visually.
10. The barriers will be placed on both sides (north and south railings) of the bridge.

MEMORANDUM OF AGREEMENT
AMONG THE CALIFORNIA DEPARTMENT OF TRANSPORTATION,
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE COLD SPRING CANYON BRIDGE SUICIDE BARRIER PROJECT
ON STATE ROUTE 154 IN SANTA BARBARA COUNTY, CALIFORNIA

WHEREAS, the Federal Highway Administration (FHWA) has assigned and the California Department of Transportation (Caltrans) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007, and applies to this project; and

WHEREAS, Caltrans has determined that the Cold Spring Canyon Bridge Suicide Barrier Project (Undertaking) will have an adverse effect on the Cold Spring Canyon Bridge (Bridge No. 51 0037), which Caltrans has determined, in consultation with the California State Historic Preservation Officer (SHPO) to be eligible for inclusion in the National Register of Historic Places (National Register) and therefore a historic property as defined at 36 CFR§ 800.16(l)(1); and

WHEREAS, Caltrans has consulted with the SHPO and the Advisory Council on Historic Preservation (ACHP) pursuant to Stipulations X.C, and X.I of the January 1, 2004, *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA), and where the PA so directs, in accordance with 36 CFR §800, the regulations implementing Section 106 of the National Historic Preservation Act (16 USC Section 470f), as amended (NHPA), regarding the Undertaking's effects on historic properties and has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect finding pursuant to 36CFR§800.6(a)(1); and

WHEREAS, Caltrans has thoroughly considered alternatives to the Undertaking, has determined that the engineering constraints on the design of the Undertaking preclude the possibility of avoiding adverse effects to the historic property during the Undertaking's implementation; and has further determined that it will resolve adverse effects of the Undertaking on the subject historic property through the execution and implementation of this Memorandum of Agreement (MOA); and

WHEREAS, Caltrans District 5 (District 5) has participated in the consultation and has been invited to concur in this MOA;

NOW, THEREFORE, Caltrans, the SHPO and the ACHP agree that, upon Caltrans' decision to proceed with the Undertaking, Caltrans shall ensure that the Undertaking is implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on the historic property, and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

I. AREA OF POTENTIAL EFFECT

A. The Undertaking's area of potential effect (APE) is shown in Figure 3 of the May 2008 *Finding of Adverse Effect for the Cold Spring Canyon Bridge Suicide Barrier Project*. The APE includes the entirety of the bridge structure itself, which is the sole historic property.

B. If modifications to the Undertaking, subsequent to the execution of this MOA, necessitate the revision of the APE, Caltrans will consult with District 5 and the SHPO to facilitate mutual agreement on the proposed revisions. If Caltrans and the SHPO cannot reach such agreement, then the parties to this MOA shall resolve the dispute in accordance with Stipulation V.B, below. If Caltrans, District 5, and the SHPO reach mutual agreement on the proposed revisions, then Caltrans will submit a final map of the revisions, consistent with the requirements of Stipulation VIII.A and Attachment 3 of the PA, no later than 30 days following such agreement.

II. CONSULTATION TO FINALIZE BARRIER DESIGN

A. In consultation with the SHPO, Caltrans will examine the feasibility of developing a platform cantilever or arc design barrier as proposed by SHPO at a meeting among SHPO, ACHP, Caltrans and District 5 held in Sacramento on February 25, 2009.

B. Within 30 days following execution of this MOA, Caltrans will notify the signatories regarding the results of its feasibility study for the barrier designs referenced in section A of this stipulation and its recommendation for finalizing the design of a fence-type barrier.

C. Any objections to Caltrans' recommendations shall be resolved in accordance with Stipulation V.B of this MOA.

III. TREATMENT OF HISTORIC PROPERTIES

A. Photography and Construction Drawings

1. Prior to the start of any work that could adversely affect characteristics that qualify the Cold Springs Bridge as a historic property Caltrans shall ensure that large-format (4" by 5" or larger negative size) photographs are taken showing the Cold Spring Canyon Bridge in context as well as details of its historic engineering features. Photographs shall be processed for archival permanence in accordance with the Historic American Engineering Record (HAER) photographic specifications. Views of the Cold Spring Bridge shall include:

   a. Contextual views showing the Cold Spring Bridge in its setting;

   b. Elevation views;

   c. Views of the Cold Spring Bridge approaches and abutments;

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   e. Copies of the photographs and negatives will be retained by Caltrans District 5 and will be deposited with the Caltrans Transportation Library and History Center at Caltrans Headquarters in Sacramento. Copies of the photographs will also be deposited with the SHPO and offered to the University of California, Santa Barbara, Davidson Library, Special Collections; the Santa Barbara County Public Library; the Santa Barbara Historical Society Gledhill Library; and the Santa Ynez Valley Historical Society.

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B. Written Documentation following the NPS *HAER Guidelines for Preparing Written Historical and Descriptive Data*, September 1993.

1. A written historical descriptive report for the Cold Spring Canyon Bridge will be completed by Caltrans at the Professionally Qualified Staff level of Principal Architectural Historian. This report will provide a physical description of the bridge, discuss its construction and its significance under applicable National Register criteria, and address the historical context for its construction following the format and instructions in the above-referenced HAER guidelines for written documentation.

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3. Copies of the documentation will be offered to the Santa Barbara County Historic Landmarks Advisory Commission; City of Santa Barbara Historic Landmarks Commission; Santa Barbara County Public Library, Central Library and local branches; University of California, Santa Barbara, Davidson Library, Special Collections; University of California, Santa Barbara, Public History Information Unit; Santa Barbara City College Library; American Society of Civil Engineers, Los Angeles Section, History and Heritage Committee; and the American Society of Civil Engineers, Santa Barbara/Ventura Branch.

C. Publication and Distribution of Historic Resource Evaluation Report: Cold Spring Canyon Bridge (51-0037), prepared by JRP Historical Consulting

1. Caltrans will print 500 copies of the May 2007 Historic Resources Evaluation Report (HRER), produced in an illustrated booklet format.

2. Caltrans will concurrently distribute the 2007 HRER to the other MOA parties for review and comment. The other MOA parties will be afforded 30 days following receipt of the 2007 HRER to submit any written comments to Caltrans. Caltrans will provide the other MOA parties with written documentation indicating whether and how the 2007 HRER will be modified in accordance with any comments received from the other MOA parties. Unless any MOA party objects

to this documentation in writing to Caltrans within 30 days following receipt, Caltrans may modify the HRER, as Caltrans may deem appropriate. Thereafter, Caltrans may issue the 2007 HRER in final form and distribute this document in accordance with paragraph C.3 of this stipulation.

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D. Interpretive Display

1. Four sets of a three-panel interpretive exhibit will be produced by Caltrans. The exhibit panels will be drymounted and framed for greater permanence. The panels will feature text and illustrations on the history of San Marcos Pass, the construction history of the Cold Spring Canyon Bridge, and the bridge's enduring architectural engineering significance.

2. Caltrans will concurrently distribute the draft interpretive display to the other MOA parties for review and comment. The other MOA parties will be afforded 30 days following receipt of the proposed interpretive display to submit any written comments to Caltrans. Caltrans will provide the other MOA parties with written documentation indicating whether and how the interpretive display will be modified in accordance with any comments received from the other MOA parties. Unless any MOA party objects to this documentation in writing to Caltrans within 30 days following receipt, Caltrans may modify the interpretive display, as Caltrans may deem appropriate. Thereafter, Caltrans may issue the interpretive display in final form and distribute this document in accordance with paragraph D.3 of this stipulation.

3. The exhibit will be distributed as follows: two sets to the Santa Barbara County Public Library, one set to the Santa Barbara County General Services Department, and one set to the District 5 Office.

IV. DISCOVERIES AND UNANTICIPATED EFFECTS

If Caltrans determines after construction of the Undertaking has commenced that the Undertaking will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans shall address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(b). Caltrans at its discretion may hereunder and in accordance with 36 CFR § 800.13(c), assume any discovered property to be eligible for inclusion in the National Register.

V. ADMINISTRATIVE PROVISIONS

A. Standards.

1. **Professional Qualifications.** All activities prescribed by stipulations I and III of this MOA shall be carried out under the authority of Caltrans by or under the direct supervision of a person or persons meeting at a minimum the Secretary of Interior's Standards *Professional Qualifications Standards* (48 FR 44738-39, September 29, 1983) (PQS) in the appropriate disciplines. However, nothing in this stipulation may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.

2. **Historic Preservation Standards**. Written documentation of activities prescribed by stipulations I, III, and IV of this MOA shall conform to the *Secretary of the Interior's Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44740) as well as applicable standards and guidelines established by the SHPO.

B. Dispute Resolution

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, Caltrans shall consult with such party to resolve the objection. If Caltrans determines that such objection cannot be resolved within 15 calendar days, Caltrans shall:

1. Forward all documentation relevant to the dispute, including Caltrans' proposed resolution, to the ACHP. Caltrans will also provide a copy to all signatories and concurring parties. The ACHP shall provide Caltrans with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, Caltrans shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and

provide them with a copy of this written response. Caltrans will then proceed according to its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, Caltrans may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, Caltrans shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

3. Caltrans' responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

C. Amendments.

If any signatory party to this MOA proposes an amendment to its terms, that party shall consult with the other parties to consider such amendment. The amendment will be effective on the last date a copy of it is signed by all of the signatories in counterpoint. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with section D, below.

D. Termination.

1. If any signatory believes that the terms of this MOA are not being carried out or cannot be carried out, they may request that construction stop where historic properties are threatened while the terms of the MOA are amended per section C, above. If within thirty (30) days, or another time period agreed to by all signatories, an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

2. If this MOA is terminated for any reason, and Caltrans determines that the Undertaking will proceed, Caltrans will either execute a new MOA with the signatories under 36 CFR § 800.6(c)(1), or request, take into account, and respond to, the comments of the ACHP pursuant to 36 CFR § 800.7 Caltrans shall notify the signatories as to the course of action it will pursue.

E. Duration of MOA.

1. If Caltrans determines that construction of the Undertaking has not been initiated within ten years following execution of this MOA, the signatories shall consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment, or termination.

2. This MOA will be in effect through Caltrans' implementation of the Undertaking, and will have no further force or effect when Caltrans, in consultation with the other signatories, determines that the terms of this MOA have been fulfilled in a

satisfactory manner. Caltrans shall provide the other signatories with written notice of its determination that the terms of the agreement have been fulfilled. In the event that Caltrans is unable to comply with the terms of this MOA, Caltrans shall adhere to Stipulations V.C or D as appropriate.

F. Effective Date.

Caltrans shall ensure that each party is provided with a copy of the fully executed MOA. This MOA will become effective on the date that the last signatory has signed the MOA.

Execution and implementation of this MOA evidence that Caltrans has afforded the ACHP a reasonable opportunity to comment on the Undertaking and the effect of the Undertaking on historic properties, and have themselves taken into account the effect of the Undertaking on historic properties.

SIGNATORY PARTIES:

California Department of Transportation

By _____ Date 3/10/09
Jay Norvell, Chief
Division of Environmental Analysis

California State Historic Preservation Officer

By milford wayne donaldson Date 13 MAR 2009
Milford Wayne Donaldson
State Historic Preservation Officer

Advisory Council on Historic Preservation

By _____ Date 3/23/2009
for John Fowler (RONALD D. ANZALONE)
Executive Director

CONCURRING PARTIES:

California Department of Transportation, District 5

By _____ Date 3/30/09
Richard Krumholz
District 5 Director

Attachment 8

Transmittal Letter to SHPO for MOA Draft #1
7/29/08

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086

Flex your power!
Be energy efficient!

July 29, 2008

Mr. Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
P. O. Box 942896
Sacramento, CA 94296-0001

05-SB-154
PM 22.9-23.1
EA05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Mr. Donaldson:

Subject: Submittal of draft Memorandum of Agreement for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California (FHWA070618A)

In accordance with Stipulation XI of the January 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA), the California Department of Transportation (Caltrans) is pleased to submit the enclosed draft Memorandum of Agreement (MOA) for your review. This document continues our consultation on the above referenced undertaking.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

In consultation with the SHPO, Caltrans determined that the Cold Spring Canyon Bridge (#51-0037) is eligible for the National Register of Historic Places (NRHP) under criterion C at the state level of significance, and is included in the Master List of Historical Resources because it is owned by Caltrans. The bridge has exceptional importance that meets the NRHP standards under Criteria Consideration G for properties that have achieved significance within the past fifty years. The period of significance is 1962-1964 and the historic property boundaries are the horizontal

and vertical footprints of the bridge structure. On July 24, 2008 the SHPO concurred with Caltrans' finding that the undertaking would adversely affect the Cold Spring Bridge

Caltrans proposes to resolve the adverse effect by entering into an MOA, a draft of which is enclosed for your review and comment. The MOA is also intended to constitute prudent and feasible measures to minimize harm to the bridge and is part of our continuing consultation with you under PRC §5024.5. In addition, a document describing alternatives for the undertaking that were considered but rejected is enclosed. If you have any questions, please contact Jill Hupp at (916)654-3567/jill_hupp@dot.ca.gov.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

c: VLevulett – D5; PCarr – D5; GScott – CCSO; JHupp – CCSO

JH/jh

Attachment 9

Email 8/7/08 from CT to SHPO and 9/8/08 from SHPO to CT

---- Forwarded by Jill Hupp/HQ/Caltrans/CAGov on 01/05/2009 10:15 AM ----

"Lindquist, Natalie"
<nlindquist@parks.ca.gov>
09/08/2008 02:11 PM

To "Jill Hupp" <jill_hupp@dot.ca.gov>
cc
Subject RE: e-copy of Draft Cold Spring Bridge MOA

Hi Jill,

This MOA looks good to me.

Natalie Lindquist
Historian II
California Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
(916) 654-0631 (916) 653-9824--FAX
nlindquist@parks.ca.gov

NOTE NEW EMAIL ADDRESS--PLEASE USE ON FUTURE CORRESPONDENCE

-----Original Message-----
From: Jill Hupp [mailto:jill_hupp@dot.ca.gov]
Sent: Thursday, August 07, 2008 8:42 AM
To: Lindquist, Natalie
Subject: e-copy of Draft Cold Spring Bridge MOA

Hi Natalie,

Caltrans transmitted a hard copy/request for comment for the Cold Spring Bridge project in Santa Barbara County on July 29th, but here is an editable electronic copy for your use.

I'm sure you're aware that there is some controversy over this project, but am bringing it to your attention just in case. The HPSR and the FOE

(see page 8 , para 3, page 9, para 1) documented that there are concerns (general public, Santa Barbara County Historic Landmarks Advisory Commission [HLAC], and interested parties). The draft environmental document is currently in the public review and the HLAC, and likely others,
have been commenting. Their comments will be addressed for the FED.

Also, District 5 heard via the HLAC that the SHRC was in Santa Barbara in
July and heard the public "speak out" against the project. District 5 didn't know about the meeting in advance so no one attended, but they would
like HQ to try to find out if there are draft minutes from this meeting. That is enough acronyms for one email, I think!

-Jill

(See attached file: COLD SPRING DRAFT MOA for SHPO7-29.doc)

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Attachment 10

Email 9/10/08 from CT to CT

Jill Hupp/HQ/Caltrans/CAGov

09/10/2008 03:33 PM

To Val Levulett/D05/Caltrans/CAGov
cc "Greg King" <greg_king@dot.ca.gov>
Subject Cold Spring MOA

Hi Val,
I just got off the phone with Natalie. Wayne has refused to sign the MOA. I said that I was surprised, given that they SHPO hasn't indicated that there is any issue or problem with this project up until now. She did apologize, recognizing that she should have brought it to Wayne's attention sooner. She is going to write us a letter stating the SHPO's refusal. Meanwhile, when I'm back in the office tomorrow I can contact the ACHP and get them primed to enter the consultation, as we will proceed with the MOA with ACHP instead of SHPO as signatory.

Sorry to have to pass along this news.
-Jill

Attachment 11

Letter 9/11/08 from SHPO to CT

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov www.ohp.parks.ca.gov

September 11, 2008

Reply To: FHWA070618A

Gregory P. King, Chief
Cultural and Community Studies Office
Division of Environmental Analysis
Department of Transportation
PO Box 942874
Sacramento, CA 94274-0001

Re: Memorandum of Agreement for the Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, CA

Dear Mr. King:

Thank you for your package of September 9, 2008, transmitting the Memorandum of Agreement for the Cold Spring Canyon Bridge Project (MOA). Based on my review of the previously submitted documentation as well as the MOA, I am unwilling to sign the MOA for this undertaking as it is currently designed. In my opinion there are other alternatives that should be explored that would not result in large scale physical alterations to the National Register eligible Cold Spring Canyon Bridge.

Sincerely,

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

Attachment 12

Email 9/11/08 from CT to CT

Attachment 12

Email 9/11/08 from CT to CT

Jennifer Taylor/D06/Caltrans/CAGov
10/10/2008 04:14 PM
To
val_levulett@dot.ca.gov
cc

bcc

Subject
Fw: cold springs moa

----- Forwarded by Jennifer Taylor/D06/Caltrans/CAGov on 10/10/2008 04:21 PM -----
Val Levulett/D05/Caltrans/CAGov
09/11/2008 02:42 PM
To
Sara von Schwind/D05/Caltrans/CAGov@DOT, Paula Carr/D05/Caltrans/CAGov@DOT, Bob Pavlik/D05/Caltrans/CAGov@DOT, Jennifer Taylor/D06/Caltrans/CAGov@DOT, Mike Jacob/D05/Caltrans/CAGov@DOT
cc
Chuck Cesena/D05/Caltrans/CAGov@DOT, Yvonne Hoffmann/D05/Caltrans/CAGov@DOT, Bob Carr/D05/Caltrans/CAGov@DOT
Subject
Fw: cold springs moa

I spoke with Jill Hupp and Greg King from HDQT today and Jill mentioned that Carol Legard from the ACHP will call the California SHPO, but it is unlikely that she will be able to pursuade him to sign the MOA. It is possible that Carol will want to come out to California to meet with us and to view the project site, which something she did for another project that the SHPO refused participate in (in that case she rendered a decision in favor of the project). Jill will continue to follow up with ACHP, and the SHPO should be drafting their letter shortly. Jill will keep tabs on that activity for us, as well.
----- Forwarded by Val Levulett/D05/Caltrans/CAGov on 09/11/2008 02:37 PM -----
Jill Hupp/HQ/Caltrans/CAGov
09/11/2008 10:17 AM
To
Val Levulett/D05/Caltrans/CAGov
cc

Subject
cold springs moa

Hi Val,

I just talked to Carol Legard of the ACHP to give her a heads up that the

SHPO is not going to sign the MOA, and that we would be asking the ACHP to sign the MOA instead. She had to run off to a meeting, but noted that the SHPO will have to officially terminate consultation in order for the ACHP to get involved with the MOA. She is going to call Wayne, and see if there is any way she could help work things out (not likely).

So, next steps are:
ACHP to talk with SHPO and seek an alternative to SHPO terminating consultation. Assuming that effort is unsuccessful...

The SHPO has to formally terminate consultation for the project (Natalie said yesterday that she would be writing us a letter).
Caltrans would request the ACHP's participation in the consultation and ask them to be a signatory on the MOA. On July 31st, we notified the ACHP that the project would have an adverse effect on the historic bridge. I could be mistaken, but I don't believe the ACHP has responded to that notification yet, at least I did not see a letter in my files (Carol is backlogged on some of these responses, having been out of the office).
ACHP would be made a signatory to the MOA, in SHPO's place. This would involve making some edits to the MOA, and giving ACHP time to review it. I can easily make these changes.

Well, we'll see how it goes. Maybe I am underestimating Carol's powers of persuasion with Wayne!

-Jill

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Attachment 13

Email 9/16/08 from CT to CT

09/16/2008 11:08 AM

Val Levulett/D05/Caltrans/CAGov
cc Jennifer Taylor/D06/Caltrans/CAGov@DOT
Subject Cold Spring Canyon Bridge update

Hello,

This morning we received the SHPO's letter - attached below - re: his "unwillingness" to sign the MOA for our project. I just left a phone message for Natalie Lindquist asking for clarification as to Wayne's intent here.

Cold Spring MOA - unwilling to sign.pdf

As you'll see, the letter states that in the SHPO's opinion "there are alternatives that should be explored that would not result in large scale physical alterations" to the bridge. I said that such wording could be interpreted to mean Wayne is still open to negotiation on alternatives - therefore we remain in the "consult to seek ways to avoid, minimize or mitigate the adverse effect" stage of Section 106 (800.6(b)(1)(i). The SHPO hasn't officially terminated consultation. I also asked whether the SHPO wants to meet with Caltrans to discuss the alternatives and ways to avoid, minimize, etc. the adverse effect, as the wording of the letter suggests that this should be our next step (per the 106 Regs). While I await her response, I will meanwhile give Carol Legard of the ACHP an update an ask whether, if the SHPO does want to continue negotiation, the ACHP wants to participate in that meeting. Carol would prefer not having the ACHP involved in the MOA, so her interest at this point is in helping Caltrans and the SHPO work out a solution.

Will keep you posted!

--Jill

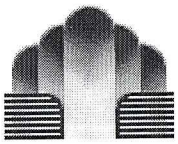
Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Attachment 14

Email 9/8/08 from CT to CT

9/18/08

----- Forwarded by Jennifer Taylor/D06/Caltrans/CAGov on 09/18/2008 11:41 AM -----



Jill Hupp/HQ/Caltrans/CAGov
09/18/2008 11:23 AM

To Val Levulett/D05/Caltrans/CAGov
cc Bob Pavlik/D05/Caltrans/CAGov@DOT, Bryan Apper/D06/Caltrans/CAGov@DOT, Jennifer Taylor/D06/Caltrans/CAGov@DOT, Paula Carr/D05/Caltrans/CAGov@DOT
Subject Re: Cold Spring Canyon Bridge update

Just to bring everyone up to date.

Carol Legard called me Tuesday afternoon, leaving a message that while she hadn't spoken to the SHPO, she felt the best thing would be for ACHP to go ahead and send us a letter saying they will participate. I left her a message seconding that idea, and emailed her our July 31st letter notifying ACHP of the adverse effect so she wouldn't have to go look it up in their files. I haven't had any further contact from Carol.

Natalie called me this morning. As you'll recall, I'd asked her whether the SHPO wants to meet with Caltrans to discuss alternatives, or what (procedurally) they expected of Caltrans, as the intent of their letter isn't clear. She indicated that, as we correctly speculated, Wayne thinks we should go with one of the nonphysical options. They did indeed read the summary of alternatives that we included with our draft MOA submittal, so Natalie is well aware that we have already considered such alternatives. She agreed that there was no any point to us meeting with the SHPO. I noted that the wording of the SHPO's letter puts us in "regulatory limbo" - it sounds like the SHPO is open to negotiation, but he really isn't; he is only in favor of alternatives that have been considered and rejected. We need to close that regulatory loophole so Caltrans can keep moving along in the process. She & I concluded that the best way to do this is for Caltrans (CCSO) to respond to the SHPO's letter stating that, as documented on page ___ of ___ documentation we previously sent the SHPO, Caltrans has already considered nonphysical alternatives... etc. Natalie suggested not putting a great deal of effort into this letter (as it is not going to actually sway the SHPO's opinion) and noted that the SHPO will likely then terminate consultation - unless Carol is miraculously successful at changing his mind in the meantime. If I could enlist your assistance in writing the letter, I'd appreciate it. As noted, it should be very brief - we've already discussed the alternatives at length in the FOE and the attachment to the draft MOA.

-Jill

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Val Levulett/D05/Caltrans/CAGov

Val Levulett/D05/Caltrans/CAGov
09/16/2008 01:22 PM

To Jill Hupp/HQ/Caltrans/CAGov@DOT
cc Bob Pavlik/D05/Caltrans/CAGov@DOT, Bryan Apper/D06/Caltrans/CAGov@DOT, Jennifer Taylor/D06/Caltrans/CAGov@DOT, Paula Carr/D05/Caltrans/CAGov@DOT
Subject Re: Cold Spring Canyon Bridge update

Attachment 15

Letter 9/22/08 from CT to SHPO

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
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September 22, 2008

Mr. Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
P. O. Box 942896
Sacramento, CA 94296-0001

05-SB-154
PM 22.9-23.1
EA05-0P9100
Cold Springs Canyon Bridge
Suicide Barrier Project

Dear Mr. Donaldson:

Subject: Memorandum of Agreement (MOA) for the Cold Springs Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California (FHWA070618A)

Caltrans received your letter of September 11, 2008, in which you state that you are "unwilling to sign the MOA for this undertaking as it is currently designed." You further state that there are other alternatives that should be explored that would not result in large scale physical alterations to the Cold Spring Canyon Bridge (#51-0037).

Caltrans has extensively researched means to deter suicide from the Cold Spring Canyon Bridge. These have included a "human barrier" and other measures that do not entail constructing physical barriers on the bridge. As documented in the project Draft Environmental Impact Report/Environmental Assessment and Section 4(f) Evaluation, and in an "Alternatives Considered but Rejected" document included as an attachment to the draft MOA, Caltrans has determined that, given the remote location of the bridge, the only effective means of deterring suicide from the Cold Spring Bridge, and of meeting the undertaking's purpose and need, is to install physical barriers as described in the report supporting Caltrans' finding of adverse effect.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you have any questions, please contact Jill Hupp at (916)654-3567/jill_hupp@dot.ca.gov. Thank you.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

c: VLevulett – D5; PCarr – D5; GScott – CCSO; JHupp – CCSO

JH/jh

Attachment 16

Letter 9/23/08 from ACHP to CT

John L. Nau, III
Chairman

Susan S. Barnes
Vice Chairman

John M. Fowler
Executive Director

Preserving America's Heritage

September 23, 2008

Gregory P. King
Chief
Cultural and Community Studies Office
Division of Environmental Analysis
California Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

Ref: *Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project*
05-SB-154, PM 22.9-23.1, EA 05-0P9100
Santa Barbara County, California

Dear Mr. King:

On August 4, 2008, the Advisory Council on Historic Preservation (ACHP) received your notification of adverse effect for the proposed construction of a suicide barrier on the Cold Spring Canyon Bridge. This notification and supporting documentation was submitted in accordance with Section 800.6(a)(1) of our regulations, "Protection of Historic Properties" (36 CFR Part 800).

We were subsequently contacted by Ms. Jill Hupp of your office regarding the California State Historic Preservation Officer's (SHPO's) decision not to sign the current draft Memorandum of Agreement (MOA) for this project. On September 16, 2008, Ms. Hupp forwarded the ACHP a copy of the SHPO's letter to Caltrans informing you of this decision. In light of the SHPO's objections to the proposed MOA, as well as the concerns raised by then Santa Barbara County Historic Landmarks Advisory Commission (HLAC), as described in Caltrans' "Finding of Adverse Effects," the ACHP has determined that our participation in consultation is warranted. Our decision to participate in this consultation is based on the *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, contained within our regulations, "Protection of Historic Properties" (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act.

In order to assist us in moving forward, we would like to determine whether the concerns expressed by the SHPO regarding this undertaking can be resolved through further consultation. Both the SHPO and HLAC recommend that Caltrans consider an alternative to a large scale physical barrier to meet the purpose and need for this project. To more fully understand these concerns, the public interest in this project, and the factors that went into your analysis of alternatives, please provide us with the following documentation:

- A copy of the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) and the 4(f) analysis for this undertaking;
- Documentation of the views of the public and interested individuals regarding this project, as expressed in public meetings, comments on the DEIR/EA, and general correspondence;
- A list of the consulting parties that participated in consultation for this undertaking and copies or a summary of the views those parties; and
- Minutes or summaries of meetings held by the Aesthetics Design Advisory Committee (ADAC).

We understand that Caltrans wishes to complete consultation on this undertaking within the next two months. To the extent feasible, we are prepared to assist in this effort. Accordingly, we request that you promptly respond to our request for additional information. We also ask that you share this information with the SHPO and any other consulting parties that may not have previously received it. Within two weeks of transmitting the information, we recommend Caltrans schedule a teleconference among the consulting parties to discuss the SHPO's concerns and possible next steps.

Thank you for providing the ACHP with your notification of adverse effect for this undertaking. Our contact for this project will be Carol Legard, our FHWA Liaison. If you have any questions, please contact Carol Legard at 202-606-8522 or via e-mail at clegard@achp.gov.

Sincerely,

John M. Fowler

John M. Fowler
Executive Director

Attachment 17

Letter 9/30/08 from CT to ACHP

2 Binders

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
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TTY (916) 653-4086

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September 30, 2008

Mr. John M. Fowler
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004
Attention: Ms. Carol Legard, FHWA Liaison

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

RE: Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

Dear Mr. Fowler:

Thank you for your letter of September 23, 2008 stating that the Advisory Council on Historic Preservation (ACHP) will participate in the consultation for the proposed construction of a suicide barrier on the Cold Spring Canyon Bridge. Thank you for your prompt attention to this matter and for your willingness to assist Caltrans in completing the consultation for this undertaking quickly, to the extent feasible. Enclosed please find the documentation that you requested. Caltrans is also providing a copy to the California State Historic Preservation Officer (SHPO) and will contact the ACHP and the SHPO within two weeks of the transmittal of the documentation to schedule a teleconference, as you recommended.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you need any additional information, please contact Jill Hupp, Chief of the Caltrans Cultural and Community Studies Office Section 106/PA Coordination Branch, at (916) 654-3567 or jill_hupp@dot.ca.gov. Again, thank you for your assistance.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure:

- Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, 05-SB-154, PM 22.9-23.1 (EA 05-0P9100) Project History Volume 1: Section 106 Consultation and Reports

cc: Jill Hupp – HQ; Valerie Levulett – District 5; Susan Stratton – SHPO

Attachment 18

Letter 10/2/08 from CT to ACHP

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
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P. O. BOX 942874
SACRAMENTO, CA 94274-0001
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Flex your power!
Be energy efficient!

October 2, 2008

Mr. John M. Fowler
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004
Attn. Ms. Carol Legard, FHWA Liaison

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Mr. Fowler:

Subject: Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

Enclosed please find Volume II of the documentation that you requested. The California Department of Transportation (Caltrans) transmitted Volume I on September 30, 2008. We are also providing a copy of Volume II to the California State Historic Preservation Officer (SHPO) and, as noted previously, will contact the ACHP and the SHPO within two weeks of the transmittal of this to schedule a teleconference, as you recommended.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you need any additional information, please contact Jill Hupp, Chief of the Caltrans Cultural and Community Studies Office Section 106/PA Coordination Branch, at (916) 654-3567 or jill_hupp@dot.ca.gov. Thank you for your continued assistance.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure:

- Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, 05-SB-154, PM 22.9-23.1 (EA 05-0P9100) Project History Volume II: Public Participation

cc: Jill Hupp – HQ; Valerie Levulett – District 5; Susan Stratton – SHPO

Attachment 19

JRP Memo to CT

MEMORANDUM

December 1, 2008

TO: Val Levulett, Caltrans District 5

FROM: Chris McMorris, JRP Historical Consulting, LLC

RE: Cold Spring Canyon Bridge – net alternative

I prepared this memorandum as you requested and in response to comments that Caltrans and I received from Mr. Wayne Donaldson, California State Historic Preservation Officer (SHPO), at the meeting in Santa Barbara on November 19, 2008 regarding Caltrans' project to construct a barrier to deter suicides on the Cold Spring Canyon Bridge. During the meeting I presented information regarding the bridge's historic significance, the bridge's character-defining features, and the analysis that has been prepared regarding the adverse effect the barrier project will have on the historic bridge. This included analysis regarding the vertical barrier alternative and the net alternative, the latter of which Mr. Donaldson had requested more information. The Caltrans team presented Mr. Donaldson technical data and renderings of the net alternative and discussed why the net alternative had been considered, but rejected from further consideration because of technical challenges and effects to the bridge.

