and spreading noxious weeds from this Caltrans tunnel site that is surrounded by noxious weeds.

- One of my findings in reviewing the Draft report and the "Caldecott Improvement Project Mitigation Memorandum" that was developed by the partners in this project was that while it claims on page 180 of the report that "through the successful implementation of avoidance and minimization efforts, as described below, the project will have no adverse impact of noxious weeds on the sensitive communities" that it lacks enough specificity when it comes to clarifying how, when and where it is going to successfully mitigate. Review of page 8 of the "Caldecott Improvement Project Mitigation Memorandum" revealed that there is a discussion of approximately six Caltrans' properties that are listed as "potential mitigation areas for invasive species removal, fire management and restoration through planting of native species", but it is unclear if any of the "potential mitigation areas" that are listed in the Mitigation Memorandum are ones where an actual mitigation project or projects will be undertaken to help in preventing the spread of invasives or preventing invasives on these sites from spreading and overtaking new tree planting areas identified in the proposed project. 24

- The project partners will have to do more to prevent the introduction of invasives into wildland areas or the areas west of the Caldecott Tunnel it is proposing to clear cut all trees and shrubs and subsequently replant. Recent observations of Caltrans properties located within a mile west of the Tunnel revealed substantial quantities of many invasive weeds such as French and Spanish broom and pampas grass. The seeds from the "forest" of French broom on Caltrans' properties in the corridor have a viable life of nearly 40 years, and it is going to take more than the very limited mitigation proposal lacking in specificity contained in this Draft report to make even a small reduction in the large population of French broom or other noxious weeds identified. 25

- The Draft report makes claims on pages 191-194 that "to identify any potential impacts of the Caldecott Improvement Project" on natural and man-made resources and values that were the focus of the "Resource Management Plan for the Caldecott Wildlife Corridor" that it evaluated the consistency of the proposed project with the Plan's goals. The Draft report further claimed on page 194 that the project will be "removing non-native vegetation and replacing removed plants with only native species will reduce fuel loads and flammability of the vegetated areas" but the Draft report is noticeably silent or lacking in specificity on what will be done west of the Caldecott Tunnel in the project area in the many specific locations owned by Caltrans to remove "non-native vegetation" and to replace these removed plants with only native species. I believe that these claims and some of the conclusions in this section of the report are misleading, as discussed below. 26

- There is a claim on page 193 under the heading of "Minimizing the threat of fire" that "replacement planting would consist of fire resistant native vegetation" and that replacement areas will be selected to avoid increasing fire risk to private property as well as wildlife". However, there is not adequate clarification on how Caltrans and the partners will ensure the principal area west of the Caldecott 27

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Tunnel located adjacent to private properties will not be overtaken by the large populations of "noxious weeds" that its Table 2.3.4-1 indicates are contained on "Grasslands throughout the study area". Decades have passed in the Highway 24 corridor west of the Caldecott Tunnel without Caltrans planting "fire resistant native vegetation" and the invasive weeds on these properties continue to spread and to increase fire risk to private property as well as wildlife in our community. The Landscape Architect for Caltrans District 4 informed me after the Oakland Hills Firestorm in 1991 that Caltrans couldn't and wouldn't maintain its freeway properties in Oakland because of other projects such as retrofitting that were competing for limited funding, and this statement for many years has been the reality on State Route 24. Caltrans has a lot of work to do now on its properties in the project area in terms of removal and control of invasive species and native plant restoration, based on years of doing minimal maintenance and virtually no planting of native species that allowed invasive species to rapidly spread contrary to requirements of Federal executive orders and laws. We need real mitigation funded in relation to this project and not empty or false promises relative to invasive species removal or control.

- The Caldecott Improvement Project Mitigation Memorandum that accompanies the Draft report only talks about a half dozen "potential mitigation areas" for "invasive species removal, fire management and restoration through planting of native species" without providing more concrete landscaping plans and maps showing the "other adjacent areas of the project" where it will be carrying out "near-term mitigation" programs. This is just scratching the surface of what needs to be done. I feel this language and some of the representations in the Draft report are misleading and inaccurate and present a false picture of the mitigation projects that will be actually carried out. To "successfully" prevent the introduction of invasives and to control the spread of invasives as legally mandated will require Caltrans and the Project partners to provide more clarification of mitigation measures and funding for actual native plant restoration and on-going maintenance programs that will address the significant negative impacts of this project. 28

- There has also been a similar lack of specificity in the June 2006 public meetings where Caltrans' staff were questioned as to what areas (other than the area just west of the Tunnel where the clear cutting of all of the trees and shrubs was proposed) that Caltrans intended to do any landscaping or to carry out mitigation programs. The picture that emerged more clearly from conversations with Caldecott Improvement Project staff in several recent meetings was that there are really no firm mitigation plans to prevent the introduction of invasives to the wildland areas or the clear cut area west of the Caldecott Tunnel, or to successfully control the spread of invasives from other adjacent Caltrans properties that have substantial populations of invasives. Caltrans has lacked an adequate program for years in areas west and east of the Tunnel to control invasives or to landscape with native vegetation, as evidenced on page 181 of the Draft report which summarizes in Table 2.3.4-1 "Noxious Weeds noted in the Project Area During May 2004 Surveys". 29

NOISE IMPACTS

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While the Draft EA/EIR states emphatically on page 157 that "Noise abatements, either in the form of soundwall or earthberm/soundwall combination, have been investigated for all affected receptors", the Draft Environmental Assessment/Environmental Impact Report is flawed or deficient because its authors failed to adequately survey all of the sites within the project area that might be "affected receptors". This statement is fiction masquerading as fact. I concur with the comments regarding noise impacts of the project submitted by Caldecott Tunnel 4th Bore Coalition member and CENA representative Sally Williams regarding these deficiencies and the need to broaden the project area to cover other areas in the longer SR 24 corridor as well as the SR13 corridor and arterial streets in Oakland and Berkeley. For example, one site that was not evaluated is the City of Oakland park site which our North Hills Landscape Committee helped the City in developing, the Gateway Garden, located approximately a half mile west of the Caldecott Tunnel. Mr. Glenn Kinoshita, who prepared as Caltrans District Branch Chief-Air/Noise the Traffic Noise Impact Report included in this Draft Environmental Assessment/Environmental Impact Report, admitted in June 2006 in the meeting at the Orinda Community Theater that he had not made a noise analysis or measurement at the Gateway Gardens park site and also had not done any modeling on this park site. In section 2.2.8.2 of the report on page 151, Mr. Kinoshita apparently wrote, "Sensitive noise receptors considered for this study are the residences within the project limits, as well as outdoor areas intended for frequent human use." He then lists three other outdoor areas, but noticeably did not list the Gateway Garden, even though it is in close proximity to other properties listed in Table 2.2.8-3, which includes some affected receptors. I also found no information in the report indicating that Caltrans had done analysis of noise impacts on homes in my homeowner association on lower Hiller Drive, where there are approximately 30 homes, and this left me wondering what other homes were overlooked in the Caltrans study of "affected receptors". There are certainly many more homes west of Broadway along the Highway 24 corridor that will be impacted by the project in regard to noise, as well as homes along arterial strees and State Route 13 both north and south of the intersection with Highway 24. 30

I also learned from Caltrans' Branch Chief for Noise, Mr. Kinoshita, of another potentially significant omission with respect to evaluating the potential number of affected receptors among residential properties that will be constructed in the area, probably before ground is broken to construct the 4th Bore. I asked Mr. Kinoshita why the Draft EA/EIR did not include any information regarding potential developments proposed on the slopes on the area just to the south of the Caldecott Tunnel where three developers are actively pursuing discussions with theCity of Oakland to develop approximately 80 housing units. Mr. Kinoshita indicated that he wasn't aware of any development plans south of the Caldecott Tunnel, and therefore no study of the potential noise readings or noise impacts had been done for this area. I find it hard to believe that in doing the sound studies that Mr. Kinoshita could not see the initial grading/development work on these sites. 31

The site prep work on the several sites on the south side of SR24 near the Caldecott Tunnel have been going on for some time on properties owned by Mayer Luce Development Group and Mr. Jaca. I understand from 4th Bore Coalition member John Eastman that the developers are currently in design review meetings with staff for the City of Oakland, and while no building permit has yet been taken out, that the developers hope to commence construction as early as the Spring of 2007 on the approximately 80 housing units. 32

According to the discussion on page 151 of the Draft report, Caltran's "Department's Traffic Noise Analysis Protocol (TNAP for NEW High Construction and Reconstruction Projects" noise

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abatement must be considered when the future noise levels after project construction will substantially increase (defined as an increase of 12 dBA or more) or when future noise levels will approach or exceed the NAC" (Noise Abatement Critieria), with "Approaching the NAC" being defined as "within 1 dBA of the NAC. The failure of the Caltrans staff to examine the developments on the south side of Highway 24 is significant when we see on page 152 that Caltrans and its Caltrans' Noise Specialist was evaluating on the north side of SR24 for 22 residential units in "three planned but not yet constructed buildings (R23 through R28-See Figures 2.2.8 (2-4) on Caldecott Lane, where the predicted future noise level would range from 69 to 76 dBA", but was not examining the predicted future noise level for three planned developments with almost 80 residents near the mouth of the tunnels on the south side of SR24 that would have increased noise levels due to the addition of the 4th bore and the higher speeds and additional cars going through these bores. 33

