East Contra Costa BART Extension (eBART) Project Final EIR

Addendum

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SUMMARY

Background

The San Francisco Bay Area Rapid Transit District (BART) is proposing to extend transit services into east Contra Costa County from its existing Pittsburg/Bay Point BART Station in the unincorporated community of Bay Point near the City of Pittsburg. The project is generally known as "eBART" in reference to the extension of service to the "East" portion of Contra Costa County.

The potential environmental effects of the eBART Project were presented in an Environmental Impact Report (EIR) for the purposes of evaluating environmental impacts under the California Environmental Quality Act (Public Resources Code Section 21000, et seq., CEQA). The Draft EIR, issued for public review in September 2008, included a description of the Project, an assessment of its potential effects, a description of mitigation measures to reduce significant effects that were identified in the Draft EIR, and a consideration of alternatives that could address potential impacts. The Proposed Project consists of an approximately 10-mile extension of transit service from the current BART terminus in Contra Costa County at the Pittsburg/Bay Point BART Station to a point just east of Hillcrest Avenue in the City of Antioch. The extension would use a Diesel Multiple Unit (DMU) technology, rather than conventional BART technology, and would operate in the median of State Route 4 (SR 4). On April 23, 2009, the Final EIR for the project was certified by the BART Board of Directors and the eBART Project was adopted (Adopted Project).

Modifications to the Adopted Project evaluated as part of this Addendum include changes to the two stations: the Pittsburg Railroad Avenue Station and the Hillcrest Avenue Station. Changes to the Railroad Avenue Station include the following:

(i) Phased project construction, with construction and commencement of service to Hillcrest station first, and construction of the Railroad Avenue Station deferred until funding is available; and

(ii) Elimination of the Railroad Avenue Station West Entrance.

Changes to Hillcrest Median Station include the following:

(i) Relocation of the parking lot to the east;

(ii) Elevation of the relocated parking lot above the surrounding grade to allow a future connection to Viera Avenue (extending from the north) to cross over the Union Pacific Railroad (UPRR) tracks;

(iii) Expansion of the DMU Control and Maintenance Center;

(iv) Realignment of the proposed access road serving the parking lot and the maintenance center;

(v) Installation of solar panels over the center of the parking lot;

(vi) Excavation of the knoll at the east end of the project site to accommodate the expanded Control and Maintenance Center and to provide fill for the elevated parking lot; and

(vii) Relocation of certain utilities.

This Addendum also evaluates proposed clarifications to two mitigation measures in the Mitigation Monitoring and Reporting Plan, one concerning the required surface water runoff permit and a second concerning hazardous materials investigations.

Purpose of Addendum

Section 15164 of the CEQA Guidelines allows a Lead Agency to prepare an addendum to a previously certified EIR if some changes or additions are necessary, as long as none of the conditions described in Section 15162 requiring the preparation of a subsequent EIR have occurred. In brief, Section 15162 states that when an EIR has been certified, no subsequent EIR needs to be prepared for the project unless the Lead Agency determines, on the basis of substantial evidence in the light of the whole record, that there are substantial changes proposed in the project which require major revisions of the previous EIR, substantial changes occur with respect to the circumstances under which the project is undertaken, or there is new information of substantial importance regarding new significant effects, more severe effects, or the feasibility or effectiveness of mitigation measures.[1]

The Revised Project includes revisions to the Adopted Project as described in the certified Final EIR for the eBART Project. Incorporating these changes into the Adopted Project depends upon funding availability and other contingencies. Accordingly, these changes are being evaluated as optional project components which may or may not be constructed, depending on the circumstances. BART retains the flexibility to construct the Adopted Project as originally described in the Final EIR or to incorporate some or all of the Revised Project elements described in the Addendum. In addition, text changes have been proposed to the mitigation measures included in the Mitigation Monitoring and Reporting Plan adopted by the BART Board. As such, BART acting as Lead Agency for the project has prepared this Addendum to include an analysis of the proposed revisions.

Conclusion

This Addendum to the eBART Project Final EIR revisits the analysis conducted in the Final EIR and evaluates the potential effects of the proposed changes under the Revised Project at the Pittsburg Railroad Avenue Station and the Hillcrest Avenue Station. Project changes were evaluated for all disciplines analyzed in the Final EIR (transportation, land use, visual quality, etc.). Table S-1 provides a summary of the impacts discussed in this Addendum related to the Pittsburg Railroad Avenue Station and Hillcrest Avenue Station. The table identifies instances where changes associated with the Revised Project have been noted in this Addendum to have some effect on the related topic. Topics where no effects related to the proposed changes have been identified are also shown in the table. The table provides the reader with an overview of the potential for changes related to each of the proposed revisions under the Revised Project. For example, as shown in Table S-1, the installation of photo voltaic panels would not result in changes (beneficial or adverse) to impact topics discussed in this Addendum except for visual quality and energy.

[1] Text of the CEQA Guidelines Sections 15162 and 15164 are provided in the "Introduction" section of this Addendum.

The analysis did not identify any substantial changes to the affected environment and did not identify any new or substantially more severe impacts not already identified in the Final EIR. All mitigation measures included in the Final EIR would also apply to the Revised Project. Based on the evaluation presented in this Addendum, there is no substantial evidence in the light of the whole record that the conditions outlined in Section 15162 of the CEQA Guidelines requiring a subsequent EIR are met. Therefore, an EIR Addendum is appropriate.

Table S-1
Revised eBART Project Summary of Impacts

	Railroad Avenue Station				Hillcrest Avenue Station							
	Initial Construction of eBART without Railroad Avenue Station		Elimination of the Railroad Avenue Station West Entrance		eBART Station Parking Lot		Installation of Photo Voltaic Panels		Control and Maintenance Center and Tail-track Extension		Roads and Utilities	
Topic	Changes Discussed	No Effect	Changes Discussed	No Effect	Changes Discussed	No Effect	Changes Discussed	No Effect	Changes Discussed	No Effect	Changes Discussed	No Effect
Transportation	X		X		X			X		X		X
Land Use	X			X		X		X		X		X
Population and Housing	X			X		X		X		X		X
Visual		X		X	X		X		X		X	
Cultural Resources		X		X	X			X	X		X	
Geology, Soils, and Seismicity	X			X	X			X	X			X
Hydrology and Water Quality	X			X	X			X	X			X
Biological Resources		X		X	X			X	X		X	
Noise and Vibration		X		X	X			X			X	
Air Quality	X			X	X			X	X			X
Public Health and Safety	X		X		X			X	X			X
Community Services		X		X		X		X		X		X
Utilities	X			X	X			X	X			X
Energy		X		X	X		X		X			X

Source: PBS&J, 2011.