SHPO concurred with the JRP prepared Finding of Effect (FOE) (May 2008) in July 2008. The FOE included analysis regarding the alternatives for the vertical barrier, but did not include information about the net alternative because Caltrans had considered, but rejected that alternative in the environmental process.

This memorandum presents the effects analysis regarding the net alternative for the Cold Spring Canyon Bridge project. As I presented on November 19th, the net alternative would diminish more aspects of the bridge's historic integrity than the vertical barrier and it would be non-compliant with more of the Secretary of Interior's (SOI) Standards for Rehabilitation than the vertical barrier alternative would.

As noted in the FOE, the Cold Spring Canyon Bridge is significant, under National Register of Historic Places Criterion C, for its type, period, and method of construction as an important example of bridge design and engineering. The structure's significance lies in both its engineering value related to its structural type and design and importance as an aesthetic achievement. It is significant at the state-wide level, in part, because it is the largest steel arch bridge in California and it was one of the first in the country to be built entirely of all-welded steel components. The Bridge Department devised an interesting and well-received design for the Cold Spring Canyon Bridge within the economic and physical confines of the project. It is an important example of its type and method of construction for its period because it exhibits a maturation of steel arch bridge design and welded steel technology employed on bridges in California, and it represents a high aesthetic quality that illustrates contemporary Modern-era architectural principles that extolled the virtues of unadorned and efficient designs along with material and functional honesty. It was also noted as the work of a master, for its design by the

Division of Highways Bridge Department and its construction by the American Bridge Division of U.S. Steel. The Bridge Department used well-established structural components – including steel arch, welded steel components, and reinforced concrete deck – but executed the overall design in a manner that captures aspects of the highest quality of work in bridge engineering in California at that time. The assemblage of its arch design, its all-weld components, and its clean, open, uncluttered appearance provide a structural continuity with all of its elements acting together in a singular form that creates a beautiful bridge that transcends its practical utilitarian function.

The character-defining features of the Cold Spring Canyon Bridge, as defined in the FOE, comprise those components that are part of its original design, including the arch ribs with their cross bracing, the columns and towers, floorbeam girders, abutments, and railings. The design of the reinforced concrete skewbacks is also included in the structure's character-defining features, even though the skewbacks have been encased with new materials. Evidence in the historical record showed that the Division of Highways Bridge Department engineers focused the bridge's design efforts on the substructure, i.e. the arch ribs, columns, and towers, however elements of the bridge's superstructure at the roadway are included in the bridge's character-defining features because they are part of its original design and overall design effect. The superstructure's slender qualities not only decreased dead load on the structure to ensure that substructure components could be as small as they are, but also to enhance the horizontality, openness, and uncluttered appearance of the bridge.

Impacts to historic integrity

The FOE concluded that the vertical barrier project will have a direct adverse effect on the Cold Spring Canyon Bridge because the addition of a physical barrier on the superstructure will be an alteration to the historic property that is not consistent with the SOI Standards for the Treatment of Historic Properties and because the project introduces a visual element that diminishes the property's historic integrity of design, feeling, and association.

Although Caltrans designed the vertical barrier alternative to minimize effects to the bridge's historic character-defining features, the construction of the proposed vertical barrier will impact the form, plan, and proportions of the bridge, along with spatial relationship of its components and the arrangement of spaces between the bridge's various essential physical features. This would also be true for the net alternative. Impact of either the vertical barrier or the net alternative would occur because the additions would reduce and/or obscure the open, uncluttered, uncomplicated, and efficient appearance of the bridge that is formed by its slender components of welded steel and its trim concrete deck with its short roadway railing. Both the vertical barrier and the steel frame net alternative would visually thicken the deck's appearance in relation to the remainder of the bridge, and net alternative would widen also the bridge's appearance.

Caltrans' alternative to potentially construct a 20 foot wide steel frame net either 13 feet or 20 feet below the deck on either side of the bridge would have a direct adverse effect on the Cold Spring Canyon Bridge. Similar to the vertical barrier, the net alternative would be an alteration to the historic property that is not consistent with the SOI Standards for the Treatment of Historic

Properties, as discussed below. The net alternative would not only diminish the structure's historic integrity of design, feeling, and association, it would also diminish the bridge's historic integrity of materials and workmanship in ways that the vertical barrier alternative does not.

As presented by the Caltrans team on November 19th, the net alternative would require Caltrans to construct an entirely new steel structure to frame the panel sections of net and attach the new structure to the columns, towers, and arch ribs in the substructure and tie the panels back to the concrete railing on the superstructure. Caltrans would need to build this net in panels so that one or more panels could be raised during maintenance procedures. The net could be built either 13 feet or 20 feet below the bridge deck. This would intersect the substructure either near the top of the arch or just below the arch ribs. The nets would have to be at least 20 feet wide each to effectively deter a person from jumping out past the nets. The distance outward from the bridge of the net combined would have the effect of more than doubling the width of the bridge. *The net option would add an additional 290 tons of weight to the bridge. This includes the following: TS 14x14x3/8 steel beams, W6x20 steel beams, cables, plate gussets, clevises, net and the required connection hardware. In comparison, the mesh/grid option would add 90 tons of weight to the bridge. This includes: Plate columns 2 ½" pipe, 3" pipe, mesh/grid element (#8 gage) and the required connection hardware.* Caltrans has concluded that most, if not all, substructure components of the bridge would need to be retrofitted in order to carry the additional dead and (potential) live load of the nets *and withstand the wind and seismic loads*. The retrofit could require Caltrans to encase substructure members, covering the original steel structure, and could require Caltrans to construct cross bracing under the bridge deck between the columns. Although exact calculations regarding changes to the columns, towers, and arches have not been completed for the potential retrofit, it is likely that each of the elements of the substructure that are considered character-defining features of the bridge would need to be physically altered and that the slender qualities of those components would be changed, perhaps radically so.

The net alternative, either at 13 or 20 feet below the deck, would have the appearance from below the bridge and to the side of the bridge as increasing the bridge deck's thickness and the bridge's width, resulting in a bridge that appears to be shorter, or more squat, than the extant bridge. (The net alternative would also create a shorter looking bridge than the vertical barrier alternative which raises the height of the bridge.) The nets would obscure the view of character-defining features of the bridge's substructure and greatly alter the overall design aesthetic of the historic bridge. The nets would traverse the entire length of the bridge's substructure severely interfering with the bridge's historic character related to its engineering and aesthetic achievement. The nets would interrupt the openness and uncluttered appearance of the bridge's slender columns, towers, and arch ribs, dividing and filling the open spaces and impairing the spatial relationship between the carefully crafted components of the bridge's substructure. The retrofit of substructure components would also increase the size of the substructure members, and may include cross bracing, both of which would further deteriorate the openness of the structure. Attaching the steel frame structure for the nets and retrofitting the substructure would also directly impact the historic materials of the bridge. *Thousands*~~Hundreds~~ of holes would need to be drilled into steel members of the bridge and into the concrete railing for fasteners and attachments. Also, new steel would need to be added to the substructure components to

strengthen those members. These actions would diminish the bridge's historic integrity of design, feeling, and association. They would also diminish the bridge's historic integrity of materials and workmanship. The nets would decrease the ability for comprehension of the bridge's historically significant engineering and aesthetic achievement. Construction of the nets would impair the original welded steel members which are central to the bridge's historic significance, and the nets and accompanying retrofit of the substructure would reduce ones ability to comprehend the workmanship that went into the bridge's all-welded steel design. Overall, the nets would reduce the structure's aesthetic expression, its historic sense of its particular period of time, and impair the direct link the bridge currently presents between now and the period in which Division of Highways Bridge Department engineers designed the state's monumental bridges. *It would be very, very difficult to remove the net option and return the bridge to it's existing form.*

Compliance with the SOI Standards for Rehabilitation

The FOE concluded that Caltrans will not be able to construct the vertical barrier alternative in a manner that fully complies with the Standards of Rehabilitation, which is the most appropriate SOI treatment for this project. The same can be said of the net alternative. Of note, the FOE concluded that the vertical barrier could be built meeting several of the Standards, including the standard that ensures that the new addition will be constructed in a manner that, if removed in the future, the essential form and historic integrity of the bridge would be unimpaired.

In order to meet the project's purpose and need, the FOE concluded that the vertical barrier design was unable to fully comply with Standard 2 and Standard 9. This continues to be true for the vertical barrier alternative following Caltrans' refinements to the design that included input from the Aesthetic Design Advisory Committee (ADAC). Standard 2 states that the "alteration of features, spaces, and spatial relationships that characterize a property will be avoided." Standard 9 says that new additions to historic properties should not "destroy historic . . . spatial relationships that characterize the property" and that new additions should be compatible with the historic "features, size, scale, and proportion, and massing to protect the integrity of the property." The design for the net alternative also could not be built in a manner that is consistent with Standard 2 and Standard 9 because of the nets' alteration of the spatial relationships of the bridge's character-defining features and because the nets would be incompatible with the massing, proportion, and features of the historic bridge. Furthermore, as described above, the net alternative could not be built in a manner that is consistent with Standard 10 because the nets represent new additions that cannot be "undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property . . . would be unimpaired." Installation of the steel frame structure for the nets and the retrofit of the substructure could not be reversed in the future such that the bridge's original historic integrity would not be largely ruined.

Please contact me if you have questions about the effects analysis for the net alternative for the Cold Spring Canyon Bridge Suicide Barrier project.

Attachment 20

Supplemental Report 12/3/08

Supplemental Report

Cold Spring Canyon Bridge Suicide Barrier
State Route 154 at Cold Spring Canyon Bridge
05-154-PM 22.9/23.1
05-0P9100

prepared for
Wayne Donaldson, California State Historic Preservation Officer,
as part of
Continuing Section 106 Consultation/Resolution of Adverse Effect, 36 CFR 800.6

Documenting: Engineering Issues and Constraints
Summary of Public Participation and Consultations
Formation and Role of the Aesthetics Design Advisory Committee (ADAC)

prepared by
California Department of Transportation
James Espinosa, Senior Engineer, District 6 Design
Isaac P. Tasabia, Headquarters Bridge Architecture and Aesthetics
Wai Kwan, Headquarters Structures Design
Valerie A. Levulett, Technical Studies Branch Chief, District 5 Environmental
Paula Carr, Architectural Historian, District 5 Environmental
and
Christopher McMorris, Architectural Historian, JRP Historical Consulting, LLC
submitted by
Greg King, Chief, Cultural and Community Studies Office
Division of Environmental Analysis
California Department of Transportation
1120 N Street, Sacramento, California
DECEMBER 3, 2008

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INTRODUCTION

The California Department of Transportation (Caltrans) proposes to install a physical suicide barrier (barrier) on the Cold Spring Canyon Bridge, on State Route 154 near San Marcos Pass in Santa Barbara County (Figures 1-3). The purpose of the proposed project is to:

1. Reduce the number of suicides at the Cold Spring Canyon Bridge.
2. Reduce the risks to emergency personnel such as law enforcement officers or search and rescue teams when attempting to prevent a suicide or when recovering a body.

Since the bridge was built in 1963, at least 47 people have committed suicide at this location, as of December 3, 2008. Four deaths have occurred in 2008. The Cold Spring Canyon Bridge has the highest concentration of fatalities for any spot in Caltrans District 5, which includes the Central Coast counties of Monterey, San Benito, Santa Cruz, San Luis Obispo, and Santa Barbara.

Two build alternatives and the No-build Alternative were under consideration. The build alternatives consist of the Grid/Mesh Alternative and the Vertical Alternative. After circulation of the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA), Caltrans selected the Grid/Mesh Alternative as the preferred alternative based on environmental analysis, comments on the DEIR/EA, and input from the community-based Aesthetics Design Advisory Committee. While both of the build alternatives would meet the purpose and need of the project, the Grid/Mesh Alternative would have less of an impact on views of and from the bridge. The physical barrier will consist of a continuous series of in-curving, steel grid/mesh panels framed and supported by steel posts and rails. The Grid/Mesh Alternative will result in less view blockage than the Vertical (picket) Alternative because it avoids the "stacking" effect created when closely spaced vertical pickets are viewed from an oblique angle. The Final Environmental Impact Report/Environmental Assessment and Section 4(f) Evaluation with Finding of No Significant Impact is in preparation.

SECTION 106 COMPLIANCE

Determination of Eligibility for Listing in the National Register of Historic Places

Cold Spring Canyon Bridge is the only cultural resource and the only historic property present in the project's Area of Potential Effect. An assessment of the proposed project's effects on the bridge is therefore required.

In general, cultural resources that are not yet 50 years old are not evaluated for National Register eligibility. Although the Cold Spring Canyon Bridge was at the time only 43

years old, it was formally evaluated in 2007 in connection with the barrier project. Caltrans made this decision because the bridge is a notable structure, because it is central to the proposed project, and because sufficient time had elapsed since the bridge was built to allow an assessment of its place in the historic record.

Cold Spring Canyon Bridge is the largest steel arch bridge in California (it has a main span of 700 feet and a total length of more than 1,200 feet, and rises more than 400 feet above the canyon floor). At the time it was built, it was one of the 10 longest steel arch bridges in the United States, and it was twice as long as any existing steel arch bridge in California. Cold Spring Canyon Bridge was also one of the first major arch structures in the United States and one of only two steel arch bridges on California roadways to be constructed with all-welded steel components.

In August 2007 the State Historic Preservation Officer concurred with the Caltrans finding that the Cold Spring Canyon Bridge is eligible for listing in the National Register of Historic Places under Criterion C and under Criteria Consideration G. The bridge is eligible under Criterion C for its type, period, and method of construction as an important example of bridge design and engineering. The bridge demonstrates the maturation of steel arch bridge design and welded steel technology in California, and it also represents a high aesthetic quality of contemporary design from its period. It is an important work of the Division of Highways Bridge Department, considered a "master" engineer of the period, and it is an important work of the American Bridge Division of U.S. Steel, considered a "master" builder of the period.

The bridge also possesses exceptional significance that meets the standards for eligibility under Criteria Consideration G, for properties that have achieved significance within the past 50 years. Although the bridge is not yet 50 years old, its significance can be viewed with historical perspective: the structure illustrates a defined period of bridge engineering and architecture in California that reflects the refined development of steel arch bridge technology and the aesthetic of the post-World War II Modern era.

The character-defining features that make the Cold Spring Canyon Bridge eligible for the National Register of Historic Places are those components that are part of its original design and overall design effect, including the arch ribs with their cross bracing, the towers and columns, floor beam girders, skewbacks, abutments, railings, and road deck. Some of these original design features (the arch ribs, towers, columns, and girders, for example) are more significant than others (such as the standard type railings and concrete road deck) in conveying the bridge's significance. These differences in relative significance are taken into account in assessing the proposed project's effects on this historic property.

Both of the proposed build alternatives would attach a physical barrier 6 feet high outside the existing deck rails of the bridge. The resulting rail height above the bridge deck would be about 9 feet, 7 inches. This would constitute a direct and adverse effect on the integrity of some of the bridge's character-defining features because it would introduce a visual element that diminishes the property's historic integrity of design, feeling, and association.

Because the proposed project would affect a historic property, additional analysis pursuant to Section 4(f) of the Federal Department of Transportation Act of 1966 is necessary. The Section 4(f) analysis is documented in the environmental document.

Since both build alternatives involve similar adverse effects, a Finding of Effect document was prepared to fully evaluate the nature and severity of those effects on the historic qualities of the bridge.

Finding Of Adverse Effect

Caltrans sent a Finding of Adverse Effect (FOE) to the State Historic Preservation Officer on June 12, 2008; the State Historic Preservation Officer concurred with this finding in a response dated July 24, 2008 (FHWA070618A). The Caltrans Cultural and Community Studies Office notified the Advisory Council on Historic Preservation of the Finding of Adverse Effect on July 31, 2008.

Resolution of Adverse Effect

On July 29, 2008 the Caltrans Cultural and Community Studies Office sent a draft Memorandum of Agreement (MOA) to the State Historic Preservation Officer. The barrier is designed to be reversible, with minimal permanent impact to the historic fabric of the bridge structure if the panels were to be removed. The MOA itemized mitigation measures, including photo documentation to HAER-like standards (Historic American Engineering Record), publication of the original historic research completed in connection with this project, and exhibit panels explaining the history and significance of the Cold Spring Canyon Bridge. (Additional Barrier Design and Construction Mitigation Measures were devised but left out of the MOA; they will be included in subsequent revisions, see Attachment 1).

On September 11, 2008, the State Historic Preservation Officer replied, stating his unwillingness to sign the Memorandum of Agreement for the undertaking "as it is currently designed" because, in his opinion, "there are other alternatives that should be explored that would not result in large scale physical alterations to the National Register eligible Cold Spring Canyon Bridge."

That same day, the Caltrans Cultural and Community Studies Office telephoned the Advisory Council on Historic Preservation to notify the Advisory Council of the State Historic Preservation Officer's objection to signing the Memorandum of Agreement, and to invite the Advisory Council to participate in consultation to resolve the project's adverse effects; a copy of the State Historic Preservation Officer's letter was forwarded to the Advisory Council on September 16, 2008.

The Advisory Council telephoned the Caltrans Cultural and Community Studies Office on September 18, 2008 to say that they would agree to participate in consultation.

Caltrans responded to the State Historic Preservation Officer in a letter dated September 22, 2008, reaffirming that "Caltrans has extensively researched means to deter suicide from the Cold Spring Canyon Bridge. These have included a 'human barrier' and other measures that no not entail constructing physical barriers on the bridge" and that "Caltrans has determined that, given the remote location of the bridge, the only effective means of deterring suicide from the Cold Spring Canyon Bridge, and of meeting the undertaking's purpose and need, is to install physical barriers as described in the report supporting Caltrans' finding of adverse effect."

The Advisory Council wrote to Caltrans on September 23, 2008, stating that, "In light of the SHPO's objections to the proposed MOA, as well as concerns raised by the Santa Barbara County Historic Landmarks Advisory Commission (HLAC), as described in Caltrans' 'Finding of Adverse Effects,' the ACHP has determined that our participation in consultation is warranted." The Advisory Council expressed its interest in more fully understanding the State Historic Preservation Officer's and the Historic Landmarks Advisory Commission's recommendation that Caltrans consider an alternative to a large-scale physical barrier, as well as the "public interest in this project" and "the factors that went into [Caltrans'] analysis of alternatives." To assist in the analysis, the Advisory Council requested that Caltrans provide both the Advisory Council and the State Historic Preservation Officer with the following documentation:

- A copy of the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) and the 4(f) analysis for this undertaking;

- Documentation on the views of the publics and interested individuals regarding this project, as expressed in public meetings, comments on the DEIR/EA, and general correspondence;

- A list of the consulting parties that participated in consultation for this undertaking and copies or a summary of the view of those parties; and

- Minutes or summaries of meetings held by the Aesthetics Design and Advisory Committee (ADAC).

Caltrans complied with this request, mailing documentation to both the Advisory Council and the State Historic Preservation Officer on September 30, and October 2, 2008.

Caltrans District 5 and the Caltrans Headquarters Cultural and Community Studies Office held a phone meeting on October 17, 2008 with the State Historic Preservation Officer Wayne Donaldson and Carol Legard from the Advisory Council. During that meeting the State Historic Preservation Officer raised concerns regarding project purpose and need, the effectiveness of a physical suicide barrier and whether other alternatives should have been more fully explored, primarily a net alternative. All parties agreed that an on-site meeting would be beneficial providing a forum for further discussion and clarification regarding the project. On November 18, 2008 Charlene Dwin Vaughn notified Caltrans that the Advisory Council would participate via telephone.

The on-site meeting was held November 19, 2008 at the Santa Barbara County Association of Governments Office. Those in attendance included Wayne Donaldson and Natalie Lindquist from the State Office of Historic Preservation; Charlene Dwin Vaughn from the ACHP; Jill Hupp from the Caltrans Headquarters Cultural and Community Studies Office; Sheriff Brown and Commander Palera from the Santa Barbara County Sheriff's Office, Steve VanDenburg and Brittany Odermann from the Santa Barbara County Association of Government; Chris McMorris, architectural historian, JRP Historical Consulting, LLC; Jim Espinosa, District 6 Senior Transportation Engineer, Isaac Tasabia, Caltrans Headquarters Bridge Design and Aesthetics; and Dr. Paul Erickson, Medical Director of Psychiatric Services, Santa Barbara Cottage Hospital. In addition, representatives from Caltrans District 5 included Sara Von Schwind, Project Management; Steve Price, Deputy Director for Maintenance and Safety; Robert Pavlik, Central Region Environmental Coordinator; Valerie Levulett, Technical Studies Branch Chief; Paula Carr, Architectural Historian; and Mike Jacob, Environmental Planner. Also in attendance were Lucille Baca and Ankush Agarwal, District 4 Legal.

Meeting topics included review of project purpose and need, Section 106 compliance, public safety, the psychology of suicide, and a safety net design, and impacts to the historic bridge. A field visit to the Cold Spring Canyon Bridge was also conducted, where the discussions continued regarding the greater impacts of a net alternative on the historic qualities of the bridge than the upright alternatives. In addition, the bridge visit provided first-hand exposure to the rugged terrain below the bridge deck; the complexities and dangers the first responders are subjected to as part of their attempts to prevent individuals from jumping off the bridge; and the safety and hazards involved in the recovery of the bodies of those who have jumped off the bridge.

The documentation in this report is a result of the November 19, 2008 meeting and was developed to further clarify the design constraints and issues pertaining to the net alternative and its potential impacts to the historic qualities of the bridge. The report also summarizes the public participation process and consultations conducted in support of the project, including the formation and function of the Aesthetic Design Advisory Committee (ADAC).

PUBLIC PARTICIPATION

Caltrans has conducted a multi-year effort to involve the public, local government, the historic preservation community, and other interested parties in both the Section 106 process and the broader NEPA process regarding the Cold Spring Canyon Bridge Suicide Barrier Project. We have consistently sought input concerning resolution of the project's adverse effects on the Cold Spring Canyon Bridge, which has been determined eligible for listing in the National Register of Historic Places. Caltrans has pursued public participation through a variety of methods, including letters, notices, and presentations to interested parties; formation of an advisory committee; public information meetings and public hearings; outreach to the County's designated historic preservation oversight committee (the Historic Landmarks Advisory Commission); press releases and responses

to public inquiries; and the Caltrans website. The Santa Barbara County Association of Governments (SBCAG), representing the Santa Barbara County Board of Supervisors and incorporated cities within the County, also conducted its own independent public outreach program in relation to the Cold Spring project. A chronological summary of public participation for this project follows:

Cold Spring Canyon Bridge Suicide Prevention Committee

In response to a community-initiated request for a suicide deterrent on the Cold Spring Canyon Bridge, Caltrans and other stakeholders organized a multi-agency task force – the Cold Spring Canyon Bridge Suicide Prevention Committee – in November 2005. This community decision to approach Caltrans was galvanized by the July 2005 suicide of a local teenager and was spearheaded by The Glendon Association, a Santa Barbara mental health organization. The Santa Barbara County Sheriff provided supporting documentation about the number of suicides (43 at that time, now 47) that had taken place from the Cold Spring Canyon Bridge.

- The first meeting of this task force was held in the Santa Barbara County Supervisors' office in Santa Barbara on November 9, 2005, and was attended by representatives from Caltrans; The Glendon Association; Santa Barbara County Association of Governments (SBCAG); California State Assembly (35th District); Santa Barbara County Board of Supervisors (Third District); Santa Barbara County Alcohol, Drug and Mental Health Services; Santa Barbara County Health and Human Services; California Highway Patrol; and the Santa Barbara County Office of the Sheriff.

- A second task force meeting was held in the Santa Barbara County Association of Governments' offices in Santa Barbara on January 12, 2006. Representatives from the agencies listed above attended the meeting, along with representatives from the Santa Barbara County Executive Office, Planning and Development, and Public Works. KEYT-TV was also present at the January 12 meeting, and the meeting was reported in the evening news.

- A third task force meeting was held in the Santa Barbara County Supervisors' offices on March 8, 2006.

Public Information "Town Hall" Meetings

Caltrans held two public information meetings in May 2006.

- The first was held in the North County at the Solvang Veterans Memorial Building on May 10, 2006.

The second meeting was held at Santa Barbara City College on May 22, 2006

Interested Parties

As part of its Section 106 responsibilities, Caltrans took the lead in determining the historical significance of the Cold Spring Canyon Bridge, which had never been previously evaluated by the County. During the initial stages of the preparation of the *Historic Resources Evaluation Report,* Caltrans had its consultant, JRP Historical Consulting, send out a letter to interested parties on February 2, 2007, seeking comment and information pertaining to the bridge's potential historic significance and the potential effect the barrier project might have on the structure's character-defining features if the bridge were to be found eligible (Attachment 2: Letter to Interested Parties). Copies of the letter were sent to the following:

- Santa Barbara County Historic Landmarks Advisory Commission
- City of Santa Barbara Historic Landmarks Commission
- David S. Bisol, Santa Barbara Historical Society
- Jarrell C. Jackman, Santa Barbara Trust for Historic Preservation
- Goleta Valley Historical Society
- Santa Ynez Valley Historical Society
- University of California, Santa Barbara, Public Information Unit
- Clark Adams and Andy Machen, American Society of Civil Engineers, Los Angeles Section, History and Heritage Committee
- Lauren J. Doyel, American Society of Civil Engineers, Santa Barbara/Ventura Branch
- Gloria Brown, Forest Supervisor, Los Padres National Forest
- Los Angeles Conservancy, Modern Committee ("Modcom")
- Society of Architectural Historians, Southern California Chapter
- Morgan Yates, Archivist, Automobile Club of Southern California

An undated written response was received from the Santa Barbara County Historic Landmarks Advisory Commission (Attachment 3). In April 2007, Caltrans asked JRP Historical Consulting to conduct follow-up communications via telephone with those interested parties who had not yet responded to the February 2, 2007, letter. On April 27, 2007, JRP architectural historical Christopher McMorris telephoned the following:

- Santa Barbara Historical Society
- Santa Barbara Trust for Historic Preservation
- Goleta Valley Historical Society
- Santa Ynez Valley Historical Society
- University of California, Santa Barbara, Public History Information Unit
- American Society of Civil Engineers, Los Angeles Section
- American Society of Civil Engineers, Santa Barbara/Ventura Branch
- Los Padres National Forest
- Los Angeles Conservancy, Modern Committee ("Modcom")

- Society of Architectural Historians, Southern Calfironia Chapter
- Automobile Club of Southern California

JRP left messages requesting comments, and spoke to several individuals at those organizations, most of whom did not have comments about the bridge or this project. JRP also sent a copy of the Los Angeles Conservancy "Modcom" letter to the conservancy's staff member Jay Platt via email. Mr. McMorris spoke to Jarrell Jackman of the Santa Barbara Trust for Historic Preservation on April 27, 2007. Dr. Jackman expressed interest in seeing the design of the pedestrian barrier for the Cold Spring Canyon Bridge. Lauren Doyel, of the American Society of Civil Engineers, Santa Barbara/Ventura Branch, called JRP back on April 20, 2007 and spoke to Mr. McMorris. Ms. Doyel emphasized her understanding for the need to alter bridges, even historic bridges, if there are sufficient needs for public safety.

Dr. Jackman of the Santa Barbara Trust for Historic Preservation also provided indirect commentary on the Cold Spring project, in response to a letter to interested parties sent by Caltrans in connection with another project. In his July 10, 2007 letter, Dr. Jackman stated, "Caltrans also wants to install suicide barriers (rightfully so) on the Cold Spring Bridge carrying Highway 154 but has turned a deaf ear on aesthetics. There are several good examples of aesthetically pleasing barriers that could be installed for public safety."

Santa Barbara County Association of Governments (SBCAG)

- On June 15, 2006 Caltrans gave a formal presentation at a regularly scheduled public meeting of the SBCAG Board on the activities of the Cold Spring Canyon Bridge Suicide Prevention Committee. The presentation included describing the number of suicides that have occurred on the bridge and what was being considered to help in the prevention of suicides, including construction of a pedestrian barrier fence on the bridge as well as some signage as a deterrent to suicide. Supervisor Firestone said his initial reaction was negative but as more information was provided he felt a responsibility to consider this. He requested that a permanent fence be installed on the bridge, rather than a temporary fence. The SBCAG Board voted unanimously to support the project's development.
- On May 15, 2008, at the request of the SBCAG Board, Caltrans gave a presentation on the project at another regularly scheduled public meeting of the SBCAG Board, which also heard public comment. Caltrans reported that the draft Environmental Impact Report was available for review and public comment, and announced that two public hearings would be held on June 9 and 10, 2008. The historical nature of the bridge was discussed at this meeting.
- On October 16, 2008, the SBCAG Board held an independent public hearing on the Cold Spring Canyon Bridge Suicide Barrier project. The Board also heard extensive testimony from the public (the meeting was two hours long), which was overwhelmingly in support of the project.

Public Scoping: Information Meeting/Open House

The formal NEPA public scoping process began with a Public Notice published by Caltrans in two local newspapers on July 12, 2007 (Attachment 4: Public Notice and mailing list). The Public Notice appeared in English in the *Santa Barbara Independent* and in Spanish in *El Tiempo de la Costa Central*. On July 13 the Public Notice (English) also appeared in the *Daily Sound.* A Public Information Meeting/Open House was held on July 25, 2007, in the Santa Barbara Central Library at 40 East Anapamu Street, Santa Barbara. Invitations were also mailed to all of the interested parties previously notified and identified to date. The purpose of the meeting was to present the project purpose and need and introduce some strategies that have been used elsewhere to deter suicides on bridges; to obtain the public's ideas, comments, and concerns about this proposed project; and to introduce the public to members of the project team. Caltrans staff members were present to answer specific questions about the project. A court reporter and a Spanish translator were also available. Interested citizens, representatives from the HLA and historic preservation community, The Glendon Association, agency officials, and Assemblyman Pedro Nava attended.

