CHAPTER 6 COMMENTS AND RESPONSES TO COMMENTS ON THE DEA/EIR FROM LOCAL AGENCIES

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Alameda County Congestion Management Agency

ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

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June 28, 2006

Mr. Gregory C. McConnell
ATTN: Ms. Sheryl Dorado
Department of Transportation
District 4, Environmental Analysis
Mail Station 8B
P.O. Box 23660
Oakland, CA 94623-0660

SUBJECT: Comments on the Draft Environmental Assessment/Environmental Impact Report for the Caldecott Improvement Project on State Route 24 in Alameda and Contra Costa Counties

Dear Mr. McConnell and Ms. Dorado:

Thank you for the opportunity to comment on the Draft Environmental Assessment/Environmental Impact Report (EA/EIR) for the Caldecott Improvement Project on State Route 24 in Alameda and Contra Costa Counties. The proposed project proposes to alleviate traffic congestion along State Route 24 by adding a fourth bore to the Caldecott Tunnels. The project limits extend from the State Route 24/Broadway Interchange in Alameda County to the State Route 24/Camino Pablo Interchange in Contra Costa County.

The Draft EA/EIR analyzes two new tunnel alternatives north of the existing bores: a two-lane bore and a three-lane bore as well as a No Build alternative. The goals of the Caldecott Project Improvement Project are to:

- Improve mobility for motorists and emergency crews
- Reduce delays and improve travel time
- Eliminate the need for daily tunnel lane reversals and merges
- Enhance safety for the traveling public and Caltrans maintenance workers
- Respond to Regional Measure 2 and Contra Costa County Measure J.

We have reviewed the Draft EA/EIR and respectfully submit the following comments.

1) The project is consistent with the Countywide Transportation Plan (CTP) and the Congestion Management Plan (CMP). It is included in the Countywide Transportation Plan's Tier 1 Investment Program with $8 million in funds identified in the long term designated for mitigation of environmental impacts and in the Congestion Management Plan's short term Capital Investment Program for $5 million.

Mr. Gregory McConnell
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June 28, 2006

2) In order to evaluate the impact to the MTS roadway system, a peak hour analysis of the MTS designated routes in the vicinity of the project is requested. This would include the following roadway segments: SR 13 – Warren Freeway, SR 13 - Tunnel Road, SR 13 – Ashby Avenue, Claremont Avenue, and Grizzly Peak Boulevard. 1

Once again, thank you for the opportunity to comment. Should you have any questions or require any additional information, please do not hesitate to contact me at (510) 836-2560.

Sincerely,

Jean Hart
Deputy Director

cc: file: CMP - Environmental Review Opinions - Responses – 2006
Beth Walukas, Senior Transportation Planner

1- Please see responses #1 and #2 in the essay on "Traffic Operations" in Chapter 1.

In response to ACCMA's request, a CMP analysis was performed using forecasting data based upon the Alameda County CMAs model, in which is generally used for CMP analysis in Alameda County. The level of service determination was based on methodology described in Highway Capacity Manual 2000 edition. The following table shows the forecasting data and LOS values. Based on the forecasting data and the CMP analysis, it appears that the build (now the Preferred Alternative) being very different from the No-Build.

Location	AM No Build demand	AM Build demand	PM No Build demand	PM Build demand	AM No Build V/C	AM Build V/C	PM No Build V/C	PM Build V/C	AM No Build LOS	AM Build LOS	PM No Build LOS	PM Build LOS
Grizzly Peak N	461	458	436	422	0.54	0.54	0.51	0.50	C	C	C	C
Grizzly Peak S	248	263	564	549	0.29	0.31	0.66	0.65	A/B	A/B	D	D
SR-13 N	4396	4380	4282	4265	0.98	0.97	0.95	0.95	E	E	E	E
SR-13 S	3985	3989	4417	4452	0.89	0.89	0.98	0.99	E	E	E	E
Tunnel Rd. W	1250	1317	961	981	1.40	1.48	1.08	1.10	F	F	F	F
Tunnel Rd. E	631	634	1231	1213	0.71	0.71	1.38	1.36	C	C	F	F
Ashby W	988	1002	958	958	1.11	1.13	1.08	1.08	F	F	F	F
Ashby E	395	398	618	563	0.44	0.45	0.69	0.63	A/B	A/B	C	C
Claremont N	361	356	331	369	0.20	0.20	0.19	0.21	A/B	A/B	A/B	A/B
Claremont S	444	456	352	350	0.25	0.26	0.20	0.20	A/B	A/B	A/B	A/B

Alameda County Public Works Agency

"Borrmann, Karen"
<karenb@acpwa.org>
07/10/2006 02:34 PM

To <caldecott_public_comments@dot.ca.gov>
cc
bcc
Subject Caldecott Improvement Project

Dear Ms. Dorado, the Alameda County Public Works Agency has no comments on the Draft EA/EIR received dated May 10, 2006 at this time. But, we would like to remain on the mailing list and receive copies of any future documents published regarding this proposed project.

Thank you.

Karen Borrmann
Principal Civil Engineer
510-670-5249

Thank you for your comments.

AC Transit

1600 Franklin Street, Oakland, CA 94612 - Ph. 510/891-4716 - Fax. 510/891-7157

Nancy Skowbo
Deputy General Manager - Service Development

July 17, 2006

Gregory C. McConnell, Senior Environmental Planner
Attention: Sheryl Dorado, Associate Environmental Planner
California Department of Transportation, District 4
Environmental Analysis
Mail Station 88
P.O. Box 23660
Oakland, CA 94623

Re: Draft Environmental Impact Report/Environmental Assessment, Caldecott Improvement Project (Fourth Bore)

Dear Mr. McConnell:

Thank you for the opportunity to comment on the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the Caldecott Improvement Project, generally described as the "fourth bore." The EIR/EA is prepared under both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Caldecott Tunnel "Fourth Bore" Project Description
The State Route 24 freeway connects Oakland with Orinda and areas beyond to Walnut Creek. There is currently a three bore tunnel (the Caldecott Tunnel) on SR 24 under the Berkeley Hills, between Oakland/Berkeley and Orinda. One bore is dedicated to eastbound traffic, one bore is dedicated to westbound traffic, and one bore is reversible, based on travel demand.

This project would build a fourth tunnel bore so that there would be two tunnels dedicated to eastbound traffic and two tunnels dedicated to westbound traffic. The bores collectively form a single tunnel (the Caldecott Tunnel), that this project would widen.

The tunnel is currently operated with two bores traveling in the peak direction, one bore traveling in the off-peak direction. Peak flow is westbound on weekday mornings, eastbound on weekday afternoons, and continuously changing on the weekend, based on CalTrans' assessment of need. The fourth bore will allow two bores to be open at all times in the off-peak direction. It is thus designed to improve off-peak travel flow, rather than peak direction travel flow. The new bore would be built to the north of the existing bores.

Within the AC Transit service area, the project will have the greatest impact on Oakland and Berkeley, both of which are immediately adjacent to SR 24. However, there will also be traffic using the facility to go farther downstream, particularly to Emeryville and San Francisco.

AC Transit's Concerns About the Project
AC Transit is concerned about the Fourth Bore project for both policy and operational reasons. We point out that this project would effectively expand the single occupant vehicle capacity of a major freeway. The State of California in its **Environmental Goals and Policy Report** (2003) declared that reducing the frequency and distance of vehicle commutes was a statewide goal.

However, the Fourth Bore project supports an increased level of commuting. This contrasts with the actions of cities along the corridor such as Oakland, Berkeley, and San Francisco, which have declared themselves to be "transit first" cities, and which seek to reduce, not increase vehicle traffic. 1

AC Transit also has operational concerns about the project. AC Transit operates express bus service to San Francisco on Interstate 580 and local bus service on a number of streets that have freeway access and would be affected by tunnel traffic. AC Transit has routes on Tunnel Road/Ashby Avenue; College Avenue; Claremont Avenue; Telegraph Avenue; Martin Luther King Junior Way; Market Street, and San Pablo Avenue.

AC Transit operations are strongly affected by increased traffic. Increased traffic congestion causes increased running times, which translate directly into increased operating costs. In addition, degradations in service can cause passengers to stop using the bus. Greater unpredictability of travel times can also cause unreliable service. The project has the potential to affect service on AC Transit lines B, C, CB, E, F, NX1, NX2, NX3, NX4, 7, 9 12, 14, 15, 40, 43, 51, 57, 59, 72/72M, 72R, and 88. These potential impacts should be identified and mitigated. 2

Because there is a paucity of traffic information provided, it is not possible to determine the likely impact of traffic increases. For example, the report contains no detailed data about existing traffic volumes along the SR 24 corridor. Thus, existing volumes cannot be compared with the volumes projected in Tables 2.1.5-2 through 2.1.5-13. The document asserts that there will be large increases in corridor traffic even in the no build alternative, but provides no documentation of the land use, transportation system, fuel cost or other assumptions used to arrive at this conclusion. The discussion does not suggest that existing delays would cause any travelers to either change roadways or change modes in the no build alternative. In essence, the analysis appears to conclude and accept that people will continue their current driving patterns, regardless of traffic conditions. 3

Even with the asserted traffic growth under no build conditions, the projected 2032 westbound p.m. peak hourly traffic volume is 4,500 in the no build alternative, and 6,394 with a two lane bore. This constitutes an increase of some 1,900 cars or 42%. This estimate is made without any estimate of induced traffic increases caused by the presence of the new facility. A number of studies have indicated that expanded roadway facilities induce increased travel. This added traffic reduces speeds on the expanded roadway, increases traffic volumes on other roadways, and intensifies air quality impacts. Induced travel should be analyzed in an appropriate environmental document. 4

The traffic analysis in the environmental document only extends to the freeway's ramps onto various roadways. The traffic on those roadways beyond the first intersection is not analyzed. AC Transit would recommend analysis of traffic impacts along these roadways until the project impact is de minimis. The traffic analysis should be extended along affected roadways, such as Tunnel Road/Ashby Avenue and College Avenue. 5

In addition, the environmental document includes no analysis of the impact of the fourth bore on weekend travel. Yet the desire to reduce weekday delays is one of the rationales cited for building the project. A number of potentially affected roadway segments—including the Bay Bridge approach—experience serious congestion problems on weekends, problems that this project could worsen. Again, AC Transit would recommend analysis of weekend traffic impacts. 6

2

Alternatives

One of the most important purposes of an EIR is to consider project alternatives. This EIR/EA considers only a new two lane bore, a new three lane bore, or no project. There are no alternatives incorporating transit improvements. This omission is particularly disappointing given that the Notice of Preparation for the project incorporated a "Mass Transit" alternative. An appropriate environmental document for this large scale, expensive project should incorporate as robust a transit alternative as possible. 7

The EIR also fails to consider changes in the operation of the existing three bores that could relieve congestion at the tunnel. One example might be fixed time operation on weekends, similar to weekday operations. This would allow travelers to make their trips at times when two bores are available. Caltrans has never studied or tested this approach, even though it was discussed during the 2001 MTC Study. Comprehensive ramp metering on SR 24—to control the flow of vehicles in the reverse commute direction—has been suggested, and should be studied further. Operational improvements could prove to be the most cost effective approach to reducing reverse commute congestion, and should be carefully studied among project alternatives. 8

Thank you for your interest in AC Transit's comments on this project. If you have any questions about this letter, please contact Nathan Landau, Senior Transportation Planner, at 891-4792.

Sincerely,

Nancy Skowbo
Deputy General Manager for Service Development

cc: AC Transit Board of Directors
Tony Bruzzone, AC Transit Service Planning Manager
Tina Spencer, AC Transit Long Range Planning Manager
Nathan Landau, AC Transit Senior Transportation Planner

3

1-The Caldecott Improvement Project proposes to relieve the congestion along State Route 24 at the Caldecott tunnels. The project's build alternatives would be able to achieve this purpose. Transit alternatives were studied as part of the MTC State Route 24 Corridor Study and found that transit alone would not relieve the congestion that a fourth bore would. Please see the essay on "Transit" in Chapter 1 for further details.

2-Please see response #2 in the essay on "Traffic Operations" in Chapter 1.

3-The travel demand model used was the CCTA model. However, in order to improve its performance in Alameda County along State Route 24 the zonal structure and roadway network from the Alameda Congestion Management Agency's travel demand model was copied into the CCTA model for a large area around State Route 24. This model was used because it provided the most up-to-date ABAG land use forecasts and network assumptions of the available models for that area.

Please see responses #2 and #6 in the essay on "Traffic Modeling/Forecasting" in Chapter 1.

4-Please see response #2 in the essay on "Traffic Modeling/Forecasting" in Chapter 1.

5-Please see response #2 in the essay on "Traffic Operations" in Chapter 1.

6-Please see response #1 in the essay on "Traffic Modeling/Forecasting" in Chapter 1.