East Contra Costa BART Extension (eBART) Project Final EIR Addendum

INTRODUCTION

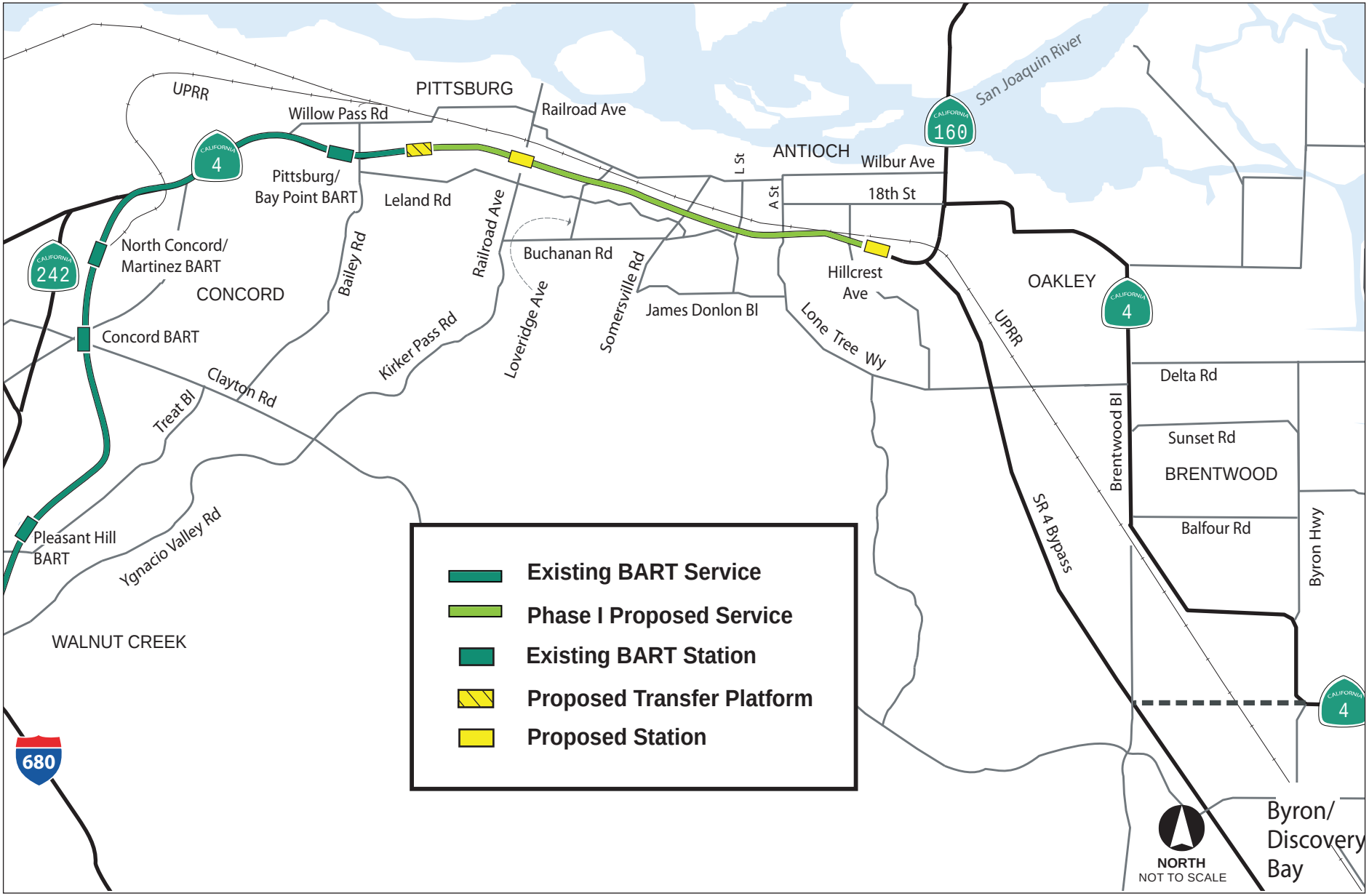
Background

The San Francisco Bay Area Rapid Transit District (BART) is proposing to extend transit services into east Contra Costa County from its existing Pittsburg/Bay Point BART Station in the unincorporated community of Bay Point near the City of Pittsburg. The project is generally known as "eBART" in reference to the extension of service to the "East" portion of Contra Costa County.

The potential environmental effects of the eBART Project were presented in an Environmental Impact Report (EIR) for the purposes of evaluating environmental impacts under the California Environmental Quality Act (Public Resources Code Section 21000, et seq., CEQA). The Draft EIR, issued for public review in September 2008, included a description of the Proposed Project, an assessment of its potential effects, a description of mitigation measures to reduce significant effects that were identified in the Draft EIR, and an analysis of alternatives that could address potential impacts. The Proposed Project consists of an approximately 10-mile extension of transit service from the current BART terminus in Contra Costa County at the Pittsburg/Bay Point BART Station to a point just east of Hillcrest Avenue in the City of Antioch. The proposed transit service extension is shown in Figure 1 below. The extension would use a Diesel Multiple Unit (DMU) technology, rather than conventional BART technology.

The DMU trains would operate on tracks to be constructed in the median of SR 4. The portion of SR 4 between the Pittsburg/Bay Point BART Station and Loveridge Road has already been widened to accommodate transit service. The portion of SR 4 between Loveridge Road and Hillcrest Avenue is proposed for widening by the State Department of Transportation (Caltrans) and the Contra Costa Transportation Authority (CCTA). The Federal Highway Administration (FHWA), Caltrans, and CCTA have completed environmental review of the widening project. The schedule for construction and operation of eBART is contingent on the scheduled widening of SR 4 east of Loveridge Road.

A transfer platform and two stations would be constructed as part of the Proposed Project. The transfer platform, which would link DMU passengers to the BART system, would be constructed east of the existing Pittsburg/Bay Point BART Station platform in the existing BART tailtrack area. A new passenger station would be constructed in the median of SR 4 at Railroad Avenue in the City of Pittsburg, and a terminus station would be constructed in the median east of the Hillcrest Avenue interchange in the City of Antioch. Three optional locations for the terminus station were evaluated in the Draft EIR; two of these optional locations would be located north of SR 4 in the area between SR 4 and the Union Pacific Mococo Line. The third option would also be located within the SR 4 median east of the Proposed Project station (hence, its name Median Station East). A maintenance facility would be constructed east of the Hillcrest Avenue Station as part of the Proposed Project. In addition, the Final EIR evaluated a refinement to the Median Station East option.



Source: BART, 2008.

PROPOSED eBART ALIGNMENT
FIGURE 1

Adopted Project

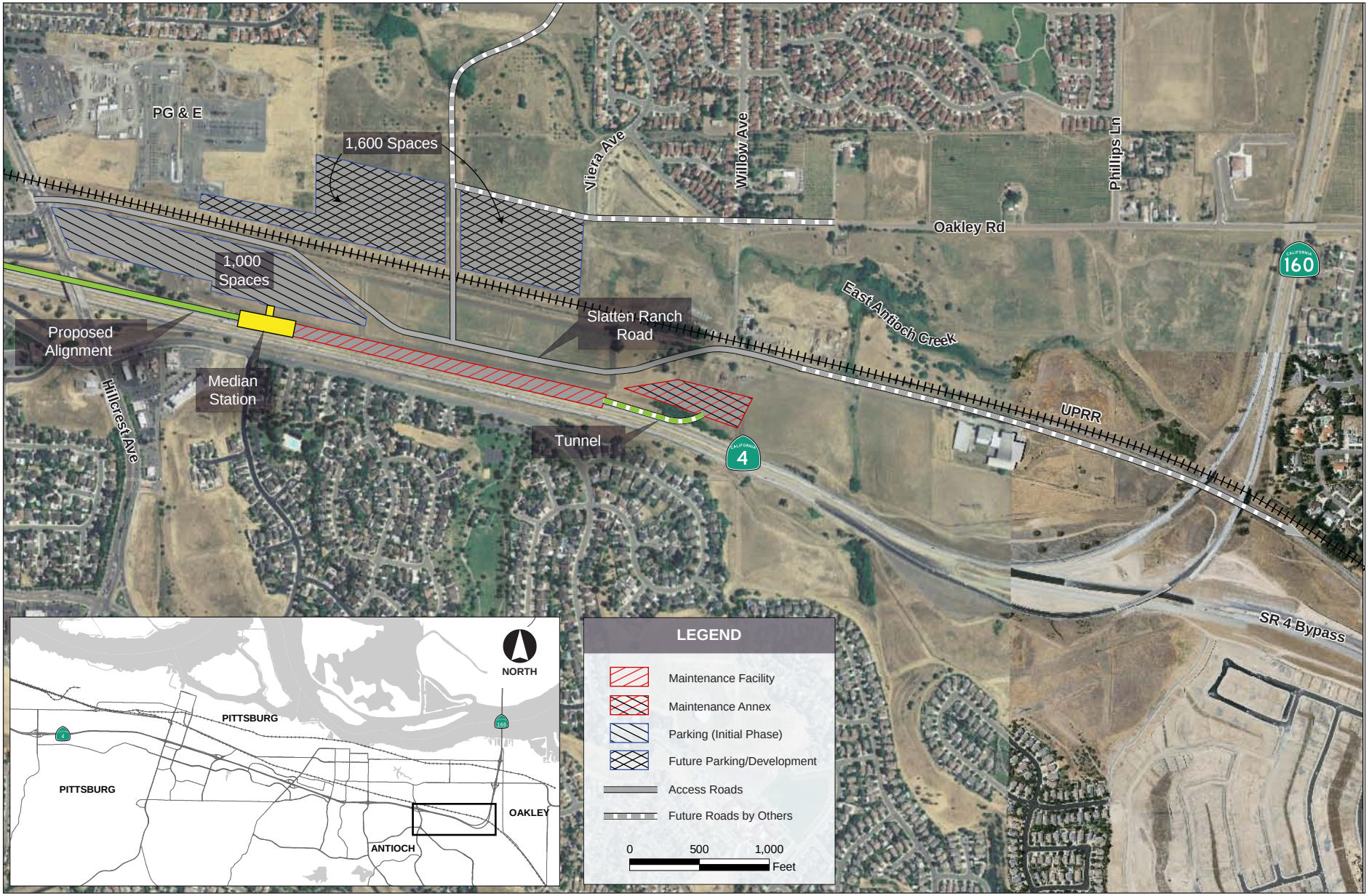
On April 23, 2009, the BART Board of Directors certified the Final EIR and adopted the two-station eBART Project. The BART Board selected the Proposed Project, which proposed the use of DMUs, as the Preferred Alternative, and found that the No Project Alternative, Bus Rapid Transit Alternative, Light Rail Vehicle Alternative, and BART Extension Alternative would not be feasible. The BART Board also selected the Median Station as the preferred station with an option to construct the Revised Median Station East (the option studied in the Final EIR), contingent on the City of Antioch securing the additional funding necessary for its construction by March 31, 2010. However, the City of Antioch did not receive funding by the specified deadline and therefore the Median Station became the final preferred station option. The station plan for the adopted Median Station option is shown in Figure 2