Public comments made at the Public Information Meeting/Open House were overwhelmingly supportive of the proposed barrier. Subsequent emails, letters, and phone calls have ranged from support to opposition to the proposed barrier. Some Santa Barbara County-based groups, as well as some individuals, have expressed opposition to the project. Their concerns have centered on the following:

- A physical barrier would merely deflect potential suicides to another location
- A physical barrier has not been shown to be effective at preventing suicides
- A human barrier (consisting of deterrence strategies such as emergency call boxes linked to crisis hotlines, monitored video surveillance, and increased patrols) provides more effective deterrence and prevention
- People have the right to commit suicide
- The money allocated for this project could be better spent elsewhere
- The process needs to include an Environmental Impact Report

Aesthetics Design Advisory Committee (ADAC)

As part of both Section 106 and NEPA compliance, Caltrans sought further public participation, outreach, and input on barrier design through the formation of an Aesthetics Design Advisory Committee. In assembling the Committee, Caltrans conducted research in online professional directories and County websites and canvassed County staff. The ADAC team, assembled in March 2008, included the following individuals:

Caltrans:

- Sara von Schwind, Engineer, Project Manager
- Wai Kwan, Structures Design
- Isaac Tasabia, Bridge Architecture and Aesthetics

- Jim Espinosa, Design
- Mike Jacob, Associate Environmental Planner
- Bob Carr, Landscape Architect, Visual Impact Assessment
- Paula Carr, Associate Environmental Planner, Architectural Historian
- Chris McMorris, JRP Historical Consulting, Architectural Historian

Santa Barbara County Government:

- Anne Almy, Planning and Development Department
- Dacé Morgan, Public Works Department

Santa Barbara County Advisory Bodies / Citizens:

- Bethany Clough, Landscape Architect, Central County Board of Architectural Review
- Evans Jones, Architect, Central County Board of Architectural Review
- Laurie Roman, Landscape Architect, Arcadia Studio, Santa Barbara; South County Board of Architectural Review
- Keith Rivera, Architect, B3 Architects, Santa Barbara; worked in San Francisco office of Donald MacDonald, architect for the east span of the San Francisco Bay Bridge
- Deborah Schwartz, Santa Barbara County Historic Landmarks Advisory Commission

The ADAC met six times between March 19 and August 18, 2008. According to the terms of the ADAC charter (Attachment 5), in agreeing to serve on the ADAC, the participants understood that they were not endorsing the project or any particular alternative – they were merely agreeing to suspend their own opinions about the necessity of a suicide barrier on the bridge in order to discuss ways to minimize adverse effects, should one of the two build alternatives be selected as the preferred alternative.

The committed worked as a team to help design the proposed physical barrier alternatives and mitigation measures, so that the barrier alternatives would have the least amount of adverse effect on the bridge. The community members of the Committee provide professional input on prospective designs and mitigation measures, including responses to ideas generated by Caltrans, and original ideas that they generated themselves.

During the six three-hour work sessions, Committee members reviewed the following:

- Cold Spring Canyon Bridge as-builts
- Design constraints (e.g., wind load, access for maintenance)
- Photographs of barrier solutions employed on other bridges worldwide
- Video footage of barriers in Davis, Fresno, and Paso Robles, California as seen from a passing vehicle

- Draft Visual Impact Assessment prepared by Caltrans
- Character-defining features that make the Cold Spring Canyon Bridge eligible for the National Register
- Secretary of Interior Standards for the rehabilitation of historic properties (Attachment 6: "Suggestions for avoiding or minimizing adverse effects and for applying the Secretary of Interior's Standards for Rehabilitation," a hand-out prepared for ADAC Committee members)
- Conceptual drawings and photosimulations of the two alternatives

The ADAC also visited the bridge, and participated in drive-by field testing/viewing of sample barrier panels simulating the two alternatives in order to evaluate their relative opacity as seen from a variety of angles from a moving vehicle. Although the ADAC's recommendations did not change the fundamental design of the barrier, the local members of the ADAC did provide extensive critiquing of conceptual designs for the barrier, and helped refine many design details in order to minimize adverse effects. The local members of the ADAC also stated that, of the two alternatives proposed, they preferred the grid/mesh alternative. Many of their suggestions were adopted by Caltrans and incorporated into the project design and minimization measures (Attachment 1).

Santa Barbara County Historic Landmarks Advisory Commission (HLAC)

The HLAC is the advisory body designated by the Santa Barbara County Board of Supervisors to address issues of historic preservation in the county. The stated purpose of the HLAC is to promote the economic welfare and prosperity of the county by preserving and protecting those places, sites, buildings, structures, works of art and other objects having a special historic or aesthetic character or interest, for the use, education and view of the general public and to remind the citizens of this county and visitors from elsewhere of the background of the county. In order to comply with its Section 106 responsibilities, Caltrans accordingly included the HLAC in all mailings to interested parties. The HLAC also received copies of the *Historic Property Survey Report* and the August 13, 2007 letter from the SHPO concurring on the determination of eligibility for the Cold Spring Canyon Bridge. On January 17, 2008, Caltrans sent a letter and attachments to the HLAC in advance of the February 11, 2008 HLAC meeting (Attachment 7). The letter reviewed the Section 106 consultation to date, and notified the HLAC that it appeared likely that the project would have an adverse effect on the National Register-eligible bridge. It also advised the HLAC that these adverse effects would need to be resolved, and asked the Commission to "provide input on how the conceptual barrier designs (currently being developed by the Caltrans Division of Structure Design and Caltrans Bridge Architecture and Aesthetics Branch) [could] be improved and finalized as viable design alternatives". Caltrans also invited the HLAC to give "careful consideration to the constraints and opportunities that are associated with designing a barrier at this location…." Caltrans similarly asked the HLAC to "Delegate a Commissioner or designee to represent the Commission at the proposed Caltrans Aesthetics Design Advisory Committee meetings." The letter further stated that

"Caltrans is looking to the Commission to provide suggestions for appropriate mitigation measures….".

Caltrans also made two formal presentations to the HLAC, and attended two other HLAC meetings when the Cold Spring Canyon Bridge Suicide Barrier project was included on the HLAC agenda. The project was placed on the HLAC agenda in March, April, May, June, July, August, September, and October of 2007, and in February, April, May, and June 2008 (June 2008 is the last HLAC meeting for which approved minutes have been posted). Official HLAC minutes show that the bridge was actually discussed during the March, May, June, July, August, September, and October 2007 meetings, and at the February and June 2008 meetings. Public comments on the project were received at the June, July, and November 2007 meetings and at the June 2008 hearing.

- ***August 13, 2007 Caltrans Presentation to the HLAC***

  On August 13, 2007, Caltrans staff attended a meeting of the Historic Landmarks Advisory Commission regarding the cold Spring Canyon Bridge Suicide Barrier project. Caltrans staff included presentations on project roles and responsibilities, an explanation of visual impact analysis and scenic resource evaluation, the environmental process, and the project schedule. An additional presentation by the Architectural Historian from JRP Historical consulting discussed the details of the bridge's mid-century design aesthetic.

- ***February 11, 2008 Caltrans Presentation to the HLAC***

  On February 11, 2008, Caltrans staff attended a meeting of the Historic Landmarks Advisory Commission in the City of Santa Barbara. In addition to the commissioners, approximately 15 members of the public and local government attended. Caltrans staff provided an update on the Cold Spring Canyon Suicide Barrier project, informed them that Caltrans would be preparing an Environmental Impact Report, and explained the proposed formation of an Aesthetics Design Advisory Committee, inviting the Commission to appoint a representative to participate on the committee.

  During the presentation and also in response to questions, Caltrans staff clarified that design committee members would not be endorsing any particular alternative but would be providing their unique ideas and viewpoint in the potential design and mitigation measures of the barrier alternatives to Caltrans designers and engineers during the meetings. Also, by participating, their input and design would help to minimize and mitigate the adverse effects that a barrier would have on the Cold Spring Canyon Bridge, should a physical barrier be chosen as the preferred alternative. After some discussion, the Historic Landmarks Advisory Commission voted unanimously to send one of their Commissioners to represent them on the committee. Caltrans also invited the Historic Landmarks Advisory Commission to provide additional input on mitigation measures for the Memorandum of Agreement.

On April 14, 2008, Caltrans staff attended the Historic Landmarks Advisory Commission meeting regarding the requested input for mitigation measures; however, the mitigation discussion was tabled until the next meeting, schedules for May 12, 2008. At the subsequent meeting on May 12, the commission's discussion did not include recommendations or suggestions on potential mitigation measures. At their Jun 9, 2008 meeting, the HLAC voted unanimously to oppose the proposed suicide barrier. The HLAC sent a letter to Caltrans on June 18, 2008, stating that, in their opinion, "there is no acceptable mitigation that would offset the harm resulting from the construction of a suicide barrier on that Bridge." The HLAC urged Caltrans to "eliminate the suicide barrier 'Build Alternatives' from the Cold Spring Canyon Bridge project and subsequently consider all of the no-build alternatives that have been submitted to Caltrans to deter suicide attempts at this location" (Attachment 8). The HLAC subsequently instructed their representative to stop attending meetings of the Aesthetic Design Advisory Committee.

Notice of Preparation

The Notice of Preparation, mailed to nine federal and state agencies and the State Clearinghouse on January 14, 2008, informed the recipients of Caltrans' intention to prepare an Environmental Impact Report and provided the project description, alternatives under consideration, and the environmental resources the project has the potential to affect. The Notice of Preparation was also mailed or emailed (if the mailing address was not provided) to over 90 local governmental departments, associations, and interested individuals (Attachment 9). Recipients were alerted to the state law requiring submittal of their comments to Caltrans no later than 30 days after receipt of the Notice of Preparation.

Caltrans also took this opportunity to carry out Section 106 responsibilities by notifying the following architectural, architectural history, and historic preservation groups:

- State Historic Preservation Officer
- Santa Barbara County Historic Landmarks Advisory Commission
- City of Santa Barbara Historic Landmarks Commission
- Central County Board of Architectural Review
- Jarrell C. Jackman, Santa Barbara Trust for Historic Preservation
- The Pearl Chase Society
- University of California, Santa Barbara, Public History Information Unit
- Goleta Valley Historical Society
- Clark Adams and Andy Machen, American Society of Civil Engineers, History and Heritage Committee

- Lauren J. Doyel, American Society of Civil Engineers, Santa Barbara/Ventura Branch
- David S. Bisol, Santa Barbara Historical Society
- Santa Ynez Valley Historical Society
- Society of Architectural Historians, Southern California Chapter
- Los Angeles Conservancy, Modern Committee ("Modcom")
- Morgan Yates, Archivist, Automobile Club of Southern California

In response to the Notice of Preparation, four written comments were received from the following:

- Katy Sanchez, Native American Heritage Commission, dated January 23, 2008
- Gregory Mohr, dated January 30, 2008
- Marc McGinnes, for "Friends of the Bridge," dated February 1, 2008
- Garrett Glasgow, dated February 5, 2008

Draft Environmental Impact Report/Environmental Assessment

Over 165 copies of the draft EIR/EA document were mailed/emailed to interested parties, including the same architectural, architectural history, and historic preservation groups (Attachment 10). The packet included a copy of the *Santa Barbara Independent* newspaper notice announcing the availability of the draft environmental document and the schedules open house-style public hearings, written in both English and Spanish, to alert the parties of opportunities to review the draft document and to submit public comments.

Two open house-style public hearings were held in June 2008. These hearings coincided with the circulation of the draft environmental document to receive public comment from the community. The hearings were publicized in the local *Santa Barbara Independent* newspaper in both English and Spanish (Attachment 11).

At the public hearings, comment cards were available for written public comment. A court reporter and Spanish translator were also available to receive oral public comment on the environmental document. A copy of the draft EIR/EA including information on the public hearings and 45-day public comment period was also available for public access on the Caltrans website.

- On June 9, 2008 a public hearing was held in the City of Santa Barbara Downtown Library
- On June 10, 2008 a public hearing was held at the Veteran's Memorial Hall in Solvang

Copies of all (more than 100) of the public comments were provided to the SHPO and ACHP on October 30 and November 2, 2008. These comments, along with Caltrans' responses, will be included in the Final Environmental Impact Report/Finding of No Significant Impact.

Caltrans Participation Method	# of Meetings	Time Frame
Multi-Agency Task Force	3	November 9, 2005 through March 8, 2006
Caltrans Information Town Hall Meetings	2	May 10, 2006 May 22, 2006
Santa Barbara County Association of Governments	3	June 15, 2006 May 15, 2008 October 16, 2008
Caltrans Public Scoping: Information Meetings/Open House	1	July 25, 2007
Caltrans Presentations to Santa Barbara County Historic Landmarks Advisory Commission (HLAC) / Attendance at HLAC meetings	2	August 13, 2007 February 11, 2008 April 14, 2008 May 12, 2008
Aesthetics Design Advisory Committee (ADAC)	6	March-September 2008
Public Hearings	2	June 9-10, 2008

Method of Contact	Date
Letters to Interested Parties / Follow-up telephone calls	February 2, 2007 April 27, 2007
Invitation to Open House	July 2007
Notice of Preparation	January 14, 2008
Draft EIR/EA Distribution List	May 9, 2008
Public Hearing Notice	June 2008

PROPOSED NET ALTERNATIVE

Evaluation of Adverse Effects

This section presents the effects analysis regarding the net alternative for the Cold Spring Canyon Bridge project (Figure 4). As discussed on November 19, the net alternative would diminish more aspects of the bridge's historic integrity than the vertical barrier and

it would be non-compliant with more of the Secretary of Interior's (SOI) Standards for Rehabilitation than the vertical barrier alternative would.

As noted in the FOE, the Cold Spring Canyon Bridge is significant, under National Register of Historic Places Criterion C, for its type, period, and method of construction as an important example of bridge design and engineering. The structure's significance lies in both its engineering value related to its structural type and design and importance as an aesthetic achievement. It is significant at the state-wide level, in part, because it is the largest steel arch bridge in California and it was one of the first in the country to be built entirely of all-welded steel components. The Bridge Department devised an interesting and well-received design for the Cold Spring Canyon Bridge within the economic and physical confines of the project. It is an important example of its type and method of construction for its period because it exhibits a maturation of steel arch bridge design and welded steel technology employed on bridges in California, and it represents a high aesthetic quality that illustrates contemporary Modern-era architectural principles that extolled the virtues of unadorned and efficient designs along with material and functional honesty. It was also noted as the work of a master, for its design by the Division of Highways Bridge Department and its construction by the American Bridge Division of U.S. Steel. The Bridge Department used well-established structural components – including steel arch, welded steel components, and reinforced concrete deck – but executed the overall design in a manner that captures aspects of the highest quality of work in bridge engineering in California at that time. The assemblage of its arch design, its all-weld components, and its clean, open, uncluttered appearance provide a structural continuity with all of its elements acting together in a singular form that creates a beautiful bridge that transcends its practical utilitarian function.

The character-defining features of the Cold Spring Canyon Bridge, as defined in the FOE, comprise those components that are part of its original design, including the arch ribs with their cross bracing, the columns and towers, floorbeam girders, abutments, and railings. The design of the reinforced concrete skewbacks is also included in the structure's character-defining features, even though the skewbacks have been encased with new materials. Evidence in the historical record showed that the Division of Highways Bridge Department engineers focused the bridge's design efforts on the substructure, i.e. the arch ribs, columns, and towers, however elements of the bridge's superstructure at the roadway are included in the bridge's character-defining features because they are part of its original design and overall design effect. The superstructure's slender qualities not only decreased dead load on the structure to ensure that substructure components could be as small as they are, but also to enhance the horizontality, openness, and uncluttered appearance of the bridge.

Impacts to Historic Integrity

The FOE concluded that the vertical barrier project will have a direct adverse effect on the Cold Spring Canyon Bridge because the addition of a physical barrier on the superstructure will be an alteration to the historic property that is not consistent with the

SOI Standards for the Treatment of Historic Properties and because the project introduces a visual element that diminishes the property's historic integrity of design, feeling, and association.

Although Caltrans designed the vertical barrier alternative to minimize effects to the bridge's historic character-defining features, the construction of the proposed vertical barrier will impact the form, plan, and proportions of the bridge, along with spatial relationship of its components and the arrangement of spaces between the bridge's various essential physical features. This would also be true for the net alternative. Impact of either the vertical barrier or the net alternative would occur because the additions would reduce and/or obscure the open, uncluttered, uncomplicated, and efficient appearance of the bridge that is formed by its slender components of welded steel and its trim concrete deck with its short roadway railing. Both the vertical barrier and the steel frame net alternative would visually thicken the deck's appearance in relation to the remainder of the bridge, and the net alternative would widen also the bridge's appearance.

Caltrans' alternative to potentially construct a 20 foot wide steel frame net either 13 feet or 20 feet below the deck on either side of the bridge would have a direct adverse effect on the Cold Spring Canyon Bridge. Similar to the vertical barrier, the net alternative would be an alteration to the historic property that is not consistent with the SOI Standards for the Treatment of Historic Properties, as discussed below. The net alternative would not only diminish the structure's historic integrity of design, feeling, and association, it would also diminish the bridge's historic integrity of materials and workmanship in ways that the vertical barrier alternative does not.

As presented by the Caltrans team on November 19, the net alternative would require Caltrans to construct an entirely new steel structure to frame the panel sections of net and attach the new structure to the columns, towers, and arch ribs in the substructure and tie the panels back to the concrete railing on the superstructure. Caltrans would need to build this net in panels so that one or more panels could be raised during maintenance procedures. The net could be built either 13 feet or 20 feet below the bridge deck. This would intersect the substructure either near the top of the arch or just below the arch ribs. The nets would have to be at least 20 feet wide each to effectively deter a person from jumping out past the nets. The distance outward from the bridge of the net combined would have the effect of more than doubling the width of the bridge. The net option would add an additional 290 tons of weight to the bridge. This includes the following: TS 14x14x3/8 steel beams, W6x20 steel beams, cables, plate gussets, clevises, net and the required connection hardware. In comparison, the mesh/grid option would add 90 tons of weight to the bridge. This includes: Plate columns 2 ½" pipe, 3" pipe, mesh/grid element (#8 gauge) and the required connection hardware. Caltrans has concluded that most, if not all, substructure components of the bridge would need to be retrofitted in order to carry the additional dead and (potential) live load of the nets and withstand the wind and seismic loads. The retrofit could require Caltrans to encase substructure members, covering the original steel structure, and could require Caltrans to construct

cross bracing under the bridge deck between the columns. Although exact calculations regarding changes to the columns, towers, and arches have not been completed for the potential retrofit, it is likely that each of the elements of the substructure that are considered character-defining features of the bridge would need to be physically altered and that the slender qualities of those components would be changed, perhaps radically so.

The net alternative, either at 13 or 20 feet below the deck, would have the appearance from below the bridge and to the side of the bridge as increasing the bridge deck's thickness and the bridge's width, resulting in a bridge that appears to be shorter, or more squat, than the extant bridge. (The net alternative would also create a shorter looking bridge than the vertical barrier alternative which raises the height of the bridge.) The nets would obscure the view of character-defining features of the bridge's substructure and greatly alter the overall design aesthetic of the historic bridge. The nets would traverse the entire length of the bridge's substructure severely interfering with the bridge's historic character related to its engineering and aesthetic achievement. The nets would interrupt the openness and uncluttered appearance of the bridge's slender columns, towers, and arch ribs, dividing and filling the open spaces and impairing the spatial relationship between the carefully crafted components of the bridge's substructure. The retrofit of substructure components would also increase the size of the substructure members, and may include cross bracing, both of which would further deteriorate the openness of the structure. Attaching the steel frame structure for the nets and retrofitting the substructure would also directly impact the historic materials of the bridge. Thousands of holes would need to be drilled into steel members of the bridge and into the concrete railing for fasteners and attachments. Also, new steel would need to be added to the substructure components to strengthen those members. These actions would diminish the bridge's historic integrity of design, feeling, and association. They would also diminish the bridge's historic integrity of materials and workmanship. The nets would decrease the ability for comprehension of the bridge's historically significant engineering and aesthetic achievement. Construction of the nets would impair the original welded steel members which are central to the bridge's historic significance, and the nets and accompanying retrofit of the substructure would reduce ones ability to comprehend the workmanship that went into the bridge's all-welded steel design. Overall, the nets would reduce the structure's aesthetic expression, its historic sense of its particular period of time, and impair the direct link the bridge currently presents between now and the period in which Division of Highways Bridge Department engineers designed the state's monumental bridges. It would be extraordinarily difficult to remove the net option and return the bridge to its existing form.

Compliance with the SOI Standards for Rehabilitation

The FOE concluded that Caltrans will not be able to construct the vertical barrier alternative in a manner that fully complies with the Standards of Rehabilitation, which is the most appropriate SOI treatment for this project. The same can be said of the net alternative. Of note, the FOE concluded that the vertical barrier could be built meeting

several of the Standards, including the standard that ensures that the new addition will be constructed in a manner that, if removed in the future, the essential form and historic integrity of the bridge would be unimpaired.

In order to meet the project's purpose and need, the FOE concluded that the vertical barrier design was unable to fully comply with Standard 2 and Standard 9. This continues to be true for the vertical barrier alternative following Caltrans' refinements to the design that included input from the Aesthetic Design Advisory Committee (ADAC). Standard 2 states that the "alteration of features, spaces, and spatial relationships that characterize a property will be avoided." Standard 9 says that new additions to historic properties should not "destroy historic . . . spatial relationships that characterize the property" and that new additions should be compatible with the historic "features, size, scale, and proportion, and massing to protect the integrity of the property." The design for the net alternative also could not be built in a manner that is consistent with Standard 2 and Standard 9 because of the nets' alteration of the spatial relationships of the bridge's character-defining features and because the nets would be incompatible with the massing, proportion, and features of the historic bridge. Furthermore, as described above, the net alternative could not be built in a manner that is consistent with Standard 10 because the nets represent new additions that cannot be "undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property . . . would be unimpaired." Installation of the steel frame structure for the nets and the retrofit of the substructure could not be reversed in the future such that the bridge's original historic integrity would not be largely ruined.

Figure 1. Cold Spring Canyon Bridge from upper Stagecoach Road.

Figure 2. Cold Spring Canyon Bridge pier and substructure.

Figure 3. Cold Spring Canyon Bridge substructure.

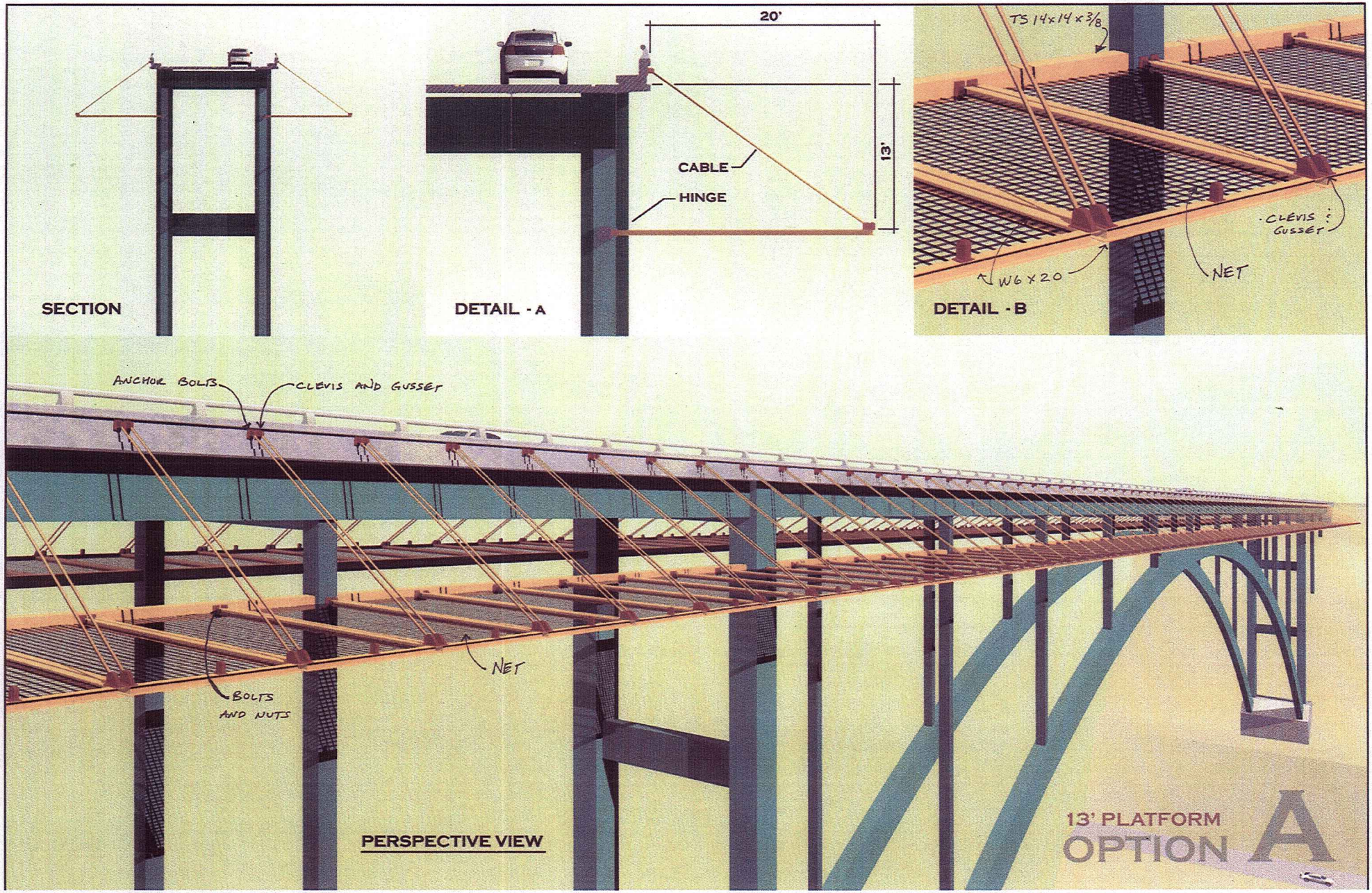


Figure 4. Net alternative.

ATTACHMENT 1

Barrier Design and Construction Minimization Measures

(These measures were inadvertently left out of the MOA that was submitted to the SHPO on September 9, 2008 and will be included in subsequent revisions)

Caltrans, with input from an Aesthetic Design Advisory Committee, has developed barrier design and construction measures to lessen the project's adverse effects. The barrier is designed to be reversible, with minimal permanent impact to the historic fabric of the bridge structure if the panels were to be removed. The barrier design and construction minimization measures are as follows:

- Caltrans has selected the grid/mesh alternative. The physical barrier will consist of a continuous series of in-curving, steel grid/mesh panels framed and supported by steel posts and rails. The grid/mesh alternative will result in less view blockage than the vertical picket alternative because it avoids the "stacking" effect created when closely spaced vertical pickets are viewed from an oblique angle.

- The barrier is designed in an unadorned style that is compatible with, but does not replicate, the Modern-era style for which the bridge is significant.

- The in-curving grid/mesh panels will have two-inch-square openings, which is the largest opening possible that does not provide convenient finger-holds and toe-holds for climbing.

- The cross-section dimensions of the vertical and horizontal framing members are minimized as much as possible without jeopardizing the structural integrity of the panels.

- The horizontal length of the individual panels is increased as much as possible, to reduce the number of vertical elements, without jeopardizing structural integrity.

- The barrier panels will be attached to the outside of the existing concrete railings to minimize physical impacts on the original rails.

- The barrier panel attachment points and the lowest rail (bottom framing member) of the individual barrier panels will be situated below the top of the existing concrete barrier. The attachment points will be out of the line-of-sight of motorists on the bridge.

- The individual barrier panels will be custom made to conform to the irregular intervals between the existing bridge-railing supports, so that the vertical supports will be in alignment, rather than staggered.

- The steel will be coated with a low-reflectivity finish to help reduce glare and to allow the grid/mesh to recede visually.

ATTACHMENT 2

COLD SPRING CANYON BRIDGE PROJECT

Interested Parties for Section106
Historic Architectural Resources

County of Santa Barbara
Historic Landmarks Advisory Commission
c/o Planning & Development Department
123 East Anapamu Street
Santa Barbara, CA 93101
Attn: Star Schatz (HLAC Secretary)

City of Santa Barbara Historic Landmarks Commission
630 Garden Street
Santa Barbara, CA 93101
Attn: Susan Gantz (Staff Liaison)

David S. Bisol
Executive Director
Santa Barbara Historical Society
136 E. De la Guerra Street
Santa Barbara, CA 93102

Jarrell C. Jackman
Executive Director
Santa Barbara Trust for Historic Preservation
P.O. Box 388
Santa Barbara CA 93102

Goleta Valley Historical Society
304 Los Carneros Road
Goleta, CA 93117

Santa Ynez Valley Historical Society
P.O. Box 181, 3596 Sagunto Street,
Santa Ynez, CA 93460
Attn: Chris Bashforth (Executive Director)

Public History Information Unit
University of California, Santa Barbara
Santa Barbara, CA 93106

Clark Adams and Andy Machen, Co-Chairs
History and Heritage Committee
American Society of Civil Engineers
Los Angeles Section
1405 Warner Avenue
Tustin, CA 92780

Lauren J. Doyel, President
American Society of Civil Engineers
Santa Barbara/Ventura Branch
Fugro West, Inc
4820 McGrath Street, Suite 100
Ventura, CA 93003

Gloria Brown, Forest Supervisor
Los Padres National Forest
6755 Hollister Avenue, Suite 150
Goleta, CA 93117

Los Angeles Conservancy
Modern Committee "Modcom"
52523 W. Sixth St., Suite 826
Los Angeles, CA 90014

Society of Architectural Historians
Southern California Chapter
PO Box 56478
Sherman Oaks, CA 91413

Morgan Yates, Archivist
Automobile Club of Southern California
2601 South Figueroa Street, H-118
Los Angeles, CA 90007

Partners
Rand E. Herbert
Stephen R. Wee
Meta Bunse
Christopher McMorris

JRP HISTORICAL CONSULTING, LLC

February 2, 2007

County of Santa Barbara
Historic Landmarks Advisory Commission
c/o Planning & Development Department
123 East Anapamu Street
Santa Barbara, CA 93101
Attn: Star Schatz (HLAC Secretary)

Dear Commissioners:

The California Department of Transportation (Caltrans) proposes to install a pedestrian barrier on the Cold Spring Canyon Bridge (Bridge 51 0037) on State Route 154 in Santa Barbara County, the location of which is shown on the enclosed map. The project will significantly deter suicide attempts at the bridge while minimizing impacts to the environment, including the aesthetic and historical character of the structure and setting. The specific design of the barrier is yet to be determined. We are contacting your organization as part of Caltrans' compliance with Section 106 of the National Historic Preservation Act and are requesting your input regarding the potential for this project to affect historic properties.