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for assessing noise impacts from a proposed project and considering mitigation if appropriate. While the Draft EA/EIR identifies on page 44 in Table 2.1.1-3 the Gateway Garden site as one of the Existing Park and Recreational Facilities in the Project, a review of Table 2.2.8-3, the Summary of Noise Levels, reveals that the partners in this project failed to include the Gateway Garden in either the list of sites tested for existing noise levels or to do modeling to show the future predicted noise level, and what benefits the mitigation proposal advanced in the Draft report would have on this park site. The noise study is obviously not complete and does not adequately evaluate the noise impacts and required mitigation for this park site, and it raises a question as to how many other park sites or residences in the project area may not have been evaluated in terms of noise impacts and potential need for mitigation. 34

The noise study analysis and conclusions included in the Report also appear to have potentially serious flaws in relation to their assessment of how effective the proposed mitigations will be in reducing noise levels for affected receptors. Scrutiny of the benefits of the soundwall or soundwall and berm proposed in this Draft report as mitigation for the increases in noise resulting from the 4th Bore suggests (see pages 158-159) that the principal beneficiaries would be only 25 condominium units identified as R9 through R 14 (see Figures 2.2.8(2-4), while the report conservatively estimated thatany where from 88 to 90 residential units located in the first row north of State Route 24 that presently have noise levels higher than 66 decibels and are really in need of some noise mitigation. This summary of the "affected environment" doesn't address additional residences that might be impacted on the south side of the SR24, when three new planned developments are constructed in the next couple of years, which weren't included in the analysis done for this Draft environmental impact report. The report also doesn't seem to take into consideration the "permanent" negative effects on the thousands of other North Oakland residents along the longer Highway 24 corridor that will be dealing with the expanded noise levels from additional number of cars and trucks that the two additional lanes will bring into North Oakland and Berkeley. It has been noted by members of our 4th Bore Coalition that local residents can expect to see increases in the number of noisy commercial trucks utilizing this freeway once the 4th Bore is constructed, including the trucks with Jake brakes, many that may come through the area to or from thePort of Oakland. The Draft report also arbitrarily cut off the project area at the west perimeter at the Broadway off ramp while the noise impacts will extend further toward downtown Oakland along State Route 24 and on State Route 13 in both directions. The Draft reports notes for example on page 197 that discussions for disposal of spoils have been held by Caltrans with the Port of Oakland and that the Port may have need for their expansion project to "accept the spoil material" and this could mean literally many thousands of trips over three years day and night by large trucks carrying spoils from the Tunnel area through the full length of State Route 24 and possibly other Oakland freeways. 35

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The proposed mitigation options do not include a complete analysis of mitigation options in the estimation of many local residents, which might lead to more residents being assisted in relation to the permanent increases in the noise level from the 4th Bore's construction. The Draft EA/EIR acknowledges that traffic noise exceeds Caltrans guidelines for some of the hillside homes, yet no mitigation is proposed that benefits these homes. Caltrans only proposes either a soundwall or soundwall/berm as the means of abatement. In earlier meetings with Caltransand the partners to this proposed project, there has been a clear reluctance to consider other options that have been suggested for consideration to help in reducing noise levels for larger numbers of affected or impacted residents/receptors. For example, in an earlier meeting with the Project Manager Christina Ferraz, there was a refusal to even consider the possibility of looking into the suggested approach for constructing an "external noise reduction tunnel" type of sound mitigation approach in front of the Parkwoods Condominium area to help in reducing the noise impacts on affected receptors. There is information available directly from companies that have built noise reduction tunnels or that can be found readily on the internet, but Caltrans did not adequately research or evaluate these options that might have provided more effective mitigation for noise impacts. For example, information was found in an internet search on noise reduction tunnels built in locations such as Germany and the GoldbachHosbach Noise Protection Tunnel and the Nickern Noise Protection Tunnel, which provides examples of the kinds of noise reduction tunnel that might have been considered by the partners as a Context Sensitive Solution for noise impacts for more affected receptors in Oakland, but wasn't because of the refusal of project managers to examine alternatives other than the ones already decided upon. 36

I believe from my research that it would be possible to construct an attractive 25,000 square foot roof garden as a noise reduction tunnel over all of the lanes of the Caldecott Tunnel west of the tunnel at a reasonable cost, which would have many environmental benefits to it. A freeway roof garden was constructed years ago in Seattle over Interstate 5, and the German noise reduction tunnels in Goldbach Hosbach and Nickern provide ideas of how a roof garden might possibly be constructed west of the Caldecott Tunnel. I will attach to this email pictures showing several views of the Goldbach Hosbach noise reduction tunnel and what appears to be a green roof garden type of space and pathway built over freeway lanes, which provide an illustration of what might be constructed over the freeway lanes west of the Caldecott Tunnel for more effective noise mitigation for many more residents. I will also attach to this email an aerial photos of the area west of the Caldecott Tunnel over which I have overlaid an insert indicating where I feel a "Roof Garden Mitigation Park" might be constructed over freeway lanes and adjacent frontage areas on the north and south sides of the freeway. 37

I interviewed recently the principals with two companies – Elevated Landscape Technologies, Inc. and Green Tech, Inc. – that build roof garden to get more information regard the costs for constructing a roof garden over a concrete pad. I was advised by Greg Garner of Elevated Landscape Inc. that the costs for a roof garden (not counting the concrete pad) ranger from approximately $5.50-$6 per square feet for more basic plant materials such as native bunch grasses or fire-resistant sedum up to $25 per square foot for "Cadillac" versions of a roof garden that might include big trees and a pond. I spoke to Chris Scott for Green Tech, Inc. that recently completed a roof garden for the California state Capitol vault area with some local partners. He noted that the roof garden project at the California State Capitol involved modules that cost $80 each or about $5.50 per square foot, and that plant materials and soils could be purchased locally at additional cost. He noted in an email to me for more elaborate roof gardens that the costs could range from $15-25 per square foot with soils and plants apparently included. Mr. Scott indicated that anything could be grown in Green Tech's roof garden modules, which can be as deep as needed to grow grasses, native plants, trees or whatever Caltrans might want to grow over the

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freeway lanes in a mitigation park. Chris Scott of Green Tech noted that the Green Tech modular roof garden system was used as the Athens Olympic Stadium in 2004, built over a simple concrete pad, and that a video of this was available on the www.greentech.com web site. Green Tech, Inc. is the kind of company that might successfully partner with Caltrans/its partners on implementing an effective mitigation project, having built roof gardens for Wimbledon tennis courts, Olympic stadiums, university football fields, and a wide variety of large projects including the roof garden over the California State Capitol vault. If it's good enough to use at the California State Capitol, I believe local residents would feel it might be good enough to use in a roof garden 4th Bore "mitigation" park in Oakland. I will attach to this email an attachment with pictures showing the modular system used by Green Tech Inc. to construct roof gardens and some of the sites where it has installed modular roof garden systems. 38

Calculating based on a ballpark estimate of a 25,000 square foot roof garden "mitigation" park (500 square feet x 500' square feet) over the 8-10 lanes/earth berm frontage areas on the west side of the Caldecott Tunnel, the costs if they were in the $6-$20 per square foot range on the conservative side might be very reasonable in the $150,00-500,000 ranger for a roof garden featuring native bunch grasses, native plants and perhaps some trees to replace trees/shrubs that would be impacted by the 4th Bore construction project. This cost estimate would give Caltrans/its partners additional financial room to construct an external stucture (perhaps with earth berms on the north and south side of the freeway and possibly even in the middle of the freeway between the eastbound/westbound lanes, utilizing the space where the old crossover lanes will no longer be needed for a soundwall/berm divider to support the roof garden structure over the freeway lanes) for an effective mitigation park that could have environmental benefits in reducing noise impacts, visual impacts, impacts on non-motorized travel over the freeway lanes/noise barrier, stormwater runoff impacts, impacts on trees and bunch grasses, impacts relative invasives, and to the heat island buildup that more asphalt freeway lanes might cause.

Pictures of the modern noise reduction tunnel built over freeway lanes in Nickern, Germany that are available on Google and that are attached to this email indicate that a noise reduction tunnel featuring crossbeams and overhead glass might be another possibility that could be combined with an over-freeway roof garden to provide effective noise reduction benefits. I will attach to this email pictures showing view of the attractive and sophisticated Nickthern noise reduction tunnel. It might be possible to include some over-freeway beams/over-freeway thick glass in some of the roof garden structure to provide additional lighting at a reduced cost. It might also be possible to include some solar panels somewhere in the structures built by Caltrans on the west side of the Tunnel as part of this project to help in powering outdoor lighting, the roof garden irrigation system, and possibly some of the lighting for the freeway tunnel lanes.