Modifications to the Adopted Project

As design on the project progressed, the project has evolved and modifications to the Adopted Project have been proposed. Modifications to the Adopted Project evaluated as part of this Addendum include changes to the two stations proposed under the eBART Project: the Pittsburg Railroad Avenue Station and the Hillcrest Avenue Station. Each of the changes to the Adopted Project evaluated in this Addendum is an optional modification. Incorporating these changes into the Adopted Project depends upon funding availability and other contingencies. Accordingly, these changes are being evaluated as optional project components which may or may not be constructed, depending on the circumstances. BART retains the flexibility to construct the Adopted Project as originally described in the Final EIR or to incorporate some or all of the Revised Project elements described in the Addendum.

Two potential changes to the Railroad Avenue Station are being considered: (i) phased project construction, with construction and commencement of service to Hillcrest station first, and construction of the Railroad Avenue Station deferred until funding is available; and (ii) elimination of the Railroad Avenue Station West Entrance. A number of changes to the adopted Hillcrest Median Station site plan are being considered: (i) relocation of the parking lot to the east; (ii) elevation of the relocated parking lot above the surrounding grade to allow a future connection to Viera Avenue (extending from the north) to cross over the Union Pacific Railroad (UPRR) tracks; (iii) expansion of the DMU Control and Maintenance Center; (iv) realignment of the proposed access road serving the parking lot and the maintenance center; (v) installation of solar panels over the center of the parking lot; (vi) excavation of the knoll at the east end of the project site to accommodate the expanded Control and Maintenance Center and to provide fill for the elevated parking lot; and (vii) relocation of certain utilities.

This Addendum also evaluates proposed modifications to two mitigation measures in the Mitigation Monitoring and Reporting Plan, one concerning the required surface water runoff permit and a second concerning hazardous materials investigations.



Source: PGH Wong, 2008; PBS&J 2008.

ADOPTED HILLCREST AVENUE MEDIAN STATION AREA AND CONCEPTUAL STATION PLAN

FIGURE 2

Purpose of Addendum

Section 15164 of the CEQA Guidelines allows a lead agency to prepare an addendum to a previously certified EIR if some changes or additions are necessary, as long as none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred. Section 15162 states that:

(a) When an EIR has been certified, no subsequent EIR shall be prepared for that project unless the Lead Agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

3. New information of substantial importance, which was not know and could not have been known with the exercise of reasonable due diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

    a) The project will have one or more significant effects not discussed in the previous EIR;

    b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

An agency must prepare an addendum to the previously certified EIR if the Lead Agency's role in the project is not complete and some changes or additions are necessary to the project but none of the conditions triggering a Subsequent EIR, Negative Declaration, or Supplemental EIR have occurred. Based on the following environmental evaluation, the proposed revisions to the eBART Project do not meet any of the conditions of Section 15162, and an Addendum is appropriate. This Addendum to the previously adopted EIR will be presented to the BART Board for consideration prior to adoption of the Revised Project. However, as noted each of the changes to the Adopted Project evaluated in this Addendum is an optional modification.

REVISED PROJECT DESCRIPTION

The proposed revisions to the eBART Project include optional changes to the Pittsburg Railroad Avenue Station and the Hillcrest Avenue Station, as detailed below. All other components of the eBART Project, as described in the Final EIR, would remain unchanged.

Pittsburg Railroad Avenue Station

As described in the Final EIR and adopted by the BART Board, the eBART Project includes a station located in the median of SR 4 beneath the Railroad Avenue overcrossing at the intersection of Railroad Avenue and SR 4 in the City of Pittsburg. The Revised Project considers two potential changes related to the Railroad Avenue Station.

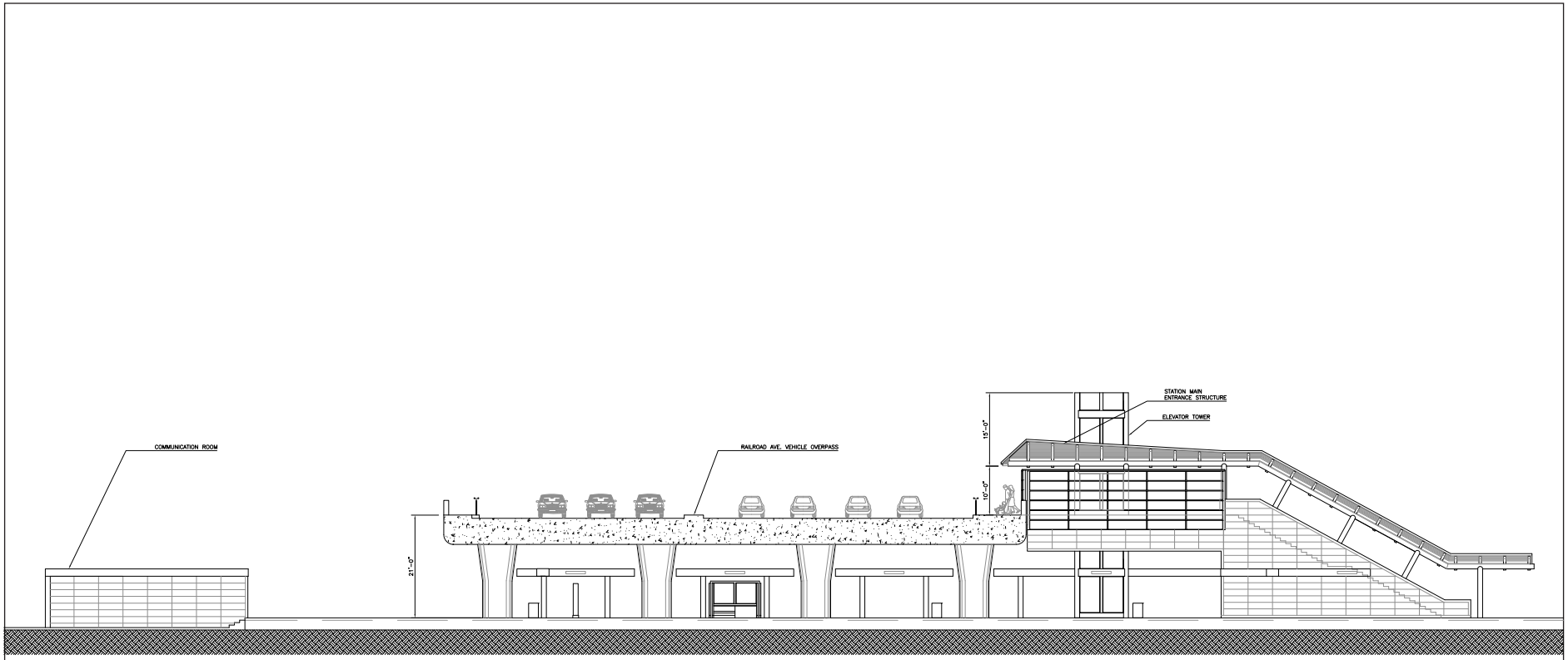
Deferred Construction of Railroad Avenue Station