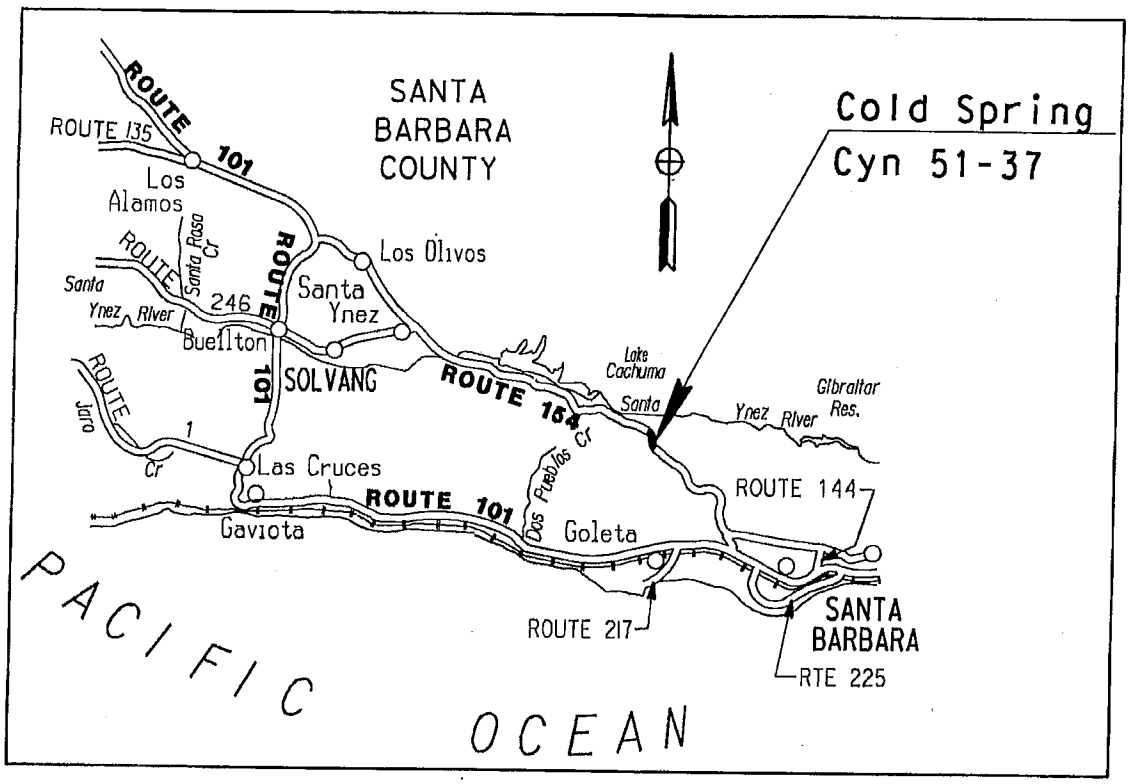
JRP Historical Consulting, LLC is currently under contract with Caltrans to evaluate the historic significance of the Cold Spring Canyon Bridge to assess whether the structure meets the criteria for listing in the National Register of Historic Places (NRHP). If the bridge meets the criteria for listing in the NRHP, the bridge would be considered as a historic property under the Section 106 regulations and further steps would be required. These additional steps would include an assessment of effects the project may have on the bridge's character-defining features and measures to mitigate adverse effects, if any, that the project may have on those features.

This letter is intended as a means to seek comment and information pertaining to the bridge's potential historic significance and the potential effect the barrier project may have on the structure's character-defining features. If you, or your organization, has comments or information regarding the Cold Spring Canyon Bridge, please contact us in writing by March 15, 2007. Thank you.

Sincerely,

Christopher McMorris
Partner / Architectural Historian

Enclosures: Project vicinity map and list of recipients



Cold Spring Canyon Bridge, near San Marcos Pass in Santa Barbara County

ATTACHMENT 3

Santa Barbara County
Historic Landmarks Advisory Commission

Mr. Christopher McMorris
JRP Historical Consulting, LLC
1490 Drew Avenue, Suite 110
Davis, CA 95618

Re: **Cold Spring Canyon Bridge**

Dear Mr. McMorris:

Thank you for your letter of February 2, 2007 regarding the Caltrans proposal to install a pedestrian barrier on the Cold Spring Canyon Bridge on State Route 154 in Santa Barbara County.

The Santa Barbara County Historic Landmarks Advisory Commission considers the Cold Spring Canyon Bridge to have a high level of historic and aesthetic significance to the County of Santa Barbara. While we understand the important safety considerations involved in the proposed project, we believe that any alterations to this historic resource should be sensitive to potential aesthetic impacts on the character-defining features of the bridge.

The Commission would appreciate the opportunity to provide additional input in the design phase of the project, including review of plans for the proposed pedestrian barrier as they are developed.

Our Commission meets the second Monday of each month. Our next meeting is April 9, 2007, or May 14, 2007. We would like to review the plans for this project with you and a (Caltrans) representive. Please contact our Secretary at 805-568-2084 and let her know which agenda date would work for you. Please keep the Commission apprised of progress on this project, and feel free to contact us if we can be of further assistance.

Sincerely,

Eileen H. Wyckoff

Eileen Wyckoff
Chair

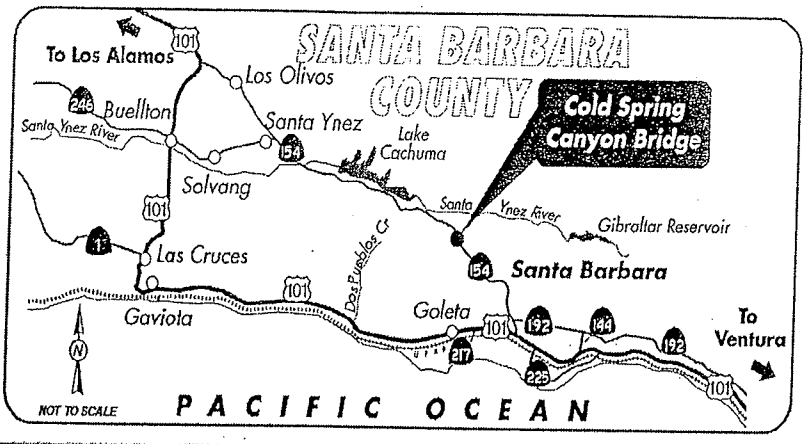
cc: Public Works, Caltrans, Planning and Development

ATTACHMENT 4

Public Notice

U.S. Department of Transportation Federal Highway Administration

Announcement of Public Information Meeting/Open House
Cold Spring Canyon Bridge Suicide Barrier on State Route 154



WHEN AND WHERE?

Date: Wednesday, July 25, 2007

Time: 5:30 p.m. to 8:30 p.m. (Information/Orientation Presentations at 6:30 p.m.)

Place: City of Santa Barbara Public Library
Faulkner Gallery
40 East Anapamu Street
Santa Barbara, California

WHAT IS BEING PLANNED?

The California Department of Transportation (Caltrans) is proposing to improve safety on Route 154 in the County of Santa Barbara on the Cold Spring Canyon Bridge. The project proposes to construct a barrier on the Bridge that will deter persons from committing suicide at this location.

WHY THIS PUBLIC NOTICE?

This public notice serves as an announcement that Caltrans, local law enforcement, and mental health professionals will hold an informational meeting in an open house format to discuss:

- **The project need and strategies to deter suicides on the bridge**
- **Obtain the public's ideas, comments, and concerns about this proposed project**
- **And for the public to meet the members of the project team**

Staff will be available to answer specific questions about the project. A Spanish translator will be available.

WHERE DO YOU COME IN?

We encourage you to review the informational displays, listen to staff and law enforcement presentations about the project origin and need, and a contemporary discussion about mental health and suicidal behavior. During and at the conclusion of the meeting we encourage you to make comments in written form (by way of comment cards) or verbally (dictated to the court reporter at the public meeting). Written comments will also be accepted via letters or email through August 8, 2007.

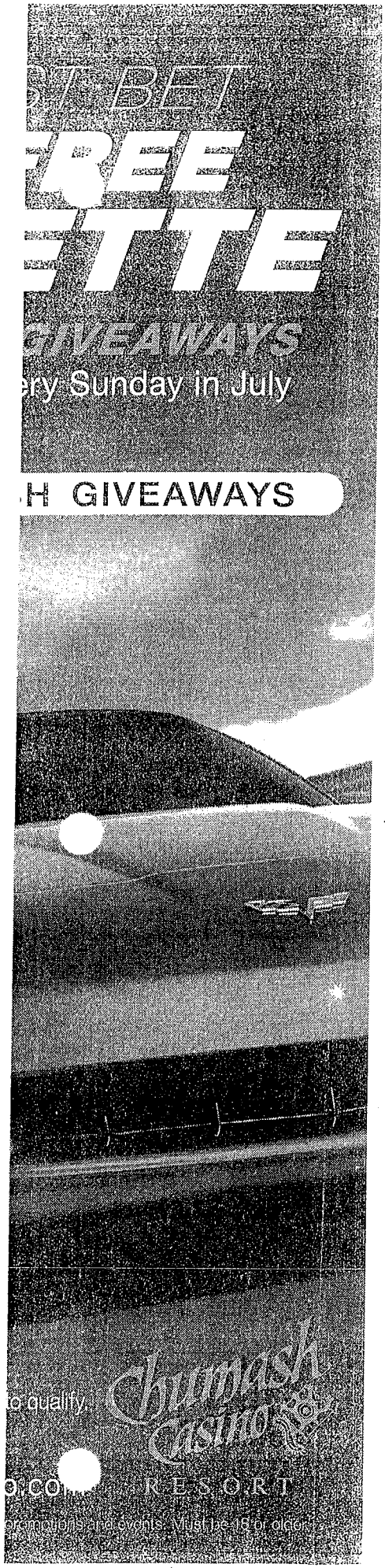
CONTACT

Please provide your comments on the proposed project to Caltrans at the public meeting or, via letter and email to John Luchetta, Environmental Branch Chief, Caltrans District 5; 50 Higuera St, San Luis Obispo, CA 93401. You may also email comments to: john_luchetta@dot.ca.gov. For more project information, please contact the project manager Sara von Schwind, Caltrans (805) 549-3198 or email to sara.von.schwind@dot.ca.gov. For all other State Highway matters, please contact District 5 Public Affairs at (805) 549-3318.

SPECIAL ACCOMMODATIONS

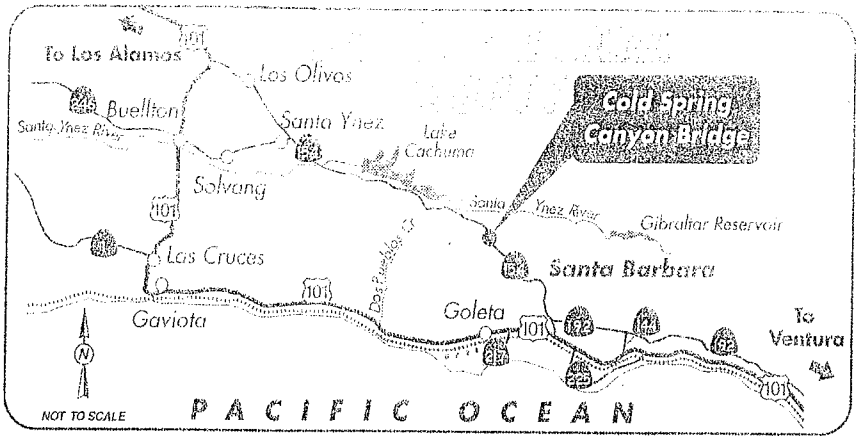
Individuals who require special accommodations (American Sign Language interpreter, accessible seating, documentation in alternate formats, etc.) are required to contact the District 5 Public Affairs Office at (805) 549-3318 at least 14 days prior to the scheduled informational meeting date. Telecommunications Devices for the Deaf (TDD) users call 1-800-735-2929 or contact the California Relay Service TDD voice line at 1-800-735-2922.

ram070307



Avisos Al Público

Anuncio de reunión informativa/reunión formal comunitaria Para la barrera anti-suicida del puente Cold Spring Canyon Bridge en la Carretera Estatal 154



¿CUÁNDO Y DÓNDE?

Fecha: miércoles 25 de julio del 2007

Hora: de 5:30 pm a 8:30 pm (Información y presentaciones de orientación a las 6:30pm)

Lugar: Biblioteca pública de la ciudad de Santa Barbara
Galería Faulkner
40 calle E. Anapamu
Santa Barbara, CA

¿QUÉ SE ESTÁ PLANEANDO?

El Departamento de Transporte del Estado de California (Caltrans) propone mejorar la seguridad del puente Cold Spring Canyon Bridge en la carretera estatal 154 en el condado de Santa Barbara. El proyecto propone construir una barrera en el puente para disuadir a que personas se suiciden en ésta ubicación.

¿PORQUÉ ESTE AVISO AL PÚBLICO?

Este aviso al público sirve como anuncio de que Caltrans, las autoridades locales, y los profesionales en la salud mental tendrán una reunión informativa en el formato de una reunión formal comunitaria para hablar sobre:

- **Las necesidades del proyecto y las estratégias para disuadir los suicidios en el puente**
- **Obtener ideas del público, comentarios, y preocupaciones sobre este proyecto propuesto**
- **Y para que el público conozca a los miembros del equipo de este proyecto**

Habrá personal disponible para responder preguntas específicas sobre el proyecto. Habrá una traductora disponible que hable español.

¿CÓMO PUEDE CONTRIBUIR USTED?

Le sugerimos que revise los carteles informativos, escuche las presentaciones del personal y las autoridades sobre el origen del proyecto y sus necesidades, y una discusión contemporánea sobre la salud mental y el comportamiento suicida. Durante y a la culminación de la reunión, le sugerimos que haga sus comentarios por escrito (usando las tarjetitas para comentarios) o verbalmente (dictándole al reportero de la corte en la reunión pública). Los comentarios por escrito también se aceptan via correspondencia o corréo electrónico hasta el 8 de agosto del 2007.

COMUNÍQUESE

Por favor proporcione sus comentarios sobre el proyecto propuesto en la reunión pública de Caltrans o por escrito o corréo electrónico a John Luchetta, Environmental Branch Chief, Caltrans District 5; 50 Higuera Street, San Luis Obispo, CA 93401. También puede enviarlos por corréo electrónico a: john_luchetta@dot.ca.gov.. Para más información sobre el proyecto, por favor comuníquese con la encargada del proyecto Sara von Schwind, Caltrans al (805) 549-3198 o por corréo electrónico a: sara_von_schwind@dot.ca.gov. Para cualquier otra pregunta sobre otros proyectos o carreteras, comuníquese con la Oficina de Relaciones Públicas al (605) 549-3318.

ACOMODACIONES/SERVICIOS ESPECIALES

Personas que requieren acomodación/servicio especial (intérprete de idioma de seña [sordomudo], asientos accesibles, documentación en formatos alternos etc.) son requeridos que avisen a la oficina de Relaciones Públicas del Distrito 5 al (805) 549-3318 por lo menos 14 días antes de la fecha de la reunión. Personas no-oyentes que usan aparatos de telecomunicaciones (TDD) pueden llamar al 1-800-735-2929 o comunicarse con el California Relay Service TDD a la línea de voz. al 1-800-735-2922.

El Tiempo 7/12/07

Agency	Title	First Name	Last Name	Address	City	State	Zip Code	Job Title	Telephone	Fax	Email
Access (SB Co Department of Alcohol, Drug, and Ment	Ms.	Lynn	Cochrane	300 North San Antonio Road Bldg 3	Santa Barbara	CA	93110	Supervisor	805-884-1680		bohlman@co.santa-barbara.ca.us
	The Honorable	Pedro	Nava	101 W. Anapamu St #A	Santa Barbara	CA	93101	Assemblyman, 35th District			
Assemblyman Pedro Nava's Office	Ms.	Jillena	Eifer	101 W. Anapamu St #A	Santa Barbara	CA	93101	District Director	805-564-1649		jillena.eifer@sam.ca.gov
California Highway Patrol	CDR	Jeff	Sgobba	6465 Calle Real	Goleta	CA	93117-1597	Area Commander	805-967-1234		jsgobba@chp.ca.gov
California Highway Patrol	Lt.	Donna	Maulucci	6465 Calle Real	Goleta	CA	93117-1597		805-967-1234		dmaulucci@chp.ca.gov
County of Santa Barbara	Ms.	Kelly	Kaufman	105 E. Anapamu St	Santa Barbara	CA	93101		805-568-2192		kkaufman@co.santa-barbara.ca.us
County of Santa Barbara	Mr.	Michael	Brown	105 E. Anapamu St #406	Santa Barbara	CA	93101	Santa Barbara County Executive Officer			
County of Santa Barbara	Mr.	Ron	Cortez	105 E. Anapamu St #406	Santa Barbara	CA	93101	Deputy County Executive Officer	805-568-2243		rcortez@countyofsb.org
County of Santa Barbara	Supervisor	Joni	Gray	105 E. Anapamu St	Santa Barbara	CA	93101	Supervisor, District 4	805-346-8498	805-737-7703	jgray@co.santa-barbara.ca.us
County of Santa Barbara	Supervisor	Joseph	Centeno	105 E. Anapamu St	Santa Barbara	CA	93101	Supervisor, District 5	805-346-8400	805-346-8404	jcenteno@co.santa-barbara.ca.us
County of Santa Barbara	Supervisor	Salud	Carbajal	105 E. Anapamu St	Santa Barbara	CA	93101	Supervisor, District 1	805-568-2186	805-568-2534	SupervisorCarbajal@co.santa-barbara.
County of Santa Barbara	Supervisor	Janet	Wolf	105 E. Anapamu St	Santa Barbara	CA	93101	Supervisor, District 2	805-568-2191	805-568-2283	jwolf@sbcbos2.org
County of Santa Barbara	Supervisor	Brooks	Firestone	105 E. Anapamu St	Santa Barbara	CA	93101	Supervisor, District 3	805-686-5095	805-686-8133	bfirestone@co.santa-barbara.ca.us
County of Santa Barbara	Supervisor	Brooks	Firestone	1745 Mission Dr	Solvang	CA	93463	Supervisor, District 3	805-686-5095	805-686-8133	bfirestone@co.santa-barbara.ca.us
County of Santa Barbara Fire Department				4410 Cathedral Oaks Rd	Santa Barbara	CA	93101				
County of Santa Barbara, Planning	Mr.	John	Karamitsos	123 E. Anapamu St	Santa Barbara	CA	93101	Supervising Planner	805-934-6255		johnk@co.santa-barba.ca.us
County of Santa Barbara, Planning□Central County Bo	Ms.	Yesenia	Valero	123 E. Anapamu St	Santa Barbara	CA	93101				
County of Santa Barbara, Planning□County Planning C	Mr.	David	Smyser	123 E. Anapamu St	Santa Barbara	CA	93101				
County of Santa Barbara, Planning□Historic Landmark	Mr.	David	Villalobos	123 E. Anapamu St	Santa Barbara	CA	93101	Secretary			
County of Santa Barbara, Sheriff Department	CDR	Dominick	Palera	4434 Calle Real	Santa Barbara	CA	93110	Commander	805-681-4131		DMP0509@sbsheriff.org
County of Santa Barbara-Department of Alcohol, Drug,	Mr.	Rob	Walton	300 North San Antonio Road Bldg 3	Santa Barbara	CA	93110	Division Chief, Crisis & Customer Care Services	805-884-5325		rwalton@co.santa-barbara.ca.us
County of Santa Barbara-Department of Alcohol, Drug,	Ms.	Marcia	Carstensen	300 North San Antonio Road Bldg 3	Santa Barbara	CA	93110		805-681-4742		mcarste@co.santa-barbara.ca.us
Dept of Fish and Game - South Coast Region 5	Mr.	Larry	Eng	4949 Viewridge Ave	San Diego	CA	92123	Regional Manager	805-467-4210	858-467-4299	
Family Service Agency/2-1-1 Helpline	Mr.	Marcelino	Sepulveda	123 W. Gutierrez	Santa Barbara	CA	93101	Call Center Supervisor	805-965-1001		marcelino@fsacares.org
Family Service Agency/2-1-1 Helpline	Ms.	Jenny	Benjamin	123 W. Gutierrez	Santa Barbara	CA	93101	Information Officer	805-965-1001x245		jennyb@fsacares.org
Office of Historic Preservation□California Department o	Mr.	Milford	Donaldson, FAIA	PO Box 942896	Sacramento	CA	94296-0001	State Historic Preservation Officer			
Santa Barbara Bicycle Coalition	Mr.	Ralph	Fertig	PO Box 92047	Santa Barbara	CA	93190	President	805-962-1479		
Santa Barbara County Public Works	Mr.	Scott	Mcgolpin	123 E. Anapamu St	Santa Barbara	CA	93101	Director of Public Works	805-568-3064		mcgolpin@cosbpw.net
SBCAG	Ms.	Brittany	Odermann	260 North San Antonio Road #B	Santa Barbara	CA	93110	Transportation Planner	805-961-8915		boderman@sbcag.org
SBCAG	Mr.	Fred	Luna	260 North San Antonio Road #B	Santa Barbara	CA	93110	Senior Planner	805-961-8920		fluna@sbcag.org
SBCAG	Mr.	Steve	VanDenburgh	260 North San Antonio Road #B	Santa Barbara	CA	93110	Deputy Director	805-961-8904		svandenburgh@sbcag.org
State Senator, District 19	The Honorable	Tom	McClintock	223 E. Thousand Oaks Blvd #400	Santa Barbara	CA	91360	State Senator District 19			
The Glendon Association	Ms.	Jonie	Kelly	5383 Hollister Ave #270	Santa Barbara	CA	93111	Marketing and Community Outreach	805-681-0415x31		jkelly@glendon.org
The Glendon Association	Dr.	Lisa	Firestone	5383 Hollister Ave #270	Santa Barbara	CA	93111	Research and Education Director	805-681-0415x28		lfirestone@glendon.org
The Glendon Association	Dr.	Jamie	Rotnofsky	5383 Hollister Ave #270	Santa Barbara	CA	93111	Executive Director			
Santa Ynez Tribal Elders Council	Mr.	Joe	Talaugon	PO Box 365	Santa Ynez	CA	93460	Chairperson			
Santa Ynez Band of Chumash Indians	Mr.	Vincent	Armenta	PO Box 517	Santa Ynez	CA	93460	Tribal Chairperson			
City of Santa Barbara Historic Landmarks Commission	Ms.	Susan	Gantz	630 Garden Street	Santa Barbara	CA	93101				
Santa Barbara Historical Society	Mr.	David	Bisol	136 E. De la Guerra Street	Santa Barbara	CA	93102	Executive Director			
Santa Barbara Trust for Historic Preservation	Mr.	Jarrell	Jackman	PO Box 388	Santa Barbara	CA	93102	Executive Director			
Goleta Valley Historical Society				304 Los Carneros Road	Goleta	CA	93117				
Santa Ynez Valley Historical Society	Mr.	Chris	Bashforth	PO Box 181	Santa Ynez	CA	93460	Executire Director			
University of California, Santa Barbara	Chairperson				Santa Barbara	CA	93106	Public History Information Unit			
History and Heritage Committee				1405 Warner Ave	Tustin	CA	92780				
Santa Barbara - Ventura Branch	Ms.	Lauren	Doyle	4820 McGrath Street #100	Ventura	CA	93003	President			
Los Padres National Forest	Ms.	Gloria	Brown	6755 Hollister Ave, #150	Goleta	CA	93117	Forest Supervisor			
Los Angeles Conservancy											
Modern Committee "Modcom"	Ms.	Lynn	Zook	52523 W. Sixth St, #826	Los Angeles	CA	90014	Secretary			
Society of Architectural Historians											
Southern California Chapter	Ms.	Merry	Ovnick	PO Box 56478	Sherman Oaks	CA	91413	President			
Automobile Club of Southern California	Mr.	Morgan	Yates	2601 South Figueroa St, # H-118	Los Angeles	CA	90007	Archivist			
		Marc	McGinnes, Ph.D					Lecturer Emeritus, UCSB			
The Pearl Chase Society	The Pearl Chase Society			PO Box 92121	Santa Barbara	CA	93190-2121				
Citizens Planning Association & Foundation	Citizens Planning Association & Foundation			916 Anacapa Street	Santa Barbara	CA	93101				
Addressees added by request from July 25th public meeting											
	Ms.	Sally	Steward	139 Loma Media	Santa Barbara	CA	93103				
	Mr.	Grant	House	955 Jimeno Road	Santa Barbara	CA	93103				
		M.	Berman	P.O. Box 91937	Santa Barbara	CA	93190				
	Mr.	David	Ortiz	449 Venado	Santa Barbara	CA	93111				
	Ms.	Michel	Nellis	1298 Orchid Dr.	Santa Barbara	CA	93111				
	Ms.	Christine	Milner	5556 Camino Galeana	Santa Barbara	CA	93111				
	Ms.	Stella	Larson	626 Litchfield Lane	Santa Barbara	CA	93109				
	Mr.	Brooks	Larson	626 Litchfield Lane	Santa Barbara	CA	93109				
The Mental Health Association in Santa Barbara Count	Mr.	George	Kaufmann	2905 Torito Road	Santa Barbara	CA	93108				
	Ms.	Colleen	Kelly	825 W. Victoria St	Santa Barbara	CA	93101				
Los Padres Forest Watch	Mr.	Jeff	Kuyper	P.O. Box 831	Santa Barbara	CA	93102	Executive Director			
		Jordan	Mo	jordanmo@verizon.net							
	Mr.	Gregory	Mohr	3069 Calle Mariposa	Santa Barbara	CA	93105				

ATTACHMENT 5

Aesthetics Design Advisory Committee (ADAC)
for the proposed improvements at
Cold Spring Canyon Bridge on Highway 154 in Santa Barbara County

Role Statement
February 2008

Purpose:
The Aesthetics Design Advisory Committee (ADAC) will assist Caltrans in the design of the aesthetic features of a proposed suicide deterrent barrier at Cold Spring Canyon Bridge, on Highway 154 near Lake Cachuma in Santa Barbara County.

Background and Status of Proposed Project:
Caltrans released the Notice of Preparation January 14, 2008 and intends to issue a Draft Environmental Impact Report (DEIR) for implementing a suicide deterrent project at the Cold Spring Bridge in May of 2008. Public hearings will be held in June of 2008.

Based on extensive research and input received at several public forums, the DEIR provides an evaluation of alternative solutions considering the project's need and purpose of effectively deterring suicide attempts from the bridge.

Caltrans has identified a physical barrier attached to the bridge as the preferred solution to the stated project purpose and need. The decision to select an alternative to proceed into design will consider all public comments received on the DEIR which are due in late July.

Preliminary studies have identified potential adverse effects associated with the project's preferred alternative. As a result, the DEIR includes a measure to minimize potential adverse effects through community involvement in the design. Establishment of the Aesthetic Design Advisory Committee (ADAC) is proposed in part to fulfill this objective.

ADAC Role:
The ADAC will be asked to help define the important visual character issues that relate to the project and to advise Caltrans in the design of the preferred alternative to ensure that project features meet the objectives for aesthetic design consistent with community values and state and federal historic guidelines.

The ADAC will focus solely on the preferred alternative, a physical barrier attached to the bridge. Within specified constraints for technical engineering parameters and costs, the ADAC will explore design opportunities regarding architectural treatments and details and other project components. The ADAC will perform in an advisory capacity to the Caltrans Project Development Team (PDT) and the Caltrans District 5 Director, who have overall decision-making responsibility for the project as the lead agency.

Participation in the ADAC does not constitute an endorsement of any particular project alternative.

Composition of ADAC:
Caltrans staff will facilitate the ADAC group process. The ADAC itself will comprise community and agency representatives who have an interest in the project's appearance and have a basic understanding of potential design issues. It is also intended that the group be of a manageable size for optimum function as a working group. It is recommended that the ADAC comprise one representative from each of the following:

Aesthetics Design Advisory Committee (ADAC)
for the proposed improvements at
Cold Spring Canyon Bridge on Highway 154 in Santa Barbara County

Role Statement
February 2008

- Central County Board Of Architectural Review
- Santa Barbara County Planning & Development Department
- Santa Barbara County Public Works Department
- Santa Barbara County Historic Landmarks Advisory Commission
- Local architects
- Representatives from the Santa Ynez Valley as well as the greater Santa Barbara community.

Meeting Process:
The ADAC's efforts will be conducted in a series of design charrettes, or workshops, where members will work together to share relevant information, discuss options and opportunities, and then provide advisory recommendations to the Caltrans Project Development Team. Engineers, landscape architects, architects, historians, environmental specialists and other technical experts will make presentations and be available as a resource to the ADAC.

The ADAC will operate by manner of general consensus. Recommendations made by consensus will be forwarded to the Project Development Team for further action.

Responsibilities and Expertise:
ADAC members will be responsible for attending all meetings (or sending an alternate, if appropriate) and representing their organization to the best of their ability. Members are responsible for keeping colleagues, staff and/or managers of their respective organizations informed of the ADAC's activities and recommendations.

While special expertise is not required, it is desirable for ADAC members to have a working knowledge of aesthetic design, architectural history, architecture or landscape architecture principles.

Estimated Schedule:

- Five meetings, approximately two to four hours each.
- Tentatively planned to extend over a six-month period.
- Meetings to occur between March and August, 2008.

Meetings will be held in Santa Barbara at a location to be determined.

Product of ADAC efforts:
The ADAC will develop recommendations regarding the appearance of the physical barrier. These recommendations will be presented to the Project Development Team for consideration in the project's final design.

Aesthetic Design Advisory Committee (ADAC)
Cold Spring Canyon Bridge on Highway 154 in Santa Barbara County

Meeting Protocols
March 2008

The community-based Aesthetic Design Advisory Committee (ADAC) will assist Caltrans in the design of a proposed suicide deterrent barrier on the Cold Spring Canyon Bridge. The product of the ADAC will be the development of one or more design recommendations to the Project Development Team (PDT). Caltrans will be responsible for the ultimate design decision.

Meeting duration and content:
The process is expected to occur over five meetings, between March and August 2008. Meetings will last approximately two to four hours each. Specific dates and times of subsequent meetings will be determined during each meeting. Meeting content will likely adhere to the following outline:

Meeting 1 Project background and site visit.
Meeting 2 Identify design criteria
Begin design discussion
Develop preliminary concepts
Meeting 3 Review concepts
Refine concepts
Meeting 4 Review concepts
Refine concept(s)
Meeting 5 Review Concept(s)
Select Concept(s) for recommendation

Decision making protocol
Design concepts and details will be developed in an informal facilitated charrette setting. Committee members will be encouraged to interact verbally and graphically while exploring creative solutions within the identified program. Design development will be an iterative process and will strive for consensus among ADAC members. Recommendation decisions will be decided by majority vote and approved by Caltrans. In the event of a tie vote, Caltrans makes the decision.

Caltrans' role in the ADAC
Provide technical expertise, research, materials and information.
Provide visualizations of ADAC concepts.
Present the associated functional, construction, maintenance and cost implications.
Meeting facilitation and logistics.

Citizen member's role in the ADAC
Attend all meetings.
Actively participate in the process.
Respect the specific purpose of the ADAC.

Non-Caltrans Agency member's role in the ADAC
Represent and communicate the agency's position.
Actively participate in the process.

ATTACHMENT 6

Cold Spring Canyon Bridge Suicide Barrier Project

Suggestions for avoiding or minimizing adverse effects
and for applying the Secretary of Interior's Standards for Rehabilitation (see attachment)

Prepared by Chris McMorris, JRP Historical Consulting, LLC
April 2, 2008

- Design and construction of the barrier should avoid or minimize causing an adverse effect to the bridge's character-defining features
  1. Character-defining features of the bridge are its components that are part of the original design, including the arch ribs with their cross bracing, the slender columns and towers, floorbeam girders, abutments, and railings.
  2. Adverse Effects that the construction of the barrier may have on the bridge include physical impacts (alteration / removal of materials or features) and impacts to the structure's design (obscuring or altering the "look" of the bridge).
  3. Project effects may diminish the structure's historic integrity of design, setting, materials, workmanship, and feeling.

- Project should minimize or avoid affecting individual elements of the bridge as well as the assemblage of its overall design.
  1. Important aspects of the design are the arch, its all-weld components, and the bridge's clean, open, uncluttered appearance.
  2. These aspects provide structural continuity with all of the elements acting together in a singular form that creates a beautiful bridge that exhibits the Modern-era aesthetic and transcends its practical utilitarian function.
  3. The Modern-era aesthetic is conveyed in the bridge's unadorned and efficient design along with its material and functional honesty.