7-Transit alternatives were not omitted from the project. They were studied as part of the MTC State Route 24 Corridor Study, which found that transit alone would not relieve the congestion that a fourth bore would. Please see the essay on "Transit" in Chapter 1 for further details.

8-The direction of operation of the center bore of the Caldecott Tunnel is changed on a dynamic basis by Caltrans staff. Tunnel personnel, who continuously monitor traffic conditions and volumes on State Route 24 near the tunnel, make the decision as to which direction the center bore operates. This is accomplished primarily by monitoring with closed-circuit television cameras, and in consultation with the District 4 Traffic Management Center and the California Highway Patrol. During the week the tunnel direction is changed between the hours of 11:00 am and 12:00 noon.

Because traffic demand in either direction through the Caldecott Tunnel varies depending on whether nearby special events are occurring, the weather, or if there are traffic incidents on adjacent facilities, the switching of the center bore is not performed on a pre-established schedule. Instead, the center bore is switched to best accommodate the traffic patterns and volumes at any given point in time. This is especially challenging on weekends, where for most of the day the traffic demand in both directions exceeds the capacity of a single bore.

In the westbound direction, the demand usually exceeds the capacity of a single bore from 9:00 a.m. until 7:00 p.m.. In the eastbound direction, the single bore capacity is usually exceeded from 11:00 a.m. to 7:00 p.m.. Consequently, with only three total bores (each with two lanes) available, some congestion inevitably occurs in the direction with only one bore in operation.

The weekend demand in either direction seldom is much more than the capacity of a single bore. However, because of this slight imbalance, the direction which has two bores in operation will often appear to be well under capacity, which leads motorists waiting in congestion in the opposite direction to believe that the center bore is being operated in the wrong direction. Our experience has been that this is rarely the case, and that our tunnel operators are quite adept at selecting the best time to switch direction of the center bore. In fact, the direction of the center bore is switched many times per day on a typical weekend because of these conditions.

We concur that ramp metering is one way to control the flow of vehicles along the corridor. However, the implementation process needs to include local jurisdictions' considerations. Although ramp metering is an effective tool to maximize the flow of vehicles, it will not likely address the long-term traffic growth. Also please see response #8 in the essay on "Traffic Operations" in Chapter 1.

Bay Area Air Quality Management Agency District

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BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

ALAMEDA COUNTY
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Scott Haggerty
Janet Lockhart
Nate Miley

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EXECUTIVE OFFICER/APCO

July 28, 2006

Sheryl Dorado
Department of Transportation, District 4
Environmental Analysis, Mail Station 8B
P.O. Box 23660
Oakland, CA 94623-0660

Subject: Caldecott Improvement Project on State Route 24

Dear Ms. Dorado:

Bay Area Air Quality Management District (District) staff have reviewed the California Department of Transportation's (Caltrans) Draft Environmental Assessment / Draft Environmental Impact Report (DEA/DEIR) for the Caldecott Improvement Project on State Route 24 ("project"). The project proposes two build alternatives that would add two traffic lanes (Alternative 2N) or three traffic lanes (Alternative 3N) with the goal of reducing weekday reverse-peak and weekend congestion at the Caldecott Tunnel. As the facility currently has one tunnel with two lanes that changes directions to serve peak traffic, the DEA/DEIR states this project's main benefit would be for traffic in the reverse peak direction. The DEA/DEIR does not identify any significant environmental impacts.

Attached to this letter is a technical assessment on the adequacy of the air quality analysis contained in the DEA/DEIR. In general, District staff has concerns that the analysis of growth-inducing impacts selectively chose studies or conclusions in the cited studies that supported a less than significant impact determination while ignoring other studies or conclusions that could lead to a much different determination. In addition, both build alternatives show a substantial increase in vehicle miles traveled (VMT) over the No-Build Alternative yet the DEA/DEIR does not quantify the net change in emissions that would occur as a result of project implementation. District staff also request that a transportation conformity analysis be made on Alternative 3N in the environmental document for this project.

In relation to the California Clean Air Act (CCAA), the DEA/DEIR does not adequately discuss State Ambient Air Quality Standards, the Bay Area's attainment status for these standards, and the air quality planning requirements mandated on local air districts. The discussion provided in the DEA/DEIR does not address potential project impacts to the State ozone standards specifically and inaccurately characterizes State particulate matter standards.

If potentially significant air quality impacts are identified subsequent to the release of the final environmental document for this project, we recommend mitigating those impacts to the greatest extent possible by implementing all feasible mitigation measures. The attached technical assessment has identified alternatives and mitigation measures that could be feasibly implemented to reduce the impacts of this project.

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The District is available to provide technical assistance on conducting the appropriate level of analysis necessary for the characterization of the project's air quality impacts and in developing feasible mitigation measures. If you have any questions regarding these comments, or would like to arrange for technical assistance, please contact Dave Vintze, Manager of the Air Quality Planning section, at (415) 749-5179.

Sincerely,

Jean Roggenkamp
Deputy Air Pollution Control Officer

JR:DK

cc: BAAQMD Director Tom Bates
BAAQMD Director Scott Haggerty
BAAQMD Director Janet Lockhart
BAAQMD Director Nate Miley
BAAQMD Director Mark DeSaulnier
BAAQMD Director Mark Ross
BAAQMD Director Michael Shimansky
BAAQMD Director Gayle B. Uilkema

Bay Area Air Quality Management District
Technical Assessment of the Caldecott
Tunnel DEA/DEIR

1. The DEA/DEIR analysis of growth inducing impacts from this project concludes that the project would not induce unplanned growth in the area based on studies that indicate neighborhood amenities, dwelling attributes and demographics "might" have a greater influence on growth than improvements in accessibility, which this project would provide. This analysis appears to be subjective in its selection of which studies to evaluate and which findings of the studies to reference to substantiate this conclusion. In one of the studies referenced in the DEA/DEIR to support this conclusion (Zondag & Pieters), the study identifies the effects of this type of project (improving accessibility) to be "significant" in its role in inducing growth (page 48). The DEA/DEIR chose to only focus on the findings of the study that indicate the effect of improving accessibility is not as large as the other variables of neighborhood amenities, dwelling attributes and demographics. 1

The DEA/DEIR should have also included in this analysis a study conducted by U.C. Berkeley Professor Robert Cervero, which evaluated data from 24 California freeway projects over a 15 year period. Cervero published an article called "Road Expansion, Urban Growth, and Induced Travel" (*Journal of the American Planning Association*, Vol. 69, No. 2, Spring 2003) that shows "the hypothesis of 'induced growth' – that is, that road improvements and the resulting swifter travel speeds spur building activities along a corridor – was substantially confirmed" (page 156). Cervero also notes (page 157) that every 10% increase in travel speeds is associated with a 6.4% increase in vehicle miles traveled (VMT). The DEA/DEIR shows in Tables 2.1.5-14 and 2.1.5-15 there will be significant improvements in travel speeds in the reverse peak directions. Table S-1 shows a smaller increase in VMT for the given speed increases than what could be expected given the conclusion about the relationship between speed and VMT in the Cervero study, but these increases are substantial nonetheless. The District recommends additional analysis be provided to substantiate the conclusion that growth inducing impacts will be less than significant.

2. Table S-1 shows that Alternative 2N and Alternative 3N are estimated to result in a daily increase in VMT of 93,000 and 118,000 (respectively) over the No-Build Alternative. In terms of weekday travel over one year, this equates to over 24 million and 30 million additional VMT (respectively) over the No-Build Alternative. These increases in VMT will generate a substantial amount of ozone precursor emissions, criteria pollutants and greenhouse gases. The District recommends that a quantitative analysis be provided comparing the emissions for nitrogen oxides (NOx), particulate matter (PM10), carbon dioxide (CO2), and reactive organic gases (ROG) resulting from the anticipated increase in VMT for all the alternatives. The resulting increase in emissions should be compared to the District's significance thresholds of 80 pounds per day for NOx, PM10 and ROG. Mitigation measures should be identified to reduce this impact to the greatest extent feasible, or below the significant level. 2

3. District staff note that Alternative 2N was included in the 2001 Transportation Improvement Plan (TIP), which conforms with the State Implementation Plan (SIP). Therefore Alternative 2N would not be expected to interfere with attainment or compliance with federal ozone standards. The DEA/DEIR acknowledges that Alternative 3N was not included in the TIP and has not been evaluated for regional conformity with national ozone standards (page 145). The DEA/DEIR states that if Alternative 3N is selected as the preferred alternative, a regional analysis will need to be conducted by the Metropolitan Transportation Commission (MTC) to determine regional conformity. Deferring this analysis circumvents the intent of CEQA by not providing the District and the public with the information needed to understand the full impacts from this project until after a decision is made on which alternative will be implemented. All the information is available today for the applicant to perform this analysis and the District requests that a conformity analysis be provided in the environmental document for Alternative 3N. 3

4. The DEA/DEIR does not discuss the State Ambient Air Quality Standards or the Bay Area's attainment status in regards to State ozone standards. The DEA/DEIR also does not evaluate the potential for Alternatives 2N and 3N to have an adverse impact on the region's ability to attain or maintain these standards as a result of emissions increases from an increase in VMT. The DEA/DEIR only evaluated project impacts in relation to national ambient air quality standards. The District recommends that Caltrans evaluate the effects of the anticipated emissions increase on the region's ability to attain State air quality standards. The *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans (1999)* provide guidance on how to evaluate a project's construction, operational and cumulative impacts. We recommend that Caltrans evaluate the build alternatives' potential impacts on air quality using our significance thresholds. You may obtain a copy by calling our Outreach and Incentives Division at (415) 749-4900 or downloading the online version from the District's web site at: http://www.baaqmd.gov/pln/ceqa/index.htm. 4

5. The DEIR incorrectly states that there is no State PM2.5 standard (page 144). The State has established an annual PM 2.5 standard of 12 $\mu g/m^3$ and the Bay Area is currently classified as a nonattainment area. The DEIR should also clarify that the Bay Area is not in attainment for both State PM10 standards, including the annual and 24-hour standards. 5

6. This project has the potential to significantly increase PM10 and PM2.5 emissions based on the projected increase in VMT associated with this project, thereby making it more difficult for the region to attain and maintain the federal and State standards for particulate matter. The DEA/DEIR states that "because the Bay Area has either attainment or unclassified status for federal PM10 and is undesignated for federal PM2.5, a particulate matter analysis is not needed." While 6

this statement may be true for federal transportation conformity requirements, CEQA statutes state that "the purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided" (PRC 21002.1 (a)).

7. The particulate matter analysis in the DEA/DEIR does not provide a level of analysis that allows the public the opportunity to understand the overall effect to air quality or to determine the significance of project impacts if either build alternative is implemented. The DEA/DEIR asserts in relation to particulate matter impacts that there will be no impact from the project since comparable facilities meet microscale air quality requirements and are in maintenance areas. The DEA/DEIR does not identify the location of these "comparable facilities" or reference the specific analysis conducted to allow the District and the public to determine if this project's impacts are comparable and if the conclusion is appropriate. The reference that other similar facilities meet microscale air quality requirements presupposes that the analytical tools are available to conduct this analysis. The District would recommend that Caltrans revise the particulate matter analysis in the DEA/DEIR and employ the same analytical tools used at these comparable facilities to evaluate this project's particulate matter impacts. 7

The DEA/DEIR concludes that the No-Build Alternative is "likely" to continue to have heavy congestion in the reverse commute and therefore is "likely" to result in higher pollutant levels as compared to Alternatives 2N and 3N. Again, the DEA/DEIR does not provide a detailed qualitative or quantitative analysis that substantiates this statement. A quantitative analysis of before and after project particulate matter emissions is needed for the District and the public to fully understand the potential air quality impacts from this project. 8

9. If the project is determined to have a significant impact based on the District's CEQA significance thresholds or federal and State air quality standards, we recommend that Caltrans mitigate the impacts to the greatest extent possible. For example, District staff note that the DEA/DEIR does not include an alternative for bicycle and pedestrian travel along this corridor. The DEA/DEIR states that a bicycle tunnel alternative was evaluated in MTC's *Route 24/Caldecott Tunnel Corridor Study* (2001), but was not included because the new tunnel would add approximately $122 million to the project cost and it did not have substantial community support. However, the DEA/DEIR did not evaluate the other bicycle facility alternative in MTC's study that proposed to rehabilitate the Kennedy Tunnel at a cost of $5 million to $10 million, which District staff view as a feasible alternative that should be fully evaluated. 9

The District recommends that other short- and long-term strategies in Table 9 of MTC's study be evaluated to mitigate impacts from this project. There are numerous programs and projects that support transit in this corridor, which could help shift people away from single-occupant vehicles to transit. One strategy that 10

