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Mr. Sidney C.L. Char
American Institute of Architects
119 Merchant Street, Suite 402
Honolulu, Hawaii 96813-4452

Dear Mr. Char:

Subject: Honolulu High-Capacity Transit Corridor Project
Comments Received on the Draft Environmental Impact Statement

The U.S. Department of Transportation Federal Transit Administration (FTA) and the City and County of Honolulu Department of Transportation Services (DTS) issued a Draft Environmental Impact Statement (EIS) for the Honolulu High-Capacity Transit Corridor Project. This letter is in response to substantive comments received on the Draft EIS during the comment period, which concluded on February 6, 2009. The Final EIS identifies the Airport Alternative as the Project and is the focus of this document. The selection of the Airport Alternative as the Preferred Alternative was made by the City to comply with the National Environmental Policy Act (NEPA) regulations that state that the Final EIS shall identify the Preferred Alternative (23 CFR § 771.125 (a)(1)). This selection was based on consideration of the benefits of each alternative studied in the Draft EIS, public and agency comments on the Draft EIS, and City Council action under Resolution 08-261 identifying the Airport Alternative as the Project to be the focus of the Final EIS. The selection is described in Chapter 2 of the Final EIS. The Final EIS also includes additional information and analyses, as well as minor revisions to the Project that were made to address comments received from agencies and the public on the Draft EIS. The following paragraphs address comments regarding the above-referenced submittal:

Review of Project Goals and Objectives

Comments on the Project's Purpose and Need, and associated goals and objectives, were sought during the NEPA scoping period in March and April of 2007. The Project is a transportation project and includes the goal of supporting already planned development. The Project also supports the goals of the Honolulu General Plan and the Oahu Regional Transportation Plan by serving areas designated for urban growth. The social, environmental,

aesthetic, and economic elements listed in the comment were evaluated in Chapter 4 of the Draft and Final EISs. Separately, the Department of Planning and Permitting has developed a Transit Oriented Development Revised Ordinance of Honolulu (ROH 09-4) that will consider the Project in future land use planning.

The following Project goals are shown in Table 1-4 of the Final EIS:

- *Improve corridor mobility.*
- *Improve corridor travel reliability.*
- *Improve access to planned development to support City policy to develop a second urban center.*
- *Improve transportation equity.*

These goals correspond closely to the FTA criteria. As stated in Section 4.2.3 of the Final EIS, the Project is consistent with the transportation and land use elements of adopted State and Local government plans. Cost-effectiveness is discussed in Section 7.4 of the Final EIS. As shown in Table 3-11 in Chapter 3 of the Final EIS, visitors will make up 11 percent of total daily travel in 2030. Given the importance of this market segment and potential environmental effects, visitors were recognized in the assessment of total travel demand. In addition, the selection of the Airport Alternative as the preferred alternative will allow visitors access to the high-capacity transit system for travel to or from the airport terminal.

The island's unique visual character and scenic beauty was considered in the visual and aesthetic assessment presented in the Draft and Final EISs. It is acknowledged that views in Downtown and the other areas will be blocked and some views will change substantially, resulting in significant visual effects. View changes are not likely to be obtrusive in wider vistas or regional panoramic views, such as from cruise ships, where the project elements serve as smaller components of the larger landscape.

Review of Project Impacts

As stated previously, the island's visual character and scenic beauty was considered in the visual and aesthetic assessment presented in the Draft and Final EISs. It is acknowledged that the guideway and stations will noticeably contrast with Chinatown's historic character. In addition, views in Downtown and the other areas, including protected mauka-makai views, will be blocked and some views will change substantially, resulting in significant visual effects. In Section 4.8 of the Final EIS viewer group responses on the Draft EIS resulted in the refinement of the visual impact rating for several key views. Several additional simulations were added to illustrate project effects discussed the Draft EIS including protected mauka-makai views (see Tables 4-10 through 4-14 and Figures 4-39 through 4-50). The assessment acknowledges that some view obstructions and changes to views will be unavoidable and substantial. They will be most noticeable where the guideway and stations are nearby or in the foreground of views. This includes those who travel near the alignment. The degree of visual effect will vary with the alignment orientation, guideway and station height, and height of surrounding buildings and trees, along with the viewer's expectations of view quality. View changes are not likely to be obtrusive in wider vistas or regional panoramic views where the project elements serve as smaller components of the larger landscape. Under the heading Design Principals and Mitigation

of Section 4.8.3 of the Final EIS, architecture and landscape design criteria are listed that will help minimize negative visual effects of the Project.