Considering the testimony at the Claremont Middle School public hearing regarding noise impacts from the 4th Bore project and the additional freeway traffic and noise, it also appears that the DRAFT EA/EIR document should have evaluated noise impacts at this location adjacent to the Rockridge BART stations and its eastern parking lot. It would appear that this might be another affected receptor in relation to this project and that an exterior noise reduction tunnel similar to the Nickern, Germany noise reduction tunnel might benefit those attending or visiting the Claremont Middle School and the patrons and visitors to the Rockridge BART station. The Draft EA/EIR appears to be flawed in failing to extend the project area to at least College Avenue to help in mitigating noise impacts to the many individuals at the Claremont Middle School and Rockridge BART station that will be impacted by the Caldecott Improvement Project. 39

This is just one of a number of potential mitigation approaches that our 4th Bore Coalition members have encouraged Caltrans/its partners to consider, but we do not see evidence in this

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Draft Environmental Assessment/Environmental Impact Report that adequate consideration was given or is being given to alternatives for reducing noise impacts on the larger number of "affected receptors" that will be permanently impacted by this project if it is built as proposed without adequate mitigation for noise impacts being provided.

There also appeared to be a clear reluctance to consider installing rubberized asphalt on State Route 24 in the project area as proposed by members of the Caldecott Corridor 4th Bore Coalition to project managers. 40

One potential flaw that I identified in review of the Draft EA/EIR is in relation to the possibility that the soundwall or soundwall/berm proposed in this Report may be too low to provide meaningful benefit to affected reception in relation to the elevated height of some of the living units in the Parkwoods Condominium complex where living units rise 3 floors or 30-40 feet above parking garages that are eleven feet in height. The condominiums are also built on an elevated pad that rises in some locations apparently another 20 feet above the level of Caldecott Lane. It is not clear that the soundwall mitigation outlined by Caltrans in this report has adequately assessed whether the proposed soundwall would break "the line of sight from a truck exhaust to the receptor" and adequately reduces the sound levels in the elevated Parkwoods living units that start on the second floor. The report appears to acknowledge at least for "Six condominium units (R14-See figures 2.2.8 (2-4) that the sound walls proposed would receive less than 5 dBA in noise reduction. There are mitigation options I identified and have proposed that would provide far better mitigation benefits to these affected receptors and to other residents in the Parkwoods Condominiums. 41

For example, if you look at the schematic drawings contained on page 101 and 102 of the Draft report, it gives an impression of what the larger corridor in cross section might look like near the area next to the Parkwoods Condominium complex where Caltrans is proposing to construct either a soundwall or earth berm/soundwall to try to reduce noise levels of affected receptors in the Parkwoods complex. The Draft report noted at the bottom of page 151 (apparently referring to the situation at Parkwoods) that "A number of the residential receptors in the project area have no usable yards on the freeway side, as they are built on steep terrain. The exterior spaces in the balconies or decks on the freeway side of these residence were the areas of consideration". While Mr. Kinoshita appears to acknowledge or be aware in this section of the report that the 4-story condominium units are built on "steep terrain", it is not clear to this reviewer that the Caltrans study gave adequate consideration to the different elevations between the Parkwoods Condominiums, the elevation of freeway lanes, and the height of the soundwall in between these two. The Draft report says "The heights of soundwalls are measured from the elevations at the edge of shoulders".

CONGESTON IMPACTS

The claim and statement on page vii that "the construction of either build alternative would reduce delay..." glosses over the experience of local residents here in Oakland and University researchers at the University of California at Berkeley that adding new lanes for traffic or new traffic connections doesn't always mean that there are going to be resulting reductions in delays or decreases in traffic congestion. It has been predicted by members of the Rockridge Community Planning Council in input regarding the proposed 4th Bore previously submitted that constructing the 4th Bore would only result in a "shift" of traffic bottlenecks from the eastern side of the Caldecott Tunnel to the western side of the Tunnel, quickly filling up the Highway 24 corridor west to the intersection with Freeway 580, because there is no increased capacity at the Bay Bridge. This might be exacerbated by the addition of two to three additional lanes of traffic 42

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heading into Alameda County that will result from this project, and also by there not be any increase in the afternoon capacity to help in reducing the number of additional vehicle trips westbound during the peak period in the number of lanes.

The prospect of additional, severe traffic congestion on the Alameda County side of Highway 24 that would result from adding the additional 2-3 lanes proposed for the 4th Bore is also supported I believe by the January 6, 2006 report of consulting firm DK Associates to the Contra Costa Transit Authority. This report, for example, noted on page 2-9 that "Caltrans forecasts that AM peak period demand into the SR 24 corridor from I-680 and the Lamorinda on-ramps is expected to increase by 25000 vehicles, over 55%, between 2003 and 2032. The consultant also noted that the increased volume of traffic in 2032 would be contrained by bottlenecks in the SR24 route "over all 4 hours with no decrease in the latter hours as occurs under existing conditions".

There are contradictions between the claims of the drafters of this study, which primarily are Caltrans staff, that the 4th Bore will relieve delays and traffic congestion, and the predictions regarding the future increases in vehicles coming into the SR24 corridor in the approximately 20 years after the 4th Bore is projected to be completed in 2013. With the steady increase in vehicle traffic, the two or three additional westbound lanes could easily stack up cars in the AM commute beyond the current back up that extends from the intersection with Freeway 580 approximately a mile to the Children's Hospital turn area and further lead to back ups in the Rockridge area/surface streets towards the Highway 24/13 interchange or the west entrance to the Caldecott Tunnel. Similarly, unless transportation planners find ways to encourage more drivers to get out of their cars and to use buses and BART, the eastbound peak PM commute on SR24 will likely be substantially worse for both Oakland and Berkeley residents competing with the increased number of vehicles the DK Associates' report predicts indicates will be commuting through the corridor from locations such as East County, the San Ramon Valley and Solano County. The 4th Bore's construction based on these predictions from DK Associates seems likely to compound commuting problems in Alameda County bringing the potential of "gridlock" or "Cal football game day traffic-like conditions" to make for a miserable daily week-day commute that would only get worse as the years progress and more vehicles continue to pour into the SR24 from the continuing population growth/development in Contra Costa, Solano and San Joaquin Counties. 43

It also seems likely that with the mode shift impact that the construction of the 4th Bore will contribute to that there is not even any guarantee that spending hundreds of millions of dollars will really result in any significant reduction in delays in either side of the Caldecott Tunnel. If you fill up the freeway area on Highway 24 more quickly before the intersection with Freeway 580, the anticipated additional commuters coming from these several counties with exploding housing/business/commuter numbers will just more severely congest freeways and local streets in all of these locations. There is no push for a solution in relation to this draft EIR/EA that looks at the very real possibilities that constructing the 4th Bore only adds to delays in the short and long-term, and will particularly add to delays encountered in Alameda County with substantial negative impacts in relation to commuting time, noise, particulate manner, barriers to non-motorized travel, and our quality of life.

The DK Associates report and the reported prediction by Caltrans of the number of increased vehicles pouring into our area from I680 and the Lamordina areas seems to undercut the contention on page xiv in this report that the construction of the 4th bore will reduce delays, and its claim that access to parks and other public facilities within the project vicinity would be enhanced. A more likely scenario will be increases in delays on our freeways and surface streets

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in Alameda County "permanently" with this gridlock condition making it more difficult to access park and other public facilities in the project area. For example, the lack of additional capacity in the PM peak commute may make it difficult to get to the Gateway Garden or the North Oakland Sports Field, as Contra Costa commuters already severely clog surface streets in the afternoon commute.

As early as 2002, the City of Berkeley informed Caltrans, and the Metropolitan Transporation Commission (MTC) that a study conducted by the UC Berkeley Institute for Transportation Studies concluded that 90% of all new highway capacity added to California 's metropolitan areas is filled within four years and 60% to 70 percent of all new county-level highway capacity is filled within two years. The City of Berkeley further informed these agencies that to increase road capacity to accommodate the movement of private automobiles will only contribute to encouraging moe private motor behicle use, and further deterioration of air quality and other negative effects of pollution. This is known as "induced traffic", and this is what I predict will happen if this proposed project if funded and implemented based on the severely flawed analysis and conclusions in this Draft Environmental Assessment/Environmental Impact Report. 44

MASS TRANSIT ALTERNATIVE MISREPRESENTATION 45

The Draft Environmental Assessment/Environmental Impact Report I believe also makes false or seriously misleading statements regarding the major findings of the Metropolitan Transportation Commission's "Caldecott Tunnel Corridor Study" and pertaining to the basis for the several partners in this report rejecting the "Mass Transit" alternative that this document contends were evaluated and eliminated from further consideration based on feasibility, costs, environmental and engineering considerations and failure to meet the "Purpose and Need of the project". This is one of the fictional statements or opinions contained in the Draft EA/EIR in my estimation that is masquerading as facts.

For example, the "SR24 Transit Capacity Study" prepared by DK Associates (to help in finding "feasible transit capacity enhancing alternatives along the westbound direction of State Route 24 in the morning peak period) and issued on January 6, 2006 noted on page ES-1, contrary to the assertions (rejecting mass transit options) in this Draft report, that "any potentially feasible expansion" of transit options "would enhance traffic operations in the corridor", and it described a series of mass transit alternatives involving expanded use of buses and BART that it indicated were feasible.