Caldecott Tunnel Technical Assessment -4- July 28, 2006

should be evaluated includes adding bus/high occupant vehicle (HOV) lanes in both directions for all three project scenarios. While the MTC study states that carpool use is lower on State Route 24 than throughout the region, this could have changed since 2001 and could be artificially low because there are currently no HOV lanes in this area. 11

10. District staff note that construction of Alternatives 2N and 3N would require the removal of approximately 296,000 cubic yards or 375,000 cubic yards of excavated material (respectively). This would result in approximately 12,300 or 15,625 truck trips (respectively). These truck trips would emit large amounts of criteria pollutants, toxic air contaminants (TACs) and greenhouse gases. Caltrans should quantify these construction emissions in terms of pounds per day and tons per year for ROG, NOX, PM10 and CO2 in order to disclose the full impacts from all of the build alternatives. The DEIR mistakenly states on page 204 that there are currently no requirements that are applicable at the project level for the temporary impacts of the construction phase. It should be noted that the District's CEQA significance thresholds have identified mitigation measures that projects need to implement in order to prevent significant air quality impacts resulting from construction activity. 12

The District recommends that the project be required to implement the following construction related control measures to reduce this project's substantial contribution to cumulative impacts occurring within the Bay Area: maintaining properly tuned engines; minimizing the idling time of diesel powered construction equipment to three minutes; using alternative powered construction equipment (i.e., CNG, biodiesel, water emulsion fuel, electric); using add-on control devices such as diesel oxidation catalysts or particulate filters; using diesel construction equipment that meets the ARB's 2000 or newer certification standard for off-road heavy-duty diesel engines; phasing the construction of projects; and limiting the hours of operation of heavy duty equipment. 13

1-The finding of minimal growth effects of the Caldecott Improvement Project was not based on a review of literature but on project-specific analysis. This analysis was then presented for expert panel review of the proposed improvement in the light of corridor land use, infrastructure, regional projections, and local land use planning. As discussed in the growth inducement technical report referenced in the environmental document, this approach followed that of a Transportation Research Board (TRB) peer-reviewed research study. To respond to this and similar comments and to avoid similar confusions for those not having easy access to the technical report, Section 2.1.2, Growth, has been revised to amplify the sources and methodology upon which the project findings are based.

The findings expressed in the Draft EA/EIR do not conflict with the conclusions of Cervero, who also conditions the quote referred to in the comment with the following statements in the same section of the article:

- Far more important than either factor [related to freeway expansion] was the control variable "personal income." All else being equal, growth among the California municipalities studied tended to gravitate to areas with relatively high incomes. [Parenthetical material added by Caltrans for clarification of the quote]; and
- Barring zoning restrictions or not-in-my-backyard resistance, housing developers promptly reacted to capacity expansions along most of the freeway corridors studied. The opening of new lanes and the ensuing higher travel speeds appear to have prodded housing developers to draft plans and seek building permits, with actual housing additions occurring several years later.

In these statements, Cervero acknowledges the importance of factors such as income and land use controls on land development. The technical study on which the finding in the environmental document was based, Growth Inducement Analysis for the Caldecott Improvement Project, Final Report (Parsons, 2005), addressed the effect of the changes in accessibility along with factors such as these in arriving at its conclusions. In addition, an expert panel was convened to review the analyses and offer their own opinions, which were incorporated into

the report and the conclusions offered in Section 2.1.2 of the DEA/EIR. The expert panel included planners from representative local communities as well as one real estate developer from each side of the tunnel. The analysis team invited Robert Cervero to join the panel, but despite his desire to help, he was too busy to take part.

There is a difference in saying that there is generally a correlation between highway expansion and growth, as does this comment, and determining the degree of the effect that might be expected in a particular instance. The growth study acknowledges the general relationship and estimates the degree of effect since the degree is the relevant impact to be disclosed.

Please also refer to response #2 in the essay on "Traffic Modeling/Forecasting" in Chapter 1.

2-Ozone impacts are regional in nature and cannot be ascribed to any single project. Projects that are included in the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) have already been included in a regional conformity analysis and require no further analysis for ozone. NOx, CO2, ROG: Air district thresholds do not apply to Caltrans projects. No quantification of these pollutants is required. The Bay Area is in attainment for PM10 (Annual Arithmetic Mean) and is unclassified for PM10 (24-hour). Currently there is no approved methodology for quantification of PM10.

The No-Project Bay Area wide projected weekday vehicle miles traveled (VMT) is 80,410,808 vehicle miles traveled. The two-lane bore projected VMT is 80,251,260 vehicle miles traveled. The small decrease in VMT with Alternative 2N, the Preferred Alternative, is likely due to travelers taking advantage of the decreased congestion in the Caldecott Tunnel to take more direct routes to their destination. This coupled with the fact that vehicle emissions will decrease as a result of congestion relief, i.e. there will be more free flowing traffic and fewer engines idling while queuing up outside the tunnel portals thus producing fewer pollutants, indicates that the project will have a beneficial effect.

3-Alternative 2N, the two-lane alternative has been chosen as the Preferred Alternative. The Regional Transportation Plan (RTP) includes Alternative 2N. If the three-lane alternative were chosen as the Preferred Alternative, the regional analysis would have been done. It is not necessary to run the MTC analysis at this time. Since ozone is a cumulative impact over the entire region, it is expected that if the two-lane alternative has conformity, the three-lane alternative should also have conformity with the national ozone standard because the upstream and downstream lane configuration will still be a total of 8 lanes. Hence, traffic volumes upstream and downstream of the project will be constrained and the ozone contribution from one short section of additional lane will be marginal.

4-Air district thresholds are not enforceable on Caltrans unless adopted as a regulation. No quantification of CO is required.

5-Comment noted, a clarification of the State PM10 and PM2.5 attainment status for the Bay Area will be added.

6-The Draft Environmental Assessment/Environmental Impact Report (DEA/EIR) did not identify any significant effects on the environment by the project. Avoidance, mitigation, and/or minimization measures are identified in Chapter 2, Affected Environment, Environmental Consequences, and Avoidance, Minimization and/or Mitigation Measures. In addition, several alternatives were identified for the project. See the essay on "Alternatives Considered in the Draft EA/EIR" in Chapter 1and response #2 above.

7-The paragraph that the commenter is quoting from was in regards to CO microscale emissions, not particulates. It was mistakenly located in the particulates section and so is somewhat misleading. The CO protocol was approved by MTC in Resolution No. 3075 on June 24,1998 and its use was recommended by the Bay Area Interagency Conformity Task Force, which is the interagency consultation group established pursuant to EPA's conformity regulation and the Bay Area's conformity State Implementation Plan (SIP). The comparable facility that is referred to is Route 101 between Tully Road and Story Road in San Jose. The paragraph will be moved to the appropriate section in the final environmental document to avoid further confusion.

8-In regards to particulates, the Bay Area is in attainment for PM2.5 (Annual Arithmetic Mean and 24-hour) and PM10 (Annual Arithmetic Mean). It is unclassified for PM10 (24-hour). No quantification of PM2.5 is required and there currently is no approved methodology for quantification of PM10. Therefore no additional analysis is required.

9- District CEQA significance thresholds do not apply to Caltrans projects. The Air Quality Impact Report (Caltrans, 2006) determined that the project does not have significant impacts based on State and federal standards. Also, please see the essay on "Bicycle and Pedestrian Access/Improvements" in Chapter 1.

10-Please see Essay on "Transit" in Chapter 1 and response #5 in the essay on "Traffic Operations" in Chapter 1.

11-Please see response #5, Operating a Fourth Bore as Bus, High Occupancy Vehicle (HOV), or Toll Lane, in the essay on "Traffic Operations" in Chapter 1.

12-NOx, CO2, ROG: Air district thresholds do not apply to Caltrans projects. No quantification of these pollutants is required. The project will incorporate to the extent possible the control measures recommended in the BAAQMD CEQA guidelines (1999).

13-All diesel equipment is required to meet the latest ARB certification standards. In regards to the other measures recommended, the State can only commit to those, which have been codified into a regulation through the ARB's diesel risk reduction program. Use of alternative fuels and catalyst based diesel particulate filters is currently still being researched. Maintenance of properly tuned engines and efficient phasing of construction is already part of the States' construction best management practices. The minimization of idling time and limits on heavy duty vehicle operation will be implemented to the extent possible. Please see the essay on "Construction Impacts" in Chapter 1.

Berkeley, City of - City Manager Phil Kamlarz

Office of the city manager

June 30, 2006

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Environmental Analysis
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Oakland, CA 94623-0660

Re: City of Berkeley Comments on the Draft Environmental Assessment/Environmental Review for the Caldecott 4th Bore Project

Dear Mr. McConnell,

These are the City of Berkeley's formal comments on the Draft EA/EIR of the Caldecott Tunnel Project:

The City of Berkeley recommends Caltrans and the Federal Highway Administration to withdraw the currently circulating Draft Environmental Assessment/Environmental Impact Report (DEA/EIR) for the Caldecott Tunnel Improvement Project released on May 12, 2006 and circulate in its place a full draft EIR/EIS for public review.

The current document fails to meet the CEQA and NEPA requirements of public disclosure, analysis, and mitigation of potential impact of the project. It does not provide affected stakeholders and decision-makers with adequate information upon which to make an informed decision on the project while considering environmental impacts. 1

The full EIR/EIS must

- Fully describe the project for the purpose of environmental impact assessment, including construction management components, so that the City has enforceable, written documentation of commitments; 2
- Study alternatives that could reduce or eliminate the project's impacts, in accordance with CEQA guidelines section 15004(b)2. Alternatives should include transit incentives and transportation demand management; 3
- Use the City of Berkeley's CEQA criteria of significance for noise impacts 4
- Include the analysis specified in the Bay Area Air Quality Management District's CEQA guide or use criteria of significance in that guide; 5
- Provide adequate data and analysis of weekend traffic, including its impact on connecting streets such as Tunnel Road/ Ashby Avenue; and 6
- Provide adequate analysis of truck traffic as a result of the project. 7

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We further recommend that any revised EIR assess the cumulative impact of building the SR-24 freeway and previous tunnels with the impact of a fourth bore and that Caltrans, FHWA, ACCMA, and Contra Costa County Transportation Authority be responsible for a multi-modal transportation solution. 8

We further recommend that Caltrans apply its Context Sensitive Solutions policy to this project. 9

The following is a list of specific questions and comments about the D-EA/EIR that need to be addressed:

1. The DEIR should provide technical appendices to illustrate the assumptions and calculations that had been used and undertaken to form the LOS conclusions for intersections in Berkeley. What LOS criteria were assumed? (p83) In addition, there should be included documentation to show the optimization of traffic control signals in Berkeley (Synchro Trafficware, p82.) These timings may not be feasible, considering pedestrian crossing times, minimum green times. 10
2. How can it be stated that the projected traffic volumes at local intersections are considered realistic if the model was not validated for these streets and the design year traffic volumes are only approximate? Congestion on local streets in Berkeley is a serious issue, and efforts should be made to accurately determine the effect of the project on intersection and street operations. (Pp 66-67) 11
3. How were unsignalized intersections assessed? Average LOS or worst approach? (Pp 82 – 86) 12
4. What background intersection improvements were assumed? Was the General Plan for Berkeley reviewed? (Pp 82 – 86) 13
5. The existing AM and PM peak hour traffic analysis of intersections in Berkeley do not reflect operations in other EIRs recently conducted. (p83) 14
6. LOS F conditions with over 300 seconds of delay are unacceptable for the intersection of Ashby at Claremont. The project would make these conditions worse. In addition, the project would cause the intersection of Ashby at College to worsen to LOS E conditions. Mitigation measures should be developed and adopted, in consultation with, and with the concurrence of, the City of Berkeley, to address these severe impacts to intersection operating conditions. (Pp 84 – 86) 15
7. The weekday peak traffic impacts on Berkeley intersections is shown for 2032 and the "No Build" alternative is shown to have similar impacts. The 4th Bore is projected to open in 2012. The DEIR should show the impacts for all alternatives soon after opening. How much difference will there be between No Build and other alternatives for each of the first 10 years? 16
8. The DEIR makes reference to potential improvements to the operation of the SR 13 (Tunnel/Ashby). P87: NB SR 13 could experience improved traffic ops as a result. Improved traffic operations could mean more volume and/or speed on northbound Tunnel Road/Ashby. The DEIR should assess these impacts. 17
9. The DEIR describes the area of impact (P. xxxiv. P37) as the southern portion of Berkeley (south of Dwight) which would be "indirectly" affected by the project. "Indirectly" should be defined. 18

City of Berkeley Comments on Caldecott D-EA/EIR 3

10. The COB requires consideration of the affect of the project on ALL modes. (T-18) p42. There is no discussion about impacts upon cyclists and pedestrians in Berkeley. 19

11. There needs to be a Construction Traffic Management Plan which will encompass not only the accommodation of large trucks, but also what routing direction will be given to all the other contractors and operators of smaller construction vehicles. Construction truck routing is not identified in the DEIR. Will there be use of SR-13, or Fish Ranch Road and Grizzly Peak? 20