The Final EIR identifies funding for the Railroad Avenue eBART Station as being provided by the City of Pittsburg. Due to economic circumstances, it is uncertain when and if funding for design and construction of the station will be available. Therefore, the eBART Project may be constructed and operated initially without the Railroad Avenue Station until the funding issues are resolved. As an option, the initial construction of the eBART Project through Pittsburg could include construction of the station foundation for the Railroad Avenue Station and as many other elements of the station as the City can fund and BART finds reasonable to build. Construction of the station foundation would lessen construction costs and construction duration when the station was completed at a later time.

The existing BART park-and-ride lot at Railroad Avenue has 185 spaces located on the south side of SR 4, between SR 4 and Bliss Avenue. As proposed in the Final EIR, in the year of opening, the lot would be reconfigured to provide 300 spaces. In an effort to reduce costs, construction of the initial phase for the Railroad Avenue Station would include only the existing 185 spaces. Reconfiguration of the lot to include 300 spaces would be deferred until a later date; in collaboration with the City of Pittsburg and others, BART will ensure that the reconfiguration is completed by 2030.

Elimination of the Railroad Avenue Station West Entrance

As proposed in the Final EIR, pedestrian access to the DMU station platform at the Railroad Avenue Station would be from sidewalks on the west and east side of the Railroad Avenue overpass, where one stairway and one elevator on each side of the overpass would descend to the DMU platform below. In an effort to reduce costs, an option being considered in this Addendum would eliminate the patron access from the west side of Railroad Avenue to the station platform. Figure 3 shows the Railroad Avenue Station without west side access. Patron access from the east side of Railroad Avenue to the station platform (one stairway and one elevator) would remain unchanged, but this option would eliminate all access from the west side of Railroad Avenue.



SOUTH ELEVATION - WEST END

Source: BART, 2011.

RAILROAD AVENUE STATION PLAN WITHOUT WEST SIDE ACCESS
FIGURE 3

Adopted eBART Project

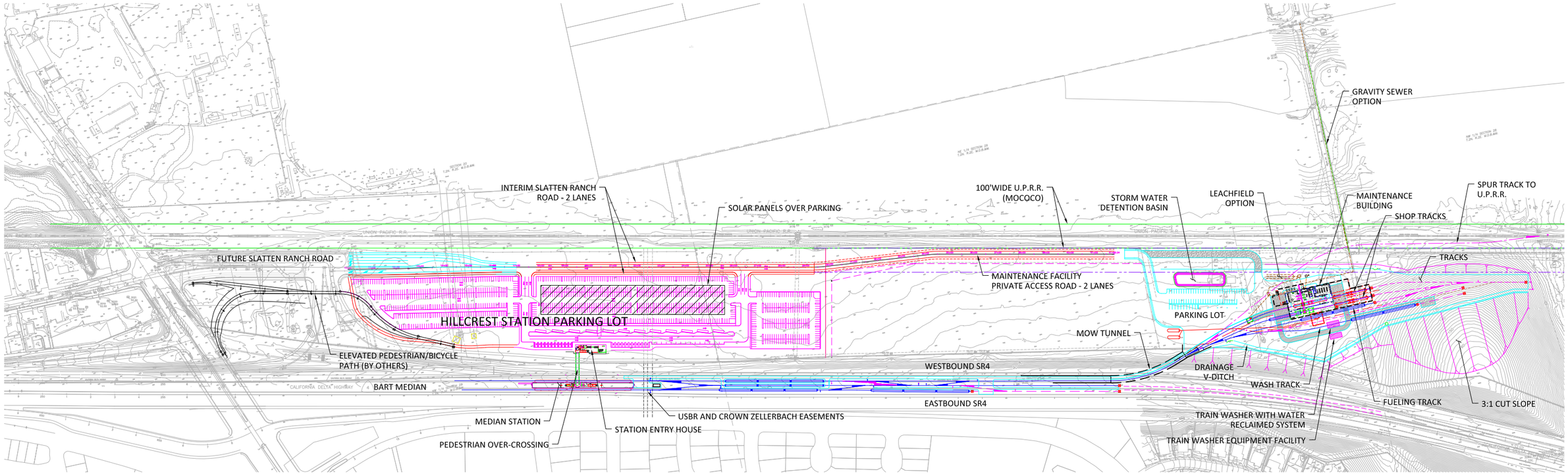
As described in the Final EIR and adopted by the BART Board, the eBART Project includes a terminus station in the median of SR 4, approximately 1,275 feet (0.24 miles) east of the intersection of Hillcrest Avenue and SR 4 in the City of Antioch. The station includes an approximately 40-acre area for 2,600 parking spaces on the north side of SR 4 to be implemented incrementally, with approximately 1,000 spaces (including 20 Americans with Disability Act (ADA) compliant spaces) on approximately 20 acres to be constructed by opening day (year 2015), with the remainder of the parking spaces to be constructed by year 2030. As shown in Figure 2, above, parking for the Hillcrest Station would be located in the northeast quadrant of the SR 4/Hillcrest Avenue interchange and would incorporate the existing BART park-and-ride lot. The proposed Hillcrest Station also includes ancillary facilities, including tailtracks and a maintenance facility, located within the SR 4 right-of-way east of the station platform, as well as a 2.8-acre maintenance annex north of SR 4 in the area between SR 4 and the UPRR right-of-way. This configuration for the Hillcrest Avenue Station and ancillary facilities is referred to in the Final EIR as the "Median Station" option, and it is the default configuration adopted by the BART Board.

The Final EIR also evaluated four additional station options in the general location of the Hillcrest Avenue station: the Median Station East, Revised Median Station East, Northside West, and Northside East Station options. The combined footprint of these options covered a substantial area of land east of the Project footprint, between SR 4 on the south, the UPRR right-of-way on the north, Hillcrest Avenue on the west, and State Route 160 (SR 160) on the east. Two options also included tailtracks and a maintenance facility east of SR 160 in the area of the SR 4 bypass. The Final EIR analyzed the environmental impacts from construction of these various station options and identified mitigation measures where necessary.

A number of changes to the adopted Hillcrest Median Station site plan are being considered: (i) relocation of the parking lot to the east; (ii) elevation of the relocated parking lot above the surrounding grade to allow a future connection to Viera Avenue (extending from the north) to cross over the Union Pacific Railroad (UPRR) tracks; (iii) expansion of the DMU Control and Maintenance Center; (iv) realignment of the proposed access road serving the parking lot and the maintenance center; (v) installation of solar panels over the center of the parking lot; (vi) excavation of the knoll at the east end of the project site to accommodate the expanded Control and Maintenance Center and to provide fill for the elevated parking lot; and (vii) relocation of certain utilities. Figure 4 illustrates the proposed design.