Regarding the Draft EA/EIR study's claim or statement on page x that the Route 24/Caldecott Tunnel Corridor Study "found that with the transit improvements only a modest increase in transit patronage and minor congestion relief would be achieved" and "thus transit improvements would not meet the Purpose and Need of this project," I don't feel this is correct or clear representation of the findings of the study of the Caldecott Tunnel Corridor previously undertaken by the Metropolitan Transportation and different parties. I believe Caldecott Tunnel 4th Bore member Sally Williams of the Claremont Elmwood Neighborhood Association (CENA) in reviewing the Metropolitan Commission "Caldecott Tunnel Corridor Study" also reached a similar conclusion in her written comments being submitted to Caltrans/its partners, noting the MTC supported a variety of options such as supporting alternatives that would support expanded use of buses, BART, and parking structures to help reduce freeway congestion and delays. CENA's representative Sally Williams recommended in her comments that the partners in the Caldecott Improvement project adopt the recommendations of the "MTC Corridor Improvement Study regarding transportation operations, route 13/24 auxiliary lanes, BART and transit improvement,

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additional parking and transit interfaces with BART at BART stations, providing bicycle/pedestrian access by improving bike travel between both sides of the Tunnel". Ms. Williams for CENA also suggested that tolls should be used to pay for he corridor improvement strategies. There is great merit in these recommendations from CENA and this Caldecot Tunnel 4th Bore Coalition member that reflect much more accurately the findings of the MTC 's "Caldecott Tunnel Corridor Study" and I endorse and support them.

The findings of this earlier MTC study in 1998 I believe are clearly misrepresented, and it appears Caltrans staff in the Draft EA/EIR are bent on pushing for the 4th Bore's construction, and were not objective in evaluating any other options set forth in the MTC Study other than building the 4th Bore. This report says the MTC study was supposed to examine carefully a Transit strategy that reduced congestion that focused on both Bus and BART. I found in reviewing the contentions in this Draft Environmental Assessment/Environmental Impact Report that Caltrans did not seriously examine the MTC study or the Transit strategies outlined in the study. For example,it appears that Caltrans and its partners in the Caldecott Improvement Project as reflected in the misleading statements and conclusions included in this Draft EA/EIR did not adequately consider the options of significant expansions of parking, parking garages, feeder buses connecting to BART, HOV lanes, expanding BART service, and the Bikeway Tunnel Alternative. I believe Caltrans and the writers of this document did not appear to be interested in spending almost any of the many millions of dollars now being proposed for the construction of the 4th Bore either back in the 1990's or subsequently to help in getting people out of their cars, or into parking garages and buses or bicycles, which might connect them with our existing BART system.

There are still good reasons to consider the "Mass Transit" option or Transit strategy as well as the Bicycle Tunnel Alternative that are rather cavalierly rejected in this Draft EIR/EA just as any thing but building the 4th Bore was rejected by Caltrans staff after the earlier MTC study and public meetings. The DK Associates report issued in January 2006 further supports a conclusion that the Transit strategies or alternative strategies to the constuction of the 4th Bore could be very viable options. I believe that since there currently aren't sufficient funds to build the 4th Bore, that consideration should be given to some of the alternative strategies such as the Transit strategies briefly considered by MTC and the options considered in the DK Associates study issued in January 2006. The 4th Bore proposal that has been proposed in this Draft EA/EIR has so many significant negative impacts on our community that the Transit strategies and more financing of parking facilities and mitigation supporting non-motorized travel seem like options that are much more desirable from the standpoint of Alameda County and Contra Costa for the short and long-term.

I believe that Ray Mailhot, the Superintendent of Tunnel and Tubes for Caltrans that now operates the Caldecott Tunnel, told members of the local Oakland Rotary Club several years ago in a luncheon speech matter of factly that the 4th Bore was going to be built, even before any EIR/EA study was commenced. The partnering agencies that developed and issued this Draft EA/EIR in my estimation are still not objectively considering any alternative other than building the 4th Bore, regardless of its many negative impacts on our community or the legal requirements for doing a thorough assessment of all environmental impacts before your proceed with trying to implement a project. Caltrans started working on the engineering for the 4th Bore before other options were fully considered and the environmental impacts of this project were adeqauately considered. This is putting the cart before the horse. This frustrates objective analysis of the project by Caltrans staff, the public and public agencies. There appears to be a great deal of "tunnel vision" that is blinding the drafters of this document to the many significant adverse 46

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environmental impacts of the proposed project and that has led to this "fictional" account or analysis of the project's many benefits in every area analyzed.

While the "Mass Transit" discussion on page x goes on to claim that "Many of the proposed improvements detailed in the 'Route 24/Caldecott Tunnel Corridor Study' will be undertaken by the Department and its partner agencies including but not limited to CCTA, ACCMA, and BART", it is clear to me the way this section of the Draft EIR/EA is written that this study is only actively looking in relation to increasing "transit capacity" in the westbound corridor at keeping people in vehicles, and not at promoting options that might significantly increase mass transit patronage such as devoting hundreds of millions of dollars to constructing a new BART line or constructing new parking structures in multiple locations in the SR24 corridor and feeder service in buses or shuttles to BART stations. I identified a series of locations back in 1998 in my input to MTC staff where new or expanded parking capacity or parking structures could be built, but the partners advocating the 4th Bore's construction ignore this potentially viable option to increasing transit patronage and relieving congestion on our freeways and surface streets. They also gloss over virtually any other options such as use of long "express buses" on major streets that might help in making mass transit a viable option to the construction of this 4th Bore, which will only add to freeway and surface congestion in Alameda County, Oakland and Berkeley. The "mass transit" alternative was not adequately considered in the Draft Environment Assessment/Environmental Impact Report. It should have been, and it still deserves serious consideration in a revised Environmental Impact Statement/Environment Impact Report for this Caldecott Improvement Project. 47

INDUCED GROWTH IMPACT MISREPRSENTATION

In the discussion on page XIV of the Draft report regarding induced growth I feel that the conclusions reached are based on erroneous logic and assumptions. The installation of the 4th Bore will certainly encourage even more rapid development of counties to the east, north and south of the Caldecott Tunnel creating more freeway traffic and greater congestion and delays. 48

Conclusions

The above comments and the verbal and written comments of other members of the Caldecott Corridor 4th Bore Coalition clearly indicate that this EA/EIR is a substandard document that fails to meet CEQA and NEPA's purposes of disclosure and environmental protection. It does not provide the neighbors or decision-makers with adequate information upon which to make an informed decision on the project while considering environmental impacts. Caltrans' failure to adequately clarify mitigation measures further exacerbates this problem. Further, there appear to be a number of significant environmental impacts associated with the project that will materially adversely affect local residents and businesses. Therefore the document should be withdrawn and and a draft Environment Impact Statement/Environmental Impact Report prepared and recirculated for a full public review period. 49

Mitigation Recommendations

I believe the project should set aside at least $30 million for mitigation regarding the many negative impacts of the proposed project in areas such as:

Tree Replacement, Noxious Weed Controls, Native Plant Restoration, Wildlife Habitat Restoration: The environmental impacts of this project on natural resources are certainly 50

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significant, and Caltrans' technical report notes the project has the potential to affect protected trees and native bunch grasses. In view of the significant adverse impacts of the project – particularly on protected trees and wildlife habitat-- which were not properly assessed in the Draft EIR, there needs to be appropriate mitigation with at least $3 million for mitigation efforts in funding utilized with input from the City of Oakland and City of Orinda to implement as the "Project Mitigation Memorandum" proposes a series of mitigation recommendations that would be embodied in a "Final Tree Replacement and Planting Plan". The mitigation should include funding and implementing programs for tree planting, invasive species removal, fire management and restoration through planting of native species on multiple sites in the larger project area on both sides of the freeway/tunnel.

Tree protection in relation to these protected trees in Oakland and Orinda needs to be taken very seriously, it's the law. Caltrans and its partners in this proposed project need to make more effort to comply with the Tree Protection laws in Oakland and Orinda, and to preserve some or all of these trees, including studying alternatives such as doing construction and all staging from the east side of the Tunnel that might save most of the trees/shrubs on the west side of the Tunnel on the frontage property now proposed for clear cutting. The Draft EIS/EIR needs to explain why these protected trees cannot be saved and what analysis was done to explore the possibilities for protecting these trees that provide wildlife habitat, visual screening that benefits many residents. It also needs to clearly indicate how many protected trees of different species will be impacted in the City of Oakland and the City of Orinda. 51

Caltrans/its partners might be able to get the maximum benefit in implementing a program for tree planting, invasive species removal, fire management and restoration by partnering effectively and even utilizing some volunteers. Partners might include: the California Department of Forestry, the California Department of Corrections and its convict crews, the California Conservation Corps, East Bay Conservation Corps, City of Oakland, Keep Oakland Beautiful Advisory Board of the the City of Oakland's Public Works Agency, City of Orinda, California Native Plant Society, Sierra Club, Waste Management, North Hills Landscape Committee, Cal Corps Service Center, Volunteer Center of Alameda and Contra Costa County, wholesale nurseries, wholesale tree companies, native plant nurseries, California Landscape Contractors Association local chapter, volunteers from local high schools and community colleges.