12. Further to the reference to the previous MTC study, what would be the impact of expanding parking lots at BART stations in Contra Costa County? P13 21

13. The previous MTC study noted that the new 3 lane bore would increase WB AM peak hour capacity by 1 lane. p15. Furthermore, the 4 lane mainline WB has a higher capacity than the 4 lane WB tunnel. Therefore a 5 lane WB tunnel will have increased capacity because it can carry more of mainline volume. As stated in the report, Alt. 3N draws higher demand to the region. pxxi 22

14. Only marginal demand increase – 120,000 vehicles over 8H. pxxi. 23

15. The DEIR states that the Caldecott 4th Bore project is consistent with goals, policies and objectives. But it should describe how it is. P43. 24

16. For the three-lane tunnel option, the third lane should be studied as a possible transit-only lane, HOV lane, and/or HOT lane. A third lane would lead to more capacity than currently exists in the westbound direction (five vs. four lanes). Therefore, this lane could be used for other purposes than just general traffic flow. 25

17. Bicycle facilities should be considered along SR-24, including through the new tunnel. Currently, the Caldecott Tunnel is the only level route between Oakland/Berkeley and the cities to the east of the Oakland Hills. 26

18. Were different capacity values used for the three current tunnels? Currently, the third bore has the highest capacity, and the center bore has higher capacity in the westbound direction than in the eastbound direction (due to the slight grade). How is this reflected in the analysis? 27

19. Numerous mentions are made of safety concerns for Caltrans staff responsible for shifting the center bore's direction. However, no numbers or analyses are presented to demonstrate the magnitude of this problem. 28

20. What investigation, if any, has been conducted to maximize the existing capacity of the three tunnels and to retime the switching of the center bore for peak period operations? This scenario should be addressed as part of the future No Project conditions. 29

21. This project would not improve eastbound PM peak period conditions, which are currently unacceptable. Some means to reduce the substantial queuing and congestion should be considered. 30

22. By increasing capacity in the non-peak directions, congestion at the SR-24/I-680 interchange (eastbound in the morning) and the SR-24/I-580 interchange (westbound in the evening) will worsen. These are two problems locations, and no mitigation measures have been identified. Basically, won't this project just push the bottleneck to downstream locations? 31

23. Page 61. Existing traffic conditions was prepared for 2004 conditions. A comparison of historic traffic volumes along SR 24, @$-13, I-580, I-680, and 32

City of Berkeley Comments on Caldecott D-EA/EIR 4

major local roadways should be conducted, and a sensitivity analysis conducted to determine representative peak traffic levels over the last five years. Due to fluctuating conditions over the years, a single base year may lead to inconsistent and unrepresentative results.

24. Page 66. No data on existing traffic conditions on weekends is presented. Instead, the Draft EAVEIR simply states that conditions are not predictable. The Draft EAVEIS should evaluate historic weekend traffic volumes to determine vehicle-hours of delay, and should evaluate means to improve the weekend conditions by better switching of the tunnel. For instance, providing information of the center bore direction on 511.org could help alleviate existing congestion issues. 33

25. Page 67. How were the input and output from the CCTA Model rectified with the MCT Model and the ACCMA Mode? Did all three models yield similar results to the traffic forecasts? If not, why was the CCT Model used? A comparison the model output should be provided. 34

26. Page 67. What was considered the existing year in the ACCMA Model? How do the land use, population, and employment projections used in this Model compare the newest ABAG projections? 35

27. Page 72 and 77. Why would traffic volumes during the PM peak hour in the eastbound direction increase with the two lane and three lane alternatives, as compared to the no project scenario? If capacity doesn't change, why would the demand? This doesn't make sense and should be reviewed and explained. 36

Thank you for your careful consideration of these important issues.

Phil Kamlarz
City Manager

1-Please see the essay on the "The Environmental Process; Environmental Impact Statement/Environmental Impact Report (EIS/EIR) versus an Environmental Assessment/Environmental Impact Report (EA/EIR); and Criteria for Significance" in Chapter 1.

2-The Draft EA/EIR and the Final EA/EIR fully describe what the proposed project entails, the environmental impacts and how they will be avoided, mitigated or minimized.

3- A full range of alternatives was considered for this project. See the essay on "Alternatives Considered in the DEA/EIR" in Chapter 1.

4- Caltrans and FHWA conform to local guidelines to the extent practicable and feasible. Caltrans and FHWA are not required to adhere to local ordinances for highway projects, but follow the environmental analysis requirements set forth in both the National Environmental Policy Act and California Environmental Quality Act. Please see essay on "Methodologies used for the Impact Assessments/Local Ordinances" in Chapter 1.

5- The Air Quality Impact Report (Caltrans, 2006) determined that the project does not have significant impacts based on State and federal standards. District CEQA significance thresholds do not apply to Caltrans projects. Please see response #3 in the essay on "Traffic Operations" in Chapter 1.

6- Please see response #1,Weekend Forecasts, in the essay on "Traffic Modeling/Forecasting" in Chapter 1.

7- Please see response #4, Truck Traffic, in the essay on "Traffic Modeling/Forecasting" in Chapter 1.

8 – Please see the essay on "Cumulative Impacts/Enhancements" in Chapter 1.

9 – The Department uses its "Context Sensitive Solutions" policy as an approach to plan, design, construct, maintain, and operate its transportation system. This policy has been and will continue to be used in the development of the Caldecott Improvement Project.

10 – Hard copies of the intersection analysis outputs can be provided by contacting the Public Information Office at Caltrans, District 4. LOS criteria are listed in Volume I, Section 2.1.5.2 Impacts, under Intersection Analysis. Regarding the optimization issue, please see response #2 in the essay on "Traffic Operations" in Chapter 1.

11-Please see response #2, Impacts to Local Streets and Roads and Model Validation, in the essay on "Traffic Operations" in Chapter 1.

The DEIR states that, "The overall traffic patterns forecast by the model are realistic and the general effects of Alternative 2N and 3N on the overall intersection operations should be realistic." Refining the forecasts sufficiently to provide a precise, realistic forecast for each intersection is appropriate for a design-type study. This level of detail is not needed to evaluate environmental impacts in this case, since it is the change in volumes that is of primary interest. It is believed that the magnitude of the changes in volumes is accurate, even if the actual level of service value may not be.

12- Unsignalized intersections are analyzed using Syncro software, as with the signalized intersections. Although Syncro is commonly used for signalized intersection analysis, it is also capable of handling unsignalized intersection analysis. It should be noted that the LOS criteria for signalized and unsignalized intersections are different.

13- No background intersection improvements or future improvement plans were assumed. This is one reason that the overall Levels of Service projected for the intersections may be too pessimistic. However, the intent of this analysis was not to determine the exact future year levels of service, but to gauge what effect the project would have on the level of service at these intersections.

The forecast is consistent with the city's General Plan but was not based on the General Plan assumed improvements. As cited in response #2, Impacts to Local Streets and Roads and Model Validation, in the essay on "Traffic Operations" in Chapter 1, the intent of these intersection analyses was to evaluate the relative magnitude of impact from constructing a fourth bore along State Route 24. Intersection modification is not likely to have a significant effect on corridor-wide traffic demand.

14- We acknowledge the comment. The intersections were analyzed with optimization by software that may be different than real-life strategy employed by the city. As cited in response #2 in the essay on "Traffic Operations" in Chapter 1, the intent of these intersection analyses is to evaluate, at the planning level, the magnitude of impact comparing No-Build and the Build alternatives.

It is impossible to answer this question specifically without more detailed information concerning what other EIRs are being cited. However, it is important to remember these analyses used unmodified model volumes rather than counts and their only intent was to gauge the effect of additional traffic due to the project upon these interchanges.

As for the request to provide a study that reflects data in other recent EIRs, it should be recognized that due to the different character of different project proposals, the magnitude of impacts could vary.

15- We acknowledge the comment. As pointed out, the intersection would be operating at LOS F even without the proposed project. With the project, there would be additional incremental delay. Please see response #2 in the essay on "Traffic Operations" in Chapter 1. As stated above, the purpose of this analysis was not to predict the exact future levels of service of these intersections. The intent was to determine the magnitude of effect the project would have on the intersections' operation.

16- Please see response #4, Existing Traffic and Opening Year Traffic Comparison, in the essay on "Traffic Operations" in Chapter 1.

17- It should be clarified that State Route 13 is referenced to the northbound freeway portion upstream of the State Route 13/24 interchange. With the improved morning eastbound State Route 24 traffic flow because of the fourth bore, northbound State Route 13 approaching the interchange is also expected to improve.

18- Indirect effects are defined as follows in the Council on Environmental Quality regulations implementing NEPA (40CFR1508.8) and the State CEQA Guidelines (California Code of Regulations Title 14, Chapter 3, §15358(2)): "indirect or secondary effects which are caused by the project and are later in time of farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems."

19- The preferred Build Alternative will have no significant impact upon cyclists and pedestrians in Berkeley when compared to the No-Build. Construction of a fourth bore will provide the beneficial impact of improving air quality for bicyclists using the shoulder of State Route 24 between Orinda and Fish Ranch Road during peak commute periods in the westbound direction. CO emissions are reduced when vehicles are not idling in stop-and-go traffic. For additional information regarding bicycles and pedestrians issues please see the essay on "Bicycle and Pedestrian Access/Improvements" in Chapter 1.

20-The construction contract specifications will prohibit the use of public streets for storing of construction equipment. In addition, the contract specifications will prohibit parking of construction worker vehicles and the staging of trucks on Caldecott Lane. The contract specifications will prohibit disposal trucks from using Tunnel Road, Claremont Avenue, College Avenue, and Ashby Ave. Please see also the essay on "Construction Impacts" in Chapter 1.

21-Please see the essay on "Scope of the Project" in Chapter 1.

22-Comment noted.

23-Comment noted.

24- As summarized in Section 2.1.1.2, Consistency with State, Regional, and Local Plans, in the Draft Environmental Assessment/Environmental Impact Report (DEA/EIR) the Contra Costa County and Orinda general plans support a fourth bore on State Route 24. The Alameda County, Berkeley, and Oakland plans take no specific position on it, so the proposed fourth bore is not inconsistent with those plans.

25- The two-lane alternative was selected as the Preferred Alternative. Please see the essay on "Preferred Alternative" in Chapter 1 and response #5 in the essay on "Traffic Operations" in Chapter 1.

26-Please see Options J and K in the essay on "Bicycle and Pedestrian Access/Improvements" in Chapter 1.

27- Different factors affect the eastbound and westbound traffic flows. Existing data indicate westbound traffic flows are higher than eastbound. The differences in tunnel capacity are too small to have a significant effect for the forecasting model to reflect. All of the tunnels had the same capacity in the forecasting model.

28- Our Caltrans Safety Department has examined the tunnel reversal operation. It does expose Caltrans personnel to traffic but so far it has proven to be the safest lane/tunnel change method in the State. On average Caldecott Maintenance crews make over 1700 center lane changes a year. While making the center lane change, maintenance crews have had their vehicles hit from behind several times in the past 43 years. In some of these accidents, employees and other drivers have had to be hospitalized.

29- The Department has conducted several investigations to explore options to maximize the existing capacity of the three Caldecott tunnels. It has been determined that the method currently being used to change the tunnel direction is the most efficient. The direction of operation of the center bore of the Caldecott Tunnel is changed on a dynamic basis by the Department's staff. The decision on which direction the center bore operates is made by tunnel personnel, who continuously monitor traffic conditions and volumes on State Route 24 near the tunnel. This is done primarily with closed-circuit television cameras, and in consultation with the District 4 Traffic Management Center and the California Highway Patrol. During the week the tunnel direction is

changed between the hours of 11:00 a.m. and 12:00 noon. Because traffic demand in either direction through the Caldecott Tunnel on weekends varies depending on whether nearby special events are occurring, the weather, or if there are traffic incidents on adjacent facilities, the switching of the center bore is not performed on a pre-established schedule. Instead, the center bore is switched to best accommodate the traffic patterns and volumes at any given point in time. This is especially challenging on weekends, where for most of the day the traffic demand in both directions exceeds the capacity of a single bore. In the westbound direction, the demand usually exceeds the capacity of a single bore from 9:00 a.m. until 7:00 p.m. In the eastbound direction, the single bore capacity is usually exceeded from 11:00 a.m. to 7:00 p.m. As a result, with only three bores (each with two lanes) available, some congestion will inevitably occur in the direction with only one bore in operation. The weekend demand in either direction seldom is much more than the capacity of a single bore, however. Because of this slight imbalance, the direction which has two bores in operation will often appear to be well under capacity, which leads motorists waiting in congestion in the opposite direction to believe that the center bore is being operated in the wrong direction. Our experience has been that this is rarely the case, and that our tunnel operators are quite adept at selecting the best time to switch direction of the center bore. In fact, the direction of the center bore is switched many times per day on a typical weekend because of these conditions.