Relocation of the eBART Station Parking Lot and Potential Changes to Station Entry House

The Revised Project would relocate the Median Station parking lot from its original location adjacent to Hillcrest Avenue north of SR 4 to a location approximately 800 feet east of Hillcrest Avenue. The location of the eBART station platform would remain unchanged. As described in the Final EIR (pages 2-19 – 2-19a), the Hillcrest Station parking lot will be constructed in two phases. Phase 1, for



Source: BART, 2011.

HILLCREST AVENUE STATION REVISED PROJECT SITE PLAN

FIGURE 4

the opening of revenue service in 2015 consists of a 1,000-space lot in the northeast quadrant of the SR 4/ Hillcrest Avenue interchange, in the area of the existing BART park-and-ride lot. Phase 2, to accommodate increased parking demand anticipated by 2030, consists of an additional 1,600-space lot north of the UPRR tracks. Since the Final EIR was certified, Caltrans has developed plans to initiate construction of an SR 4 interchange at Hillcrest Avenue prior to 2015, which will occupy the location of the BART park-and-ride lot. Accordingly, the footprint of the Phase 1 parking lot has been shifted to the east. The relocated parking lot would retain its 1,000 spaces and occupy approximately the same acreage as the Adopted Project. However, because the Adopted Project incorporated the existing park-and-ride lot adjacent to Hillcrest Avenue and the revised design does not, the new design would create a greater increase in impervious surface than the original Project. The Adopted Project had approximately 14.3 acres of new impervious surface; the Revised Project would have 15 acres of impervious surface, a 5 percent increase. The parking area would include an on-site detention basin to retain stormwater runoff. The Revised Project also retains the 1,600 spaces that would be constructed north of the UPRR tracks in 2030 in the same location as proposed for the Median Station scenario (see Figure 4, above).

The relocated parking lot also would include a pedestrian-bicycle path from the west side of the station area near the vehicle entrance to the station entry house. This would complement the future pedestrian-bicycle bridge over the Caltrans on-ramp and off-ramp loop that is being considered by Caltrans as part of its Hillcrest Avenue interchange improvements.

Utilities for the parking lot, including water, sewer, stormwater, and power would be extended from Hillcrest Avenue. A future escalator,[2] two public restrooms, and one lockable restroom for BART personnel and bus drivers are being considered in the station entry house.

Elevation of the Parking Lot

The Revised Project would raise the elevation of the relocated parking lot to allow the future construction of an auto bridge over the UPRR tracks that would connect Viera Avenue north of the railroad tracks with the eBART parking lot. As described in the Final EIR (pages 2-19 – 2-19a), the City of Antioch has planned access improvements including an extension of Viera Avenue to connect with the future Slatten Ranch Road, providing access to the Phase 2 parking area north of the UPRR tracks. The City has agreed to work with BART and others to secure funding for Hillcrest Station-related parking and access. At the time the Final EIR was prepared, the City's extension of Viera Avenue was planned to connect with Slatten Ranch Road via an undercrossing beneath the UPRR tracks.

Subsequently the City, in consultation with Caltrans, CCTA, and BART, has determined that an auto bridge over the UPRR tracks is preferable. In order for the auto bridge to span the UPRR tracks with sufficient clearance, the grade north and south of the tracks must be elevated. However, shifting the Phase 1 parking lot to the east, as discussed above, would place the future location of the auto bridge within the relocated Phase 1 parking lot. Accordingly, if the Phase 1 parking lot is constructed at-grade, the later construction of the auto bridge to provide access to the Phase 2 parking lot would require closing the Phase 1 parking lot, regrading, and repaving it, at some point after eBART service has commenced. To avoid the disruption to eBART patrons and additional expense of repeated work

[2] An escalator in not planned for the initial phase of the project, but is being considered for a future phase.

within the Phase 1 parking lot, the Revised Project would include constructing the Phase 1 parking lot with an elevated grade along the northern edge, to accommodate the future auto bridge.

The parking lot's new elevation would vary, but the maximum increase in elevation would be approximately 28 feet along the north edge of the parking lot adjacent to the UPRR tracks where the auto bridge would cross over the railroad tracks. The grade would drop from the high point near the bridge toward the existing grade along the west perimeter of the parking lot. To the south, the parking lot grade would match the grade along SR 4, which will be raised by Caltrans as part of its SR 4 widening project. The current design would result in an approximately 20-foot-high slope along the east side of the parking lot adjacent to undeveloped land. The area of fill would be approximately 13 acres, and approximately 260,000 cubic yards of fill would need to be imported. Fill would be obtained from a small knoll at the east end of the project site and is discussed further below.

Control and Maintenance Center and Extended Tailtracks

Under the Adopted Project, several activities were proposed to be performed in the SR 4 median east of the Hillcrest Station platform. However, these activities can be more efficiently accomplished outside the median. As shown in Figure 4, the Revised Project would shift the location of and enlarge the 2.8-acre maintenance annex in order to accommodate operations, such as train washing and fueling, outside of the SR 4 median. The former maintenance annex would be expanded as a Control and Maintenance Center north and east from its original position adjacent to SR 4. Its northern border would be 150 feet closer to the UPRR railroad tracks; its eastern border would extend approximately 680 feet further to the east. The Control and Maintenance Center would be approximately 11.7 acres. Two shop tracks, one fueling track, and one wash track would be constructed. A wheel truing machine would be located in the maintenance building. The proposed Control and Maintenance Center also provides additional train turnback on a ladder track. A spur track north from the Control and Maintenance Center to the UPRR provides a rail connection that could be used on a very limited basis, such as maintenance access or delivery of the DMU vehicles by rail rather than by truck.

A small knoll (maximum elevation 169 feet) lies along the east side of the project area adjacent to SR 4 and rises approximately 90 feet above the surrounding terrain. Construction of the Revised Project would require that the north side of the knoll be excavated to create a level grade for the Control and Maintenance Center. The slope would be excavated to the top of the knoll. The excavation would leave a stable, finished face that would not exceed a 3:1 slope (horizontal:vertical).

The eastern edge of the Control and Maintenance Center would not intrude into the freshwater marsh that is located further to the east and runs along the east side of the knoll. The Control and Maintenance Center would include its own stormwater detention basin and would need a stormwater connection. There is an existing stormwater line running north from approximately the east end of the parking lot that could accommodate a connection from the maintenance facility. Existing water supply lines are nearby and would be used. Wastewater would be handled with an on-site septic system. If the septic system proves infeasible due to local soil conditions, a wastewater line would be extended either from Hillcrest Avenue or from the development north of the UPRR tracks along Willow Avenue to the Control and Maintenance Center. Sewer service would be provided by Antioch's sanitary sewer service. Electrical power also is available from overhead power lines along Willow Avenue.

Excavation of Knoll

The Revised Project includes grading part of a knoll at the east end of the project site, in order to provide a level area for the relocated and expanded Control and Maintenance Center. In addition, raising the parking lot as described above will require approximately 260,000 cubic yards of fill. Approximately 200,000 cubic yards of material would be removed from the lower portion of the knoll, in the Control and Maintenance Center area; an additional 60,000 cubic yards would be excavated from the upper portion of the knoll for the purpose of the parking lot grading. The material excavated from the knoll would be trucked from the knoll approximately 3,500 feet (0.67 mile) west to the parking lot area. Excavation truck traffic would travel generally along the east-west corridor south of the UPRR railroad tracks where the maintenance facility access driveway would be constructed. Steel plates would be placed over existing utilities to protect them during construction. If all 260,000 cubic yards of fill were excavated from the knoll, and assuming trucks with a maximum capacity of 20 cubic yards are used and a 15 percent compaction rate, approximately 14,950 truckloads would be required to transport the fill. Trucks carrying fill would not travel on public streets.