Your "Project Mitigation Memorandum" identified on page 8 approximately five areas west of the Tunnels for "invasive species removal, fire management, and restoration through planting of native species, including: the Caltrans property adjacent to the Kaiser Elementary School and homes in Hiller Highlands bordered by Caldecott Lane and Hiller Drive; Caltrans property along the south side of State Route 24 right-of-way, west of the tunnel at the end of Broadway where the driveway to the Tunnel Operations Building is located, including the area east of Broadway described as urban scrub with a large component of French broom; the Caltrans hillside property northeast of the North Oakland Sports Center; the urban forest areas located near the Tunnel Operations Center on the north side of the tunnel; and the urban forest area east of Broadway. These are not the only Caltrans properties in the Highway 24 corridor containing substantial quantities of invasives or non-native vegetation that need to be included for "invasive species removal, fire management, and restoration through planting of native species". There are additional Caltrans properties such as: the frontage property on the south side of the freeway and just north of Broadway and east of the bridge/overpass that extends down to and also beyond the Old Tunnel Road off ramp; the frontage property on the south side of the freeway just east of the bridge/overpass; the Caltrans' properties surrounding the Highway 24/13 interchange; Caltrans frontage properties on both sides of Highway 24 between the Highway 24/13 interchange and the Broadway off ramp, including the hillside between State Route 24 and Chabot Road; the center 52

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median area in State Route 24 near the Broadway off ramp; the Caltrans frontage property on the north side of State Route 24 between the first and second off ramps west of the Tunnel, where there are many weeds and also eucalyptus and Monterrey Pine trees that add to fire dangers. I would like to see more Monterrey pine trees and eucalyptus trees removed on these Caltrans properties along with the many noxious weeds to help in reducing fire dangers to local residents and wildlife.

Noise Mitigation: To mitigate effectively the significant noise impacts on existing and planned residences in the project area, we feel that Caltrans and partners in the project should implement a series of mitigation measures such as:

- Doing all boring, spoils removal, construction and all related staging for the 4th Bore from the east side or Contra Costa side of the Caldecott Tunnels where there are no homes or planned developments that would be greatly impacted by the construction noise and noise of trucks to be utilized in construction over multiple years; the shotcrete batch plant should be on the east side of the Tunnel along with the storage of heavy construction equipment and stationary compressors to minimize noise impacts; 53

- The "reasonableness" criteria for considering sound walls (see p. 157) is not in compliance with CEQA and should be eliminated or revised, and an explanation provided on how the criteria conforms to CEQA's mandate for all feasible mitigations to be considered in an EIR; single-event noise should also be addressed in a revised, recirculated Environment Impact Statement/Environmental Impact Report; 54

- On page 202, with respect to construction noise, the document states that standard industry practice for construction noise "may be used to minimize impacts." The document should clearly state which measure will be used and which will not be used. Absent this information, it is impossible to tell if the impacts would be mitigated; 55

- The project should include mitigation measures that eliminate most of the five years of 24-hour per day construction noise in the residential North Hills area of Oakland; 56

- Doing construction work during daylight hours consistent with the policies of the City of Oakland; 57

- Installing rubberized asphalt on the asphalt freeway lanes in the early in the construction project from the Caldecott Tunnel to the State Route 24/580 maze; 58

- Instituting and posting reduced speed limits west of the Caldecott Tunnels, such as 50 miles per hour, which I believe could have a benefit equal to halving the number of cars on the freeway; 59

- having Caltrans place their noise receptors in all areas along the State Route 24 corridor from the west entrance to the Interstate 580 junction to more fully determine noise impacts of the project and to be able to appropriately develop mitigation measures to address the noise impacts; 60

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- Consulting with and involving local agencies such as the City of Oakland, City of Berkeley and City of Orinda and adhering to local noise ordinances; 61

- consider a wide variety of sound abatement measures that include, but are not limited to different kinds of pavement including rubberized pavement, rubberized structural columns, extensive planting, imposing restrictions on mufflers and Jake brakes for vehicles utilizing the tunnels; enforcement of noise emissions from motorcycles and modified behicles particularly muffler noise; these noise abatements measures should include the arterial strees used for freeway access and egress; 62

- Replacing the proposed soundwall or soundwall/berm proposal for the north side of the freeway with a more effective proposal for a 1000-foot berm built close to the north edge of the new freeway lanes and covered roof garden over the new freeway lanes that would more effectively mitigate noise impacts; we also recommend constructing a center soundwall/divider between the eastbound/westbound lanes that would extend approximately 500 feet to the west of the bend in the crossover bridge in front of the west side of the Tunnel, which could provide support for the roof garden as a noise reduction tunnel bridging over eastbound/westbound lanes. This might be built where the current crossover lanes connect the center bore with westbound lanes coming out of the Tunnel. I also recommend after viewing the pictures of the modern noise reduction tunnel built over freeway lanes in Nickern, Germany that are available on Google/the attached pictures indicate that a noise reduction tunnel featuring crossbeams and overhead glass could be combined with an over-freeway roof garden to provide effective noise reduction benefits. It might be possible to include some over-freeway beams/over-freeway thick glass in some of the roof garden structure to provide additional lighting at a reduced cost. I also recommend Caltrans/its partners seek grant funding and include solar panels somewhere in the structures built by Caltrans on one side of the Tunnel as part of this project that might extend the length and mitigation benefits of the roof garden "mitigation" park and to help in powering outdoor lighting, the roof garden irrigation system, and possibly some of the lighting for the freeway tunnel lanes. I understand that acoustic insulation properties have been found to exist with use of greenroofs for noise mitigation in a variety of settings, and that noise reduction tunnels have been constructed in locations around the world to successfully mitigate noise impacts and believe that this approach to noise mitigation is a Context Sensitive Solution for noise for this location which should be implemented by Caltrans pursuant to its written "Context Sensitive Solutions" policy. The ecological, economic, aesthetic, and psychological advantages of roof garden projects are documented on the Greenroofs.com web site and should be considered by the project partners in implementing these proposed Context Sensitive Solutions for more effective noise mitigation on affected receptors on both sides of the freeway in the project area. (See the pictures attached for the proposed location for the roof garden noise "mitigation" park as well as pictures showing the technology that has been utilized in building roof gardens and a noise reduction tunnel in Gosbach Hosbach Germany that might illustrate the type of roof garden noise reduction "mitigation" park that could be developed adjacent to the Caldecott Tunnel to more effectively mitigate noise impacts); 63

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- Extending the project area to at least College Avenue and constructing an exterior noise reduction tunnel similar to the Nickern, Germany noise reduction tunnel (see pictures attached of this noise reduction tunnel) in over-the-freeway lanes adjacent to the Claremont Middle School and surrounding the Rockridge BART Station and its eastern parking lot to provide noise mitigation benefits to those attending or visiting the Claremont Middle School and also to BART patrons/staff at the Rockridge BART station; 64

- Caltrans and its partners might be able to get the maximum benefit in implementing a program to construct the roof garden "mitigation" park and the proposed noise reduction tunnel(s) or even soundwalls if it consulted and partnered effectively and even utilizing some volunteers and obtained some donations of labor, materials, and monetary funding. Partners might include: local, State, Federal and private grant funding sources; the City of Oakland, the City of Berkeley, the City of Orinda, the University of California, the Caldecott Tunnel 4th Bore Coalition, roof garden construction companies, companies that constructed noise reduction tunnels in locations such as Germany, the Keep Oakland Beautiful Advisory Board of the City of Oakland's Public Works Agency, the California Department of Forestry, the California Department of Corrections and its convict crews, the California Native Plant Society, Sierra Club, Waste Management, North Hills Landscape Committee, Cal Corps Service Center, Volunteer Center of Alameda and Contra Costa County, wholesale nurseries, wholesale tree companies, native plant nurseries, California Landscape Contractors Association local chapter, and volunteers from local high schools and community colleges. I believe it could be possible to obtain donations of labor and materials and to have partners potentially join with the California Department of Transportation and its partners in going after grant funding to help with constructing the roof garden noise "mitigation" park because of its many environmental benefits that could be attractive to potential donors and funders. A good example of this type of collaboration was the Gateway Garden and Gateway Emergency Preparedness Center's construction that I worked on with the North Hills Landscape Committee, using a combination of public and private funding, as well as a dynamic public/private partnership of organizations that obtained significant donations and discounts to construct an approximately million dollar City of Oakland park facility near the Caldecott Tunnel. I believe the community would rally around a Context Sensitive Solution mitigating noise, visual, tree and other environmental impacts such as the proposed roof garden "mitigation" park. I also believe our very capable public officials at the local, State and Federal level could help us in securing financial support for this type of a Context Sensitive Solution. 65

- Apply to some of the State and Federal funding sources that have been identified on Elevated Landscape Technologies Inc.'s website (www.eltgreenroofs.com) to help in defraying some of the costs of the roof-garden noise mitigation structures and features of the project; 66