- It would be best if the barrier could be built:
  1. in materials compatible to the original design (this would likely be metal);
  2. in a manner that minimizes or avoids physical impact to materials original to the bridge, including the steel sub-structure, concrete railing, and metal pipe railing;
  3. without the removal of any original features of the bridge;
  4. without ornament and in a design that is consistent with the bridge's Modern-era aesthetic;
  5. with a design that is differentiated from the historic bridge, but compatible with the bridge's features, size, scale, proportion, and massing;
  6. with a design that would not to cause a false sense of the bridge's historic development and be mistaken to be part of the bridge's original design (i.e. no "retro" design needed);
  7. with physical attachment to the bridge that are as minimal as possible, so as not to impact historic material;
  8. in a manner that, if the barrier were removed in the future, the essential form and integrity of the structure and its environment would be unimpaired.

- The design of the barrier would likely have less effect to the bridge's original design if:
  1. it is not a color that draws aesthetic attention to the barrier and away from the original bridge;
  2. barrier could be designed to disappear from view or be see-through, as much as possible, when viewed from Stagecoach Road.

ATTACHMENT 7

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

January 17, 2008

Eileen Wyckoff, Chair
Historic Landmarks Advisory Commission
c/o Planning and Development Department
123 East Anapamu Street
Santa Barbara, CA 93101

EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project
SB-101-PM 22.9/23.1

Dear Ms. Wyckoff:

Caltrans has asked to be added to the agenda for your February 11, 2008 hearing in order to present an update on the Cold Spring Bridge Suicide Barrier Project and to invite the Commission's participation in an Aesthetics Design Advisory Committee currently being organized to address the design of the barrier. I'd like to take this opportunity to provide the Commission with some information in advance of your February 11 meeting.

As you know, the bridge has been determined eligible for listing on the National Register of Historic Places (the State Historic Preservation Officer concurred with this determination on August 13, 2007). It appears likely that any design solution that will eventually be adopted as the preferred alternative may result in adverse effects of some kind. These adverse effects will need to be resolved to the satisfaction of the State Historic Preservation Officer through a Memorandum of Agreement.

Caltrans' task, therefore, is to design a physical barrier that minimizes adverse effects. We are looking to the Commission to provide input on how the conceptual barrier designs (currently being developed by the Caltrans Division of Structure Design and the Caltrans Bridge Architecture and Aesthetics Branch) can be improved and finalized as viable design alternatives. To accomplish this, we invite the Commission's participation in the following:

1. We ask all of the Commissioners to give careful consideration to the constraints and opportunities that are associated with designing a physical barrier at this location (please see the accompanying sheet). To be an effective suicide deterrent, the barrier needs to conform to some specific criteria. Within the scope of these criteria, however, there are opportunities to select design components that are appropriate to and compatible with the character-defining features of the bridge and that minimize visual impacts.

2. Delegate a Commissioner or designee to represent the Commission at the proposed Caltrans Aesthetics Design Advisory Committee meetings. Committee members will be working directly with team members from the Caltrans Division of Structure Design and the Bridge Architecture and Aesthetics Branch to produce the barrier design alternatives that will be included in the project's environmental document. Caltrans Landscape Architect Bob Carr will explain these meetings in more detail at the February 11 hearing.

Eileen Wyckoff, Chair
Historic Landmarks Advisory Commission
January 15, 2008

Caltrans is also looking to the Commission to provide suggestions for appropriate mitigation measures, such as publications or exhibits, to help minimize adverse effects of the proposed project. Mitigation measures will be included as an integral part of the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer. We would be happy to hear the Commission's recommendations on February 11, or they can be sent to us at a later date, if that is more convenient.

The Commission may also wish to plan on providing additional input by commenting on the Draft Environmental Document (slated for circulation in May 2008), and by sending representatives to the official Public Hearing (slated for Summer 2008).

We look forward to working with you on a project of such importance to the citizens of Santa Barbara County.

Sincerely,

SARA VON SCHWIND
Project Manager
Cold Spring Canyon Bridge Suicide Barrier Project

Enclosures: Constraints and Opportunities

Cold Spring Canyon Bridge Suicide Barrier Project
Constraints and Opportunities

Constraints

- The Cold Spring Canyon Bridge is eligible for listing in the National Register of Historic Places. The barrier design should address the Secretary of the Interior's Standards for the Treatment of Historic Properties.

- The most effective barrier, and one that meets project Purpose and Need, is a physical barrier

- The barrier should be a minimum of 6 feet in height

- The top of the barrier should curve inward

- Vertical members of the barrier should be a maximum of 6 to 8 inches apart

- The barrier should cover the entire bridge span without providing accessible areas

- The barrier must stay within wind load tolerances

- The barrier must not exceed maximum weight loads

- The barrier design must provide a secure connection to the existing structure

- The barrier design must not interfere with the specialized bridge inspection vehicle (the Caltrans "snooper")

- The barrier design must maintain safety for:
  - Law enforcement personnel
  - Rescue/recovery personnel
  - Maintenance workers
  - Construction workers
  - Drivers and passengers
  - Bicyclists

-

-

-

-

Opportunities

Possible aspects of barrier design include:

- Height
- Profile
- Taper
- Dimension
- Cross-section
- Material
- Color
- Reflectivity
- Finish
- End treatment
-
-
-

Mitigation Measures

-
-
-
-
-
-
-

ATTACHMENT 8

Santa Barbara County
Historic Landmarks Advisory Commission

June 18, 2008

Cathy Stettler, Senior Environmental Planner
Central Coast Environmental Analysis
California Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

The Santa Barbara County Historic Landmarks Advisory Commission (HLAC) has studied and discussed the concepts and proposals for potential mitigation measures as described and defined within the Caltrans May 2, 2008 Draft Environmental Impact Report (DEIR) on the Cold Spring Canyon Bridge Suicide Barrier project. The DEIR proposes utilizing either of two "Build Alternatives" to minimize the environmental impact of a physical barrier on the Cold Spring Canyon Bridge located on State Route 154.

In an action taken at the HLAC hearing on June 9, 2008, it was the unanimous decision of the Commission that there is no acceptable mitigation that would offset the harm resulting from construction of a suicide barrier on the Bridge. Furthermore, mitigation measures as described in the DEIR will significantly and cumulatively compromise the Bridge's historic character and appearance. The existing scenic views from the Bridge deck will be blocked as much as 70 percent, thereby reducing this signature Santa Barbara County visual resource to an extent that none of the physical barrier alternatives are acceptable.

The proposed "Build Alternatives" described in the DEIR would be incompatible with the natural character of the surrounding landscape and would distract from the existing architectural style of the Bridge. The grid/mesh and vertical picket alternatives would result in a combination of view blockage and visual intrusion due to the design and architecture of the barrier. The addition of a physical barrier mounted on the Bridge would be an alteration to the historic property such that the project would not be consistent with the Secretary of Interior's Standards for the Treatment of Historic Properties and/or Rehabilitation. The integrity of an historic property is comprised of: "location, design, setting, materials, workmanship, feeling, and association". The proposed suicide barrier would cause a "direct adverse effect" on the Bridge by diminishing design, setting, feeling and association.

In a letter from the State Historic Preservation Officer dated August 13, 2007, Milford Wayne Donaldson states that the Cold Spring Canyon Bridge is eligible for the National Register of Historic Places under Criterion C at the state level of significance as an

important example of bridge design and welded steel technology, and that it represents a high aesthetic quality of contemporary design from its period. It is the largest steel arch bridge in California; it is significant as an important work of the Division of Highways Bridge Department, which is considered a master engineer of the period; and it is an important work of the American Bridge Division of US Steel, which is considered a master builder of the period. Donaldson's letter also states that the bridge has exceptional importance that meets the standards under Criterion G for properties that have achieved significance within the past fifty years, and he also states that the historic property boundaries are the horizontal and vertical footprints of the bridge structure. The construction of the "Build Alternatives" would introduce a new structure that will significantly affect the bridge's eligibility as an important cultural resource in addition to compromising its integrity, historic character, appearance and scenic views.

To quote from the DEIR, "the California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state with ... "enjoyment of *aesthetic*, natural, scenic and historic environmental qualities." Under CEQA, the Cold Spring Canyon Bridge is considered a "Scenic Resource ... due to its sculptural quality in the landscape, and the memorable visual image it creates by its graceful and delicate arched form contrasting with the rugged natural setting".

The Santa Barbara County Historic Landmarks Advisory Commission strongly requests that Caltrans eliminate the suicide barrier "Build Alternatives" from the Cold Spring Canyon Bridge project and subsequently consider *all* of the no-build alternatives that have been submitted to Caltrans to deter suicide attempts at this location.

Sincerely,

Eileen Wyckoff, Chair
Santa Barbara County Landmarks Advisory Commission

Cc: Santa Barbara County Board of Supervisors
Santa Barbara County Sheriff's Department
Assemblymember Pedro Nava
Mary Pat Berry, Deputy County Counsel
Anne Almy, Supervising Planner

ATTACHMENT 9

Cold Spring Canyon Bridge Suicide Barrier NOP email list

Lotus Notes group name: Cold Spring NOP email list – #20

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Friends of the Bridge	Mr	Marc	McGinness	133 E De La Guerra #191	Santa Barbara	CA	93101	

jonirod2@aol.com

Addressees added by request from July 25th public meeting

	Ms.	Sally	Steward	139 Loma Media	Santa Barbara	CA	93103			
	Mr.	Grant	House	955 Jimeno Road	Santa Barbara	CA	93103			
		M.	Berman	P.O. Box 91937	Santa Barbara	CA	93190			
	Mr.	David	Ortiz	449 Venado	Santa Barbara	CA	93111			
	Ms.	Michel	Nellis	1298 Orchid Dr.	Santa Barbara	CA	93111			
	Ms.	Christine	Milner	5556 Camino Galeana	Santa Barbara	CA	93111			
	Ms.	Stella	Larson	626 Litchfield Lane	Santa Barbara	CA	93109			
	Mr.	Brooks	Larson	626 Litchfield Lane	Santa Barbara	CA	93109			
The Mental Health Association in Santa Barbara County	Mr.	George	Kaufmann	2905 Torito Road	Santa Barbara	CA	93108			
	Ms.	Colleen	Kelly	825 W. Victoria St	Santa Barbara	CA	93101			
Los Padres Forest Watch	Mr.	Jeff	Kuyper	P.O. Box 831	Santa Barbara	CA	93102	Executive Director		
		Jordan	Mo	2661 Quail Valley Road	Solvang	CA	93463			jordanmo@verizon.net
	Mr.	Gregory	Mohr	3069 Calle Mariposa	Santa Barbara	CA	93105			
Interested Parties - correspondence										
Santa Barbara County Action Network (SB CAN)	Ms.	Deborah	Brasket	P.O. Box 23453	Santa Barbara	CA	93121	805-722-5094		deborah@sbcan.org
Co.Lnd Use Com.Citizens Plan. Assoc.of Santa Barbara Co.	Chair	Sheila	Lodge	916 Anacapa Street	Santa Barbara	CA	93101			
	Ms.	Susana Raine	Dougan	susraine@hotmail.com						
	Ms.	Diane	Stevenett	dlstevenett@hotmail.com	Santa Barbara	CA		(805) 680-7525		
Santa Barbara Trust for Historic Preservation	Mr.	Jarrell	Jackman	PO Box 388	Santa Barbara	CA	93102			
	Mr.	Arthur	Kennedy	artkennedy1@cox.net						
Los Padres ForestWatch		Jeff	Kuyper	Post Office Box 831	Santa Barbara	CA	93101	805.617.4610		jeff@LPFW.org
Los Padres Chapt.Exec.Committee Sierra Club	Mr.	Michael	Stubblefield	1230 East Collins Street	Oxnard	CA	93036-1805			motodata@roadrunner.com
	Mr.	Joe	Doyle	jdoyle@mrl.ucsb.edu	Santa Barbara	CA				
		Seven	Dolphins	sevendolphins@gmail.com						
Automobile Club of Southern California		Greg	Mohr	3069 Calle Mariposa	Santa Barbara	CA	93105-2740			gregmohr@excite.com
Automobile Club of Southern California	Principal Transportation Policy Specialist	Scott	Craig	3333 Fariview Rd A131	Costa Mesa	CA	92626	714-885-2303		Scott.Craig@aaa-calif.com
Women's Environmental Watch	Ms.	Carol	Herrera	P.O. Box 830	Solvang	CA	93464			wewatch@syv.com
	Mr.	Gary	Spielmann	9 Cortland Drive	Kinderhook	NY	12106			spielmann92@berk.com
		Edward	Bear	edwardbear@cox.net						
		Laurie	McGinnes	lauriemcginnes@mac.com						
		Mary R.	DeSmidt	mrdesmidt@yahoo.com>						
		Lori	Fuller	lorifuller@cox.net						
		Peter	Neuhaus	pn2865@gmail.com						
		Gene	Wilson	1224 North Ontare Road	Santa Barbara	CA	93105	(805) 683-4648		
		Lee	Chiacos	sbtrout@mindspring.com						
		Brooks	Gill	giller@impulse.net						
		Edwin	Laing	edlaing@silcom.com						
		Don	Lubach	dlubach@mac.com						
National Suicide Prevention Lifeline	Project Director	John	Draper	JohnD@mhaofnyc.org						
		Ray and Domi	Smith	1330 Tunnel Road	Santa Barbara	CA	93105			ray@icess.ucsb.edu, doraymill@cox.net
San Marcos Trout Club		Elias	Chiacos	San Marcos Trout Club	Santa Barbara	CA	93105			
		Michael	Feeney	3110 Calle Mariposa	Santa Barbara	CA				
		Peter	Eastman	peastman@impulse.net						
		Lynne	Cantlay	LCantlay@aol.com						
		Jordan	Mo	2661 Quail Valley Road	Solvang	CA	93463			
		Selma	Rubin	4207 Encore Drive	Santa Barbara	CA	93110			
		Dan	Gira	1122 Del Sol	Santa Barbara	CA	93109			
Santa Barbara Co. Search and Rescue	Mr	Nelson	Trichler	PO Box 6602	Santa Barbara	CA	93160-6602			
	Dr	Richard	Seiden							

ATTACHMENT 10

Chapter 6 Distribution List

First Name	Last Name	Title	Organization	Address
Federal Agencies				
Mark	Cohen	Senior Transportation PM	U.S. Army Corps of Engineers, Los Angeles District	911 Wilshire Blvd Los Angeles, CA 90053-2325
Diane	Noda	Field Supervisor	U.S. Fish and Wildlife Service	2493 Portola Rd Ventura, CA 93003
Gloria	Brown	Forest Supervisor	U.S. Forest Service, Los Padres National Forest	6755 Hollister Ave, #150 Goleta, CA 93117
Jim	Turner	General Planning	U.S. Forest Service, Los Padres National Forest	6755 Hollister Ave, Suite #150 Goleta, CA 93117
State Agencies				
Martin	Potter	Wildlife Biologist	California Department of Fish & Game, South Coast Region	PO Box 1797 Ojai, CA 93924
Larry	Eng	Regional Manager	California Department of Fish & Game, South Coast Region 5	4949 Viewridge Ave San Diego, CA 92123
Dane	Lobb	Lieutenant	California Highway Patrol	6465 Calle Real Goleta, CA 93117-1597
Jeff	Sgobba	Santa Barbara, Area Commander	California Highway Patrol	6465 Calle Real Goleta, CA 93117-1597
Rich	Rojas	District Superintendent	California State Parks, Channel Coast District	911 San Pedro St Ventura, CA 93001
Milford	Donaldson	State Historic Preservation Officer	Office of Historic Preservation California Department of Parks & Recreation	PO Box 942896 Sacramento, CA 94296
Scott	Morgan	Project Analyst	State Clearinghouse Governor's Office of Planning and Research	1400 10th St, PO Box 3044 Sacramento, CA 95812-3044
Local/Regional/International Agencies				
Lynn	Cochrane	Supervisor	Access-Santa Barbara County Department of Alcohol, Drug, and Mental Health	300 North San Antonio Road Bldg 3 Santa Barbara, CA 93110
Dominic	Roques	Engineering Geologist	Central Coast Regional Water Quality Control Board	895 Aerovista Place, Suite 101 San Luis Obispo, CA 93401

DEIR May 2008

First Name	Last Name	Title	Organization	Address
Ron	Cline	Regulatory Specialist	Central Coast Water Authority	255 Industrial Way Buellton, CA 93427-9565
Susan	Gantz		City of Santa Barbara Historic Landmarks Commission	630 Garden Street Santa Barbara, CA 93101
Michael	Allen	Chief Deputy Clerk	County of Santa Barbara	105 E. Anapamu St #406 Santa Barbara, CA 93101
Michael	Brown	Executive Officer	County of Santa Barbara	105 E. Anapamu St #406 Santa Barbara, CA 93101
Ron	Cortez	Deputy Executive Officer	County of Santa Barbara	105 E. Anapamu St #406 Santa Barbara, CA 93101
Kelly	Kaufman	Assistant to Third District Supervisor	County of Santa Barbara	105 E. Anapamu St Santa Barbara, CA 93101
John	Scherrei	Fire Chief	County of Santa Barbara Fire Department	4410 Cathedral Oaks Rd Santa Barbara, CA 93101
Rob	Walton	Division Chief, Crisis & Customer Care Services	County of Santa Barbara, Department of Alcohol, Drug, and Mental Health Services	300 North San Antonio Road Bldg 3 Santa Barbara, CA 93110
Sue	Adams		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Marcia	Carstensen		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Barbara	Lowenthal		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
James	Lowsley		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Keith	Mautino		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Randy	Melcombe		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Jason	Moore	Secretary	County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Audrey	Mussell		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Deborah	Schwartz		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Geraldine	Shepherd		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101

First Name	Last Name	Title	Organization	Address
Barry	Stotts		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
John	Woodward		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
Eileen	Wyckoff		County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
David	Villalobos	Board Assistant Supervisor	County of Santa Barbara, Historic Landmarks Advisory Commission	123 E. Anapamu St Santa Barbara, CA 93101
John	Baker	Director	County of Santa Barbara, Planning and Development	123 E. Anapamu St Santa Barbara, CA 93101
Anne	Almy		County of Santa Barbara, Planning	123 E. Anapamu St Santa Barbara, CA 93101
Mary Pat	Barry	Deputy County Counsel	County of Santa Barbara, Planning	123 E. Anapamu St Santa Barbara, CA 93101
Rosie	Dyste	Senior Planner	County of Santa Barbara, Planning	123 E. Anapamu St Santa Barbara, CA 93101
Derek	Johnson	Deputy Director, Long Range Planning	County of Santa Barbara, Planning	123 E. Anapamu St Santa Barbara, CA 93101
John	Karamitsos	Supervising Planner	County of Santa Barbara, Planning	123 E. Anapamu St Santa Barbara, CA 93101
Michelle	Gibbs	HLAC Planner	County of Santa Barbara, Planning	123 E. Anapamu St Santa Barbara, CA 93101
Yesenia	Valero		County of Santa Barbara, Planning Central County Board of Architectural Review	123 E. Anapamu St Santa Barbara, CA 93101
David	Smyser	Commissioner	County of Santa Barbara, Planning Commission, 3rd District	123 E. Anapamu St Santa Barbara, CA 93101
Dominick	Palera	Commander	County of Santa Barbara Sheriff's Department	4434 Calle Real Santa Barbara, CA 93110
Fred	Luna	Senior Planner	Santa Barbara County Association of Governments	260 North San Antonio Road #B Santa Barbara, CA 93110
Brittany	Odermann	Transportation Planner	Santa Barbara County Association of Governments	260 North San Antonio Road #B Santa Barbara, CA 93110
Steve	VanDenburgh	Deputy Director	Santa Barbara County Association of Governments	260 North San Antonio Road #B Santa Barbara, CA 93110
Irene	Macias	Library Director	Santa Barbara County Public Library, Santa Barbara Central Library	40 East Anapamu Street Santa Barbara, CA 93101

First Name	Last Name	Title	Organization	Address
Carey	McKinnon	Senior Library Technician Branch Supervisor	Santa Barbara County Public Library, Solvang Branch Library	1745 Mission Drive Solvang, CA 93463
Ellen	Cunningham	Supervising Librarian Branch Supervisor (acting)	Santa Barbara County Public Library, Goleta Branch Library	500 North Fairview Avenue Goleta, CA 93117
Jody	Thomas	Senior Library Technician Branch Supervisor	Santa Barbara County Public Library, Montecito Branch Library	1469 East Valley Road Montecito, CA 93150
Dace'	Morgan	Transportation Deputy Director	Santa Barbara County Public Works	123 E. Anapamu St Santa Barbara, CA 93101
Scott	McGolpin	Director	Santa Barbara County Public Works	123 E. Anapamu St Santa Barbara, CA 93101
Nelson	Trichler		Santa Barbara County Search and Rescue	PO Box 6602 Santa Barbara, CA 93160-6602
Mary	Currie	Public Affairs Director	Golden Gate Bridge Highway and Transportation District	PO Box 9000 Presidio Station San Francisco, CA 94129
Jeffrey	Lee		Golden Gate Bridge Highway and Transportation District	PO Box 9000 Presidio Station San Francisco, CA 94129
Elected Representatives				
Barbara	Boxer	Senator	United States Senate	312 N Spring Street Suite 1748 Los Angeles, CA 90012
Diane	Feinstein	Senator	United States Senate	11111 Santa Monica Blvd Suite 915 Los Angeles, CA 90025
Tom	McClintock	Senator	California State Senator, District 19	223 E. Thousand Oaks Blvd #400 Thousand Oaks, CA 91362
Pedro	Nava	Assemblyman	California Assemblyman, District 35	101 W. Anapamu St #A Santa Barbara, CA 93101
Jillena	Eifer	District Director	Assemblyman Pedro Nava's Office	101 W. Anapamu St #A Santa Barbara, CA 93101
Caroline	Vance	Santa Barbara District Director	Assemblyman Pedro Nava's Office	101 W. Anapamu St #A Santa Barbara, CA 93101
Salud	Carbajal	Supervisor, District 1	County of Santa Barbara	105 E. Anapamu St Santa Barbara, CA 93101
Joseph	Centeno	Supervisor, District 5	County of Santa Barbara	105 E. Anapamu St Santa Barbara, CA 93101

First Name	Last Name	Title	Organization	Address
Brooks	Firestone	Supervisor, District 3	County of Santa Barbara	105 E. Anapamu St Santa Barbara, CA 93101 1745 Mission Dr Solvang, CA 93463
Joni	Gray	Supervisor, District 4	County of Santa Barbara	105 E. Anapamu St Santa Barbara, CA 93101
Janet	Wolf	Supervisor, District 2	County of Santa Barbara	105 E. Anapamu St Santa Barbara, CA 93101
Native Americans				
Katy	Sanchez	Program Analyst	Native American Heritage Commission	
Vincent	Armenta	Chairperson	Santa Ynez Band of Chumash Indians	PO Box 517 Santa Ynez, CA 93460
Joe	Talaugon	Tribal Chairperson	Santa Ynez Tribal Elders Council	PO Box 365 Santa Ynez, CA 93460
Organizations				
Paula	Clayton, MD	Medical Director	American Foundation for Suicide Prevention	120 Wall Street 22nd Floor New York, NY 10005
Wylie	Tene	Public Relations Manager	American Foundation for Suicide Prevention	120 Wall Street 22nd Floor New York, NY 10005
			American Society of Civil Engineers History and Heritage Committee	1405 Warner Ave Tustin, CA 92780
Lauren	Doyle	President	American Society of Civil Engineers Santa Barbara - Ventura Branch	4820 McGrath Street #100 Ventura, CA 93003
Gary	Muller		Bridge Rail Foundation	pmuller@mullerandsmith.com
Sheila	Lodge		Citizens Planning Association & Foundation	916 Anacapa Street Santa Barbara, CA 93101
Dave	Anderson	Bridgemaster	Clifton Suspension Bridge Trust	bridgemaster@clifton-suspension-bridge.org.uk Bristol, England
Bill	Batty	Call Center	Family Service Agency/2-1-1 Helpline	123 W. Gutierrez Santa Barbara, CA 93101
Rachel	Gonzales	Call Center Supervisor	Family Service Agency/2-1-1 Helpline	123 W. Gutierrez Santa Barbara, CA 93101
Tarek	Kanaan	Call Center	Family Service Agency/2-1-1 Helpline	123 W. Gutierrez Santa Barbara, CA 93101

First Name	Last Name	Title	Organization	Address
Nancy	Ranck	Call Center	Family Service Agency/2-1-1 Helpline	123 W. Gutierrez Santa Barbara, CA 93101
Marc	McGinnes, JD	Lecturer Emeritus, UCSB	Friends of the Bridge	133 East De La Guerra #191 Santa Barbara, CA 93101
Lisa	Firestone, PhD	Research and Education Director	The Glendon Association	5383 Hollister Ave #270 Santa Barbara, CA 93111
Jamie	Rotnofsky, PhD	Executive Director	The Glendon Association	5383 Hollister Ave #270 Santa Barbara, CA 93111
			Goleta Valley Historical Society	304 Los Carneros Road Goleta, CA 93117
Lynn	Zook	Secretary	Los Angeles Conservancy Modern Committee "Modcom"	52523 W. Sixth St, #826 Los Angeles, CA 90014
Jeff	Kuyper	Executive Director	Los Padres Forest Watch	P.O. Box 831 Santa Barbara, CA 93102
George	Kaufmann		The Mental Health Association in Santa Barbara County	2905 Torito Road Santa Barbara, CA 93108
John	Draper		National Suicide Prevention Lifeline	JohnD@mhaofnyc.org
Maureen	Masson	Historian	The Pearl Chase Society	PO Box 92121 Santa Barbara, CA 93190-2121
Ugo	Arnoldi	Director	San Marcos Trout Club San Marcos Pass	5655 West Camino Cielo Avenue Santa Barbara, CA 93105
Peter	Burgess	Director	San Marcos Trout Club Mountain Drive	5655 West Camino Cielo Avenue Santa Barbara, CA 93105
Elias	Chiacos		San Marcos Trout Club	San Marcos Trout Club San Marcos, CA 93105
Susan	Del Real	Director	San Marcos Trout Club Paradise Canyon	5655 West Camino Cielo Avenue Santa Barbara, CA 93105
Peter	Hasler	Director	San Marcos Trout Club Painted Cave	5655 West Camino Cielo Avenue Santa Barbara, CA 93105
Beverly	Holliday	Director	San Marcos Trout Club Rosario Park	5655 West Camino Cielo Avenue Santa Barbara, CA 93105
Rocky	Siegel	Director	San Marcos Trout Club	25 San Marcos Trout Club San Marcos, CA 93105
Ralph	Fertig	President	Santa Barbara Bicycle Coalition	PO Box 92047 Santa Barbara, CA 93190

First Name	Last Name	Title	Organization	Address
Deborah	Brasket		Santa Barbara County Action Network (SB CAN)	P.O. Box 23453 Santa Barbara, CA 93121
David	Bisol	Executive Director	Santa Barbara Historical Society	136 E. De la Guerra Street Santa Barbara, CA 93102
Steve	Cushman	Executive Director	Santa Barbara Region Chamber of Commerce	924 Anacapa Street Suite 1 Santa Barbara, CA 93101
Jarrell	Jackman, PhD	Executive Director	Santa Barbara Trust for Historic Preservation	PO Box 388 Santa Barbara, CA 93102
Mark	Oliver		Santa Ynez Valley Alliance	1984 Old Mission Dr Suite A-15 Solvang, CA 93463
Chris	Bashforth	Executive Director	Santa Ynez Valley Historical Society	PO Box 181 Santa Ynez, CA 93460
Michael	Stubblefield		Sierra Club, Los Padres Chapter, Executive Committee	1230 East Collins Street Oxnard, CA 93036-1805
Merry	Ovnick	President	Society of Architectural Historians Southern California Chapter	PO Box 56478 Sherman Oaks, CA 91413
		Public History Information Unit	University of California, Santa Barbara	Santa Barbara, CA 93106
Carla	Frisk		The Valley Alliance	carla.frisk@verizon.net
Michael	Williams	President	Wildland Residents Association, Inc.	5655 West Camino Cielo Avenue Santa Barbara, CA 93105
Carol	Herrera		Women's Environmental Watch	P.O. Box 830 Solvang, CA 93464
Businesses				
Laurie	Romano		Arcadia Studio	202 East Cota Street Santa Barbara, CA 93101
Scott	Craig		Automobile Club of Southern California	3333 Fairview Rd A131 Costa Mesa, CA 92626
Morgan	Yates	Archivist	Automobile Club of Southern California	2601 South Figueroa St, # H-118 Los Angeles, CA 90007
Keith	Rivera		B3 Architects	2020 Alameda Padre Serra Ste 133 Santa Barbara, CA 93103
Bethany	Clough		BCLA Incorporated	13 Shadow Mountain Drive Buellton, CA 93427
Rudolf	Lehman	Technical Director	Jakob AG	Rudolf.lehmann@jakob.ch Trubschachen, Switzerland

First Name	Last Name	Title	Organization	Address
Evans	Jones		Jones & Jones, LLP	PO Box 241 Santa Ynez, CA 93460
Joni	Kelly		Joni Kelly Communications	3718 B Amalfi Way Santa Barbara, CA 93105
Chris	McMorris	Partner/Architectural Historian	JRP Historical Consulting	1490 Drew Avenue Suite 110 Davis, CA 95618
Evans	Jones		Mesa Consulting, LLC	315A Meigs Road, Suite 355 Santa Barbara, CA 93109

Individuals		
First Name	**Last Name**	**Addresses**
Edward	Bear	Email address only provided
M.	Berman	Santa Barbara, CA
Lynne	Cantlay	Email address only provided
Lee	Chiacos	Email address only provided
Kellam	De Forest	Santa Barbara, CA
Mary R.	DeSmidt	Email address only provided
Seven	Dolphins	Email address only provided
Susana Raine	Dougan	Email address only provided
Joe	Doyle	Santa Barbara, CA
Peter	Eastman	Email address only provided
Michael	Feeney	Santa Barbara, CA
Lori	Fuller	Email address only provided
Brooks	Gill	Email address only provided
Dan	Gira	Santa Barbara, CA
Garrett	Glasgow, PhD	University of California Santa Barbara Santa Barbara, CA 93106
Jane	Gray	Email address only provided
Andrew	Hankin	Email address only provided
Jennifer	Herges	Goleta, CA
Grant	House	Santa Barbara, CA
Colleen	Kelly	Santa Barbara, CA

Arthur	Kennedy	Email address only provided
First Name	**Last Name**	**Addresses**
Frederick P	Kovol	Solvang, CA
Edwin	Laing	Email address only provided
Brooks	Larson	Santa Barbara, CA
Stella	Larson	Santa Barbara, CA
Don	Lubach	Email address only provided
Laurie	McGinnes	Email address only provided
Jean	Mecham	Email address only provided
Christine	Milner	Santa Barbara, CA
Jordan	Mo	Solvang, CA
Gregory	Mohr	Santa Barbara, CA
Michel	Nellis	Santa Barbara, CA
Peter	Neuhaus	Email address only provided
David	Ortiz	Santa Barbara, CA
Janice	Quinlan	Santa Barbara, CA
Ward	Rafferty, Jr	Email address only provided
Selma	Rubin	Santa Barbara, CA
Elizabeth	Rumeet	Santa Barbara, CA
Linda	Ryles	Email address only provided
Richard	Seiden, PhD, MPH	Oakland, CA
Ray and Domi	Smith	Santa Barbara, CA
Gary	Spielmann	Kinderhook, NY
Diane	Stevenett	Email address only provided
Sally	Stewart	Santa Barbara, CA
Maureen	Sullivan	Santa Barbara, CA
Karen	Summer	Santa Barbara, CA
Gene	Wilson	Santa Barbara, CA

ATTACHMENT 11

Public Notice

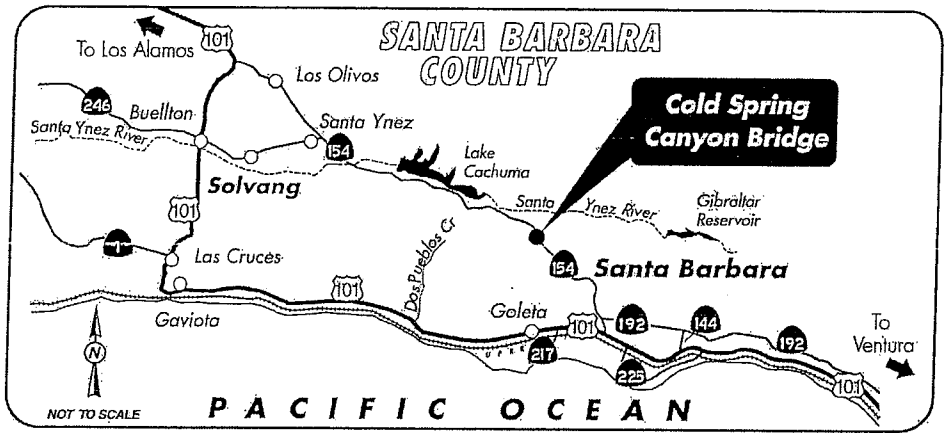
U.S. Department of Transportation Federal Highway Administration

NOTICE OF AVAILABILITY of the

DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT

and NOTICE OF **OPEN FORUM PUBLIC HEARINGS**

Cold Spring Canyon Bridge Suicide Barrier Project on State Route 154



WHEN AND WHERE? (2 meetings)

1 Santa Barbara

Date: **Monday, June 9, 2008**
Time: **5:30 p.m. to 8:30 p.m.**
Place: **City of Santa Barbara Public Library**
Faulkner Gallery
40 East Anapamu Street
Santa Barbara, California

2 Solvang

Date: **Tuesday, June 10, 2008**
Time: **5:30 p.m. to 8:30 p.m.**
Place: **Solvang Veterans Memorial Building**
Legion Wing
1745 Mission Drive
Solvang, California

WHAT IS BEING PLANNED?