BART has performed a geotechnical investigation and confirmed the suitability of the knoll soil for use as fill in elevating the parking lot grade.[3]

Access Road and Future Slatten Ranch Road

The Adopted Project calls for the improvement of the existing Sunset Drive, currently a two-lane cul-de-sac, to accommodate access to the 1,000-space parking lot; provide enhanced bus, bicycle, and pedestrian access to the Hillcrest Station; and provide access to the Control and Maintenance Center. In the Revised Project, Sunset Drive would be improved to a two-lane roadway and extended along the north side of the eBART parking lot. This roadway would be within the right-of-way for Slatten Ranch Road, a planned four-lane east-west arterial road to be constructed by the City of Antioch from Hillcrest Avenue to Lone Tree Way.

Slatten Ranch Road was originally planned to run adjacent to the UPRR right-of-way north of the parking lot, and then veer south so it could travel adjacent to SR 4, before veering north again to run adjacent to the UPRR tracks (see Figure 2). The revised road design places the future Slatten Ranch Road on the north side of the project area, adjacent to the UPRR railroad tracks, for its entire alignment. This revised alignment is designed to take advantage of a future road connection to Viera Avenue, which would provide access to the area north of the railroad tracks via a bridge over the UPRR right-of-way.

In order to provide access to the eBART DMU Control and Maintenance Center, which is approximately 1,350 feet (0.26 miles) east of the parking lot, a private, two-lane maintenance driveway would extend along the north side of the project area from the eastern end of the parking lot to the Control and Maintenance Center. The access driveway to the expanded Control and Maintenance Center would be constructed within the boundaries of the future Slatten Ranch Road. Once the City constructs Slatten Ranch Road, it would replace the eBART access driveway and provide access to the Control and Maintenance Center.

[3] Parikh Consultants, Inc., Geotechnical Report-East Contra Costa BART Extension Project-Potential Borrow Site Evaluation and Investigation-Antioch, California, March 23, 2011.

Parking Lot Solar Panels/Shade Structures

As a part of BART's sustainability program and as an amenity for parkers, BART is considering placing photo voltaic panels over the central portion of the eBART parking lot. The panels will have the potential to produce approximately 1 megawatt of electricity and will provide shade for the vehicles underneath. The panels would cover approximately 300 parking spaces[4] (43,200 square feet or 0.99 acre) in the central portion of lot. No specific style of solar panel or manufacturer has been selected.

Utilities

Two underground water pipelines cross north-south through the project area. One is owned by the United States Bureau of Reclamation (USBR) and the second is owned by the former Crown Zellerbach Company. The two pipelines are located in two separate, but adjacent and parallel easements that share a common boundary. The lines originate south of SR 4 and extend north of the UPRR tracks. The two pipelines' north-south alignment is located approximately 40 feet east of the median station platform and under the eBART parking lot. The USBR pipeline is an 18-inch diameter, steel pipe in a 16-foot-wide easement. The Crown Zellerbach pipeline is a 36-inch diameter, concrete pipeline in a 20-foot-wide easement. Both pipelines are 4 to 6 feet below grade. The Contra Costa Water District (CCWD) manages and maintains the USBR water facilities. CCWD also provides water for the Crown Zellerbach pipeline.

In the SR 4 median, where the DMU tracks cross the pipelines east of the station platform, a reinforced concrete slab would be placed over the pipelines below the top of rail to protect them from the weight of the DMU vehicles by distributing the weight over a greater area. North of SR 4, where the eBART parking lot will be constructed over the two pipelines, the parking lot will be raised by importing up to 28 feet of fill. The pipelines are not constructed to support the additional weight and could be damaged. In addition, the depth of fill could make it impractical to repair the pipelines if they deteriorated or were damaged by other causes.

Following discussions with CCWD staff, CCWD is proposing to abandon the existing pipeline in place, after which BART will construct 460 linear feet of new pipeline through the proposed parking lot (within the same USBR easement). Once fill is added to the parking lot area and the new grade established, a new pipeline would be constructed at a higher elevation within the existing easement (approximately 4 feet below the finished grade). The elevated pipeline would be reconnected to the existing line at each end of the new elevated section. Crown Zellerbach staff have indicated that they would also abandon the pipeline in place and have BART build a new elevated section under the parking lot, similar to what is proposed for the USBR pipeline.

CCWD has also submitted a request to the Bureau of Reclamation for a Categorical Exclusion under the National Environmental Policy Act (NEPA) associated with the potential pipeline relocation under the Revised Project.

[4] Standard BART parking spaces are assumed to be 8 feet wide by 18 feet long.

Changes to the Mitigation Monitoring and Reporting Plan (MMRP)

In order to clarify or expand mitigation measures in the Mitigation Monitoring and Reporting Plan (adopted April 23, 2009), the Revised Project includes several changes to adopted mitigation measures. Mitigation Measure HY-1 is being revised to refer to the appropriate State National Pollutant Discharge Elimination System (NPDES) permit, and Mitigation Measure HS-9.1 is being expanded to include hazardous materials surveys for structures outside the SR 4 median. The following changes to the eBART MMRP are proposed.

Impact HY-1. The Project would not substantially increase impervious areas, except in the vicinity of the Hillcrest Avenue Median Station where the parking, access improvements, and maintenance annex would introduce considerably more impervious acreage, contribute to additional runoff, and potentially create a flood hazard.

Mitigation Measure HY-1.1 Implement BMPs to control surface water runoff. BART shall ensure that its contractor complies with the State General Permit for Discharges of Storm Water Associated with Industrial Activities, State Water Resources Control Board (SWRCB) Order No. 97-03-DWQ (or its successor) and/or Statewide Phase II MS4 NPDES General Permit, SWRCB Order No. 2003-005-DWQ) ~~Contra Costa County Water Program Phase I NPDES Permit C.3 Provisions~~ to detain and treat the additional surface water runoff generated by the Project. The permits require~~s~~ the completion and implementation of ~~a~~ stormwater management plans ~~Stormwater Control Plan (SCP)~~, which will contain design measures to minimize surface runoff and amounts of pollutants that enter the storm drain system and/or the natural landscape. BMPs include, but are not limited to, construction of additional basins and/or swales to capture and treat runoff or allow it to infiltrate to groundwater; building roofs and berms over work or storage areas and providing connections to sanitary sewers rather than storm drains; installing flow-through planters or in-ground planters; and construction of bioretention areas and infiltration trenches, among others. BART shall ensure that the contractor incorporates these and/or other BMPs into the Project with the goal of reducing stormwater runoff volumes and pollutants loading to comply with the permit ~~C.3~~ provisions.

Monitoring:

1. Prior to project construction, BART staff will ensure and the Monitor will verify that bid documents and contracts, and other plans and specifications require that the contractor complies with the State General Permit for Discharges of Storm Water Associated with Industrial Activities and/or Statewide Phase II MS4 NPDES General Permit ~~applicable provisions of the Phase I NPDES permit for the Contra Costa County Water Program (including permit condition C.3)~~ and develops and implements a stormwater management plan ~~Stormwater Control Plan~~ and BMPs during construction to control surface water runoff, as described above.

2. The Monitor will verify in the field that the contractor is complying with the NPDES Permit and that the BMPs are being implemented.

Impact HS-9. Construction activities involving demolition or upgrading of existing ~~SR 4~~ structures may potentially expose workers to asbestos, lead, and other hazardous ~~-containing~~ materials.