- Constructing the roof garden noise mitigation over freeway lanes on the west side of the Caldecott Tunnels during an early point of construction of the 4th Bore to help in minimizing on-going noise impacts on local residents from existing freeway traffic/lanes; 67

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- Installing a "living wall" with plant materials (similar to those developed by Elevated Landscape Technologies Inc. and shown on its website) between the eastbound and westbound freeway lanes to mitigate direct and reflected noise from vehicles in the westbound freeway lanes, and possibly some of the noise from the westbound lanes. 68

Mitigation of Impacts on Non-Motorized Travel and Barriers Posed To Evacuation of Residents In the Event of Major Fire or Earthquake: The proposals set forth in the Draft Environmental Assessment/Environmental Impact Report fail to adequately plan for and address the impacts on non-motorized travel that are caused by the construction of additional freeway lanes and proposed soundwalls. Similarly, the proposed project creates barriers that might threaten the lives of local residents by creating new barriers to prompt evacuation by non-motorized travelers in the event of a major fire or earthquake. Pursuant to the California Department of Transportation's internal directive on "Accommodating Non-Motorized Travel", we understand that Caltrans is supposed to fully consider "the needs of non-motorized travelers (including pedestrians, bicyclists, and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products". However, even though there are many bicycle riders and pedestrians that travel regularly along frontage roads in the SR24 corridor, Caltrans in this project largely ignores their needs to travel through the Tunnel or across freeway lanes/sound barriers. The Draft report ignores the needs of and the impacts of this project on "Non-Motorized" travelers as though they don't exist or that the partners don't care about the potential risks to their lives in an emergency evacuation situation. The project and Draft report also don't adequately address the needs or rights of the physically disabled in relation to travel through the Tunnel or across the freeway lanes/proposed soundwall. It appears that it might almost take a lawsuit under the American with Disabilities Act (ADA) against the partners including the State of California and Federal Highway Administration to get effective mitigation for the physically disabled or physically disable bicyclists with respect to the new and continuing barriers that impact the physically disabled and their rights. There might be a potential ADA violation here and possibly violation of State or Federal laws impacting wildlife. I recommend as part of the mitigation for the impacts on non-motorized travel that:

- A roof-garden or "mitigation" park with handicap-accessible pathways be constructed over the 8-10 freeway lanes on the west side of the Tunnels, which would include pathways to allow for non-motorized travel over the noise barriers and freeway lanes. The new park could also assist wildlife in the Caldecott Wildlife in their non-motorized travel across the freeway lanes and noise barrier(s), which is now blocked to a substantial extent by fencing and the freeway lanes. For example, it might help deer, Alameda Whipsnakes, other animals, or birds safely get across the new freeway lanes and noise mitigation proposed. 69

- New sidewalks should be constructed along the frontage roads on both sides of the freeway between the Tunnel area, the intersections with the Warren Freeway/State Route 13, and the intersections with Hiller Drive. 70

- Bicycle and pedestrian access be provided for through the Tunnel; At the recent public hearing at Claremont Middle School a photograph was shown of a tunnel in Europe that accommodated non-motorized travel, and we believe that State 71

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and Federal policies mandate that provision be made for non-motorized travel through the 4th Bore; the partners in the project should have analyzed and presented information on their consideration of this tunnel project in Europe that found space in a 3rd lane for non-motorized travel through a tunnel, and this should be done in the development of a new Environment Impact Statement/Environmental Impact Report fully evaluating a Bikeway/Pedestrian Lane Alternative;

- Consistent with the Caltrans policy for accommodating non-motorized travel, another appropriate mitigation for the project's impacts would be to add a pedestrian and bicycle crossing from Tunnel Road to Lake Temescal in the north/south direction; I understand that an engineer has already evaluated the costs for Caltrans to construct such a crossing and this mitigation option should be implemented; 72

- The revised EIS/EIR should analyze carefully and completely the impact on non-motorized travelers and there should be specific mitigations included in the project proposal with funding designated, which would help in eliminating existing barriers and accommodating those with physical disabilities or who may wish to travel through the project area on a bicycle, by foot, with a walker or in a wheel chair; Caltrans, the United States government, and the other local transportation agency partners need to give more than lip service to accommodating "Non-Motorized Travel" in the project area and to eliminating existing barriers and any new barriers to "Non-Motorized Travel" and to stop discriminating against those with physical disabilities in planning and implementing major transportation projects such as the Caldecott Improvement Project. 73

- A consultant with expertise in accommodation for those with physical disabilities should be employed to ensure the project if it goes forward fully and adequately accommodates the needs of residents/visitors to our community with physical dsiabiilities and removes barriers impacting or preventing their travel and also their ability to evacuate in an emergency situation. 74

- A consultant with expertise regarding bicycle and pedestrian travel and accommodating bicyclists and pedestrians should also be employed to ensure the project if it goes forward fully and adequately accommodates bicyclists and pedestrians and removes barriers impacting or preventing their travel through the tunnel and areas in the Caldecott Improvement project. 75

Multiple Impact Mitigation: To mitigate project impacts, if the project proceeds and is fully funded construction and spoils removal should be done from the east side of the Caldecott Tunnel to minimize the adverse impacts such as noise, dust, traffic congestion, fire dangers, and evacuation route congestion in an emergency, and introduction/spread of invasives. It would also help in reducing the potential spread of invasives and noise impacts to see if all of the spoils might be disposed of in Contra Costa County. 76

The proposed project can have a number of significant impacts that will adversely impact local communities and residents, including impacts in areas such as: noise, protected trees, wildlife habitat, introduction and spread of invasive species, restricting pedestrian and bicycle travel through the project area, visual, "mode shift" impacts upon mass transit with the 77

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potential to reduce ridership on buses and BART, impacts on traffic on surface streets in Oakland and Berkeley, air quality, and the potential to significantly add to traffic congestion and delays in Alameda County during construction and in the short and long term. To help in mitigating some of these impacts if the 4th Bore is constructed, I propose and recommend as a mitigation measure that the partners in the Caldecott Improvement Project construct a roof garden "mitigation" park over the lanes on the west side of the Tunnel to substitute for the berm and proposed sound wall, which could minimize visual, noise, wildlife habitat, tree, bunch grass, bicycle, pedestrian, and particulate impacts and help create a recreational use and new wildlife habitat and native plant restoration area.

I think Caltrans/its partners if the 4th Bore is constructed should use something like the tunnel-shaped metal structures (described in your recent public hearing presentations, which will apparently be enclosed in concrete) that will be included in the construction of the interior of the new Bore to extend the subterranean traffic lanes past the Parkwoods Condominiums and some of the homes/condominiums west of the Tunnel that will otherwise be permanently impacted by noise. Pre-fabricated concrete/metal support structures might also be a cost-saving option. Some of the excavated soil and rock (and possibly other cost-effective and sound-absorbing recycled materials) could be placed on top of the metal structures/concrete, or possibly behind retaining walls on the north/sound sides of the freeway or in a center sound barrier instead of hauling all of the dirt and rock to other locations. This could minimize costs and also help in mitigation efforts in relation to limiting or controlling the potential spread of invasives, which hauling all of the soil/rock away in large trucks from the 4th Bore might create as another negative impact on local communities. This creative use of the spoils to mitigate negative impacts is consistent with past Tunnel project initiatives, such as the use of spoils previously to help create the North Oakland Sports Fields. 78

I would also like to see most of the external roof garden "mitigation" park to be constructed at the beginning of the Caldecott Improvement Project to cover the existing six lanes of traffic and help in reducing traffic noise/visual impacts/otherenvironmental impacts during the lengthy construction period for the project. 79

I also recommend the mitigation park include bicycle lanes and pedestrian pathways to allow bicyclists and pedestrians a way to get across the freeway lanes at this location, without risking their lives trying to cross 10 freeway lanes. A crossing for pedestrians and bicyclists through the mitigation park location by the Caldecott Tunnel would be less congested than crossing at the current narrow bridge/overpass near the North Oakland Sports Field. A park with bicycle and pedestrian access at this location could also provide the residents of Parkwoods Condominiums, of the three proposed developments on the south side of the freeway, and of the larger surrounding area a very pleasant park venue and much better view than looking over 9 or 10 lanes of traffic/car lights forever. It would also provide more noise mitigation benefits for houses and residents at higher levels to the east, west, north and south than the proposed sound wall or berm/soundwall that Caltrans is proposing to spend probably $1 million or more on. If you planted native bunch grasses and small trees in the roof garden mitigation it could also help to mitigate for the significant impacts on native bunch grass and trees, which the Draft EA/EIR indicates that the project will cause. There could also be cost savings from not having to construct a temporary soundwall here and from shifting all construction to the east side of the Tunnel/not having to build a staging area on the west side of the Tunnel that could be utilized to construct the roof garden mitigation park. The partners as I have outlined above might also be able to apply for local, state and Federal grant funding to help with lowering the costs of constructing the roof garden "mitigation" park. The roof garden" mitigation" park could also be an appropriate center piece for the multi-site native

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plant mitigation/restoration projects that could be implemented in the "Final Tree Replacement and Planting Plan".