The California Department of Transportation (Caltrans) proposes to install a barrier to act as a physical barricade to deter suicides on the Cold Spring Canyon Bridge on State Route 154, near San Marcos Pass in Santa Barbara County, between postmiles 22.9 and 23.1. Significant impacts to the bridge's visual and historic qualities are anticipated as a result of the project.

WHY THIS PUBLIC NOTICE?

Caltrans has completed an analysis of the effects this project may have on the environment and has prepared a Draft Environmental Impact Report/Environmental Assessment detailing these studies. This ad provides notification of the availability of the draft environmental document and the dates and locations of the Open Forum Public Hearings. The public hearings will be held to answer questions and to formally record comments related to the project, its alternatives, the impacts, and proposed mitigation. The hearings will be an Open Forum format so you may schedule your visit anytime between 5:30 p.m. and 8:30 p.m.

WHAT IS AVAILABLE?

Starting May 9, 2008, the Draft Environmental Impact Report/Environmental Assessment and Section 4(f) Evaluation for the Cold Spring Canyon Bridge Suicide Barrier project will be available at the Caltrans district office at 50 Higuera Street, San Luis Obispo, CA 93401. The document will also be available for review at:

- *City of Santa Barbara Central Library, 40 East Anapamu Street, Santa Barbara, CA 93101*
- *Solvang Branch Library, 1745 Mission Drive, Solvang, CA 93463*
- *Goleta Branch Library, 500 North Fairview Avenue, Goleta, CA 93117*
- *Montecito Branch Library, 1469 East Valley Road, Montecito, CA 93108*
- *Online at http://www.dot.ca.gov/dist05/projects/*

Project information will be available for viewing at the Open Forum Public Hearings. Caltrans design engineers, environmental planners, and other project staff will be available to discuss the project and address concerns. You will be given the opportunity to make verbal comments to a court reporter and in writing. A Spanish interpreter will be available during the meetings.

WHERE DO YOU COME IN?

Have the potential impacts been addressed? Do you have information that should be included? Your comments will be part of the public record. If you wish to make a comment on the Draft Environmental Impact Report/Environmental Assessment, you may submit your written comments by June 24, 2008, to Caltrans, 50 Higuera Street, San Luis Obispo, CA 93401, Attn. Cathy Stettler, Senior Environmental Planner, or email at cathy_stettler@dot.ca.gov.

CONTACT

For more information, please contact Sara von Schwind, Project Manager, at (805) 549-3198 or by email at sara_von_schwind@dot.ca.gov. If you cannot attend the meeting but have comments, questions, or concerns regarding the proposed project, please submit them in writing to Cathy Stettler, Senior Environmental Planner, at (805) 549-3797 or via email at cathy_stettler@dot.ca.gov. For all other State Highway information, please contact Caltrans District 5 Public Affairs at (805) 549-3318.

SPECIAL ACCOMMODATIONS

Individuals who require special accommodations (American Sign Language interpreter, accessible seating, documentation in alternate formats, etc.) are required to contact the District 5 Public Affairs Office at (805) 549-3318 at least 3 days before the Public Hearing. Telecommunications Devices for the Deaf (TDD) users may contact the California Relay Service TDD line at 1-800-735-2922 or Voice Line at 1 (800)-735-2922.

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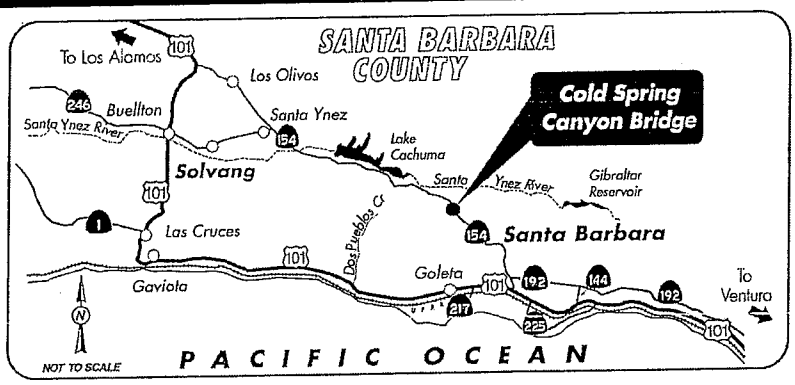
AVISO AL PUBLICO

U.S. Department of Transportation Federal Highway Administration

Aviso de la Disponibilidad del Estudio Preliminar del Impacto Ambiental/ Asesoramiento Ambiental y Anuncio de Audiencias Públicas con formato informal

Para la barrera anti-suicida del puente Cold Spring Canyon Bridge en la Carretera Estatal 154



¿Cuándo y dónde? (2 reuniones)

1 Santa Barbara

Fecha: **lunes, 9 de junio del 2008**
Hora: **de 5:30 pm a 8:30 pm**
Lugar: **Biblioteca pública de la ciudad de Santa Barbara**
Galería Faulkner
40 calle East Anapamu
Santa Barbara, California

2 Solvang

Fecha: **martes, 10 de junio del 2008**
Hora: **de 5:30 pm a 8:30 pm**
Lugar: **Salón Memorial de Veteranos de Solvang**
Legion Wing
1745 Mission Drive
Solvang, California

¿Qué se está planeando?

El Departamento de Transporte del Estado de California (Caltrans) propone instalar una barrera que actué como una barrera física para disuadir a que personas se suiciden en el puente Cold Spring Canyon Bridge en la carretera estatal 154, cerca de San Marcos en el condado de Santa Barbara, entre las millas marcadas 22.9 y 23.1. Impactos significativos a la calidad visual e histórica del puente se anticipan como resultado de este proyecto.

¿Porqué este aviso al público?

Caltrans ha terminado un análisis sobre los efectos que este proyecto pueda tener en el medio ambiente y ha preparado un Estudio Preliminar del Impacto Ambiental/ Asesoramiento Ambiental detallando estos estudios. Este anuncio proporciona notificación de la disponibilidad del documento ambiental preliminar y las fechas y ubicaciones de las audiencias públicas. Las audiencias públicas se llevarán a cabo para responder preguntas y formalmente grabar los comentarios directamente relacionados al proyecto, sus alternativas, impactos y mitigación propuesta. Las audiencias seguirán un formato informal para que usted pueda llegar a cualquier hora entre las 5:30 pm y las 8:30 pm.

¿Qué está disponible?

Comenzando el 9 de mayo del 2008, el Estudio Preliminar del Impacto Ambiental/ Asesoramiento Ambiental y la Sección 4(f) de la Evaluación para el proyecto de la barrera anti-suicida del puente Cold Spring Canyon Bridge estarán disponibles en la Oficina del Distrito de Caltrans, localizada en 50 Higuera Street, San Luis Obispo, CA 93401. El documento estará disponible para revisión en:

- *La Biblioteca pública central de la ciudad de Santa Barbara, 40 East Anapamu Street, Santa Barbara, CA 93101*
- *La Biblioteca pública de Solvang, 1745 Mission Drive, Solvang, CA 93463*
- *La Biblioteca pública de Goleta, 500 North Fairview Avenue, Goleta, CA 93117*
- *La Biblioteca pública de Montecito, 1469 East Valley Road, Montecito, CA 93108*
- *En la red en : http://www.dot.ca.gov/dist05/projects/*

Información sobre el proyecto estará disponible para su revisión en las audiencias públicas con formato informal. Personal de Caltrans incluyendo ingenieros en diseño, planeadores ambientales, y otro personal involucrado en este proyecto estarán disponibles para hablar sobre sus comentarios y preocupaciones. Usted tendrá la oportunidad para compartir sus comentarios ya sea verbalmente o por escrito con una reportera de la corte. Habrá traducción en español disponible.

¿Cómo puede contribuir usted?

¿Han hablado sobre los impactos potenciales? ¿Usted tiene información que deberiamos incluir? Sus comentarios formarán parte de los archivos públicos. Si usted desea hacer un comentario en el Estudio Preliminar del Impacto Ambiental/ Asesoramiento Ambiental, puede hacer su comentario por escrito para antes del 24 de junio del 2008 enviándolo a Caltrans, 50 Higuera Street, San Luis Obispo, CA 93401, Attn: Cathy Stettler, Senior Environmental Planner, (Planeadora Ambiental Encargada), o por corréo electrónico a cathy_stettler@dot.ca.gov.

Comuníquese

Para más información, por favor comuníquese con la encargada del proyecto Sara von Schwind, Caltrans al (805) 549-3198 o por corréo electrónico a: sara_von_schwind@dot.ca.gov. Si usted no puede asistir a la reunión pero tiene comentarios, preguntas o preocupaciones sobre este proyecto, por favor proporcione sus comentarios por escrito o corréo electrónico a Cathy Stettler, (Planeadora Ambiental Encargada) al (805) 549-3797 o por corréo electrónico a cathy_stettler@dot.ca.gov. Para más información sobre cualquier otro proyecto, por favor comuníquese con la Oficina de Relaciones Públicas al (805) 549-3318.

Acomodaciones/Servicios Especiales

Personas que requieren acomodación/servicio especial (intérprete de idioma de seña [sordomudo], asientos accesibles, documentación en formatos alternos, etc.) son requeridos que avisen a la oficina de Relaciones Públicas del Distrito 5 al (805) 549-3318 por lo menos 14 dias antes de la fecha de la reunión. Personas no-oyentes que usan aparatos de telecomunicaciones (TDD) pueden llamar al 1-800-735-2929 o comunicarse con el California Relay Service TDD a la línea de voz, al 1-800-735-2922.

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DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086

Flex your power!
Be energy efficient!

December 8, 2008

Mr. Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
P. O. Box 942896
Sacramento, CA 94296-0001

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Mr. Donaldson:

Subject: Follow up to Field Meeting for the Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

The California Department of Transportation (Caltrans) would like to thank you for meeting with us in Santa Barbara on November 19, 2008 to discuss the above referenced undertaking and visit the Cold Spring Bridge location. Enclosed please find documentation prepared for you by Caltrans to follow up regarding questions raised at our meeting. We hope that this will address any remaining historic preservation issues, and that we together with the Advisory Council on Historic Preservation (ACHP), who took part in the meeting by phone, can proceed to resolve the undertaking's adverse effect by entering into a Memorandum of Agreement (MOA). This consultation is undertaken in accordance with the January 2004 *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (PA).

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

The enclosed documents are intended to address the following issues:

- Consideration of alternatives
  - Engineering issues and constraints
  - Formation and role of the Aesthetics Design and Advisory Committee, which included representatives from the community as well as Caltrans. The committee developed Design and Minimization Measures to help lessen the impacts to the bridge (see Attachment 1).

- Summary of public participation and consultation. It is Caltrans' estimation that we have expended a reasonable and good faith effort to consult (36 CFR 800.16(f)) the public regarding historic properties.

If you are in agreement that the historic preservation issues expressed in your letter of September 11, 2008 have been satisfactorily addressed, Caltrans proposes submitting a revised draft MOA to you and the ACHP for review and comment. In keeping with the project schedule, we would appreciate receiving your response within 15 days from the date of receipt.

If you need any additional information, please contact Jill Hupp, Chief of the Caltrans Cultural and Community Studies Office Section 106/PA Coordination Branch, at (916) 654-3567 or jill_hupp@dot.ca.gov. Again, thank you for your assistance.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

cc: Jill Hupp – HQ; Valerie Levulett – District 5; Carol Legard - ACHP

Attachment 21

Letter 12/10/08 from ACHP to CT

Preserving America's Heritage

December 10, 2008

Jill Hupp
Cultural and Community Studies Office
Division of Environmental Analysis
California Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

Ref: *Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project*
05-SB-154, PM 22.9-23.1, EA 05-0P9100
Santa Barbara County, California

Dear Ms. Hupp:

Thank you for providing us with an opportunity to participate in the meeting last month, via teleconference, to discuss Section 106 compliance for the Suicide Barrier Project. We regret that we were unable to join you and the State Historic Preservation Office (SHPO) for the site tour, as it appears to have been very informative about the physical limitations of the property. Nevertheless, we found the morning presentations and discussion to be very informative and now have a better appreciation for the context and purpose and need for the suicide barrier project and the basis for Caltrans' preferred alternative.

We find it unfortunate that Caltrans does not appear to have taken into account the unique local and statewide significance of the bridge while overseeing the maintenance and operation of the Cold Spring Canyon Bridge over the past decade. Even though the bridge had not yet reached 50 years in age, it was obviously viewed as a local and state landmark. Had there been a different approach to the identification and evaluation of this resource, there may have been a greater opportunity for reaching a solution involving non-barrier alternatives that focused on preserving the overall physical integrity of the bridge. Caltrans, however, appears to have worked to minimize the effect of the project on the historic character of the bridge while addressing the public safety issues. We believe that a reasonable balance between the County's concern for public safety and preservation of the aesthetics of the bridge can be achieved with a fence-type barrier, and would welcome participating in the Section 106 consultation to formalize the design and related mitigation.

We look forward to receiving the revised Memorandum of Agreement (MOA) and additional information that is shared with other consulting parties to continue consultation. You may contact me at 202-606-8533 or via email at cvaughn@achp.gov.

Sincerely,

Charlene Dwin Vaughn

Charlene Dwin Vaughn, AICP
Assistant Director
Federal Permitting, Licensing, and Assistance Section
Office of Federal Agency Programs

Attachment 22

Letter 12/22/08 from CT to ACHP

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA. 94274-0001
PHONE (916) 653-7507
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TTY (916) 653-4086

Flex your power!
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December 22, 2008

Ms. Carol Legard
FHWA Liaison
Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Ms. Legard:

Subject: Memorandum of Agreement for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

We received the Advisory Council on Historic Preservation's (ACHP) letter of December 10, 2008 regarding the above referenced project, indicating that the California Department of Transportation (Caltrans) "appears to have worked to minimize the effect of the project on the historic character of the bridge while addressing public safety issues" and noting that the ACHP "believes that a reasonable balance between Santa Barbara County's concern for public safety and preservation of the aesthetics of the bridge can be achieved with a fence-type barrier" and would "welcome participating in the Section 106 consultation to formalize the design and related mitigation."

On December 8, 2008, Caltrans transmitted supplemental information regarding the consideration of alternatives and public participation to the California State Historic Preservation Officer (SHPO) and the ACHP. The SHPO contacted Caltrans on December 17, stating that he believed the preservation concerns he expressed had been addressed at and since our meeting and field visit to the bridge on November 19, 2008, and he would now sign the draft Memorandum of Agreement (MOA). On December 19, 2008 Caltrans and the SHPO signed the MOA.

We hope that the ACHP's preservation concerns have likewise been adequately addressed and are enclosing four copies of the MOA signed by Caltrans and the SHPO for your review and signature. Caltrans will continue to consult the SHPO and the ACHP regarding the design of the physical barrier.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity

Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you have any questions or need any additional information, please contact Jill Hupp, Chief of the Caltrans Cultural and Community Studies Office Section 106/PA Coordination Branch, at (916) 654-3567 or jill_hupp@dot.ca.gov. Thank you for your continued assistance with this undertaking.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

cc: Jill Hupp – HQ; Valerie Levulett – District 5; Bob Pavlik – District 5

Attachment 23

Email 1/2/09 from ACHP to CT

Jill Hupp/HQ/Caltrans/CAGov

01/02/2009 01:21 PM

To Bob Pavlik/D05/Caltrans/CAGov, Val Levulett/D05/Caltrans/CAGov
cc Greg King/HQ/Caltrans/CAGov@DOT
bcc
Subject Fw: Cold Spring Bridge MOA

History: This message has been forwarded.

FYI everybody.

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

----- Forwarded by Jill Hupp/HQ/Caltrans/CAGov on 01/02/2009 01:20 PM -----

"Carol Legard" <clegard@achp.gov>

01/02/2009 01:19 PM

To "Jill Hupp" <jill_hupp@dot.ca.gov>
cc "Wayne Donaldson" <mwdonaldson13@yahoo.com>
Subject RE: Cold Spring Bridge MOA

Jill,

Thanks for the note. I'm going over all the comments on the Cold Spring project today, and will talk with Charlene when she is back in the office early next week about whether we should sign the agreement. I'm a little surprised that the MOA does not include a provision for review of the fence design and interpretive display by SHPO and ACHP, or even mention which fence barrier design will be used for the project. I know that it is Caltrans' intent to have the Aesthetics Advisory Group involved, but I do not believe that SHPO is part of that group. Has Caltrans selected a preferred alternative? The Finding of Adverse Effect report indicates that the mesh fence would be less visible from the canyon floor, and would have other benefits, but I don't believe I've seen anything that identifies which type of fence is being proposed.

Also, there are a couple of typos (Stipulation I.B. should reference IV.B not D; and Stip. III includes a reference to the discovery provisions of the ACHP's regulations -- which should be 36 CFR 800.13(c)).

I'll give you a call next week after I've talked with Charlene and let you know what we are up to.

Finally, I propose Caltrans plan a Section 106 site visit for the Golden Gate Bridge project as soon as possible. I expect it will help me tremendously to view the bridge with SHPO and Caltrans staff who can describe the project and alternatives considered. I understand that Lissa is handling the GG Bridge project now, so the project is in excellent hands. She did a great job on Doyle Drive.

Thanks much, and happy new year.

Carol

Carol Legard
FHWA Liaison
Advisory Council on Historic Preservation
202-606-8522
clegard@achp.gov

-----Original Message-----
From: Jill Hupp [mailto:jill_hupp@dot.ca.gov]
Sent: Tuesday, December 23, 2008 2:19 PM
To: Carol Legard
Subject: Cold Spring Bridge MOA

Hi Carol,

Happy holidays to you!

I wanted to give you a heads up that Wayne signed the Cold Spring Bridge MOA on Friday of last week, and I have overnight mailed the originals to you for the ACHP's review and (we hope) signature. Thank you for all your help so far with this project.

Lissa McKee said that ACHP will participate in the Golden Gate suicide barrier project as well - we look forward to working with you on that. I let Wayne know, and he wants to go out to the GG Bridge with us for a site visit when you come out.

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Attachment 24

Email 1/5/09 from SHPO to CT and ACHP

—— Forwarded by Jill Hupp/HQ/Caltrans/CAGov on 04/20/2009 10:33 AM ——

Wayne Donaldson
<mwdonaldson13@yahoo.com>

01/05/2009 09:13 AM

Please respond to mwdonaldson13@yahoo.com

To Jill Hupp <jill_hupp@dot.ca.gov>, Carol Legard <clegard@achp.gov>
cc Susan Stratton <sstratton@parks.ca.gov>, Dwight Dutschke <ddutschke@parks.ca.gov>
Subject RE: Cold Spring Bridge MOA

Hi Folks,

As an oversight, I should be involved in the determination of the final design as I am leaning towards Alternate 2 (the vertical bars) and not the preferred design Alternate 1 (the mesh screen).

Wayne

Milford Wayne Donaldson, FAIA
4100 Folsom Blvd. Unit 5D
Sacramento, CA 95819

916 826 5637 cell
mwdonaldson13@yahoo.com

--- On **Fri, 1/2/09, Carol Legard <*clegard@achp.gov*>** wrote:
From: Carol Legard <clegard@achp.gov>
Subject: RE: Cold Spring Bridge MOA
To: "Jill Hupp" <jill_hupp@dot.ca.gov>
Cc: "Wayne Donaldson" <mwdonaldson13@yahoo.com>
Date: Friday, January 2, 2009, 1:19 PM

Jill,

Thanks for the note. I'm going over all the comments on the Cold Spring
project today, and will talk with Charlene when she is back in the office early next week about whether we should sign the agreement. I'm a
little surprised that the MOA does not include a provision for

Attachment 25

Letter 1/6/09 from ACHP to CT

Preserving America's Heritage

January 6, 2009

Greg King, Chief
Cultural and Community Studies Office
Division of Environmental Analysis
California Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

Ref: *Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project*
05-SB-154, PM 22.9-23.1, EA 05-0P9100
Santa Barbara County, California

Dear Mr. King:

On December 23, 2008, we received your letter transmitting the enclosed Memorandum of Agreement (MOA), signed by Caltrans and the California State Historic Preservation Officer (SHPO), for the Cold Spring Canyon Bridge Project. You have requested that we review and sign the document in order to conclude the Section 106 review process for this undertaking. We have reviewed the MOA, and are returning it unsigned. We are declining to execute the agreement, at this time, as it does not adequately convey all the mitigation measures needed to ensure that historic preservation issues are reviewed and resolved consistent with our previous recommendations.

As noted in our letter of December 10, 2008, we believe that a reasonable balance between the County's concern for public safety and preservation of the aesthetics of the bridge can be achieved with a fence-type barrier. The ACHP; however, would like to participate further in consultation to formalize the design and related mitigation for the undertaking. Since it is still in the conceptual stage, the MOA, as currently drafted, requires Caltrans to document the Cold Canyon Bridge in accordance with Historic American Engineering Record (HAER) standards and guidelines, distribute copies of an illustrated booklet to various local organizations; and develop a three-panel interpretive exhibit for distribution to the public library, the County General Services Department, and District 5 of Caltrans. The MOA does not include provisions to ensure that the impact of the barrier fence on the historic fabric and views of the bridge will be minimized; nor does the MOA provide the SHPO and ACHP an opportunity to participate in post-agreement review of the barrier fence design, HAER documentation, or the interpretive display panels to be developed by Caltrans. Post-agreement reviews of this nature are a standard provision in MOAs, particularly when a final alternative has yet to be selected.

In order to move forward and conclude the consultation process, we recommend the following changes to the MOA to make it acceptable for execution by the ACHP:

- Stipulation I.B., second sentence: The section of the MOA referenced here for dispute resolution should be changed to IV.B.
- Stipulation II.B. should state who will complete the required report. Please revise this stipulation to state the agency responsible for completing the historical and descriptive report, and include a provision for a 30 day period for SHPO and ACHP review of this document.
- Include a requirement for SHPO and ACHP review of the "Historic resources Evaluation Report" produced under Stipulation II.C, and the Interpretive Display in II.D.
- Include a stipulation ensuring SHPO and ACHP participation in the review of the fence barrier design either as part of the Aethestics Design Advisory Committee (ADAC) or through a separate review at the same time as the ADAC review process. If there are other consulting parties who wish to be involved in review of the design, they should also be named as reviewing parties in this stipulation.
- Stipulation III currently states that Caltrans shall address the discovery or unanticipated effect in accordance with 36 CFR 800.13(c). The reference here should be 36 CFR 800.13(b).
- Stipulation E.2. (Duration): Caltrans does not need to "terminate" the MOA once its terms have been fulfilled. Rather, the term "terminate" implies that an action will be taken since the federal agency has not, or cannot, fulfill the terms of the MOA. It would be preferable to revise this paragraph to state:
  "This MOA will be in effect through Caltrans' implementation of the Undertaking, and will have no further force or effect when Caltrans, in consultation with the other signatories, determines that the terms of this MOA have been fulfilled in a satisfactory manner. Caltrans shall provide the other signatures with written notice of its determination that the terms of the agreement have been fulfilled." In the event that Caltrans is unable to comply with the terms of this MOA, Caltrans shall adhere to Stipulations IV. C or D, as appropriate.

We look forward to receiving the revised MOA. In order to minimize future delays in execution of this document, we encourage you to share a copy of the revised MOA with SHPO and the ACHP, via email, prior to its circulation for signature. Once all parties have communicated to Caltrans their agreement with the stipulations, the final MOA may be circulated for signature. If you have questions or concerns, please contact Carol Legard at 202-606-8522 or via email at clegard@achp.gov

Sincerely,

Charlene Dwin Vaughn, AICP
Assistant Director
Federal Permitting, Licensing, and Assistance Section
Office of Federal Agency Programs

Enclosure

Attachment 26

Email 1/13/09 from CT to ACHP

Val Levulett/D05/Caltrans/CAGov

01/13/2009 02:50 PM

To Mike Jacob/D05/Caltrans/CAGov@DOT, Paula Carr/D05/Caltrans/CAGov@DOT, Matt C Fowler/D05/Caltrans/CAGov@DOT
cc
bcc
Subject Fw: Cold Spring Bridge MOA - revised draft

For your records. Lets hope this works.
---- Forwarded by Val Levulett/D05/Caltrans/CAGov on 01/13/2009 02:47 PM ----

Jill Hupp/HQ/Caltrans/CAGov

01/13/2009 02:35 PM

To Val Levulett/D05/Caltrans/CAGov
cc Bob Pavlik/D05/Caltrans/CAGov
Subject Fw: Cold Spring Bridge MOA - revised draft

---- Forwarded by Jill Hupp/HQ/Caltrans/CAGov on 01/13/2009 02:35 PM ----

Jill Hupp/HQ/Caltrans/CAGov

01/13/2009 09:06 AM

To Carol Legard <clegard@achp.gov>
cc mwdonaldson@parks.ca.gov, Dwight Dutschke <ddutschke@parks.ca.gov>, Susan Stratton <sstratton@parks.ca.gov>
Subject RE: Cold Spring Bridge MOA - revised draft

Hi Carol,

Thank you for your letter of January 6th, and your willingness to help expedite execution of this MOA by suggesting that Caltrans could email the revisions to you so that we can make sure all parties are happy with the MOA language before circulating for signatures.

With District 5's assistance, we revised the MOA in accordance with your comments, as well as Wayne's comment that the SHPO be involved in the review of plans (you also made this suggestion). I agree - that is indeed something we typically include in MOAs involving a built-environment property; I should have remembered to include such a provision in the first place.

Attached is the draft MOA with language that was added per ACHP/SHPO comments depicted in red font. Could everyone take a look at the language and let me know if it is satisfactory?

ColdSpringdraftrevised perACHP+SHPO1-12-09.doc

Thank you all!

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office

Attachment 27

Email 1/21/09 from ACHP to CT

1/21/09

ACHP COST DO

Jill Hupp/HQ/Caltrans/CAGov

01/21/2009 07:08 AM

To Val Levulett/D05/Caltrans/CAGov, Bob Pavlik/D05/Caltrans/CAGov@DOT

cc

bcc

Subject Fw: Cold Spring Bridge

History: This message has been forwarded.

Hi,
See Carol's forwarded message. I have not heard anything from the SHPO side - will follow up w/them when I am back in the office tomorrow.
Jill

----- Original Message -----
From: "Carol Legard" [clegard@achp.gov]
Sent: 01/21/2009 09:08 AM EST
To: Jill Hupp
Subject: RE: supplemental report for Cold Spring Bridge

Jill,
I haven't looked at the MOA yet, but will get back to you as soon as I do. In the meantime, thanks for resending the supplemental documentation.

Thanks, Carol

Carol Legard
FHWA Liaison
Advisory Council on Historic Preservation
202-606-8522
clegard@achp.gov

-----Original Message-----
From: Jill Hupp [mailto:jill_hupp@dot.ca.gov]
Sent: Tuesday, January 20, 2009 12:26 PM
To: Carol Legard
Subject: supplemental report for Cold Spring Bridge

Hi Carol,

A document that we tried to mail to you back in early December just came back to Greg in a mangled envelope, and marked as undeliverable. It was the supplemental report that Caltrans prepared for Wayne to try to address his preservation issues following our November 19 meeting, and transmitted to him, copying the ACHP, on December 8th. No wonder you did not know what report Valerie Levulett was referring to when she asked you about it.
Goodness knows where it has been all this time. Well, we've moved on since then as we've since received Wayne's okay to proceed with the MOA, but nevertheless I am putting a copy, which was undamaged, back in the mail to you today for your files.

Have you had a chance to look over the revised draft MOA language?

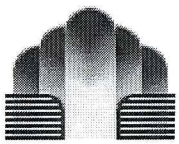
Thank you.

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Attachment 28

Email 1/21/09 from SHPO to CT

1/21/09 SHPO - initial design



Jill Hupp/HQ/Caltrans/CAGov

01/21/2009 02:26 PM

To Val Levulett/D05/Caltrans/CAGov, Bob Pavlik/D05/Caltrans/CAGov@DOT

cc

bcc

Subject Fw: Cold Spring Bridge MOA - revised draft

History: This message has been replied to and forwarded.

Hi Val + Bob,
I am viewing this remotely, and not able to read all of Wayne's last comment until I get back to the office. Can you help me prepare a response and or how we can incorporate his comments? We can also wait until Carol comments.

From: "Donaldson, Milford" [mwdonaldson@parks.ca.gov]
Sent: 01/21/2009 10:43 AM PST
To: Jill Hupp; "Carol Legard" <clegard@achp.gov>; "Charlene Vaughn" <cvaughn@achp.gov>
Cc: "Dutschke, Dwight" <ddutschke@parks.ca.gov>; "Stratton, Susan" <SSTRATTON@parks.ca.gov>; "Lindquist, Natalie" <nlindquist@parks.ca.gov>
Subject: RE: Cold Spring Bridge MOA - revised draft

Hi Jill,

Thanks for sending the revised MOA.

I have a few comments:

Under section II. Treatment of Historic Properties
(1) Please be sure to note where the seismic work on the bridge differentiates from the original construction in both the photos and drawings. Our office did not have a chance to review the seismic retrofit drawings many years ago and I want to make sure this period of the bridge is noted separately.
(2) Provide also a full-size copy of the drawings if not deemed confidential for security reasons.