Mitigation Measure HS-9.1 Conduct a~~n~~ survey ~~asbestos-containing~~ for hazardous materials ~~(ACM) survey~~ prior to demolition work, or upgrading or reconstruction of existing structures. If construction of the Project requires the demolition of existing ~~SR 4~~ structures that were not demolished as part of the SR 4 widening project, BART shall conduct a survey for asbestos, lead, or other potentially hazardous materials prior to demolition, upgrading or reconstruction of any structures. Hazardous materials shall be handled and removed in compliance with California Occupational Safety & Health Administration (Cal OSHA) requirements. If surveys detect the presence of lead-based paint, construction will be performed in compliance with the Lead in Construction Standard (8 Cal. Code of Regulations section 5132.1). If surveys detect the presence of asbestos-containing materials (ACM), BART shall ensure that the contractor conducts an ACM survey prior to demolition, upgrading, or reconstruction of existing ~~SR 4~~ structures. The ACM survey shall be performed by an inspector who is Asbestos Hazardous Emergency Response Act-certified under Toxic Substances Control Act (TSCA) Title II and ~~California Occupational Safety & Health Administration (~~Cal OSHA~~)~~-certified under Section 1529 of the California Code of Regulations. If asbestos-containing material (that may become airborne) is found, subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements. Prior to demolition, the permitting process with the Bay Area Air Quality Management District shall be initiated through the submittal of the ACM survey results. For existing structures within the SR 4 right-of-way, ~~T~~this mitigation measure shall be performed in conjunction with Caltrans.

Monitoring:

1. BART staff will ensure and the Monitor will verify that a~~n ACM~~ survey for hazardous materials is conducted for structures that may need to be demolished or renovated ~~within the SR 4 median~~, as appropriate, prior to demolition or renovation.

2. If hazardous materials are ~~ACM is~~ detected, BART ~~and Caltrans staff~~ will ensure and the Monitor will verify that demolition or renovation is performed and hazardous materials are ~~ACM is~~ removed in accordance with the standards described above.

ENVIRONMENTAL ANALYSIS

This section includes a discussion of both the environmental topics evaluated in the Final EIR and the potential effects associated with each of the components of the Revised Project. Each of the changes to the Adopted Project evaluated in this section is an optional modification. Incorporating these changes into the Adopted Project depends upon funding availability and other contingencies. Accordingly, these changes are being evaluated as optional project components which may or may not be constructed, depending on the circumstances. BART retains the flexibility to construct the Adopted Project as originally described in the Final EIR or to incorporate some or all of the Revised Project elements described in the Addendum.

This section is organized into three subsections: Pittsburg Railroad Avenue Station, Hillcrest Avenue Station, and Changes to the Mitigation Monitoring and Reporting Plan. Under each station analysis, each of the environmental issues evaluated in the Final EIR (e.g., traffic, land use, visual quality, cultural resources, etc.) is addressed. The thresholds of significance utilized in the Addendum analysis are the same as those identified and utilized in the Final EIR. Impacts related to changes at the Pittsburg Railroad Avenue Station are organized into the following topics:

- **Deferred Construction of Railroad Avenue Station.** This section addresses impacts associated with the deferred construction of the Railroad Avenue Station.
- **Eliminate Railroad Avenue Station West Entrance.** This section addresses impacts associated with potential elimination of patron access from the west side of Railroad Avenue to the station platform.
- **Cumulative.** This section addresses potential cumulative impacts associated with the proposed changes to the Revised Project and other future projects within the area. The cumulative context for the Revised Project considers all known regional development projects including Caltrans SR 4 widening and interchange improvements, growth in the project corridor as forecast by the Association of Bay Area Governments, and additional growth around the Railroad Avenue and Hillcrest Avenue Station sites. The approximate timeframe for implementation of these projects is from the present to the year 2030.

Impacts related to changes at the Hillcrest Avenue Station are organized into the following topics:

- **eBART Station Parking Lot.** This section addresses impacts associated with the proposed relocation of the parking lot at the Hillcrest Avenue Station, including elevation change, utility relocation, and the portion of excavation of the knoll necessary for fill of the parking lot.
- **Parking Lot Solar Panels.** This section addresses impacts associated with the installation of solar panels/shade structures within the parking lot at the Hillcrest Avenue Station.
- **Control and Maintenance Center and Extended Tailtracks.** This section addresses impacts associated with the Control and Maintenance Center, extension of the tailtracks, and excavation of the knoll necessary for construction of the Control and Maintenance Center.
- **Roads and Utilities.** This section addresses impacts associated with the relocation of utility pipelines, and construction of the access road and future Slatten Ranch Road.

- **Cumulative.** This section addresses potential cumulative impacts associated with the Revised Project and other future projects within the area. The cumulative context for the Hillcrest Avenue Station includes the projects described above under Railroad Avenue Station, as well as construction of the future construction/extension of Slatten Ranch Road and Viera Avenue.

As discussed below, the Revised Project, including changes at the Pittsburg Railroad Avenue Station, Hillcrest Avenue Station, and the changes to the MMRP, would not change the conclusions of the Final EIR or require adoption of new mitigation measures.

Pittsburg Railroad Avenue Station

Transportation

This section identifies the potential transportation impacts associated with the planned changes to the Railroad Avenue Station proposed as part of the Revised Project.

The Contra Costa Transportation Authority (CCTA) Decennial Model (2005 release version) was used to prepare the Final EIR for the eBART Extension. This model was used to identify the project-related trip generation, trip distribution, travel mode split, and trip assignment under Existing, 2015 Cumulative, and 2030 Cumulative conditions.

The forecasted model results obtained under 2015 and 2030 Cumulative conditions for the Final EIR of the eBART Extension were updated to reflect potential changes considered at the Railroad Avenue and Hillcrest Avenue stations as part of the Revised Project. These updated model results were used to prepare this EIR Addendum. The operations of the affected circulation elements under the Revised Project were compared with those under No Build scenario to identify the project-related impacts. The operations under No Build scenario were obtained from the Final EIR prepared for the eBART Extension. Detailed description of the methodology used to evaluate each potential change planned as part of the Revised Project is provided in relevant sections.

Similar to the Final EIR, the transportation analysis in this Addendum was prepared in accordance with the Technical Procedure Update – Final (July 19, 2006) manual published by CCTA.

Deferred Construction of Railroad Avenue Station. This section discusses how a delay in the opening of the Railroad Avenue Station (herein referred to as "Without Railroad Avenue Station" scenario) would affect the projected ridership at the Hillcrest Avenue Station and the traffic operations of the circulation network located in its vicinity. It also compares the transportation impacts identified under this scenario with those identified for the Final EIR (herein referred to as With Railroad Avenue Station scenario).

Redistribution of Projected Ridership at the Railroad Avenue Station. Under the Without Railroad Avenue Station scenario, the majority of the projected ridership to the Railroad Avenue Station would be redirected to the Pittsburg/Bay Point Station for the following reasons:

- Of the two nearby BART stations, Hillcrest Avenue and Pittsburg/Bay Point, the Pittsburg/Bay Point Station is closer to the Railroad Avenue Station (Pittsburg/Bay Point is about three miles to the west and the Hillcrest Avenue Station is about six miles east of the Railroad Avenue Station). For the vast majority of travelers who would desire to use the Railroad Avenue

Station, the Hillcrest Avenue Station would require significant out of direction travel and the existing Pittsburg/Bay Point Station would be in the direction that they desire to travel.

- The majority of the eBART riders who would access the Railroad Avenue Station would transfer to BART at the Pittsburg/Bay Point Station. Since their desire is to use BART and not to exit the system at this station, it is likely that in the absence of the Railroad Avenue Station they would go directly to Pittsburg/Bay Point Station.

- The planned parking supply at the Railroad Avenue Station was purposely limited to 300 spaces in 2030. This is because the City of Pittsburg wishes to create a transit village around the station. Because of the limited parking available, the ridership forecasting model indicated that very few long distance auto commuters would use the Railroad Avenue Station. Most of the patrons of the station would come from within a two miles radius at the station site.

The forecasted ridership numbers at the Railroad Avenue and Hillcrest Avenue stations for the two analysis years - 2015 and 2030 are summarized in Table 1.