I ask that careful consideration be given to my comments and to funding and/or implementation of my mitigation recommendations and those of other members of the Caldecott Corridor 4th Bore Coalition, who have carefully studied the Draft EA/EIR for the proposed project.

Sincerely,

Gordon Piper,
Chair

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1 to 15– Please see responses #1-15 of the letter from Mayer Luce Development. These comments are identical to those in that letter.

16 & 17- Please see the essay on "Methodologies Used in the Impact Assessments/Local Ordinances" in Chapter 1. Trees within the western portal staging area were incorrectly counted; all other areas checked were correctly counted. An additional tree survey was conducted in the western portal staging area, and additional trees were added to the previous count to produce an accurate count of trees to be impacted by the project. The

updated tree count information can be found in the Final Environmental Assessments/Environmental Impact Report (FEA/EIR).

18 - During the additional survey in the potential staging area adjacent to Parkwoods, tree species including maples and acacias not originally identified in the tree survey were identified. These additional trees have been included in the impact assessment and have been accounted for in the proposed mitigation.

19 - With regards to Appendix A of the DEA/EIR, please see the essay on "Methodologies Used in for the Impact Assessments/Local Ordinances" in Chapter 1.

20 - Tree removal will result in temporary impacts to wildlife habitat within the project corridor. However, insofar as trees to be removed generally are less than 20 years old and provide only low quality wildlife habitat, this impact would be less than significant. The wildlife habitat value is low since the habitat consists mainly of non-native eucalyptus and Monterey pines trees, is adjacent to State Route 24, has a low density, and in some areas is flanked by development on both sides. Furthermore, the Department is replacing removed vegetation with native or non-invasive species.

21 & 22- As described in Section 2.3.4.4 of the DEA/EIR, measures such as worker training, avoidance of sensitive communities, and cleaning of construction machinery before use on subsequent projects in sensitive communities would reduce the likelihood that noxious weeds would be spread by the proposed project. Furthermore, as part of future invasive species control, native or non-invasive plant species appropriate for the project area will be used in any restoration or revegetation seed mix or stock. Identified invasives will be mechanically or chemically removed during the three years plant establishment period (PEP), as necessary; this treatment will ensure that invasive populations do not become established. The frequency and type of treatment will be site specific and will be determined during project construction and/or completion.

Since this DEA/EIR focuses on the Caldecott Improvement Project and not other lands, the status of other nearby lands are not considered for the analysis; however, project-specific measures to control the spread of noxious weeds on site would also help to minimize the spread of non-native species in areas adjacent to the project corridor.

Mitigation sites outside of the project area will be planted with native trees and shrubs to reestablish habitat values and would include invasive weed control and fire management for a maximum period of four years, i.e. 1-year concurrent with tunnel construction and an additional 3-years of plant establishment with the separate on-site planning contract.

23 - Mitigation for invasive species removal, fire management, and restoration will occur both inside and outside the immediate project study area boundaries, and will be finalized per consultation with resource agencies and project partners. Mitigation sites outside of the project area will be planted with native trees and shrubs to reestablish habitat values and would include invasive weed control and fire management for a maximum period of three years. Mitigation work outside of the project area will be performed concurrent with the tunnel contract.

Additional highway planting, which would occur inside of the project study area boundaries, will include both mitigation planting and replacement planting to integrate the proposed facility with the adjacent community and natural environment. Mitigation tree planting invasive weed removal/control and fire management at sites located outside of the project will be performed concurrent with the roadway contract. Highway planting within the immediate freeway corridor would include three years of plant establishment and invasive weed control within specific areas, and would be implemented under separate contract immediately following the completion of all tunnel and road work.

24 – Please see response #21 and #22.

25 - Precise plans for replacement planting, invasive weed species control, and fire management are not prepared during the environmental phase of the project. Mitigation actions identified in the FEA/EIR are sufficient to demonstrate that the impacts can be mitigated and to assure that adequate costs are included in the project cost estimates.

In general, Caltrans landscaping replacement commitment on this project is limited to the contract period of the combined contracts, i.e. tunnel and roadway work contract and subsequent landscape contract and confined to specific areas of actual work. Since this DEA/EIR focuses on the Caldecott Improvement Project and not other lands, the status of other nearby lands are not considered for the analysis; however, project-specific measures to control the spread of noxious weeds on site would help to minimize the spread of non-native species in areas adjacent to the project corridor.

26 - Identified invasives will be mechanically or chemically removed during these three-year plant establishment period (PEP), as necessary; this treatment will ensure that invasive populations do not become established. General invasive-only control in areas of project disturbance will reduce the threat of invasives spreading to non-disturbed areas. The frequency and type of treatment will be site specific and will be determined during project construction

27 – Please see response #26.

28 - Please see response #23.

29 – Please see response #25.

30- Noise abatements are considered only at locations where noise impacts are identified within the project study area boundaries. Caltrans has no program to provide noise abatements for areas currently subject to freeway traffic noise, or where there is no new freeway or reconstruction of an existing freeway.

31-33 – Please see response #7 to Mayer-Luce Development.

34 – The project does not cause significant increases in traffic noise levels. Hence, NEPA and CEQA do not require noise mitigation. The project is still subject to federal regulations (23CFR772), which Caltrans applies to all of its projects. Compliance with 23CFR772 is shown by adhering to the Caltrans Traffic Noise Analysis Protocol (2006), which was developed by Caltrans and approved by the Federal Highway Administration. Under the protocol, noise abatement is considered only for area of frequent human use and where reduced noise levels would be of benefit. An area of frequent human use is an outdoor area where people will congregate for extended periods of time, i.e., sports fields, event sites, picnic areas, playgrounds, etc. While people may stop at the Gateway Garden occasionally to take in the view it does not receive any of the uses previously described for extended periods of time and would not be considered an area of frequent human use under the Caltrans Traffic Noise Analysis Protocol. Therefore, consideration of noise abatement was not required.

35 – Please see response #30 and #31-33 above.

Please also see the essay on “Project Study Area Boundaries” in Chapter 1.

The Port of Oakland has done studies in the past to investigate the routes taken by trucks carrying goods to and from the port. These studies show that a very small proportion of these trucks use State Route 24. This truck traffic is concentrated either taking Route 880 northbound to 80 then eastward or Route 880 southbound to Route 238 to Route 580 then on east. (Phone conversation between Phillip Cox Caltrans Traffic Modeling and Forecasting Branch Chief and Steve Gregory of Port of Oakland, 10/2/06)

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.

36 – The project does not cause significant increases in traffic noise levels. Hence, NEPA and CEQA do not require noise mitigation. The project is still subject to federal regulations (23CFR772), which Caltrans applies to all of its projects. 23CFR772 requires that Caltrans consider noise abatement that is feasible and reasonable and likely to be constructed. Even though many of the homes on the hillsides may be receiving noise levels above the criteria, there is no abatement option that the project could include that could feasibly and reasonably reduce those noise levels. An “external noise reduction tunnel” is not an approach that has ever been used in this country and its impacts are not quantifiable. Hence, it would not be considered a reasonable noise abatement option under 23CFR772.

37- Extending the fourth bore beyond the Parkwoods Condominiums by construction of a box structure and building a roof garden on top of the structure would introduce significant safety and technical problems, including hundreds of State Route 24 closures with traffic detours onto city streets. If the fourth bore were extended by constructing a box it would necessitate moving the new freeway lanes and structure closer to the Parkwoods Condominiums to allow sufficient space between the new structure and the existing traffic lanes. If the box were buried with excavated material this separation issue becomes even more important. This change would add tens of millions of dollars to the cost of the project.

Your suggestion to install a structure over the freeway with a roof garden on top was considered at the staff and management team levels. Caltrans and our funding partners do not have the resources to fund this work. In addition, a rooftop garden would require maintenance that is beyond Caltrans standard level of maintenance. The roof garden structure was not considered beyond preliminary levels, since physical site constraints, the lack of funding and inability to maintain the feature makes this proposal infeasible as an option to develop in more detail.

Although the roof garden concept is a creative idea it would be more conducive and supportable in an extensively urbanized environment where pavement and the cost of real estate preclude the development of parks.

38 – Attachment was unable to be opened.

39 – Please see the essay on "Project Study Area Boundaries" in Chapter 1.

40 – The existing pavement within the project study area boundaries is portland cement concrete. Concrete is a durable material for highway pavements. This existing pavement has recently been rehabilitated and is in good condition. Its expected life is 20 to 40 years. Placing open-graded asphalt concrete (OGAC), or rubberized asphalt concrete (RAC) as a noise mitigation measure would involve the following: The existing concrete pavement would have to be cracked and seated during night-time lane closures, and an appropriate thickness of overlay placed on top. The resulting pavement would have an expected life of 20 years and would add an estimated cost of approximately $5 million to the Caldecott Improvement Project. Caltrans position is to keep the existing concrete pavement since it is in good serviceable condition.

41 – All of the soundwall options adjacent to the Parkwoods condominiums were chosen to provide the most abatement possible while maintaining an equivalent amount of abatement for each option and minimizing aesthetic impacts. While State standards allow walls up to 16 feet, placing it on top of an 18 foot earthberm would have created an unpleasant visual effect. Federal guidance allows States the consideration of factors outside of pure acoustics in the design of their soundwalls. In regards to the difference in elevations between the condominiums and the adjacent topography, all pertinent variations in grade have been input into and accounted for in the noise model..