Under MOA Attachment 1: Barrier Design and Construction Minimization Measures

Although Caltrans has selected the grid/mesh alternative, I am not convinced that this alternative may be the best design for the bridge, since only two designs, one with mesh and the other with pickets were presented in the documentation. Essentially, both designs are similar in height, structural curvature and spacing of the large vertical supports.

The stipulation under section E. Design Review implies that SHPO, ACHP and other parties will have the ability to review the progress of the construction documents at 30% and 60%. That is fine, but my understanding of ACHP's letter of January 6, 2009 from Charlene Vaughn notes that "Include a stipulation ensuring SHPO and ACHP participation in the review of the fence

barrier design… If there are other consulting parties who wish to be involved… they should also be named." I interpret this paragraph to mean that the SHPO, ACHP and others should be involved in the initial design. We realize you formed a design committee, the Aesthetics Design Advisory Committee (ADAC) but according to testimony from our meeting in Santa Barbara, the ADAC was responding to a given barrier design criteria proposed by Caltrans and not looking at alternative barrier designs seen on other bridges. The Golden Gate Bridge went through several design styles for review, some of them quite good in capturing the integrity of the bridge.

I would like to revisit this design at your earliest convenience and would appreciate the involvement of other consulting parties.

Thank you,
Wayne

Milford Wayne Donaldson FAIA
State Historic Preservation Officer
Office of Historic Preservation
Department of Parks and Recreation
State of California
1416 9th Street, Rm. 1442-7
Sacramento, CA 95814
TEL: 916 651 9404
FAX: 916 653 9824
CELL: 916 826 5637
EMAIL: mwdonaldson@parks.ca.gov
WEB: www.ohp.parks.ca.gov
Contact Twila Willis-Hunter 916 653 7113 or thunter@parks.ca.gov

-----Original Message-----
From: Jill Hupp [mailto:jill_hupp@dot.ca.gov]
Sent: Tuesday, January 13, 2009 9:06 AM
To: Carol Legard
Cc: Donaldson, Milford; Dutschke, Dwight; Stratton, Susan
Subject: RE: Cold Spring Bridge MOA - revised draft

Hi Carol,

Thank you for your letter of January 6th, and your willingness to help expedite execution of this MOA by suggesting that Caltrans could email the revisions to you so that we can make sure all parties are happy with the MOA language before circulating for signatures.

With District 5's assistance, we revised the MOA in accordance with your comments, as well as Wayne's comment that the SHPO be involved in the review of plans (you also made this suggestion). I agree - that is indeed something we typically include in MOAs involving a built-environment property; I should have remembered to include such a provision in the first place.

Attached is the draft MOA with language that was added per ACHP/SHPO comments depicted in red font. Could everyone take a look at the language and let me know if it is satisfactory?

(See attached file: ColdSpringdraftrevised perACHP+SHPO1-12-09.doc)

Thank you all!

Jill Hupp, Chief
Section 106/PA Coordination Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Attachment 29

Letter 2/11/09 from ACHP to CT

Preserving America's Heritage

February 11, 2009

Jill Hupp
Cultural and Community Studies Office
Division of Environmental Analysis
California Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

Ref: *Proposed Memorandum of Agreement for the Cold Spring Canyon Bridge Suicide Barrier Project*
05-SB-154, PM 22.9-23.1, EA 05-0P9100
Santa Barbara County, California

Dear Ms. Hupp:

Thank you for revising the draft Memorandum of Agreement (MOA) for the referenced project, which we received, via email, on January 13, 2008. We also would like to thank you for participating in the February 11th teleconference with representatives of the ACHP and State Historic Preservation Office staff to discuss outstanding preservation concerns. As we discussed, both the ACHP and SHPO remain concerned that, despite everyone's best efforts, the project has progressed to what appears to be a final design of the proposed suicide barrier with limited input from SHPO and/or ACHP. As part of Section 106 consultation, consulting parties should be provided an opportunity to explore recommendations on the specific design for the proposed barrier to further minimize the effects of safety measures on the historic bridge. Subsequent to the meeting of November 19th, all parties agreed to move forward with an MOA for construction of a physical barrier or fence-type barrier to help prevent suicide. We did not agree to a particular design or specific design standards at that time. However, we understand that Caltrans spent considerable energy in reviewing alternatives and working with experts on aesthetics and suicide behavior. Nevertheless, we do not believe that we have had sufficient opportunity to exchange views on the barrier design that balances project goals and preservation values. Accordingly, we request that District 5 meet with SHPO and ACHP during an upcoming visit by ACHP staff to further explore design modifications that reflect historic preservation interest. Our discussion would be limited to consultation on a fence-type barrier, as proposed by Caltrans, but would seek a more context-sensitive solution.

Although Caltrans' selection of a grid/mesh fence barrier remains controversial, the project documentation reveals that District 5 went to considerable lengths to obtain public input on the proposed suicide barrier; considered alternatives; designed the project to minimize its effects on the aesthetics of the Cold Spring Canyon Bridge; and afforded local officials and concerned citizens the opportunity to

express their views as proponents and opponents of the preferred alternative. We want to clarify that we are not asking Caltrans to re-open consultation to explore alternatives that were previously considered and rejected. Rather, we want to focus on design issues that meet the purpose and need for this project.

After we meet later this month, we will work with you to finalize the MOA to either further clarify the details of the barrier's design and/or incorporate agreed upon changes. Alternatively, Caltrans may proceed to revise the MOA to stipulate additional consultation that will occur on the project design and the mechanism to resolve any disputes that may occur. We offer the following recommended language for incorporation into the MOA should Caltrans want to proceed with finalizing the MOA now:

II. CONSULTATION TO FINALIZE BARRIER DESIGN

A. Within 60 days of execution of this MOA, Caltrans shall meet with [the project sponsor], SHPO and ACHP to review the Barrier Design and Construction Minimization Measures in Attachment 1. Caltrans will facilitate this meeting to promote an open exchange of ideas and will consider modifications to the barrier fence height, design, and placement to further reduce the adverse effects of the project on the Cold Spring Canyon Bridge.

B. Within 10 days following the meeting required in Stipulation II.A, Caltrans will either:
   i. revise Attachment 1 to incorporate all agreed upon measures and transmit it to the parties to the MOA for a 30 day review, or
   ii. provide the parties to the MOA with a summary of the meeting and a schedule for modifying the design and submitting revised plans to the ACHP and SHPO for review and comment, or
   iii. notify the signatories to the MOA that it is requesting the views of the ACHP on the barrier design pursuant to Stipulation IV.B of this MOA.

We hope that Caltrans finds this approach acceptable and we look forward to your reply. If you have questions or concerns, please feel free to contact me at 202-606-8533 or Carol Legard at 202-606-8522 or via email at clegard@achp.gov

Sincerely,

Charlene Dwin Vaughn

Charlene Dwin Vaughn, AICP
Assistant Director
Federal Permitting, Licensing, and Assistance Section
Office of Federal Agency Programs

Attachment 30

Email 2/25/09 from CT to ACHP/SHPO

Email 3/4/09 from SHPO to CT/ACHP

Email 3/4/09 from ACHP to CT/SHPO

From: Donaldson, Milford [mailto:mwdonaldson@parks.ca.gov]
Sent: Wednesday, March 04, 2009 4:22 PM
To: Carol Legard; jill_hupp@dot.ca.gov; Lindquist, Natalie
Cc: Charlene Vaughn
Subject: Re: revised draft MOA language for Cold Spring MOA

Hi Folks,
I'll review it tonight and speak with Natalie. I'll be arriving in DC tomorrow.
I had an excellent meeting last Thursday with the Caltrans bridge architects. They plan on having an alternate design in about one to two weeks from that date.
Thanks
Wayne
Milford Wayne Donaldson FAIA
State Historic Preservation Officer
Office of Historic Preservation
California State Parks
1416 9th Street
Sacramento, CA 95814
Tel: 916 651 9404
Fax: 916 653 7718
Cell: 916 826 5637
mwdonaldson@parks.ca.gov

----- Original Message -----
From: Carol Legard <clegard@achp.gov>
To: Jill Hupp <jill_hupp@dot.ca.gov>; Lindquist, Natalie; Donaldson, Milford
Cc: Charlene Vaughn <cvaughn@achp.gov>
Sent: Wed Mar 04 13:15:20 2009
Subject: RE: revised draft MOA language for Cold Spring MOA

Jill, thank you for revising the MOA per our discussion on Wednesday. I suggest that the MOA retain attachment 1, as it is the only reference we have to the current proposed design and minimization measures. I've proposed some language to add to Stipulation II.A (see attached) that simply identifies Caltrans proposed alternative, so that if the curvilinear design is determined not to be feasible, we have something in the MOA specifying design criteria/standards for the barrier.
I also noted a typo in Stipulation E (Duration): at the very end of E.2., "Stipulations IV.C. or D" should be "V.C or D".
I have not heard anything yet from Natalie or Wayne, so do not know if they have had a chance to review the revised draft.
From my perspective, this draft accurately reflects what we all agreed on at the meeting in Sacramento last week.

Thank you for your willingness to consider this new alternative design and build into the MOA SHPO and ACHP review of the feasibility study. I look forward to receiving the MOA for signature once it has been signed by Caltrans, District 5 and SHPO.

Carol

Carol Legard

FHWA Liaison
Advisory Council on Historic Preservation
202-606-8522
clegard@achp.gov

-----Original Message-----
From: Jill Hupp [mailto:jill_hupp@dot.ca.gov]
Sent: Wednesday, February 25, 2009 7:14 PM
To: nlindquist@parks.ca.gov
Cc: Carol Legard
Subject: revised draft MOA language for Cold Spring MOA

Hi Natalie & Carol

The attached version of the MOA incorporates the edits to stipulation II that we rough drafted this afternoon. Could I get the SHPO's and the ACHP's consensus that this is the wording we want? I also realized that attachment
1 would now not be part of this MOA so have deleted it.

Thanks for your efforts in sketching this out!

(See attached file: ColdSpringdraftrevised perACHP+SHPO2-25-09.doc)

Jill Hupp, Chief
History, Architecture and Coordination Services Branch Cultural &
Community Studies Office Division of Environmental Analysis California
Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

Attachment 31

Email 3/10/09 from ACHP to CT

3/10/09
MOA

Val Levulett/D05/Caltrans/CAGov

07/14/2009 10:27 AM

To Val Levulett/D05/Caltrans/CAGov@DOT
cc
bcc
Subject Fw: Cold Springs Canyon Bridge MOA

----- Forwarded by Val Levulett/D05/Caltrans/CAGov on 07/14/2009 10:27 AM -----

Jill Hupp/HQ/Caltrans/CAGov

03/10/2009 08:48 AM

To Val Levulett/D05/Caltrans/CAGov
cc Greg King/HQ/Caltrans/CAGov@DOT
Subject Fw: Cold Springs Canyon Bridge MOA

Hi Val,

I just spoke with Carol where she relayed this and she sent this follow up email so we would have her statement in writing. She also spoke with Steve Mikesell, who confirmed that the SHPO's office did not have any other concerns. The MOA, then, can be finalized (with a minor typo Carol noted corrected) exactly as worded when I sent it to ACHP and SHPO on Feb 25 pm.

I suggested to Carol that, as Steve is coming over here for a meeting this afternoon, I will have Jay Norvell sign for Caltrans this morning (again!) and Steve can either sign it for Wayne (if he has been authorized to do so), or take it back to OHP with him. Then we will transmit it on to the ACHP for final signatures. I am crossing my fingers, but it does seem they do mean to sign it this time.

Jill

Jill Hupp, Chief
History, Architecture and Coordination Services Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax

----- Forwarded by Jill Hupp/HQ/Caltrans/CAGov on 03/10/2009 08:42 AM -----

"Carol Legard" <clegard@achp.gov>

03/10/2009 08:41 AM

To <jill_hupp@dot.ca.gov>, "Greg King" <greg_king@dot.ca.gov>
cc "Mikesell, Steve" <SMIKESELL@parks.ca.gov>
Subject Cold Springs Canyon Bridge

Jill,
After discussing the MOA with Wayne Donaldson yesterday, I am withdrawing my request that Caltrans include Attachment 1 in the MOA for the Cold Spring Canyon Bridge Suicide Barrier Project. Wayne argued that including the details of the preferred alternative design in the MOA suggests a pre-disposition to that alternative by the other signatories. I can understand his concern

and am happy to forward the MOA for execution by the ACHP without the attachment.

Thanks, Carol

Carol Legard
FHWA Liaison
Advisory Council on Historic Preservation
202-606-8522
clegard@achp.gov

Attachment 32

Email 3/11/09 from CT to SHPO

3/11/09
MOA

Val Levulett/D05/Caltrans/CAGov

07/14/2009 10:27 AM

To Val Levulett/D05/Caltrans/CAGov@DOT
cc
bcc
Subject Fw: Electronic Cold Springs Canyon

----- Forwarded by Val Levulett/D05/Caltrans/CAGov on 07/14/2009 10:27 AM -----

Jill Hupp/HQ/Caltrans/CAGov

03/11/2009 08:24 AM

To "Mikesell, Steve" <SMIKESELL@parks.ca.gov>
cc "Lindquist, Natalie" <nlindquist@parks.ca.gov>, "Stratton, Susan" <SSTRATTON@parks.ca.gov>, Val Levulett/D05/Caltrans/CAGov, Greg King/HQ/Caltrans/CAGov@DOT
Subject Re: Electronic Cold Springs Canyon

ColdSpringBridge MOA3-10-09 final as approved by SHPO-ACHP.doc

Hi Steve,

Here it is. The stipulation that was revised as the result of our Feb 25 meeting is Stipulation II, and reflects language suggested by Carol. Also, per Carol's email of yesterday I deleted the reference to Attachment 1, in accordance with Wayne's request when he & Carol spoke at the NCSHPO meeting. The rest of the MOA had already been reviewed and commented on by ACHP and Wayne, and takes their previous comments into account - it has not changed since.

-Jill

Jill Hupp, Chief
History, Architecture and Coordination Services Branch
Cultural & Community Studies Office
Division of Environmental Analysis
California Department of Transportation
(916) 654-3567
(916) 653-6126 - fax
"Mikesell, Steve" <SMIKESELL@parks.ca.gov>

"Mikesell, Steve" <SMIKESELL@parks.ca.gov>

03/11/2009 08:04 AM

To "Jill Hupp" <jill_hupp@dot.ca.gov>
cc "Stratton, Susan" <SSTRATTON@parks.ca.gov>, "Lindquist, Natalie" <nlindquist@parks.ca.gov>
Subject Electronic Cold Springs Canyon

Can you send me the MOA electronically? Wayne wants to see it. The signing may need to wait for his return on Friday.

Attachment 33

Transmittal Letter 3/16/09 from CT to ACHP

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086

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March 16, 2009

Ms. Carol Legard
FHWA Liaison
Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Ms. Legard:

Subject: Memorandum of Agreement for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

On February 25, 2009, the California Department of Transportation (Caltrans) met with the California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) to discuss additional designs for a fence-type barrier for the Cold Spring Canyon Bridge in response to the ACHP's letter to Caltrans dated February 11, 2009. At the conclusion of that meeting, Stipulation II of the draft Memorandum of Agreement (MOA) was revised in accordance with language suggested by the ACHP. Jill Hupp of my staff circulated a draft of the revised MOA by email to you and to the SHPO on February 25, 2009. Based on consultation with you by email and telephone on March 4, 2009 and March 10, 2009, and emailed communication from the SHPO between those dates, Caltrans incorporated the ACHP's and SHPO's comments into the draft MOA. In accordance with the SHPO's request that the MOA not incorporate the previously-proposed Attachment 1, and your subsequent comment that you are "happy to forward the MOA for execution by the ACHP without the attachment," the finalized MOA does not include any such attachment. Caltrans executed the MOA on March 10, 2009; it was executed by the SHPO on March 13, 2009. We are now transmitting four copies of the MOA signed by Caltrans and the SHPO for the ACHP's signature.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation

and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you have any questions or need any additional information, please contact Jill Hupp at (916) 654-3567 or jill_hupp@dot.ca.gov. Thank you for your continued assistance with this undertaking.

Sincerely,

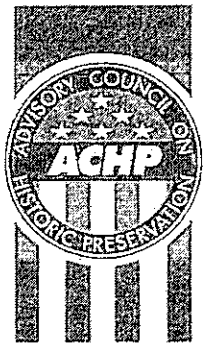
GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

cc: Jill Hupp – HQ; Valerie Levulett – District 5; Bob Pavlik – District 5

Attachment 34

Letter 3/20/09 from ACHP to CT



Preserving America's Heritage

March 20, 2009

Gregory P. King
Chief
Cultural and Community Studies Office
Division of Environmental Analysis, MS 27
California Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-7507

REF: *Memorandum of Agreement for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, 05-SB-154,*
Santa Barbara County, California

Dear Mr. King:

Enclosed are three copies of the executed Memorandum of Agreement for the referenced project. By carrying out the terms of the Agreement, you will fulfill your responsibilities under Section 106 of the National Historic Preservation Act and the regulations of Advisory Council on Historic Preservation (ACHP). One original of the Agreement will remain on file at our office. Once you have obtained the concurrence of the Caltrans District Office, please forward a copy of the fully signed signature page to the ACHP and State Historic Preservation Office (SHPO).

We thank Caltrans for working closely with the ACHP and the SHPO to address concerns raised about the physical and visual impact of the proposed suicide barrier on this important historic bridge. We appreciate time spent by you and other Caltrans staff to meet with us and SHPO to address these concerns. Your willingness to explore a new alternative design for the project will enable consulting parties to ensure that the final outcome is responsive to historic values and public safety.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

We look forward to reviewing the feasibility study that is being prepared by Caltrans pursuant to Stipulation II of the Agreement. If you have any questions or concerns, please contact Carol Legard at (202) 606-8522, or via e-mail at clegard@achp.gov.

Sincerely,

Charlene Dwin Vaughn

Charlene Dwin Vaughn, AICP
Assistant Director
Office of Federal Agency Programs
Federal Permitting, Licensing, and Assistance

Enclosure

Attachment 35

Transmittal Letter 4/13/09 from CT to SHPO

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
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TTY (916) 653-4086

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April 13, 2009

Ms. Carol Legard
FHWA Liaison
Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Ms Legard:

SUBJECT: Submittal of Signed Memorandum of Agreement for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

Enclosed for the Advisory Council for Historic Preservation's records is a copy of the executed Memorandum of Agreement (MOA) for the above referenced project.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans

If you have any questions, please contact Jill Hupp at (916) 654-3567/jill_hupp@dot.ca.gov. Thank you for all of your assistance with this undertaking.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Attachment 36

Transmittal Letter 4/13/09 from CT to ACHP

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
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FAX (916) 653-7757
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April 13, 2009

Ms. Carol Legard
FHWA Liaison
Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Ms Legard:

SUBJECT: Submittal of Signed Memorandum of Agreement for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

Enclosed for the Advisory Council for Historic Preservation's records is a copy of the executed Memorandum of Agreement (MOA) for the above referenced project.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans

If you have any questions, please contact Jill Hupp at (916) 654-3567/jill_hupp@dot.ca.gov. Thank you for all of your assistance with this undertaking.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Attachment 37

Transmittal Letter 4/20/09 from CT to ACHP

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
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April 20, 2009

Ms. Carol Legard
FHWA Liaison
Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Ms Legard:

SUBJECT: Results of Design Feasibility Study for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

In accordance with Stipulation II.A of the March 2009 *Memorandum of Agreement Among the California Department of Transportation, the California State Historic Preservation Officer and the Advisory Council on Historic Preservation Regarding the Cold Spring Canyon Bridge Suicide Barrier Project on State Route 154 in Santa Barbara County, California*, the California Department of Transportation (Caltrans), in consultation with the State Historic Preservation Officer (SHPO), has examined the feasibility of developing a platform cantilever or arc design barrier. The results of the design feasibility study, enclosed herein, led Caltrans to conclude that while the proposed Cantilever Arc Barrier Net Design could be a viable suicide deterrent, the design is not feasible for the Cold Spring Canyon Bridge.

We hope that this study addresses your concerns regarding the suicide barrier design proposed for the Cold Spring Canyon Bridge Suicide Barrier Project. Caltrans plans to proceed with the vertical barrier design as documented in the Draft Environmental Document (May 2008).

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you have any questions, please contact Jill Hupp at (916) 654-3567 or jill_hupp@dot.ca.gov. Thank you for all of your assistance with this undertaking.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

cc: Jay Norvell – HQ Division of Environmental Analysis
Richard Krumholz-D5 District Director
Jill Hupp - HQ

JH/jh

Attachment 38

Transmittal Letter 4/20/09 from CT to SHPO

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086

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April 20, 2009

Mr. Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
Office of Historic Preservation
P. O. Box 942896
Sacramento, CA 94296-0001

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Mr. Donaldson:

SUBJECT: Results of Design Feasibility Study for the Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

In accordance with Stipulation II.A of the March 2009 *Memorandum of Agreement Among the California Department of Transportation, the California State Historic Preservation Officer and the Advisory Council on Historic Preservation Regarding the Cold Spring Canyon Bridge Suicide Barrier Project on State Route 154 in Santa Barbara County, California*, the California Department of Transportation (Caltrans), in consultation with the State Historic Preservation Officer (SHPO), has examined the feasibility of developing a platform cantilever or arc design barrier. The results of the design feasibility study, enclosed herein, led Caltrans to conclude that while the proposed Cantilever Arc Barrier Net Design could be a viable suicide deterrent, the design is not feasible for the Cold Spring Canyon Bridge.

We hope that this study addresses your concerns regarding the suicide barrier design proposed for the Cold Spring Canyon Bridge Suicide Barrier Project. Caltrans plans to proceed with the vertical barrier design as documented in the Draft Environmental Document (May 2008).

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you have any questions, please contact Jill Hupp at (916) 654-3567 or jill_hupp@dot.ca.gov. Thank you for all of your assistance with this undertaking.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosure

cc: Jay Norvell – HQ Division of Environmental Analysis
Richard Krumholz-D5 District Director
Jill Hupp - HQ

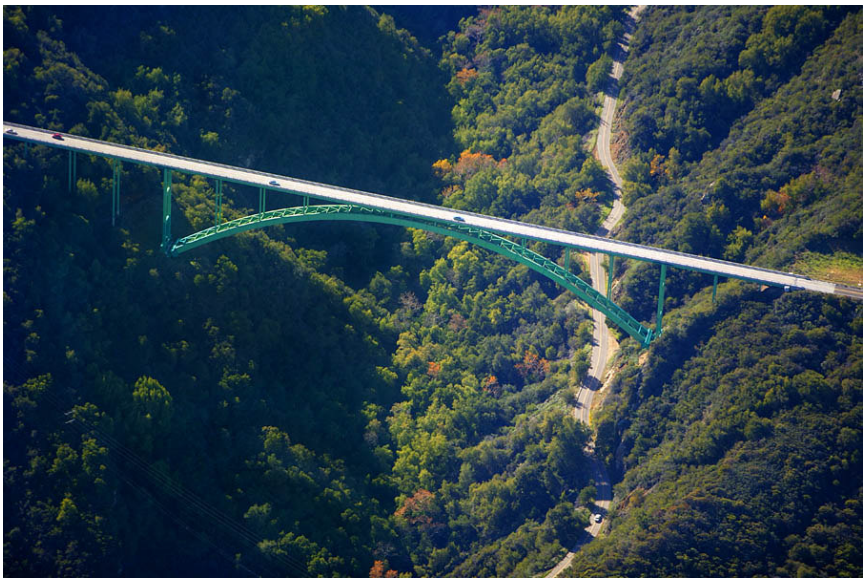
JH/jh

Attachment 39

Feasibility Study 4/20/09

Feasibility Study Conducted for the Proposed Cantilever Arc Barrier Net Alternative
Prepared for the
Cold Spring Canyon Bridge Suicide Barrier Project
State Route 154 at Cold Spring Canyon Bridge
05-SB-154 P.M. 22.9/23.1
05-0P9100

April 20, 2009



Prepared For:

Wayne Donaldson, FAIA, California State Historic Preservation Officer
Carol Legard, Advisory Council on Historic Preservation
Jay Norvell, Chief, Division of Environmental Analysis

Prepared By: California Department of Transportation

James Espinosa, Senior Engineer, District 6 Design
Isaac P. Tasabia, Bridge Architectural Associate, Bridge Architecture and Aesthetics Branch
Wai Kwan, Bridge Engineer, Office of Structure Design
Sara von Schwind, Project Manager, District 5 Project Management
Valerie A. Levulett, Technical Studies Branch Chief, District 5 Environmental
Christopher McMorris, Architectural Historian, JRP Historical Consulting, LLC

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Introduction

In response to a request by the Advisory Council on Historic Preservation (ACHP), the California Department of Transportation (Caltrans) met with the ACHP and the California State Historic Preservation Officer (SHPO) in Sacramento on February 25, 2009 to discuss the feasibility of alternate concepts for the Cold Spring Canyon Bridge Suicide Barrier. A follow up meeting between Caltrans and the California State Historic Preservation Officer, Wayne Donaldson was held on February 26, 2009. The analysis presented in this report is a result of ideas that were discussed and developed during these meetings and subsequent conversations between Caltrans, SHPO, and ACHP.

At the February 25 meeting, Wayne Donaldson discussed two alternative suicide deterrent barrier concepts for the Cold Spring Canyon Bridge. One was referred to as a "swoop" or arc net alternative, and the other was a cantilever structure with a vertical barrier at the outside edge of the cantilever arm. He presented both concepts to address concerns about views from the bridge deck being affected by a suicide barrier as seen from a vehicle traversing the structure. Caltrans architecture and engineering staff responded to Wayne Donaldson's suggestions by discussing and sketching the engineering and architectural feasibility of these concepts.

This report was prepared in accordance with Stipulation II. A. and B. of the Memorandum of Agreement (MOA), documenting the feasibility of an alternative design solution for the Cold Spring Canyon Bridge Suicide Barrier Project.

Results of Analysis by Caltrans Headquarters Bridge Architecture and Aesthetics Branch and Office of Structure Design

On February 26, 2009, Wayne Donaldson met with Isaac Tasabia and Javier Chavez , (Bridge Architecture & Aesthetics Branch), Wai Kwan (Office of Structure Design), and Chris McMorris, (JRP Historical Consulting; a historical consultant to Caltrans) to develop the two concepts that were discussed during the February 25, 2009 meeting. The meeting on February 26 resulted in the two concepts discussed the previous day being combined into one possible alternative. The constraints considered for the proposed alternative included:

- sufficient clearance for the under bridge inspection truck arm,
- a minimum barrier height of six feet from the highest reachable horizontal surface at the base of the vertical element,
- a curving inward shape,
- sufficient distance from the existing tube and barrier rail such that someone could not jump over the fence or get a hold of the top rail, and
- that the structure would avoid being tied back to the steel substructure.

The meeting was very productive and positive in nature and provided the SHPO the opportunity for input that he felt was necessary for his continued involvement with this project. The meeting concluded with Wayne Donaldson agreeing that Caltrans was going to study the feasibility of the one alternative developed at the February 26 meeting. The following day, Wayne Donaldson confirmed by email with Sara von Schwind, Project Manager, that the meeting on February 26 illustrated that Caltrans was taking adequate steps to review the feasibility of the alternate concepts he proposed in the February 25, 2009 meeting with the SHPO and ACHP.

Following the meeting, Isaac Tasabia, Bridge Architect and Wai Kwan, Bridge Engineer worked through various factors for the new alternative, which resulted in the development of the Cantilever Arc Barrier Net alternative.

The Cantilever Arc Barrier Net alternative is a cantilevered (horizontal) steel rail attached to the existing concrete bridge rail and is intended to deter an individual from jumping from the bridge. It would be constructed approximately 6 feet below the bridge deck and extend 10 feet out from the outside edge of the bridge deck on both sides of the bridge. This entirely new steel barrier would consist of tube steel-framed panels that house a stainless steel net. Each panel would be 10 feet wide, which would require approximately 124 panels for each side of the bridge. The 10-foot wide framed panels include the following: TS 6x3x3/16 inch steel beams, TS 3x3x3/16 inch steel beams, TS 2x2x3/16 inch steel beams, 8 inch by 4 inch steel taper pipes, plate gussets, stainless steel netting and the required connection hardware. The total weight of the new structure would be 195,307 pounds (787.5 pounds per panel) or 98 tons. This weight would be concentrated on the sides of the bridge, creating additional moments. The Cantilever Arc Barrier Net alternative would support a single load (500 pounds), which is the weight of one person, plus the impact load, plus a factor of safety. Based on the engineering, the proposed design would be at or nearly at the maximum load for the bridge without retrofitting. These properties, along with the curved shape of the six-foot high vertical rails spanned with net material, make the Cantilever Arc Barrier Net a potentially credible suicide deterrent. The design is shown in Attachments 1, 2, and 3.

Steel was chosen as the preferred material because of its strength to weight ratio, its affordability and its relative durability. Other materials were considered but dismissed because of their relative economic infeasibility; namely other potential materials for the structure are a minimum of 4 times more expensive than steel. Steel was also selected as the preferred material for the net in this alternative because its properties would allow it to deform when someone falls into it or when a person balances on the net. The deforming net is safer than other types of nets, and is also difficult to navigate and climb across, thus making the structure more difficult for a would-be jumper to successfully make their way closer to the outside portion of the cantilevered structure. Although steel is the preferred material for the reasons stated above, the higher cost alternative material would have to be compared with the higher life-cycle cost of having a steel structure. Long-term maintenance costs of a steel structure at this location may exceed the initial high cost of alternative materials when considering a long-term cost benefit analysis.

The Cantilever Arc Barrier Net alternative raises significant safety concerns since the design can only support a single load (500 pounds). Due to the ease of accessibility and its general location, it would be safe to assume that the cantilever barrier would need to support more than a single load. The probability of individuals or groups (such as teenagers or young adults) gathering on the Cantilever Arc Barrier Net is very high and of great concern to the Department. Caltrans is aware of incidences where similar facilities have been used in ways for which they were not designed. For example, the photograph in Figure 1 below (a postcard created by local residents for the 2008 holiday season and distributed to all local patrons of Big Sur) depicts a group of people standing in a wire mesh fabric debris flow barrier in the Big Sur area of California installed by Caltrans on November 21, 2008.

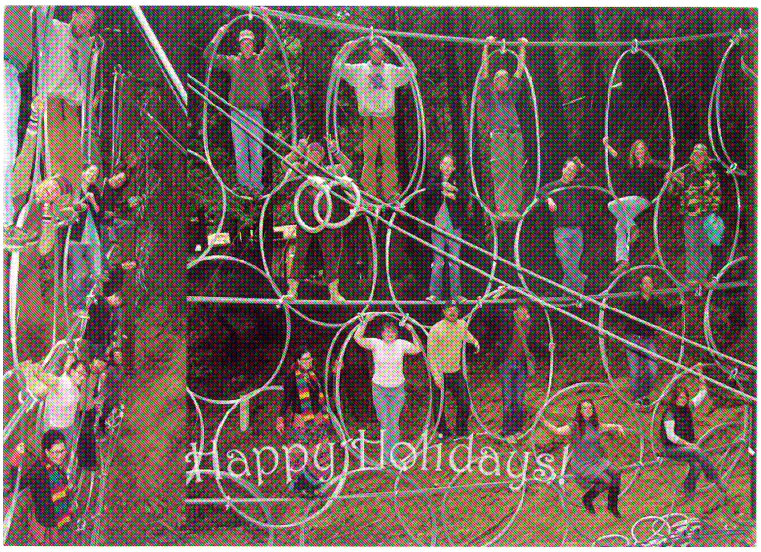


Figure 1: Postcard of a Caltrans Wire Mesh Fabric Debris Flow Barrier constructed in Big Sur

Having multiple persons misuse the Cantilever Arc Barrier Net is a real possibility. Furthermore, rescue operations of a person in the net would require the barrier to be able to withstand additional loads. Given the distance from the bridge deck to the netting, rescue personnel would need to place themselves within the proposed barrier to attend to a person in distress.