The Project has logical termini at East Kapolei and Ala Moana Center and independent utility from any extensions that may be constructed in the future. The future extensions to West Kapolei, Salt Lake Boulevard, Waikiki, and UH Manoa are discussed in the cumulative impacts sections of Chapters 3 and 4 of the Final EIS. However, the future extensions are not part of this Project; thus, they are not required to be evaluated under Chapter 343 of the Hawaii Revised Statutes and NEPA. Under NEPA, environmental analysis is only required when there is a proposed action by a Federal agency. Here, because the future extensions are not proposed for implementation at this time, they are not part of the Project studied in the Final EIS. It would be premature to undertake an environmental analysis of the extensions (beyond the cumulative impacts analysis) because they are not part of the proposed action to be taken by the City and FTA. If the future extensions are proposed for implementation in the future, environmental analysis of the extensions and appropriate alternatives will be undertaken at that time. Views along the Ala Wai promenade will not be affected by the Project.

It is acknowledged that the Chinatown Station and guideway will be dominant features in views along Nimitz Highway and mauka views of the Koolau Mountain Range will be blocked. Chinatown view effects are illustrated in Figures 4-30, 4-31, and 4-33 of the Final EIS. As stated above, Section 4.8.3 includes more detail on measures to minimize negative visual effects. Based on concerns raised by Section 106 consulting parties, preliminary effects determinations as shown in the Draft EIS were reevaluated and documented in the Honolulu High-Capacity Transit Corridor Project Historic Effects Report dated April 14, 2009. Both direct and indirect effects to historic properties were reevaluated in this report. The Project was determined to have an adverse effect to the Chinatown Historic District and no adverse effect to the Hawaii Capital Historic District. Following consultation, the State Historic Preservation Division (SHPD) concurred with the effect determinations on the Chinatown Historic District and the Hawaii Capital Historic District. These determinations of effect and the SHPD's concurrence are documented in Section 4.16 and Appendix F of the Final EIS.

DTS has developed design criteria to address the City's visual and aesthetic requirements for the Project, which will be implemented in Final Design as mitigation measures to minimize visual effects. Guideway materials and surface textures will be selected in accordance with generally accepted architectural principles to integrate the guideway with its surrounding environment. Landscaping and streetscape improvements will mitigate potential visual impacts. Under the heading Design Principals and Mitigation of Section 4.8.3 of the Final EIS, specific environmental, architectural, and landscape design criteria are listed that will help minimize negative visual effects of the Project.

In addition, the ongoing station area planning process involves numerous aspects of transit system design. The process addresses design and planning issues in an integrated manner and focuses on the characteristics and preferences of the communities adjacent to each station.

Protected views and vistas that are identified in the Primary Urban Center Development Plan and may be affected by the Project are shown in Table 4-13 of the Final EIS and locations are identified on Figure 4-19.

The majority of the system will travel in roadway medians. These areas below the guideway will continue to carry automobile traffic. The portions of stations at ground level will be similar to public areas within any building. Elevated station platforms will have open views to the surrounding communities. Security, including cameras, will be provided at all stations. Details of the system security are still in development. DTS, with assistance from the Honolulu Police Department, is developing a security plan for transit facilities. Section 4.6.3 of the Final EIS describes potential safety and security issues once the Project is operating. The discussion notes that to reduce the potential for crime, the FTA requires the development and implementation of a Safety and Security Management Plan (SSMP) for new fixed guideway projects (49 CMR 633). The SSMP will address the technical and management strategies for analyzing safety or determining security risks throughout the Project's life cycle. In addition, RTD has developed specifications and Design Criteria to address the City and County of Honolulu's requirements for the Project. Chapter 25 of the Design Criteria is dedicated to the safety and security of the system.