30-Comment noted.

31- Please see response #7, Transferring the Bottleneck to Another Location, in the essay on “Traffic Operations” in Chapter 1.

32-We acknowledge that traffic conditions could fluctuate overtime, reflecting external factors such as the economy. However, the intention of the study is to compare the effect of building a fourth bore. Fluctuating existing conditions would not negate the benefit of adding an additional bore in the off-peak direction.

The basis of travel demand forecasting is developing a model for the land use and transportation system present in a base year that can reproduce the traffic patterns present in that year reasonably well. When future traffic conditions are entered into this model one can then assume future conditions will be reflected accurately. Of course, conditions will fluctuate, but short-term fluctuations are impossible to predict so the uncertainty that they bring must be tolerated.

33- Please see response #3, Weekend Traffic, in the essay on “Traffic Operations” in Chapter 1.

34- All San Francisco Bay Area county models, including the Contra Costa Transportation Authority (CCTA) Model used on this project, are required to be in conformance to the Metropolitan Transportation Authorities Baycast model. This means that they use the same Associated Bay Area Governments (ABAG) land use projections and project comparable volumes and major Bay Area Gateways such as the toll bridges major entry and exit point to and from the Bay Area. The Baycast model covers all nine Bay Area Counties. The CCTA model also covers all nine Bay Area counties but covers Contra Costa County in more detail.

Three models could have been used to forecast the traffic for this project. The Baycast model covers both sides of the Caldecott Tunnel and would have forecast the traffic in the tunnel well. However, it is not detailed enough to forecast the traffic for the various interchanges along State Route 24 well. The Alameda County Congestion Management Agency (ACCMA) and the CCTA models were both more detailed models. However, the CCTA model was chosen because it was a more sophisticated model that had been more recently validated. In order to improve its performance in Alameda County, the more detailed zonal and network structure from the ACCMA model was copied into the CCTA model and for the area around State Route 24 in Alameda County. The resulting model was judged to be the best model to forecast traffic for this project.

Comparing detailed model outputs would not be productive because different models always yield different results, due to different input assumptions, software algorithms, etc. The CCTA model, as modified for this project, would still be the best model to forecast traffic for this project and we would use its results.

35-We are assuming that the intent of this question was to inquire concerning the CCTA model that was used to forecast traffic for this project.

The CCTA model used uses a hybrid of the 2002 and 2003 ABAG land use projections. It was the most up-to-date suitable travel demand model available when the forecasting effort began.

36- Even though capacity will not be increased in the eastbound direction during the p.m. peak period, it is reasonable that the traffic forecast does show a small marginal increase in eastbound traffic during the p.m. peak period. Many round-trips follow the typical commute pattern, traveling to work in the morning and returning home in the evening. For these travelers, the project would not make a round trip that includes an eastbound leg in the p.m. peak period more attractive. The other leg of their trip would be westbound in the a.m. peak period so they would gain no benefit from the project since it only benefits travelers in the off-peak direction.

However, some round trips do not follow this pattern. For instance, the traveler might travel west through the Caldecott tunnel early in the p.m. peak and then return later traveling east later in the p.m. peak. Even though this traveler must still travel east during the p.m. peak the total delay time for his round trip would be smaller so the traveler would be somewhat more likely to make the trip.

East Bay Municipal Utility District

EAST BAY
MUNICIPAL UTILITY DISTRICT

July 7, 2006

Gregory C. McConnell, Senior Environmental Planner
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Re: Draft Environmental Assessment/Environmental Impact Report - Caldecott Improvement Project on State Route 24 in Alameda and Contra Costa Counties (EA# 294900)

Dear Mr. McConnell:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Draft Environmental Assessment/Environmental Impact Report (EA/EIR) for the Caldecott Improvement Project in Alameda and Contra Costa Counties. In general, EBMUD supports the Caldecott Improvement Project as it will facilitate responding to water/pipeline emergencies when EBMUD staff needs to quickly pass through the tunnel. EBMUD has the following comments.

There is no reference within the Draft EA/EIR to a spill prevention plan. Since a portion of the project area ultimately drains to the San Pablo Reservoir, an EBMUD drinking water supply and storage reservoir, such a plan is important and EBMUD requests it be included in the Draft EA/EIR. 1

Page xxx, Table S-2, Impacts and Mitigation Measures, EBMUD does not feel the mitigation measures described with respect to the coast live oaks are adequate. Additionally, EBMUD requests the language under Mitigation, Minimization, and/or Avoidance Measures be changed such that the term "knowledgeable individual" is replaced with "arborist." 2

Page 59, Section 2.1.4.1 Affected Environment, the Draft EA/EIR states that wastewater collection and treatment within the project area is handled by the City of Oakland and the Central Contra Costa Sanitation District. This statement is not entirely correct. EBMUD, rather than the City of Oakland treats the wastewater. Since most of the water, including the tunnel wash water sent to the sanitary sewer, drains west, EBMUD ultimately receives the water for treatment. This statement is inconsistent with a statement at the top of page 132, under Section 2.2.2.2 Non-Storm Water Discharges that "The nearby sanitary sewer system is under the jurisdiction of the East Bay Municipal Utility District (EBMUD)." This statement is also not entirely correct and should be rephrased to say "The nearby sanitary sewer system is owned by the City of Oakland." Wastewater treatment is under the jurisdiction of the EBMUD; however, EBMUD is not aware of any current agreements with Caltrans to allow the periodic discharge of tunnel wash water 3

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Gregory C. McConnell, Senior Environmental Planner
July 7, 2006
Page 2

into the sanitary sewer system. EBMUD would like to receive a copy of this agreement if possible.

Page 131, Section 2.2.2.2 Storm Water, the Draft EA/EIR discusses storm water runoff from the project, including runoff from the freeway and immediate surrounding tributary watersheds. The discussion acknowledges the water drains into San Pablo Creek, but concludes by saying "San Pablo Creek eventually outfalls to San Pablo Reservoir, located more than 4.8 kilometers (3 miles) away from the point of where the project discharges into San Pablo Creek. Thus, the project would not have water quality impacts to the reservoir." EBMUD does not feel this comment is satisfactory. A substantial portion of the project area occurs on the east side of the Caldecott Tunnel, within the San Pablo watershed. A total of 24,700 square meters or 5.1 acres are identified in the Draft EA/EIR as Potential Construction Staging Locations for the project (Figure 2.4.2-3) in the San Pablo watershed. The Draft EA/EIR does not analyze the impacts of construction on San Pablo Reservoir. Temporary storage of heavy equipment including fuel, muck piles and excavation spoils can be a source of sediment, VOCs and other pollutants and must be managed to prevent their movement offsite. The Draft EA/EIR dismisses any project water quality impacts to San Pablo Reservoir because of distance. The Draft EA/EIR does not mention that San Pablo Reservoir, to which storm water from the project area drains via the San Pablo Creek, is an EBMUD drinking water supply storage reservoir. Runoff from the eastern side of the project drops approximately 400 feet over a 1.9 mile distance, accelerating beneath Highway 24 in a large concrete drain where it enters San Pablo creek. From that point it flows 2.7 miles directly into San Pablo Reservoir where the elevation drops an additional 170 feet. There is no intervening obstruction or detention facility to impede this flow. EBMUD's Sobrante Water Treatment Plant and San Pablo Water Treatment Plant treat raw water from San Pablo Reservoir and supply drinking water to more than half a million people located in the area on west side of the Berkeley Hills that stretches from Oakland through the Rodeo area. Any degradation, potential or actual, in the quality of the water stored in San Pablo Reservoir is of utmost concern to EBMUD and its customers. The Draft EA/EIR should assume that sediment and other forms of pollution that leave the site will enter San Pablo Reservoir if adequate mitigation measures are not taken to detain pollutants onsite. EBMUD does not agree the statement is supportable unless a commitment to implement specific Best Management Practices (BMPs) for stormwater mitigations is incorporated in the project. 4

Page 132, under Water Quality Impacts, Alternative 3N incorrectly refers to the alternative as "the two-lane alternative." EBMUD suggests this be changed to accurately refer to the "three-lane alternative." 5

Page 133, Section 2.2.2.4 Avoidance, Minimization and/or Mitigation Measures includes a discussion of (a) Construction Site BMPs; (b) Permanent Design Pollution Prevention BMPs and (c) Permanent Treatment BMPs. Protection of water quality in San Pablo Reservoir is not mentioned. The Draft EA/EIR does state, under (c) Permanent Treatment BMPs (page 134) "On the Contra Costa side of the tunnel, biofiltration swales, 6

Gregory C. McConnell, Senior Environmental Planner
July 7, 2006
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infiltration basins, and detention basins were evaluated as possible types of Treatment BMPs. During the design phase, the feasibility of these alternatives will be further investigated". If, as the Draft EA/EIR states on page 131, "the project would not have water quality impacts to the (San Pablo) reservoir", it must be assumed that the avoidance, minimization and/or mitigation measures are not designed to protect San Pablo Reservoir water quality. This deficiency needs to be addressed in the Final EA/EIR.

Page 142, last paragraph of 2.2.4.3 Impacts, the Draft EA/EIR states that "The East Bay Municipal Utility District and the East Bay Regional Park District own the land near the existing tunnels on the eastern side," and that "any work done on public properties would require coordination with the appropriate agency." EBMUD requests clarification of the plan for notifying the appropriate agency, and when such notification can be anticipated. 7

Pages 172 and 173, Section 2.3.1.1 Affected Environment, contain several incorrect or incomplete references. In the last sentence of the first paragraph of the Coast Live Oak/California Bay Forest section, the Draft EA/EIR refers to the "bush monkeyflower" rather than the correct "sticky monkeyflower." In the second paragraph of this section the Draft EA/EIR refers to the "Western gray squirrel" rather than the correct "Eastern fox squirrel (Sciurus Niger)," and the "mule deer" rather than the correct "black-tailed deer." In the second paragraph of the section on Annual Grassland the scientific name for deer mice is provided, although it has already been provided in the previous section. In the first paragraph on the Native Perennial Bunch Grasses, the Draft EA/EIR states that needlegrass species are found in the California annual grassland, EBMUD suggests adding that these species are also found in the soft chaparral, coyote brush scrub, and oak woodland. In the Urban Forest section, the Western meadowlark is a grassland species, and the yellow-billed magpie is uncommon west of the central valley. However, the American crow (Corvus brachyrhynchos) is common in the urban forest setting and should be mentioned. 8

Pages 186 and 187, Section 2.3.5.2 Affected Environment, in the second paragraph about the California Tiger Salamander, the Draft EA/EIR refers to field surveys conducted in 2004 to evaluate the presence of any adult or larvae of the California tiger salamander. Although no adult or larvae sightings were recorded, 2004 was a below normal water year, receiving only 90 percent of normal precipitation. The small dry pool used to negate the site as a functional breeding habitat for this species may retain water longer in a normal or above-normal water year. 9

Page 187, in the first paragraph, the Draft EA/EIR states that the critical habitat designation has been vacated. In 2005 the critical habitat was proposed for re-designation. The new critical habitat Unit 6 includes much of the project area. Please also correct the statement referring to the Alameda whipsnake critical habitat on page 191, Section 2.3.5.5. 10

Gregory C. McConnell, Senior Environmental Planner
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Page 191 in the fourth paragraph, California Horned Lizard, EBMUD suggests including this species in pre-project surveys, or, at a minimum, rewording the sentence such that it aligns with the intent and purpose of the Draft EA/EIR. 11

Page 197, Section 2.4.2.3 Disposals, the evaluation of potential land disposal options may need to include adjacent land owners like EBMUD. 12

Page 203, Section 2.4.4 Traffic, should discuss any project related access problems that will occur for the adjacent lands and a discussion on the impacts to routes involving material disposal. Additionally, this section should discuss coordination with first-responder fire control such as is provided by EBMUD and EBRPD. 13

Page 203, Section 2.4.5.1 Water Quality Impacts, the discussion of construction-related water quality impacts focuses only on groundwater and tunnel wash water and completely overlooks protection of water quality in San Pablo Reservoir. The impacts to the reservoir from construction activities need to be identified, analyzed and adequately mitigated. 14

Page 203, Section 2.4.5.2 Avoidance, Minimization and/or Mitigation Measures, again the discussion of these measures does not address construction impacts to San Pablo Reservoir. These impacts need to be identified, analyzed and adequately mitigated in the Final EA/EIR. 15

Page 207, Section 2.4.11.1 Threatened and Endangered Species, the Alameda whipsnake should be mentioned as a threatened or endangered species. 16

Page 208, Section 2.4.11.2 Western Spadefoot Toad, if it is decided to survey for this species, there is no basis for different end dates. In the Nesting Raptors and Other Migratory Birds section, EBMUD requests changing the sentence "If raptors or other migratory bird nests are found or if raptors or other migratory birds are suspected to be nesting at the time…," to be changed to "If raptor nests or other migratory bird nests are found at the time…" 17

Page 209, in the Trees and Other Mature Vegetation section, EBMUD requests the sentences that states "Environmentally Sensitive Areas will fully enclose the dripline of the oaks and any limbs that need to be removed will be pruned by an arborist in accordance with arboricultural industry standards or will be performed following the direction of a knowledgeable individual," to be changed to "…or will be performed following the direction of an arborist." 18

Page 214, Section 2.5.4.4 Noise, second paragraph, "…a distance of at least 8 kilometers (.5 mile)," should be changed to "…a distance of .8 kilometers (.5 miles)." 19

Page 234, last paragraph of the Hydrology and Water Quality section states, "On the Contra Costa side of the tunnel, biofiltration swales, infiltration basins, and detention 20

Gregory C. McConnell, Senior Environmental Planner
July 7, 2006
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basins were evaluated as possible types of Treatment BMPs. During the design phase, the feasibility of these alternatives will be further investigated." In a watershed sanitary survey conducted by EBMUD in 2005 to meet drinking water regulation requirements, urban area runoff, erosion, transportation corridors among others are identified as contamination sources in San Pablo Reservoir watershed with the highest potential impact on water quality for San Pablo Reservoir. Based on this survey, EBMUD recommends that the project sponsor incorporate BMPs that will reduce the discharge of pollutants from construction through permanent design and operation phases of the project to the extent feasible. EBMUD requests that Department of Transportation consult with EBMUD on evaluating, selecting and determining the necessary and adequate BMPs for storm water impacts mitigation that will be implemented in the project.