Structure Design has determined that the Cantilever Arc Barrier Net alternative would not support more than a single load as described above. The moment generated by the combined weight of the cantilever and additional personnel (dead load + live load) would be too great on the existing concrete bridge rails and bridge deck. The concrete bridge rails and bridge deck were not designed to support such loads. Therefore, from an engineering standpoint, the Cantilever Arc Barrier Net alternative is not feasible without extensively retrofitting the bridge. In addition to retrofit of the entire bridge deck and concrete rails, it is very likely that the substructure would also have to be retrofitted; however, detailed structural analysis for retrofitting the superstructure and substructure

was not completed. The Cantilever Arc Barrier Net would cost approximately $3,750,000, but that does not include the costs for the retrofit of the bridge rails and bridge deck, or any potential work to the bridge substructure.

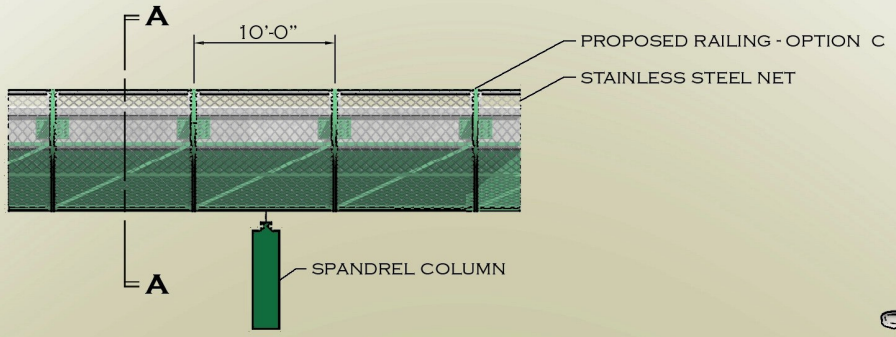
Summary and Conclusion

Caltrans, in consultation with the SHPO, has examined the feasibility of developing a platform cantilever or arc design barrier, as conceived and discussed at the February 26, 2009 meeting mentioned above (Stipulation II. A.). The design feasibility study (Stipulation II. B.) has determined that the Cantilever Arc Barrier Net could be a credible suicide deterrent; however, it is not feasible for the Cold Spring Canyon Bridge Suicide Barrier Project. The bridge cannot withstand the additional load that would be associated with a suicide attempt if the Cantilever Arc Barrier Net were on the bridge. Although the barrier could support at least one individual, the barrier would not be able to withstand the weight associated with a rescue team. A design for a greater load would entail retrofitting the structure, including replacing the existing concrete rails and bridge deck. Construction of the barriers would also likely entail retrofitting the substructure. This would lead to greater permanent and irreversible structural changes to the Cold Spring Canyon Bridge; further decreasing the integrity and historic qualities that make the bridge eligible for listing on the National Register of Historic Places. The estimated cost is roughly $3,750,000, which does not include any cost for retrofitting the bridge rails, deck or substructure.

In addition to the design feasibility study, Caltrans has determined that it would be difficult to prevent entry onto the barrier, requiring only a one to two-foot free fall onto the net once an individual has lowered their body over the bridge rail. The easily accessible platform would likely become an attractive nuisance or magnet for unauthorized use or activities. The Big Sur postcard is a clear example of just how quickly a facility can be adopted for unauthorized use. This is a liability that Caltrans cannot knowingly assume, nor would the Department design for an attractive nuisance as represented by the Cantilever Arc Barrier Net.

Caltrans has made a good faith effort to explore more fully the SHPO's alternative design concept, developed in collaboration with Bridge Architecture and Aesthetics Branch, and the Office of Structure Design, for the Cold Spring Canyon Bridge Suicide Barrier Project. Although Caltrans was hopeful that the proposed Cantilever Arc Barrier Net design would prove feasible, this is not the case. The Cantilever Arc Barrier Net does not fully meet the project purpose and need and it introduces the potential for unintended uses that are considered a liability for Caltrans. As documented (pages 10-11) in the Draft Environmental Document (May 2008) the original reasons for rejecting a net alternative are still applicable and Caltrans plans to proceed with the vertical barrier design. This document fulfills Caltrans responsibilities in accordance with the requirements under Stipulation II. A. and B. of the MOA, documenting the feasibility of an alternative design solution for the Cold Spring Canyon Bridge Suicide Barrier Project.

ATTACHMENTS



BRIDGE ELEVATION - PARTIAL EXTERIOR VIEW

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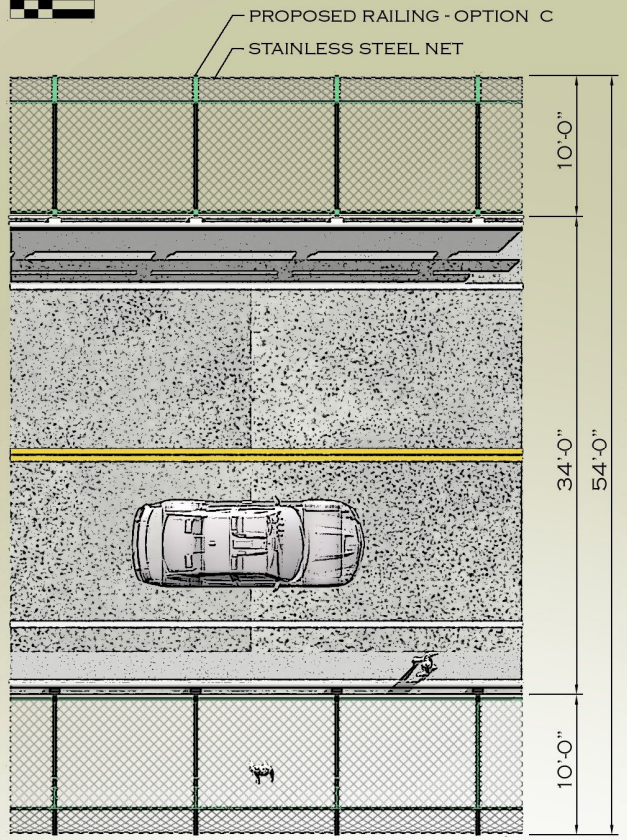

BRIDGE PLAN - PARTIAL VIEW

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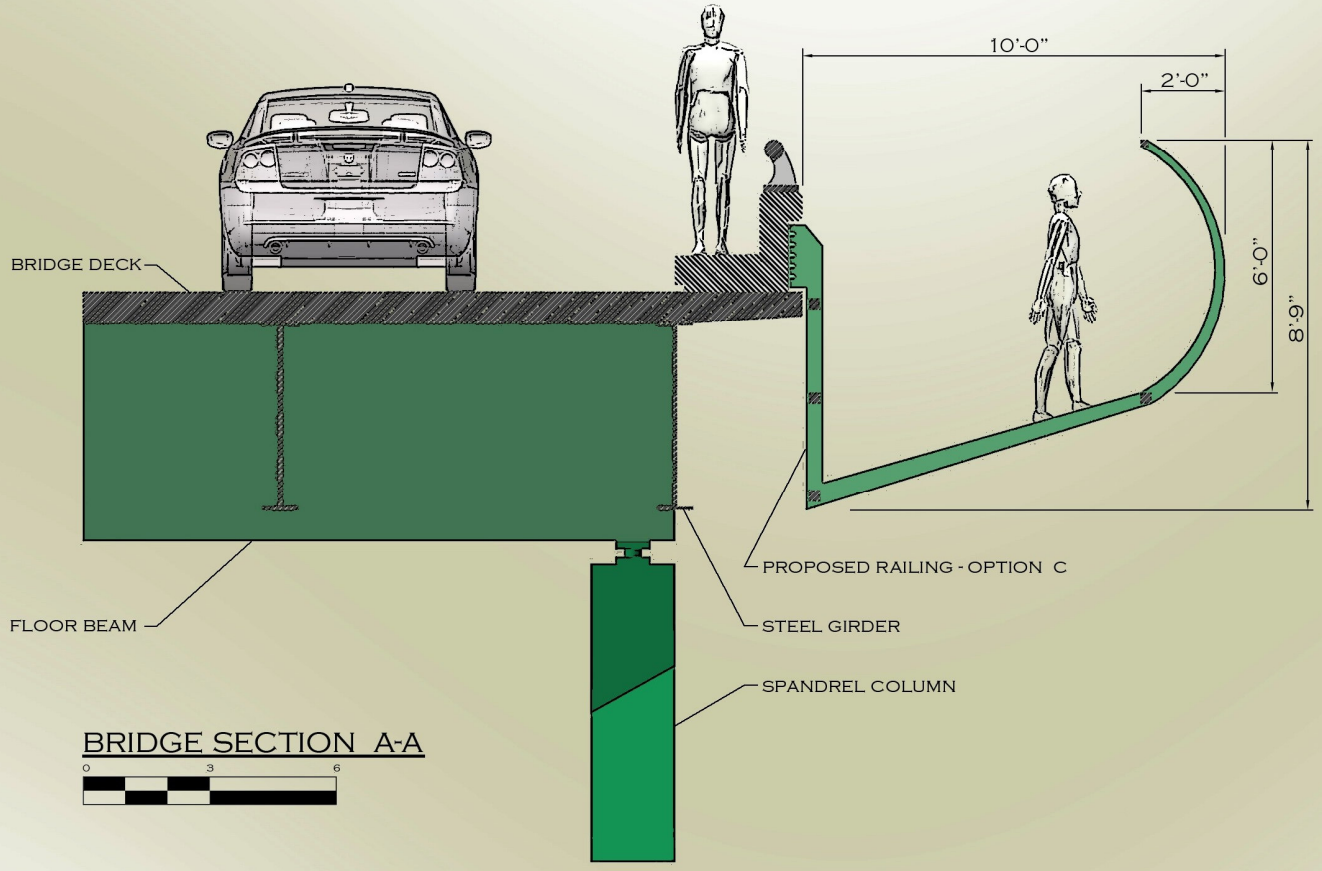


BRIDGE SECTION A-A

0 3 6

COLD SPRING CANYON BRIDGE

PROPOSED RAILING - OPTION C

DRAWN BY: I TASABIA
DATE: 3/16/09

Caltrans Prepared by DES Bridge Architecture and Aesthetics

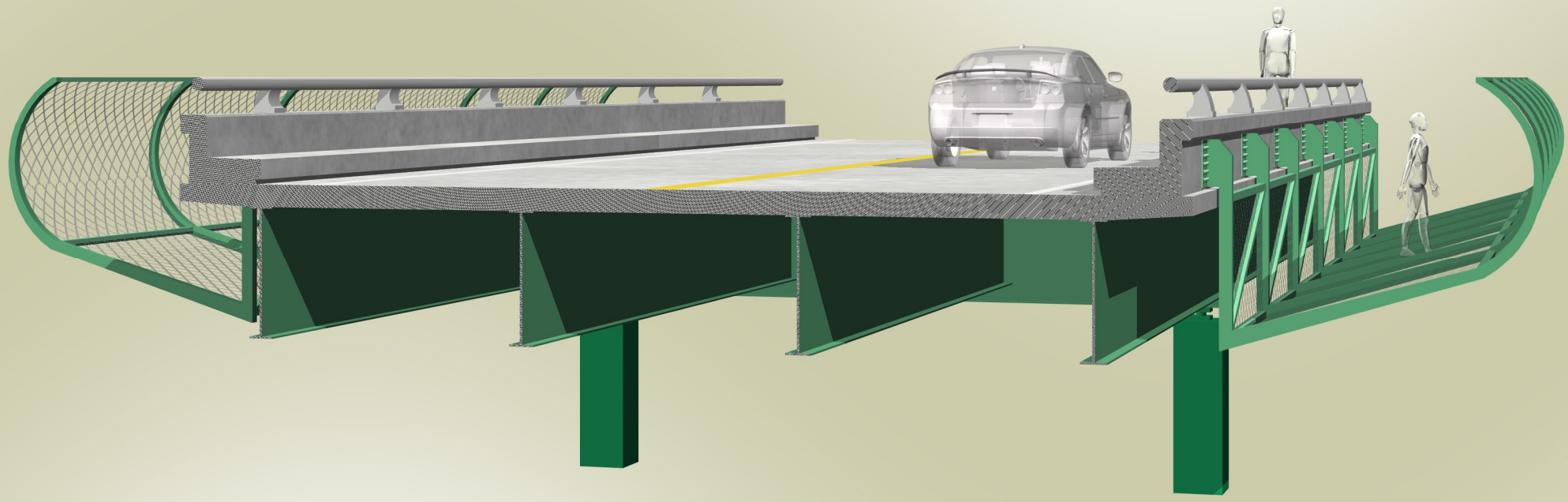
BRIDGE PERSPECTIVE - PARTIAL VIEW FROM CURB

COLD SPRING CANYON BRIDGE

PROPOSED RAILING - OPTION C

DRAWN BY: I TASABIA
DATE: 3/16/09

Prepared by DES Bridge Architecture and Aesthetics



BRIDGE PERSPECTIVE - PARTIAL EXTERIOR VIEW

COLD SPRING CANYON BRIDGE

PROPOSED RAILING - OPTION C

DRAWN BY: I TASABIA
DATE: 3/16/09

Prepared by DES Bridge Architecture and Aesthetics

Attachment 40

Letter 5/14/09 from SHPO to CT

STATE OF CALIFORNIA – THE RESOURCES AGENCY
ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov www.ohp.parks.ca.gov

May 14, 2009

Reply To: FHWA070618A

Gregory P. King, Chief
Cultural and Community Studies Office
Division of Environmental Analysis
Department of Transportation
PO Box 942874
Sacramento, CA 94274-0001

Re: Design Feasibility Study for the Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, CA

Dear Mr. King:

Thank you for your letter of April 20, 2009, transmitting the Design Feasibility Study for the Cold Spring Canyon Bridge. Caltrans has certainly made a good faith effort to explore this design alternative and we are pleased to read the report. Based on my review of the documentation I have a few questions:

- Page 3 of the Feasibility study states that it is very likely that the substructure of the bridge would also have to be retrofitted. Would you please provide more information regarding the feasibility of the retrofit?
- You state that the Cantilever Arc Barrier Net would cost approximately $3,750,000. How does this compare to the preferred design?
- How much does Caltrans estimate that the retrofitting of the bridge rails, deck and possibly the substructure would add to the cost of the project?
- If the bridge were to fail due to excessive weight, what would be the predicted structural response in terms of its failure (complete collapse, or bending and deformation, or isolated failure)? We are assuming rescue personnel would be in harness.
- How "real" is the potential unauthorized use as shown in the Big Sur postcard since the two designs, locations, functionality, and other factors are quite different? I feel this is a very big issue and regardless of the structural retrofit, etc. issues noted above we don't want to create an attractive nuisance. Please site examples where similar designs like this have been created and the structures have become places of unauthorized use.

Sincerely,

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

Attachment 41

Letter 6/10/09 from CT to SHPO

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086

Flex your power!
Be energy efficient!

June 10, 2009

Mr. Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
Office of Historic Preservation
P. O. Box 942896
Sacramento, CA 94296-0001

05-SB-154
PM 22.9-23.1
EA05-0P9100
Cold Springs Canyon Bridge
Suicide Barrier Project

Dear Mr. Donaldson:

Subject: Results of the Design Feasibility Study for the Cold Spring Canyon Bridge Suicide Barrier Project, Santa Barbara, California: Response to letter of May 14, 2009

Thank you for your letter dated May 14, 2009 in which you stated that the California Department of Transportation (Caltrans) has made a good faith effort to explore the design alternative that is the subject of our Design Feasibility Study. In conjunction with Caltrans engineering and project management staff, we have prepared the following response to the questions you posed in the letter.

Page 3 of the Feasibility study states that it is very likely that the substructure of the bridge would also have to be retrofitted. Would you please provide more information regarding the feasibility of the retrofit?

To fully address this question would require an extensive structural analysis. Caltrans finds that pursuit of such a study for an alternative that has the potential to cause substantial adverse impacts to the state-owned historic property is not in the best interest of the public, nor consistent with the department's goal of stewardship, given that there is an alternative that meets the project purpose and need while minimizing alterations to features of the bridge that qualify it as eligible for the National Register of Historic Places under Criterion C for its engineering significance. The alternative discussed in the Design Feasibility Study would require permanent alterations to the bridge's primary character defining feature, its substructure, for the purpose of preserving the view from the bridge, which was not identified as a character defining feature in the consensus determination of August 13, 2007.

You state that the Cantilever Arc Barrier Net would cost approximately $3,750,000. How does this compare to the preferred design?

The current Construction Capital cost for the preferred design is $998,000. The cost estimate that was provided for the Cantilever Arc Barrier Net is for the Construction Capital of that barrier. It does not include the costs associated with replacing the existing bridge deck and the bridge rails.

This would increase if the Cantilever Arc Barrier Net is designed for more than a single individual dynamic load parameter.

How much does Caltrans estimate that the retrofitting of the bridge rails, deck and possibly the substructure would add to the cost of the project?

To address this question would require extensive structural analysis to determine the extent of the retrofitting of the bridge deck, bridge rails, and substructure. The analysis would also be dependent upon the anticipated maximum loading conditions, i.e., the number of people we would anticipate at any one time in the Cantilever Arc Barrier Net. Caltrans finds that the time and cost that would be necessary to accurately estimate the cost of retrofitting of the bridge rails, deck and substructure does not constitute a reasonable expenditure of public funds because a alternative is available that does not require such work, and that preserves the character-defining features of the bridge that make it eligible for listing in the National Register of Historic Places.

If the bridge were to fail due to excessive weight, what would be the predicted structural response in terms of its failure (complete collapse, or bending and deformation, or isolated failure)? We are assuming rescue personnel would be in harness.

The failure mechanism would depend upon the loading condition. There is any number of scenarios regarding how the load could be distributed in the net. The scenario could entail loads at multiple locations within the net structure, which may result in the deformation of the net or an excessive load in one panel, and which could result in the net collapsing. The current design can accommodate one person, but it would be difficult to determine how many people we would ultimately design for. It was agreed at the onset of the feasibility study that Caltrans would look at the minimum weight load that the bridge can withstand without extensive bridge retrofits. Even if safety personnel are in a harness, they add weight to the net system when they touch down on the cantilever portion of the net and are still subject to injury or death should the barrier net collapse or fail.

How real is the potential unauthorized use as shown in the Big Sur postcard since the two designs, locations, functionality, and other factors are quite different? I feel this is a very big issue and regardless of the structural retrofit, etc. issues noted above we don't want to create an attractive nuisance. Please site examples where similar designs like this have been created and the structures have become places of unauthorized use.

Caltrans does not have a net like this in our inventory; therefore, we do not have direct evidence that this particular design will be accessed by individuals seeking unauthorized activities. However, we are aware of individuals and groups using our facilities for unintended uses in inappropriate and dangerous ways. District 5 recently modified the Huasna River Bridge on State Route 166 in Santa Barbara County in an attempt to prevent individuals from climbing along the outside girder flange to "tag" the structure. We used the example of the public display on the Big Sur postcard to demonstrate that there are people in this vicinity who are inclined to misuse public structures.

As part of the engineering process, the development of a new structure design is based on both past experience and technical knowledge. Based on Caltrans' experience, if a design is unique, thrill seekers will attempt to access the structure to engage in extreme activities such as bungy jumping, base jumping, or college level pranks. Caltrans believes that the Cantilever Arc Barrier Net installed along the outside rails of Cold Spring Canyon Bridge, suspended 400 feet above the canyon floor, would be an attraction to individuals from not only the local area (Santa Barbara, Goleta/Isla Vista, Santa Ynez/Solvang, Santa Maria) but (with the advent of the internet) to travelers from elsewhere in the state, the nation and from around the world. With our past experience, Caltrans feels that the Cantilever Arc Barrier Net will create an attractive nuisance.

We hope that this letter addresses your concerns regarding the suicide barrier design proposed for the Cold Spring Canyon Bridge Suicide Barrier Project. Caltrans plans to proceed with the vertical barrier design as documented in the Draft Environmental Document (May 2008).

Caltrans is transmitting this as a federal agency, following the provisions of the Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility under FHWA's responsibility under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all further correspondence on this project to Caltrans.

If you have any further questions or comments please contact Jill Hupp at (916) 654-3567 or jill_hupp@dot.ca.gov. Thank you.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

c: RKrumholz – D5 District Director; VLevulett – D5; JHupp – CCSO; CLegard – ACHP

JH/jh

Attachment 42

Letter 6/24/09 from SHPO to CT

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov

June 24, 2009

Reply In Reference To: FHWA070618A

Gregory P. King, Chief
Department of Transportation
Division of Environmental Analysis, MS 27
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

RE: Dispute Resolution for the Proposed Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, CA: Response to letter of June 10, 2009

Dear Mr. King:

Thank you for your letter dated June 10, 2009 in which you supplied a response to the questions I raised in my May 14, 2009 letter regarding 1) bridge substructure retrofit, 2) cost comparison of the preferred design and the Cantilever Arc Barrier Net, 3) cost estimate for the bridge rail, deck, and substructure retrofit, 4) bridge structural response to failure due to excessive weight, and 5) unauthorized use of bridge.

The responses provided in your June 10th letter did not adequately address the issues we had raised. Specifically:

1. Caltrans finds that providing more information regarding the feasibility of the bridge substructure retrofit would require an "extensive analysis that is not in the best interest of the public... given that there is an alternative that meets the project purpose and need..." I feel that the Cantilever Arc Barrier Net alternative has been dismissed without serious consideration that its implementation towards historic preservation would provide, e.g., greatly reduced visual intrusion that maintains the setting of the bridge, preservation of the view corridor to the valley by capturing the same feeling and experience one now enjoys driving over the bridge, and that Caltrans Alternative One is not supported by many of the local community.
2. Caltrans failed to provide the breakdown cost comparison I asked for but instead chose to only provide total design costs, i.e., $998,000 for the preferred alternative and $3.75 million for the Cantilever Arc Barrier Net alternative. Without a side by side comparison of the costs it is unknown if the Cantilever design is prudent and feasible.
3. Caltrans failed to provide a cost estimate for the retrofit of the bridge rails, deck and possibly the substructure indicating that *extensive* (my emphasis) structural analysis would need to be undertaken and this "does not constitute a reasonable expenditure of public funds because a [sic] alternative is available that does not require such work,..." This precludes that there are other feasible alternatives (i.e., Cantilever Arc Barrier Net) that would more appropriately meet § 800.6(a) avoid, minimize and mitigate adverse effects on historic properties.
4. Caltrans has noted that the current design can accommodate one person but fails to fully analyze the concerns addressed in my earlier letter regarding the predictable structural response for excessive weight. Designers traditionally determine various scenarios on how their design could be affected given the nature of use. Without a

detailed analysis it is not possible for me to determine whether or not the proposed Cantilevered design is prudent and feasible. The rescue methodology is not fully described as it was in the Golden Gate Bridge scenario in order to fully understand the at risk exposure of rescue personnel.

5. Caltrans was unable to identify any examples of unauthorized use where similar designs have been created and the structures have become places of unauthorized use as shown in the Big Sur postcard provided earlier by Caltrans, because as you indicate, you do not have a net depicted in the postcard in your inventory. Instead, you cite anecdotal information that "if a design is unique, thrill seekers will attempt to access the structure to engage in extreme activities such as bungy [sic] jumping, base jumping, or college level pranks." Caltrans believes that if the Cantilever Arc Barrier Net were to be installed on the Cold Spring Canyon Bridge, just such an attractive nuisance would be created.

At the current time and based on your response, I do not feel you have adequately responded to my comments and I thus am not able to support Caltrans preferred design. I feel that we are at an impasse regarding the Caltrans preferred alternative and the Cantilever Arc Barrier Net alternative noted to be a viable suicide deterrent by Caltrans and a design favored by this office. I am invoking Stipulation V.B. (Dispute Resolution) of the March 2009 Cold Springs Canyon Bridge Suicide Barrier Memorandum of Agreement (MOA). I would ask that Caltrans forward all documentation relevant to this dispute, including Caltrans' proposed resolution to the Advisory Council on Historic Preservation (ACHP).

I will await the review of the ACHP to determine the next step by the SHPO, which may include a request to terminate my participation in further consultation.

Sincerely,

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

cc: Charlene Vaughn – ACHP
Carol Legard - ACHP

Attachment 43

Letter 7/1/09 from ACHP to CT

Preserving America's Heritage

July 1, 2009

Greg King, Chief
Cultural and Community Studies Office
Division of Environmental Analysis
California Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

Ref: *Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project*
05-SB-154, PM 22.9-23.1, EA 05-0P9100
Santa Barbara County, California

Dear Mr. King:

On June 24, 2009 we received, via email, a copy of the letter from Wayne Donaldson, California State Historic Preservation Officer (SHPO), notifying Caltrans that he has invoked the dispute resolution clause of the Memorandum of Agreement (MOA) for the Cold Springs Canyon Bridge Suicide Barrier Project executed on March 23, 2009 among Caltrans, the California SHPO and the ACHP. According to Mr. Donaldson, he has concluded that "we are at an impasse regarding the Caltrans preferred alternative and the Cantilever Arc Barrier Net alternative noted to be a viable suicide deterrent by Caltrans and a design favored by this office." Caltrans was advised to forward all documentation relevant to this dispute, including Caltrans' proposed resolution, to the ACHP.

In a follow up telephone conversation on June 25, 2009, between Caltrans and Carol Legard, FHWA Liaison, the ACHP agreed to provide Caltrans with its views on this dispute without further documentation since the views of both Caltrans and the SHPO, and the obstacles to resolving this impasse, have been clearly detailed in previous correspondence. This letter conveys as the ACHP's recommendations in accordance with Stipulation V.B. of the MOA.

Stipulation II of the MOA requires Caltrans, in consultation with SHPO, to examine the feasibility of developing a platform cantilever or arc design barrier as proposed by the SHPO on February 25, 2009. Caltrans consulted with the SHPO and completed the feasibility study, which was submitted to the SHPO and ACHP for review. Although the study found that the cantilever arch net barrier design is not feasible for this particular bridge, the SHPO questions this conclusion. Caltrans did not provide cost breakdowns for the two alternative designs; nor was a detailed analysis of the substructure retrofit that would be needed for the cantilever design on the Cold Spring Canyon Bridge. In the SHPO's view, the cantilever

arc net barrier design is preferable as it greatly reduces "the visual intrusion that maintains the setting of the bridge" and preserves the view corridor from the bridge to the valley. Caltrans took a different view, however, and concluded that the costs associated with additional analysis of the cantilever arc design are not in the public interest because that design would require permanent alterations to the bridge's primary character defining feature, its substructure. On the other hand, the fence type barrier minimizes physical alterations to the historic bridge (letter from Gregory P. King to Wayne Donaldson dated June 10, 2009) and costs substantially less than the other proposed design.

Despite the lack of a more detailed analysis for the retrofit of the bridge rails, deck, and substructure, it is evident that the cantilever arc net barrier design would cost substantially more to construct than a fence-type barrier. In addition, the ACHP is concerned about the extent to which the historic bridge would need to be altered to accommodate the SHPO's preferred design. Given the greater costs associated with the cantilever arc net design, and the fact that Caltrans has examined the feasibility of the alternative design, as required in the MOA, the ACHP does not object to Caltrans' approval of its preferred alternative design for this project.

We recommend that this case not set a precedent for Caltrans' coordination of Section 106 review for future suicide barriers. The ACHP agrees wholeheartedly with the SHPO's concern that altering historic bridges for the prevention of suicide requires timely and serious consideration of alternatives – including non-barrier alternatives such as call boxes, and coordinated local mental health services, etc. We are at a point of time when many mid-century bridges are becoming eligible for inclusion in the National Register, and the SHPO and other historic preservation advocates are rightfully concerned about the preservation of the historic character of these bridges. While Caltrans has done an excellent job of engaging the public and affording interested parties an opportunity to comment on the proposed fence barrier at the Cold Springs Canyon Bridge, we encourage you to seek more active involvement of the SHPO earlier in project planning when consideration of alternatives and design solutions can better address historic preservation concerns.

The ACHP appreciates the opportunity to share with Caltrans our views regarding these issues. We continue to believe that the fence-type barrier proposed by Caltrans strikes a reasonable balance between the county's concern for public safety and preservation of the aesthetics of the bridge. In accordance with Stipulation V.B. of the MOA for this undertaking, we are sharing our comments with the SHPO. Likewise, Caltrans should prepare a written response to our comments that takes into account the views we have provided in this letter. You may then proceed according to your final decision. Caltrans remains responsible for carrying out all other actions subject to the terms of the MOA.

If you have questions or require the further assistance of the ACHP regarding this issue, please contact Carol Legard at 202-606-8522 or via email at clegard@achp.gov

Sincerely,

Reid Nelson
Director
Office of Federal Agency Programs

Attachment 44

Letter 7/14/09 from CT to ACHP

DEPARTMENT OF TRANSPORTATION
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Flex your power!
Be energy efficient!

July 14 2009

Ms. Carol Legard
FHWA Liaison
Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Washington, DC 20004

05-SB-154
PM 22.9-23.1
EA 05-0P9100
Cold Spring Canyon Bridge
Suicide Barrier Project

Dear Ms. Legard:

Subject: Cold Spring Canyon Bridge (#51-0037) Suicide Barrier Project, Santa Barbara County, California

Thank you for the Advisory Council on Historic Preservation's (ACHP) letter of July 1, 2009 regarding the above referenced project. The California Department of Transportation (Caltrans) is notifying you that we have made an adverse effect finding for the above referenced undertaking.

Caltrans appreciates the ACHP's comment that the fence-type barrier proposed by Caltrans strikes a reasonable balance between Santa Barbara County's concern for public safety and preservation of the aesthetics of the bridge, and does not object to Caltrans' approval of the preferred alternative design for this undertaking. We concur that this project shall not set a precedent for Caltrans' coordination of Section 106 review for future suicide barrier projects. We also agree that the active participation of the California State Historic Preservation Officer (SHPO) early in the project planning process would be beneficial.

Caltrans has taken the views of the ACHP, as well as those expressed by the SHPO in a letter to Caltrans dated June 24, 2009, into account and has decided to proceed with the vertical barrier design. The design was illustrated in the Draft Environmental Document.

Caltrans is transmitting this as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, which allows the Secretary of Transportation to assign, and the State of California to assume, responsibility for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA

responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

If you need any additional information, please feel free to contact Jill Hupp at (916) 654-3567 or jill_hupp@dot.ca.gov. Finally, thank you again for your assistance.

Sincerely,

GREGORY P. KING
Chief
Cultural and Community Studies Office
Division of Environmental Analysis

Enclosures:

cc: JNorvell – HQ; JHupp – HQ; BPavlik – HQ; RKrumholz – D5 District Director VLevulett – District 5; MWDonaldson – OHP; SStratton – OHP; NLindquist – OHP