The transit system will be ADA accessible. Elevators and escalators will be provided at all stations. Also, level boarding will be provided to trains; therefore, stairs or lifts, as used on buses, will not be required.

As stated in Section 2.2 of the Final EIS, prior to selecting an elevated fixed guideway system, a variety of high-capacity transit options were evaluated during the Primary Corridor Transportation Project (1998—2002) and Alternatives Analysis. Options evaluated and rejected included an exclusively at-grade fixed guideway system using light-rail or bus rapid transit (BRT) vehicles, as well as a mix of options consisting of both at-grade and grade-separated segments.

The Alternatives Screening Memorandum (DTS 2006a) recognized the visually sensitive areas in Kakaako and Downtown Honolulu, including the Chinatown, Hawaii Capital, and Thomas Square/Academy of Arts Special Design Districts. To minimize impacts on historic resources, visual aesthetics, and surface traffic, the screening process considered 15 different combinations of tunnel, at-grade, or elevated alignments between Iwilei and Ward Avenue. Five different alignments through Downtown Honolulu were advanced for further analysis in the Alternatives Analysis, including an at-grade portion along Hotel Street, a tunnel under King Street, and elevated guideways along Nimitz Highway and Queen Street.

The Alternatives Analysis Report (DTS 2006b) evaluated the alignment alternatives based on transportation and overall benefits, environmental and social impacts, and cost considerations. The report found that an at-grade alignment along Hotel Street would require the acquisition of more parcels and affect more burials than any of the other alternatives considered. The alignment with at-grade operation Downtown and a tunnel through the Capital Historic District, in addition to the environmental effects, such as impacts to cultural resources, reduction of street capacity, and property acquisition requirements of the at-grade and tunnel sections, would cost more than $300 million more than the least expensive alternative.

The Project's purpose is "to provide high-capacity rapid transit" in the congested east-west travel corridor. The need for the Project includes improving corridor mobility and reliability. The at-grade alignment would not meet the Project's Purpose and Need because it could not satisfy the mobility and reliability objectives of the Project. Some of the technical considerations associated with an at-grade versus elevated alignment through Downtown Honolulu include the following:

System Capacity, Speed, and Reliability—*The short, 200-foot blocks (or less) in Downtown Honolulu would permanently limit the system to two-car trains to prevent stopped trains from blocking vehicular traffic on cross-streets. Under ideal circumstances, the capacity of an at-grade system could reach 4,000 passengers per hour per direction, assuming optimistic 5 minute headways. Based on travel forecasts, the Project will need to carry approximately 8,000 passengers by 2030. Moreover, the system can be readily expanded to carry over 25,000 in each direction by reducing the interval between trains (headway) to 90 seconds during the peak period. To preserve a comparable system capacity, speed, and reliability, an at-grade alignment would require a fenced, segregated right-of-way that would eliminate all obstacles to the train's passage, such as vehicular, pedestrian, or bicycle crossings. Even with transit signal priority, the at-grade speeds would be slower and less reliable than an elevated guideway. An at-grade system would travel at slower speeds due to the shorter blocks, tight and short radius curves in places within the constrained and congested Downtown street network, the need to obey traffic regulations (e.g., traffic signals) along with other vehicles, and potential conflicts with other at-grade activity, such as cars, bicyclists, and pedestrians. These effects mean longer travel times and far less reliability than a fully grade-separated system. None of these factors affect an elevated rail system. The elevated rail can travel at its own speed any time of the day regardless of weather, traffic, or the need to let cross traffic proceed at intersections.*