Page A-11, Appendix A, the environmental checklist lists "no impact" for fire protection under Public Services, Section XIII. Please discuss any reduced wildfire response that may occur during construction. 21

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning, at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:TNS:sb
sb06_182.doc

1- Based on your comment, Caltrans has revised the text in Chapter 2 in the Water Quality section to include a spill prevention plan for the portion of the project that ultimately drains to the San Pablo Reservoir.

2- Additional information specific to coast live oak mitigation (mitigation will be 5:1 for coast live oak) will be provided in the Comprehensive Conceptual Mitigation Plan, which is developed during design. "Knowledgeable individual" has been changed to "qualified individual".

3-The Department has noted your comment and revised the text. It was incorrectly stated in the Draft Environmental Impact Report (DEIR) that the tunnel wash water from the existing tunnels flows into an EBMUD system and that there is an existing agreement with EBMUD to accept this water. The actual connection is to an existing City of Oakland (City) sanitary sewer pipe network as noted from your comments. The City currently accepts these discharges from the existing tunnels into its sanitary sewer system. . This wash water is eventually treated in the EBMUD wastewater treatment plant, as had also been noted. Discussions will be held with the City concerning the new bore and our proposal to continue to discharge the tunnel wash water as previously agreed. EBMUD will also be invited to participate in these discussions. The Department will forward to EBMUD the current agreement.

4- The Department understands your concern regarding the importance for addressing the potential for downstream water quality impacts during construction. It should have been stated in Section 2.2.2.2 of the DEA/EIR that the San Pablo Reservoir has a beneficial use as a municipal water supply. This has been acknowledged in the FEA/EIR. The Department is required, under its National Pollutant Discharge Elimination System (NPDES) and Construction General Permits, to consider the appropriate Best Management Practices (BMPs) with the Best Available Technology (BAT), to the Maximum Extent Practicable (MEP) as mentioned

in the DEA/EIR. As such, the Department shall include in the contract specific water pollution controls to be deployed during construction year round for the full duration of the contract. Additionally, the Contractor is required to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for approval by the Department. The SWPPP shall include BMPs to address any, or all, of the following to the MEP: soil stabilization, sediment control, tracking control, wind erosion control, non-stormwater management, and waste management and materials pollution control. Hazardous Waste, Solid Waste, Liquid Waste, and Contaminated Soil Management BMPs shall also be required. Department site inspections will ensure adequate implementation, deployment and maintenance of those BMPs identified within the SWPPP. Further, a sampling and analysis plan shall be prepared as part of the SWPPP to verify and ensure that no materials or wastes may be released from the construction site, effectively monitoring and protecting downstream water resources.

5- This correction has been made in the DEA/EIR.

6- Historic flows from the project site will be maintained. The Contra Costa County portion of the project site does discharge to San Pablo Creek and eventually to San Pablo Reservoir, however, there will only be nominal increases to runoff due to minimal increases in impervious areas. Your comment is noted, and the DEA/EIR should have acknowledged that the project may have a potential for downstream water quality impacts due to construction activity. Because the Caldecott project is a major reconstruction project, the Department is required, under its NPDES and Construction General Permits, to consider the appropriate BMPs with the BAT, to the MEP. These measures are designed to protect receiving water bodies of the project site. The incorporation of appropriate Construction Site BMPs during the Design Phase will minimize potential temporary water quality impacts. The DEA/EIR should have clarified that the project will have minimal permanent water quality changes from existing conditions due to the minimal additional runoff. Currently, no Treatment BMPs exist in the drainage systems. The Department is presently investigating the potential incorporation of permanent Treatment BMP options based on effectiveness, practicability, feasibility, safety, and maintainability.

7- All work is to be done in the Caltrans right-of-way. At this time, it is anticipated that no EBMUD lands will be affected.

8- Plant species corrections have been made. Regarding wildlife, the species listed are typically associated with coast live oaks, not necessarily those species found specifically at the proposed project site. Changes for the sticky monkey flower and black-tailed deer have been made. The additional scientific name for deer mice has been deleted. The western meadowlark has been deleted and the American crow has been added to the Urban Forest text of Section 2.3.1.1.

9- The area referred to in this comment does not retain water long enough for breeding of the species. This area has been observed by CT District biologists in years subsequent to 2004, and the water level dropped prior to mid-May. Please see *The Potential for Occurrence of the California Red-legged Frog (Rana aurora draytonii), the California Tiger Salamander (Ambystoma californiense) and the Alameda Whipsnake (Masticophis lateralis euryxanthus) at Two Riparian Sites Associated with the Proposed Caldecott Improvement Project, Orinda, California* (McGinnis 2004) for additional information.

10- The correction has been made.

11- The paragraph has been re-worded.

12- The disposal of excavated material will be determined by the Contractor. The Contractor will be able to explore potential uses for the excavated material and disposal sites. The Contractor will be required to adhere to all state and federal regulations in disposal or use of the excavated material.

It is expected that the material resulting from the tunnel excavation will be free of anthropogenic contamination since it has never been previously exposed, thereby making it a very likely candidate for unrestricted reuse at other developments in need of imported fill. There is a chance that a small percentage of the excavation spoils will contain the naturally occurring hydrocarbons (e.g., tar) observed in the geologic formations during the boring of the earlier tunnels. The excavation spoils will be screened for the presence of hydrocarbons and other chemicals (e.g., metals) to fully characterize the spoils' constituents and determine suitability for types of reuse.

Whether the spoils are reused as imported fill or disposed of at a landfill, the material will be handled in accordance with all applicable laws and regulations promulgated by federal, state, and local agencies. For example, landfill waste characterization will be governed by Title 22 of the California Code of Regulations and the federal parameters defined under the Resource, Conservation and Recovery Act (RCRA); additionally, reuse as imported fill should satisfy guidelines established by, amongst others, the State Water Resources Control Board acting through its regional water quality control boards.

13- The Contractor will be responsible for selecting the disposal site and therefore the Contractor will select the route to the disposal site. However, contract specifications will prohibit disposal trucks from using Tunnel Road, Claremont Avenue and College Avenue.

Please see the essay on "Construction Impacts" in Chapter 1.

Caltrans does not prepare and maintain emergency response maps or escape routes for each local jurisdiction, within the local boundaries. However, Caltrans will coordinate and support the local plans and emergency responses by maintaining access via its facilities.

14- Please see response to EBMUD response no. 4.

15- Please see response to EBMUD response no. 4.

16- The species has been added.

17- Changes have been made to reflect the different construction survey regimes during the summer and winter (same as the California red-legged frog). Requested changes have been made to the Nesting Raptors and Other Migratory Birds text.

18- Thank you for your comment. "knowledgeable individual" has been changed to "qualified individual".

19- The change has been made in the referenced FEA/EIR section.

20- The Department will consider Treatment BMPs as noted in the DEA/EIR, in compliance with the Department's NPDES Permit with the State Water Resources Control Board (SWRCB). The selection of appropriate treatment controls must be based on effectiveness, practicability, feasibility, safety and maintainability. Future meetings will be scheduled with the Regional Water Quality Control Board (RWQCB) to discuss proposed treatment of stormwater runoff to address the project's impacts.

21- The local jurisdictions, such as the local fire department, ambulance services and police, are responsible for responding to any emergencies. Caltrans will facilitate "coordinated" emergency responses, by closely working with all local jurisdictions during an event. Caltrans will also make every effort to maintain local access via its facilities. Caltrans has various emergency response plans in place, and periodically performs "emergency response mock drills" with various local entities, such as the Metropolitan Transportation Commission (MTC). As part of the coordinated effort with local jurisdictions, if required, Caltrans will close portions of the tunnel to provide emergency vehicle access only. Based on the above discussion, Caltrans does not prepare and maintain emergency response maps or escape routes for each local jurisdiction, within the local boundaries. However, Caltrans will coordinate and support the local plans and emergency responses by maintaining access via its facilities.

East Bay Regional Park District - Senior Planner Linda J.P. Chavez

EAST BAY REGIONAL PARKS FOR THE FUTURE PARK DISTRICT

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July 11, 2006

Mr. Gregory C. McConnell
Attn: Ms. Sheryl Dorado
Department of Transportation
District 4, Environmental Analysis
Mail Station 8B
P.O. Box 23660
Oakland, CA 94623-0660

RE: **Caldecott Improvement Project on State Route 24**
- Draft Environmental Impact Report

Dear Mr. McConnell,

The East Bay Regional Park District has received and reviewed the draft Environmental Impact Report (DEIR) for the Caldecott Improvement Project. This project is located near Sibley Volcanic Regional Preserve and Temescal Regional Recreation Area. The improvement project's eastern portal does potentially affect Fish Ranch Road, which provides the only access to Sibley's operation and security facilities, and a major access to Tilden Regional Park.

The proposed project does not significantly impact the Park District's operations or facilities other than the occasional temporary closures of Fish Ranch Road and the minor noise increase to an already noise impacted picnic area at Temescal Regional Recreation Area.

- The temporary Fish Ranch Road closure needs to consider and include in its "Transportation Management Plan" the continued access to Sibley's operation and security facilities. 1
- The increase of 1dBA of noise to the existing picnic area at Temescal Regional Recreation Area is not significant. The potential of a noise barrier would reduce the noise by 7dBA. However, this noise barrier would create its own esthetic impacts. 2

The Park District is interested about the disposition of the excavation spoils. The DEIR does mention potential various receiver sites. The actual receiver sites are still under consideration. To clarify, any site within Park District lands, in addition to the evaluation and the required permits, will be subject to a Board of Director approved agreement. 3

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Caldecott Improvement Project
July 11, 2006
Page 2 of 2

Finally, it was noted that the "Bikeway Tunnel Alternative" was eliminated from further discussion. The Park District understands that the bicycling community is supportive of a bikeway concept. The Park District is also supportive of bicycling. The DEIR indicates this "alternative is not practical" and "there are more cost-effective ways to improve bicycle travel between both sides of the tunnel". Please expand and provide background information on these two points. 4

Thank you for the opportunity to review and comment on the DEIR. The Park District is interested in the project and will continue to follow the process.

Very truly yours,

Linda J. P. Chavez
Senior Planner

1- At this time, some weekend closures may be anticipated. However, the number of closures is expected to be limited to a few occurrences. Detours will be in effect to maintain alternate access. Temporary closures at Fish Ranch Road would be only during nighttime and/or weekend hours. Closures will not affect daytime access to Sibley's operation and security facilities.

2- The Temescal soundwalls have been deleted from the project.

3- Thank you for alerting us to this processing requirement.

4- Please see the essay on "Bicycle and Pedestrian Access/Improvements" in Chapter 1.

Lafayette, City of - Mayor Ivor Samson

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CITY COUNCIL

Ivor Samson, Mayor
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Mike Anderson, Council Member
Carl Anduri, Council Member
Don Tatzin, Council Member

June 8, 2006

Gregory C. McConnell, Senior Environmental Planner
Attention: Sheryl Dorado, Associate Environmental Planner
Dept. of Transportation, District 4, Environmental Analysis
Mail Station 8B
PO Box 23660
Oakland, CA 94623-0660

Dear Mr. McConnell and Ms. Dorado:

Thank you for the opportunity to comment on the Caldecott Improvement Project on State Route 24, Draft Environmental Impact Report, May 2006 (DEIR). The City of Lafayette appreciates the opportunity to share our concerns with you. This letter is intended to serve as the City's official comments on the DEIR.