42 – Please see response #7 in the essay on "Traffic Operations" in Chapter 1.

43 – Please see response #4 in the essay on "Traffic Operations" in Chapter 1.

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

45 – The findings of the Metropolitan Transportation Commission's "*Route 24/Caldecott Tunnel Corridor Study*" were accurately reported in Chapter 1 of the DEA/EIR. Please also see the essay on "Transit" in Chapter 1.

46 – Please see the essay on "Alternatives Considered In The Draft Environmental Assessment/Environmental Impact Report (DEA/EIR)" in Chapter 1.

47 – Please see the essay on "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.

48 – The growth inducement analysis was carefully crafted to address the CEQA growth criteria. The comment contributor is referred to the referenced technical report on growth inducement and the detailed analysis

documented therein and incorporated by reference into the environmental document. Also see the response to BAAQMD, July 28, 2006, Comment #1. The growth study summarized in Section 2.1.2, Growth, in the DEA/EIR, found that while the projected time savings of the fourth bore would theoretically increase the growth pressures in residential study areas to the west of the tunnel, such as Berkeley, Oakland or Piedmont, there were other factors present that would prevent unplanned growth. These factors include the fact that all of the communities close enough to the tunnel to be affected by travel delay savings are relatively built out and plan to rely on carefully controlled infill growth to provide more housing over the next 20 or 30 years. The expert panel agreed with these findings.

49- The FHWA and the Department believe that the DEA/EIR and the FEA/EIR provide an adequate analysis of both potential impacts and potential mitigation measures as discussed in Chapter 2, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures and fully meets state and federal requirements. The FEA/EIR will not be withdrawn. Please see the essay on "The Environmental Process; Environmental Impact Statement/Environmental Impact Report ((EIS/EIR) versus and Environmental Assessment/Environmental Impact Report (EA/EIR); and Criteria for Significance" in Chapter 1.

50 – Caltrans has allocated funding for replacement landscaping to mitigate for tree removal within the immediate freeway corridor. This will be implemented immediately following completion of roadwork and will include a three-year plant establishment period. Whereas, off-site mitigation will occur concurrent with the tunnel project, (See Response #3). . Mitigation measures provide for the replacement of oaks at a 5:1 ratio. All other native trees with a diameter breast height of 6 inches will be replaced at a ratio of 3:1. Trees will be replaced at a higher ratio to compensate for the temporal loss of habitat; more trees planted will result in better species establishment and higher quality habitat in the future. Generally, where water is available, replacement trees are usually 5-gallon size but can be upsized to 15-gallon and 24-inch box trees to accelerate the re-establishment of aesthetic and habitat values. In off-site mitigation areas, water is generally unavailable and is usually provided through more labor-intensive means. Plant materials selected for these areas are generally planted as seedlings having intact taproots and will rely subsist mostly on seasonal rains. Depending upon the tree species, 5-gallon size trees range in height from 5-8 feet, 15-gallon trees are generally 8-10 feet, and 24-inch box trees are 10-12 feet or more in height. Areas adjacent to the Caldecott lane will have the appearance of being newly landscaped and in addition to trees will include lower-story shrubs and woody ground covers. Planted areas would be mulched to provide a neat appearance, conserve water and to control weeds. Re-establishment of the habitat quality comparable to existing conditions would take approximately 8-10 years.

51 - Caltrans is proactive in protecting and preserving existing vegetation on all of its projects. In addition to Caltrans' own policy, the intent of the City of Oakland's Tree Protection Ordinance is and will continue to be considered during all stages of project development. However, the ordinance does not preclude jurisdiction regarding tree removal. Please see the essay on "Methodologies Used for the Impact Assessments/Local Ordinances" in Chapter 1.

52 – Please see response #25.

53 – Please see the essay on "Constructing The Tunnel From The East Side Only" in Chapter 1.

54 - The reasonableness criteria are not intended for mitigation measures of noise impacts identified under CEQA. They are established for abatement measures considered under Code of Federal Regulations 23CFR772.

55 - The FEA/EIR commits to avoidance, minimization and/or mitigation measures for potential project impacts.

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

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

57 - The nature of tunnel construction necessitates around the clock construction activity to control cost and schedule. When constructing a tunnel, construction work can proceed only in limited areas. For example, tunnel excavation can only occur at one location for each portal. Because of this limitation, the cost and schedule of a tunnel project will increase dramatically if the hours of construction are limited. In addition when the advance of a tunnel is delayed, additional support measures are required to assure that the face of the tunnel

remains stable. Under the current plan, which involves tunnel construction 5 days per week, 24 hours per day, these additional support measures will only be required over the weekend. However, if tunnel construction were limited to one shift per day, these additional support measures would have to be installed every day, which would have significant cost implications. In addition, please see the essays "Methodologies Used for the Impact Assessments/Local Ordinances" and "Construction Impacts" in Chapter 1.

58 - Installing asphalt concrete (AC) overlay to the existing concrete pavement is undesirable due to the following reasons: Based on the soil samples recently taken from various locations on the westbound route within the project study area boundaries, and the subsequent laboratory soil tests, the majority of the basement soil appears to be of sedimentary rock having high levels of R-values. This is the basement condition favorable for concrete pavement, which would perform the expected long life service with low maintenance cost. In order to overlay the roadway, existing concrete pavement needs to be cracked and seated, which will transform the existing rigid concrete pavement into a flexible AC pavement thus requiring more frequent maintenance and more disruptions to traffic. Furthermore, the existing concrete pavement is generally in good condition and is not a qualified candidate for a crack and seat rehabilitation.

59 - In regards to vehicle speeds, the setting of speed limits is a joint decision of the local entities within the State Route 24 corridor and the California Highway Patrol. Caltrans does not have the authority to unilaterally set limits and cannot commit to them within this environmental document.

60 – Please see response #25, above.

61 – Please see the essay on "Methodologies Used for the Impact Assessments/Local Ordinances" in Chapter 1.

62 - The decision to repave the roadway with a quieter pavement will be based on the roadway surface's need for rehabilitation, in conformance with Caltrans' State's pavement rehabilitation strategy. Should Caltrans determine that repaving is required for maintenance purposes, open-graded asphalt pavement will be considered. Restriction of jake brakes is a joint decision of the local entities within the State Route 24 corridor and the California Highway Patrol. The State does not have the authority to unilaterally set restrictions and cannot commit to them within this environmental document. Likewise, the regulation of vehicle equipment involves several agencies and likely a legislative process and is outside the scope of this environmental document. In regards to the noise abatement of structural columns, the contribution of noise reflecting off of the columns is negligible and does not warrant abatement. For noise abatement on arterial streets, Caltrans is mandated by federal regulation to consider noise abatement from projects on streets and freeways within its jurisdiction. Caltrans does not have the authority or the federal funding to commit to abatement of noise from streets that are within the jurisdiction of the local agencies.

Caltrans will provide landscaping to the extent possible.

63 - Please see response #37.

64 – Please see response #25.

Caltrans follows the code of federal regulations 23CFR772, which requires consideration of noise abatement that is reasonable and feasible, and likely to be constructed. While such an exterior tunnel would be a dramatic addition to the tunnel project, it is untested technology in this country and its impacts are unquantifiable. Under 23CFR772 standard forms of abatement must be considered first before any newer untested technology, with an unknown likelihood of being built, is considered.

The Claremont Middle School and Rockridge BART are beyond the project study area boundaries. Please see the essay on "Project Study Area Boundaries" in the Chapter 1.

No picture was attached to the letter.

65- Please see response #37 above.

66-Existing and future State and Federal funding sources will be used for the project development, construction of a two-lane tunnel and for the mitigation listed in the FEA/EIR.

67- A “roof garden” is not a form of noise abatement approved by either the FHWA or the State. Please see response #37 above.

68- Caltrans strives for safety in the highway environment for motorists as well as for our highway maintenance personnel. For this reason Caltrans no longer permits planting of any type within the center median of freeways. A living wall would require long term intensive maintenance activities and frequent repair resulting from traffic hits and could not be safely maintained under any condition.

69- Sound walls in the median would not provide meaningful attenuation, as they would have no effect on the peak traffic direction, which is the dominating noise source. Please see response #37 above.

70- See the essay on “Bicycle and Pedestrian Access/Improvements” in the Chapter 1.

71- See Option J in the essay on “Bicycle and Pedestrian Access/Improvements” in the Chapter 1.

72-Please see Table 1, Option C1, in the Chapter 1.

73- See the essay on “Bicycle and Pedestrian Access/Improvements” in the Chapter 1.

74- See the essay on “Bicycle and Pedestrian Access/Improvements” in the Chapter 1.

75- See the essay on “Bicycle and Pedestrian Access/Improvements” in the Chapter 1.

76- Please see response #40 to the letter submitted by the Mayer-Luce Development. Please see the essay on “Construction Impacts” and “Constructing the Tunnel from the East Side Only” in the Chapter 1.

77, 78 & 79- Please see response #37 above.