Mixed-Traffic Conflicts—*With the planned three-minute headways, the short cycle of traffic lights would affect traffic flow and capacity of cross-streets. Furthermore, there would be no option to increase the capacity of the system by reducing the headway to 90 seconds. An at-grade system would also require removal of two or more existing traffic lanes on affected streets. This effect is significant and would exacerbate congestion for those who choose to drive. Congestion would not be isolated to the streets that cross the at-grade alignment but, instead, would spread throughout Downtown. The Final EIS shows that the Project's impact on traffic will be isolated and minimal and, in fact, will reduce system-wide traffic delay by 18 percent compared to the No Build Alternative (Table 3-14 in the Final EIS). That is because the elevated guideway will require no removal of existing travel lanes, while providing an attractive, reliable travel alternative. When traffic slows, or even stops due to congestion or incidents, the elevated rail transit will continue to operate without delay or interruption.*

The at-grade light rail, with its continuous tracks in-street, will create major impediments to turning movements, many of which would have to be closed to eliminate a serious crash hazard. Even where turning movements are designed to be accommodated, at-grade systems experience significant collision problems. In addition, mixing at-grade fixed guideway vehicles with cars, bicyclists, and pedestrians presents a much higher potential for conflicts compared to grade-separated conditions. Where pedestrian and automobiles cross the tracks in the street network, particularly in areas of high activity (e.g., station areas or intersections), there is a risk

of collisions involving trains that does not exist with an elevated system. There is evidence of crashes between trains and cars and trains and pedestrians on other at-grade systems throughout the country. This potential would be especially high in the Chinatown and Downtown neighborhoods, where the number of pedestrians is very high and the aging population presents a particular risk.

***Construction Impacts**—Constructing an at-grade rail system could have more effects than an elevated system in a number of ways. The wider and continuous footprint of an at-grade rail system compared to an elevated rail system (which touches the ground only at discrete column foundations, power substations, and station accessways) increases the potential of utility conflicts and discovery of sensitive cultural resources. In addition, the extra roadway lanes taken away for the system would result in increased congestion or require that additional businesses or homes be taken to widen the roadway through Downtown. Additionally, the duration of short-term construction impacts to the community and environment with an at-grade system would be considerably greater than with an elevated system. Because of differing construction techniques, more lanes would need to be continuously closed for at-grade construction and the closures would last longer than with elevated construction. This would result in a greater disruption to business and residential access.*

Because it is not feasible for an at-grade system through Downtown to move passengers rapidly and reliably without significant detrimental effects on other transportation system elements (e.g., the highway and pedestrian systems, safety, reliability, etc.), an at-grade system would have a negative system-wide impact that would reduce ridership throughout the system. The at-grade system would not meet the Project's Purpose and Need and, therefore, does not require additional analysis.

The resources and costs associated with construction and operation of an elevated system have been considered in project planning. As evaluated in the Alternatives Analysis, an underground system would be the least cost-effective option.

***Recommendations**—The Project's chosen technology ensures speed, reliability, and efficiency and is the only one that allows an automated, driverless system. As such, it will have a lower operating cost and attract the highest ridership of all technologies examined. It may be operated above, at, or below grade. The requirement is that the system operates in an exclusive right-of-way. As stated previously, to preserve system speed and reliability, neither automobiles nor pedestrians can be allowed to cross the tracks. For at-grade operation, this would require a fenced right-of-way with no crossings. It is not possible to construct such a system in a number of areas along the alignment, including in and around Downtown, where the right-of-way does not exist to operate such a system at grade. Placing any part of the system in mixed right-of-way would affect the speed and reliability of the entire system.*

The FTA and DTS appreciate your interest in the Project. The Final EIS, a copy of which is included in the enclosed DVD, has been issued in conjunction with the distribution of this letter. Issuance of the Record of Decision under NEPA and acceptance of the Final EIS by the Governor of the State of Hawaii are the next anticipated actions and will conclude the environmental review process for this Project.

Very truly yours,

WAYNE Y. YOSHIOKA
Director

Enclosure