In our review of the DEIR, we noted that the Intersection Analysis (pages 82-87) found that seven of the eleven City of Lafayette intersections studied would experience a change in Level of Service (LOS) between the Year 2032 No-Build scenario and the Year 2032 Build scenarios. Of these seven intersections, five would result in a degradation of the LOS to a D or worse. Yet on page xxxiv, the DEIR concludes that "Neither (of the Build scenarios) would result in any significant impacts to the local intersections compared to the No-Build." The City of Lafayette views these forecasted changes in LOS as a result of the Build scenarios as significant and would result in an increase in traffic on the existing roadways and impact the capacity of the street system. These changes in LOS may also impact the City's ability to meet future Contra Costa Transportation Authority Growth Management Requirements, result in inadequate emergency access and conflict with the City's adopted policies, plans or programs supporting alternative transportation. The impacts on the LOS of local streets created by the Build scenarios should be mitigated and the DEIR should be amended to reflect this impact. 1

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Mr. McConnell and Ms. Dorado
Page 2
June 8, 2006

Should you have any questions regarding the City of Lafayette's comments on the DEIR, please contact Leah Greenblat, Transportation Planner at 925.299.3229.

Sincerely,

Ivor Samson
City of Lafayette Mayor

cc: Lafayette Circulation Commission
Leah Greenblat, Lafayette Transportation Planner

1- The DEIR states that, "The overall traffic patterns forecast by the model are realistic and the general effects of Alternative 2N and 3N on the overall intersection operations should be realistic." Refining the forecasts sufficiently to provide a precise, realistic forecast for each intersection is appropriate for a design-type study. This level of detail is not needed to evaluate environmental impacts in this case, since it is the change in volumes that is of primary interest. It is believed that the magnitude of the changes in volumes is accurate, even if the actual level of service value may not be. However, the critical finding is that construction of a fourth bore of the Caldecott Tunnel would have very little impact on local intersections.

Based on the countywide model, the forecast had shown significant growth in the vicinity of Lafayette roadway network, resulting in 8 of 11 intersections to operate in LOS D or worse even in the No-Build scenario. We acknowledge that among the cities along the corridor, the City of Lafayette would experience the most local intersection impact based on the forecast demand. Some of the growth as projected in the forecast might not be representative of actual growth to be expected. Please see response #2 in the essay on "Traffic Operations" in Chapter 1.

Moraga, Town of - Public Works Director/Town Engineer Jill Mercurio

"Jill Mercurio"
<jmercurio@moraga.ca.us>
07/12/2006 04:14 PM

To <Caldecott_Public_Comments@dot.ca.gov>
cc "Manager" <pvince@moraga.ca.us>, "Jeannine Gregory" <gregory@moraga.ca.us>, "Lori Salamack" <lsalamack@moraga.ca.us>, "Jill Mercurio" <jmercurio@moraga.ca.us>
bcc
Subject Comments from Moraga

Dear Ms. Dorado:

I have reviewed the Draft Environmental Assessment/Environmental Impact Report sent to Mr. Dan Bernie on May 10 regarding the Caldecott Improvement Project.

The Town has a couple of issues regarding the build alternatives' impacts:

Page 48, Section 2.1.2.2 states that "Six residential locations...were selected for testing the growth inducement effects of the project." One of these was the Town of Moraga, but I was unable to find data specific the "growth inducement effects of the project", and we are very concerned as what the results might be. The report cited ABAG projections, but these are not specific to the project. 1

Page 82 (+) Intersection Analysis. Given Moraga's cul-de-sac community status, the Town is concerned about how the project will impact the traffic flows in Orinda and Lafayette. Although there appears to be virtually no change to the intersections in Orinda for either alternative versus the no-build alternative, several of the intersections that Moragans use to get out of Town through Lafayette are impacted – some with a LOS worse than the no-build alternative. This decrease in LOS concerns the Town. The report says "neither of the build alternatives would result in any substantial impacts to the local intersections studied compared to the No-Build Alternative." A decrease from a LOS D to LOS E seems to be significant to the people traveling it. 2

Thank you,

Jill Mercurio

Public Works Director/Town Engineer

Town of Moraga

(925) 631-6844

jmercurio@moraga.ca.us

1- As discussed in the supporting technical report, *Growth Inducement Analysis for the Caldecott Improvement Project, Final Report (Parsons, 2005)*, there were no substantial impacts anticipated to the Town of Moraga. The text of Section 2.1.2, Growth, in the DEA/EIR has been modified to report this finding. Please note that Lori Salamack, Town of Moraga Planning, was one of the expert panel members who reviewed and contributed to the study conclusions.

2- Please see response #1 to the City of Lafayette's letter.

Oakland, City of - Department of Planning, Building and Major Projects Claudia Cappio

CITY OF OAKLAND

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Community and Economic Development Agency
Office of the Executive Director

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VIA EMAIL, FACSIMILE AND U.S. MAIL

July 27, 2006

Gregory McConnell
Senior Environmental Planner
Sheryl Dorado
Department of Transportation District 4
Mail Station 8B
P.O. Box 23660
Oakland, CA 94623-0660

RE: City of Oakland Comments Pertaining to the Draft Environmental Assessment – Draft Environmental Impact Report for the Caldecott Improvement Project (EA 294900)

Dear Mr. McConnell:

The City of Oakland wants to work with Caltrans to engage in a constructive dialogue about the substantive traffic, noise, air quality and other issues related to the proposed Caldecott Improvement Project on State Route 24. Oakland also wants to work with Caltrans to figure out specific measures to address the impacts of this project, from the standpoint of both managing construction related impacts and longer term project related impacts as well as enhancements to benefit the surrounding environment. We recognize fully that Oakland is part of a regional roadway and transportation network, and that the Caldecott represents a vital connection to Contra Costa County. However, there are several serious concerns pertaining to the proposed design and operation of the proposed Caldecott Tunnel Fourth Bore. Further, the analysis contained in the Draft Environmental Assessment – Draft Environmental Impact Report (Draft EA-EIR) does not provide an adequate base from which to attain solutions. We want to find these solutions, and the following comments on the Draft EA-EIR are meant in that spirit.

1. The project description provides a rationale for why the fourth bore is necessary, but provides little other substantive information that is legally required to appropriately identify and mitigate potentially significant environmental impacts. For instance, critical information is missing about the major physical characteristics of the project, the projected duration of construction, major access routes for construction vehicles, material and other equipment, the proposed phasing and staging, number of construction workers on the job during peak periods, location of construction worker parking, other agencies who would be involved in the project and what specific local street closures would necessitate a Freeway Agreements. 1

Caldecott Improvement Project EA-EIR
City of Oakland Comment Letter
July 12, 2006

page 2

2. Lack of Compliance with CEQA-NEPA Procedures. In 2003, the State Department of Transportation issued a combined Notice of Preparation for an EIR and a Notice of Intent to prepare an EIS. At the time, the City acknowledged the coordinated and thoughtful approach that Caltrans was pursuing for this project. The combined EIR-EIS process would enable the most complete environmental analysis and avoid duplication of effort. It is unfortunate that Caltrans later decided to forego the EIS and instead prepare an Environmental Assessment. This type of document is not a substitute for an EIS but rather a preliminary evaluation of whether or not there may be significant impacts as the result of a project. It is a first step only. This switch in the review process has resulted in two serious consequences: the public is far less informed and mitigation requirements under Federal law are not even included in this document. The preparation of a joint EIR-EIS remains a mandated and superior approach for determining the type and range of potentially significant environmental consequences. 2

3. The project description and project study area are inadequate because they are too narrowly defined, particularly the omission of the surrounding regional roadway network. The project area studied (Broadway –SR24 interchange to Gateway) is woefully inadequate to determine the potential impacts of the project on the regional roadway network through Oakland. The project area study boundaries should, at a minimum, extend at least down to the MacArthur split. In this way, an analysis of travel patterns at major travel decision points could be completed (choke points represent travel choices) along the roadway segment between the Macarthur Maze and the tunnel entrance. As now written, there are no significant impacts, in large part due to the narrow study area boundaries. Potential changes to travel patterns, lane configurations, and overall segment capacity from the MacArthur Maze will have the most significant impacts on the surrounding Oakland community and have been ignored in the Draft EA-EIR. 3

4. The growth forecasts used (2004) are not reflective of a longer range view of changes in travel patterns due to growth. A longer term view of travel patterns (for example 1995-2005) would provide an opportunity to identify patterns or cycles of growth and changes in travel demand along this corridor. This information would likely provide an assessment of where this region lies on the long term growth curve. In turn, such analysis could be used to look at different congestion management techniques other than a fourth bore. 4

5. The lane configurations on either side of the tunnel require detailed analysis; none is included in the Draft EA-EIS. There is no analysis included of how the lane configurations on either side of the Caldecott could be modified to manage congestion and whether or not changes in lane configuration could affect overall capacity of the roadway segment from the MacArthur Maze to the Caldecott Tunnel. This analysis is important in order to provide an alternative means of managing the choke points and providing more storage along this segment of Highway 24. 5

6. No weekend travel analysis included. The Draft EA-EIR does not contain any analysis of weekend travel patterns or demand even though one of the stated objectives of the project is congestion relief during the weekends. This information should be included so that the City and others may weigh the benefit of better weekend congestion conditions against the construction, long-term noise and other impacts. In addition, it is difficult to assess what degree of efficacy will be achieved in relieving weekend congestion patterns with the fourth bore. 6

7. There are numerous instances through the Draft EA-EIR where conclusions are reached without facts, reasonable assumptions based on facts, or expert opinion based on facts. This lack of detailed factual analysis is highly problematic in an environmental review document with an

underlying purpose of providing a base of informed public decision-making. The most glaring example of this shortcoming is Appendix A in the document, the initial study checklist. It provides no data, analysis or other factual basis upon which to conclude whether or not there would be an environmental effect as the result of the project or what degree of significance is presumed if there is an environmental effect identified, nor any references to studies that may support these unsupported conclusions. The legal requirements and standard practice of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) are to include the underlying factual data and analysis upon which conclusions were based in the checklist; not, as is the case here, to have a "naked" checklist. I was particularly flummoxed by the statement in Appendix A that the Initial Study checklist "was completed during the scoping process prior to the completion of the technical studies and was preliminary. This environmental significance checklist reflects the conclusions reached after the completion of the technical studies." So how would a reader know the difference between the preliminary conclusions reached prior to the technical studies and those identified afterwards? 7

In addition:

- Rockridge/Temescal Frog Park was omitted as a sensitive receptor in the noise analysis. 8
- The noise analysis omits a large building of condominiums (# 180 Parkwoods). 9
- No analysis is contained to justify the conclusion that there would be no increase in truck traffic. 10
- No survey or field work is provided to justify the conclusion that there would be no significant tree loss. Preliminary field studies from the City provide a much different picture of significant tree loss; in particular, the tree loss associated with providing an adequate construction staging area. There must be adequate survey work to determine the number, size, species and health of trees in the project area, along with a realistic assessment of tree removals and trees that are to remain but may be impacted by construction and operational activities. 11

8. <u>The thresholds of significance used to identify potentially significant environmental effects are too general and ignore established local standards</u>. Throughout the Draft EA-EIR, it is difficult for the reader to connect thresholds used for determining a potential impact with the text of the particular issue area. For instance, in the Air Quality Section, "mainline" conditions are noted for Alternative 2N and 3N as well as for a portion of Route 101 in San Jose. It is unclear what the "mainline" conditions measure without the existing conditions included as well as a measure against any identified standard, be it Federal, State or local. In a standard analysis, existing conditions, project conditions, and existing plus project conditions would be included in a table format, along with the Federal, State or regional standards for the particular emission. In the noise section, there is a total lack of defined standards, existing conditions or project conditions. While Figure 2.2.8-1 provides a simple explanation for "relative loudness", it does not provide the reader any indication of how the noise resulting from the project would fall on this scale. Moreover, no attempt was made to include important local standards, such as noise, tree preservation and creek protection; these are all regulated by local ordinance. Attached to this letter are excerpts from the City Planning Department's guidelines for determining environmental impacts. The City requests that the proposed project be measured against at least these thresholds in order to compare and contrast the significance levels on a local and regional basis (such as the Bay Area Air Quality Management District). 12 13

9. The City of Oakland needs much more specificity about feasible mitigation measures that can be implemented to reduce impacts. Given that this project will involve a large scale construction project over a multi-year period, the City needs much more detail and a level of commitment about the types and feasibility of mitigation measures that would be implemented, what standards would be used to measure performance and how monitoring would take place. For example, the Air Quality Section states that "the Department's standard specifications for construction mitigation, including measures in the state implementation program, will be implemented." What are these measures, how will they apply to this project and who will implement and monitor them? Similarly, in the Noise Section, the statement is made that noise abatement measures "that are determined to be reasonable and feasible will be reflected in the final environmental document and incorporated into the project plans and specifications." What are these measures and where is the public's opportunity to review and comment on them as required by CEQA – NEPA? As it stands, the document is woefully lacking in the specificity of mitigation measures, how they will be applied and what performance standards will be used to determine that the identified impact will be reduced to a level of insignificance. 14 15

CEQA requires that mitigation measures be capable of being accomplished in a successful manner within a reasonable time, taking into account economic, environmental, legal, social and technological factors. Such measures should include the objective, a detailed description of the action required, performance criteria for measuring success, timing, the responsible party and a statement of the level of significance achieved after mitigation. None of these requirements are contained in the Draft EA-EIR. We request that the document be revised to include this important information and that an additional public comment period be provided accordingly. 16

10. There are other feasible alternatives that should be included in the Draft EA-EIR. A three lane alternative could be built within the same overall width with a carpool lane or bike lanes if the shoulders were decreased. Although this approach would not meet Caltrans standards, many new tunnels of this length throughout the U.S. and internationally do not include such large shoulders. Further, the idea of main line metering or other congestion management techniques should be included in the analysis. These include congestion pricing with "hot lanes" during peak hours in order to create more incentive for BART or bus and to provide another major revenue source for funding the project. There is a current pilot project along a portion of the I-680 corridor and also in District 7 (Southern California Region) along a portion of the Central Freeway where such a technique is being applied. We also note that highly accurate transponder technology exists to make this congestion pricing approach even more feasible. 17

11. Incorporation of Responses to Comments Pertaining to the Notice of Preparation –Notice of Intent to Prepare an EIR-EIS. Although an extensive scoping and comment period was completed for this project, there is no reference, listing or other indication that the Draft EA-EIR preparers took any of these preliminary comments into consideration other than the explanation of why some alternatives were rejected. It is standard practice to at least offer the list of commentors in an appendix, and good practice to note where in the text these initial comments are responded to. Unfortunately, this information is missing; we request that it be included in a revised document. 18

12. Other considerations. We also strongly recommend that a Freeway Agreement or other Memorandum of Agreement be pursued between the City and Caltrans to manage construction staging and impacts, construction hours, major construction routes and detours and other aspects of work within and adjacent to the City's right of way. 19

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In conclusion, the City has serious concerns about the general level of analysis and lack of key details on aspects of this major transportation project. The current, inadequate level of analysis makes it impossible to identify appropriate mitigation and enhancement measures. Therefore, the City is unable, at this time, to provide Caltrans a list of such measures., but reserves the right to do so in the future. Towards that end, I would be happy to follow up with designated Caltrans staff and on behalf of the City, look forward to working with Caltrans on the concerns identified in this letter and moving toward effective solutions.

Sincerely,

Claudia Cappio
Director of Planning, Building and
Major Projects
City of Oakland Community and Economic
Development Agency

Attachment: Excerpts from City of Oakland CEQA Thresholds of Significance Guidelines

cc: Mayor Jerry Brown
City Councilmembers
City Attorney Russo
City Administrator Edgerly
Public Works Director Godinez

ATTACHMENT TO CITY OF OAKLAND COMMENT LETTER

Caldecott Tunnel Improvement Project Draft EA – EIS
July 12, 2006

EXCERPTS FROM CITY OF OAKLAND'S THRESHOLDS OF SIGNIFICANCE GUIDELINES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

(8/04)

AIR QUALITY

The project would have a significant impact on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Frequently create substantial objectionable odors affecting a substantial number of people;
- Contribute to CO concentrations exceeding the State AAQS of 9 ppm averaged over 8 hours and 20 ppm for 1 hour[**NOTE**: Pursuant to BAAQMD, localized carbon monoxide concentrations should be estimated for projects in which (1) vehicle emissions of CO would exceed 550 lb/day; (2) intersections or roadway links would decline to LOS E or F; (3) intersections operating at LOS E or F will have reduced LOS; or (4) traffic volume increase on nearby roadways by 10% or more unless the increase in traffic volume is less than 100 vehicles per hour];
- Result in total emissions of ROG, NO_x, or PM_{10} of 15 tons per year or greater, or 80 pounds (36 kilograms) per day or greater [**NOTE:** the Port of Oakland maintains PM 10 and PM 2.5 monitoring stations in West Oakland and data from these stations should be obtained and used];

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- Result in potential to expose persons to substantial levels of Toxic Air Contaminants (TAC), such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million;
- Result in ground level concentrations of non-carcinogenic TACs such that the Hazard Index would be greater than 1 for the MEI; or
- Result in a substantial increase in diesel emissions.

FOR CUMULATIVE IMPACTS TO AIR QUALITY:

- Result in any individually significant impact; or
- Result in a fundamental conflict with the local general plan, when the general plan is consistent with the regional air quality plan. When the general plan fundamentally conflicts with the regional air quality plan, then if the contribution of the proposed project is cumulatively considerable when analyzed the impact to air quality should be considered significant.

BIOLOGICAL RESOURCES

The project would have a significant impact on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan;
- Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected

trees under certain circumstances. Factors to be considered in determining significance include:

> The number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) the protected trees to remain, with special consideration given to native trees.[1]

Protected trees include the following:

> *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be Protected trees.

- Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and aquatic habitat through: (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.

NOISE

The project would have a significant impact on the environment if it would:

Expose persons to or generate noise levels in excess of standards established in the Oakland general plan or applicable standards of other agencies (e.g., OSHA);

Violate the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise:

[1] Oakland Planning Code section 17.158.280E2 states that "Development related" tree removal permits are exempt from CEQA if no single tree to be removed has a dbh of 36 inches or greater **and** the cumulative trunk area of all trees to be removed does not exceed 0.1 percent of the total lot area.

City of Oakland Operational Noise Standards at Receiving Property Line, dBA[1]			
Receiving Land Use	**Cumulative No. of Minutes in a 1-Hr Period[2]**	**Maximum Allowable Noise Level (dBA)**	
		Daytime 7 a.m.-10 p.m.	**Nighttime 10 p.m.-7 a.m.**
Residential and Civic[3]	20 (L_{33})	60	45
	10 ($L_{16.7}$)	65	50
	5 ($L_{8.3}$)	70	55
	1 ($L_{1.7}$)	75	60
	0 (L_{max})	80	65
		Anytime	
Commercial	20 (L_{33})	65	
	10 ($L_{16.7}$)	70	
	5 ($L_{8.3}$)	75	
	1 ($L_{1.7}$)	80	
	0 (L_{max})	85	
Manufacturing, Mining, and Quarrying	20 (L_{33})	70	
	10 ($L_{16.7}$)	75	
	5 ($L_{8.3}$)	80	
	1 ($L_{1.7}$)	85	
	0 (L_{max})	90	

Source: City of Oakland, 1996b.

Notes: 1) These standards are reduced 5 dBA for simple tone noise, noise consisting primarily of speech or music, or recurring impact noise. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

2) L_x represents the noise level that is exceeded X percent of a given period. L_{max} is the maximum instantaneous noise level.

3) Legal residences, schools and childcare facilities, health care or nursing home, public open space, or similarly sensitive land uses.

Violate the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding construction noise, except if an acoustical analysis is performed and all feasible mitigation measures imposed, including the standard City of Oakland noise measures adopted by the Oakland City Council on January 16, 2001(see Appendix B for these standard mitigation measures):

City of Oakland – Excerpts from Thresholds of Significance Guidelines
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City of Oakland Construction Noise Standards at Receiving Property Line, dBA[1]		
Receiving Land Use	Maximum Allowable Noise Level (dBA)	
	Weekdays 7 a.m.-7 p.m.	Weekends 9 p.m.-8 p.m.
Less than 10 days		
Residential	80	65
Commercial, Industrial	85	70
More than 10 Days		
Residential	65	55
Commercial, Industrial	70	60

Source: City of Oakland, 1996b.
Notes: 1) If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

During the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard (see previous table);

Violates the City of Oakland Noise Ordinance (Oakland Municipal Code Section 8.18.020) regarding nuisance of persistent construction-related noise;

Create a vibration which is perceptible without instruments by the average person at or beyond any lot line containing vibration-causing activities not associated with motor vehicles, trains, and temporary construction or demolition work, except activities located within the (a) M-40 zone or (b) M-30 zone more than 400 feet from any legally occupied residential property (Oakland Planning Code Section 17.120.060);

Generate interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);

Result in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

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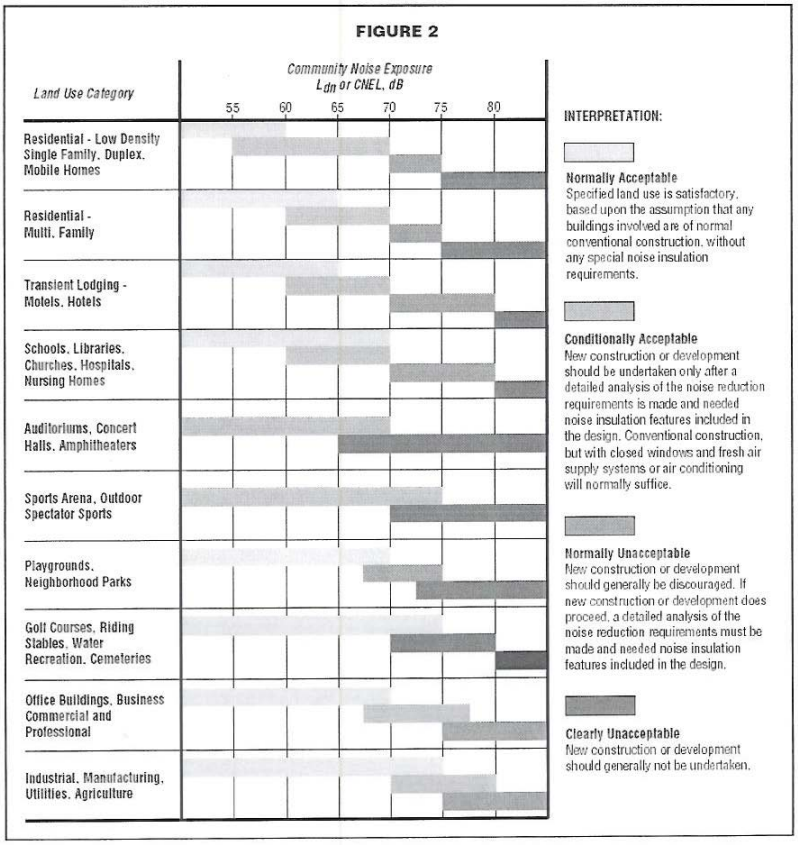

Conflicts with state land use compatibility guidelines for all specified land uses for determination of acceptability of noise (Source: State of California, Governor's Office of Planning and Research, *General Plan Guidelines, 2003* (Appendix C, Figure 2));

Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels; or

Be located within the vicinity of a private airstrip, and would expose people residing working in the project area to excessive noise levels.

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TRANSPORTATION/TRAFFIC

The project would have a significant impact on the environment if it would:

Cause an increase in traffic which is substantial in relation to the traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections), or change the condition of an existing street (i.e., street closures, changing direction of travel) in a manner that would substantially impact access or traffic load and capacity of the street system. Specifically,

- at a study, signalized intersection which is located **outside the Downtown**[2] area, the project would cause the level of service (LOS)[3] to degrade to worse than LOS D (i.e., E);
- at a study, signalized intersection which is located **within the Downtown** area, the project would cause the LOS to degrade to worse than LOS E (i.e., F);
- at a study, signalized intersection **outside the Downtown** area where the level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds, or degrade to worse than LOS E (i.e., F);
- at a study, signalized intersection for **all areas** where the level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more, or degrade to worse than LOS E (i.e., F);
- at a study, signalized intersection for **all areas** where the level of service is LOS F, the project would cause (a) the total intersection average vehicle delay to increase by two (2) or more seconds, or (b) an increase in average delay for any of the critical movements of four (4) seconds or more; or (c) the volume-to-capacity ("V/C") ratio exceeds three (3) percent (but only if the delay values cannot be measured accurately);
- at a study, unsignalized intersection for **all areas**, the project would add ten (10) or more vehicles and after project completion satisfy the Caltrans peak hour volume warrant";

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[2] Downtown is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland Estuary to the south and I-980/Brush Street to the west.

[3] LOS and delay calculations for local intersections should be based on the *Highway Capacity Manual*, Transportation Research Board, National Research Council, 2000 edition. For CMA intersections (project proposes a general plan amendment, or if an EIR is performed and there are 100 or more peak trips), use the 1985 *Highway Capacity Manual.* For state facilities, consult with the Planning Department.