Table 1
Proposed Project Daily eBART Ridership, 2015 and 2030 Conditions

	2015	2030
Proposed Project Weekday Trips	3,900	10,100
Transfers from/to the Proposed Project[a]	3,700	9,750
Entries and Exits[b]		
Railroad Avenue Station	750	1,900
Hillcrest Avenue Station	3,150	8,200
New Transit Trips[c]	2,050	5,400

Source: East Contra Costa BART Extension Final EIR, April 2009.

Notes:

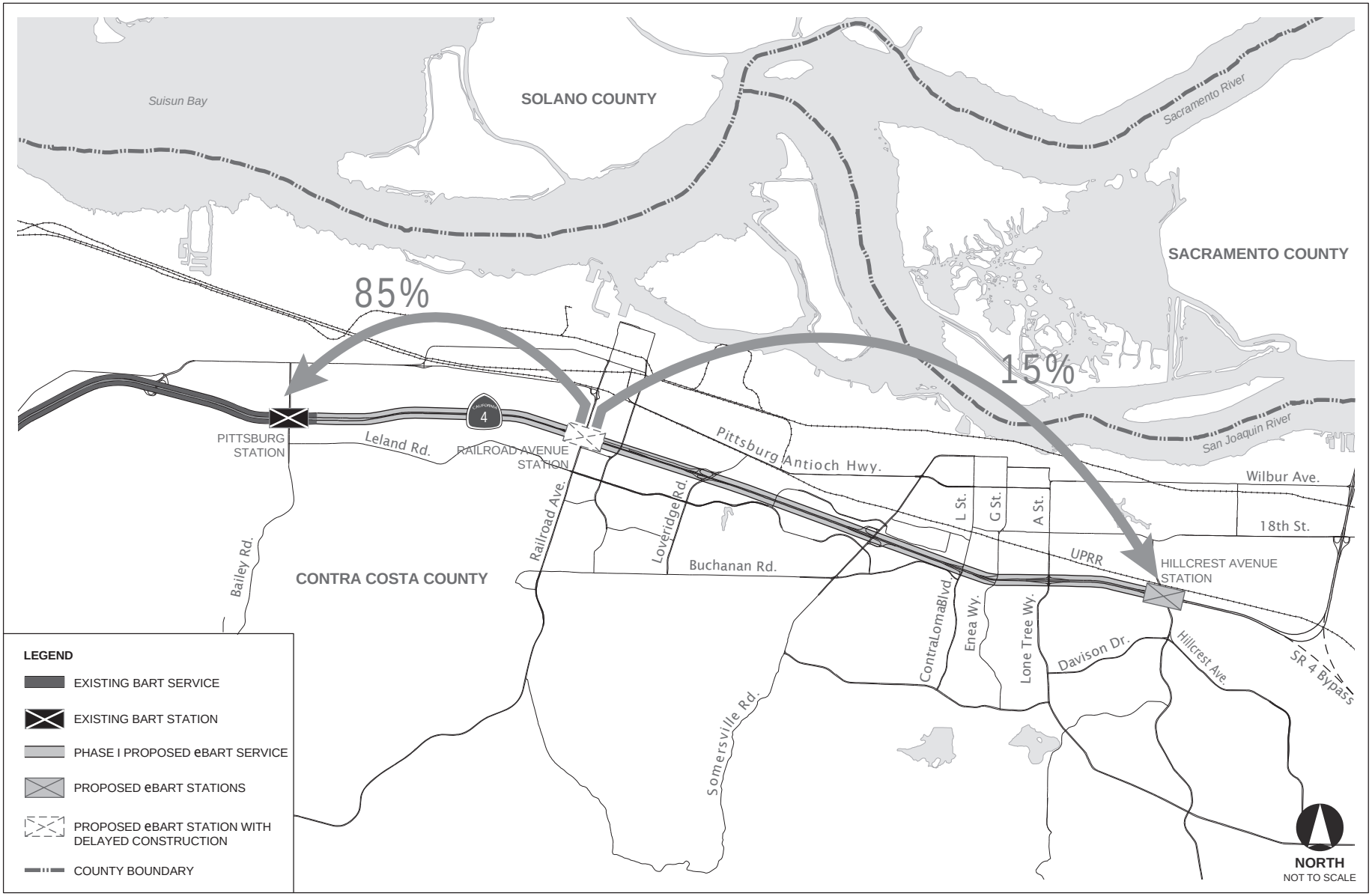
a. Daily passengers transferring between eBART and BART at the Pittsburg/Bay Point Transfer Platform.

b. Daily passengers entering and exiting the new eBART stations.

c. New transit riders are those who were not previous BART or Tri Delta Transit users in the SR 4 corridor.

As exhibited in Table 1, approximately 95 percent of the eBART riders from the Railroad Avenue and Hillcrest Avenue stations under 2015 Conditions (3,700 out of 3,900 riders) and 96 percent of those riders under 2030 Conditions (9,750 out of 10,100 riders) would transfer at the Pittsburg/Bay Point Station. Therefore, conservatively for this analysis, it was assumed that the delay in the opening of the Railroad Avenue Station would redistribute 85 percent of its projected ridership to the Pittsburg/Bay Point Station and the remaining 15 percent to the Hillcrest Avenue Station. The redistribution of the Railroad Avenue Station's projected ridership to the nearby BART stations is shown in Figure 5.

Additionally, all the redistributed trips to the Hillcrest Avenue Station were expected to access the station using arterials and local streets, instead of SR 4 to avoid traffic congestion on the freeway and because their origins would be well removed from the freeway.



Source: WSA, 2011.

REDISTRIBUTION OF RAILROAD AVENUE STATION RIDERSHIP TO NEARBY BART AND eBART STATIONS

FIGURE 5

Even though the majority of the projected ridership at the Railroad Avenue Station is directed to the Pittsburg/Bay Point Station under the Without Railroad Avenue Station scenario, the additional traffic would not result in transportation-related impacts at the Pittsburg/Bay Point Station. This is because the total number of vehicle, pedestrian, and bicycle trips at this station under the Without Railroad Avenue Station scenario would be fewer than those under No Build scenario (without the eBART project). Therefore, this addendum discusses the effect of the redirected traffic on Hillcrest Avenue Station operations, but not on Pittsburg/Bay Point Station operations under the Without Railroad Avenue Station scenario.

Proposed Ridership Mode of Access at eBART Stations. The mode split of the projected daily ridership at the Railroad Avenue and Hillcrest Avenue stations under with and without Railroad Avenue Station scenarios is shown in Table 2.

Table 2
eBART Access Mode Split by Station, 2015 and 2030 Conditions

	Percentage		2015		2030	
	Railroad Avenue	**Hillcrest Avenue**	**Railroad Avenue**	**Hillcrest Avenue**	**Railroad Avenue**	**Hillcrest Avenue**
With Railroad Avenue Station[c]						
Total Ridership[a]	—	—	750	3,150	1,900	8,200
Round Trips[b]	—	—	375	1,575	950	4,100
Car – Park & Ride	40%	62%	150	977	380	2,542
Car – Drop-off	20%	18%	75	284	190	738
Bus/Transit	10%	16%	38	252	95	656
Bicycle	2%	1%	8	16	19	41
Walk	28%	3%	105	47	266	123
Without Railroad Avenue Station						
Total Ridership[a]	—	—	—	3,264	—	8,482
Round Trips[b]	—	—	—	1,632	—	4,241
Car – Park & Ride	—	62%	—	1,010	—	2,626
Car – Drop-off	—	18%	—	298	—	774
Bus/Transit	—	16%	—	260	—	677
Bicycle	—	1%	—	16	—	41
Walk	—	3%	—	47	—	123

Source: Wilbur Smith Associates, 2011.

Notes:

a. Total ridership defined as one-way person trips.

b. A round trip equals two one-way trips, representing a total trip which begins and ends at a given station.

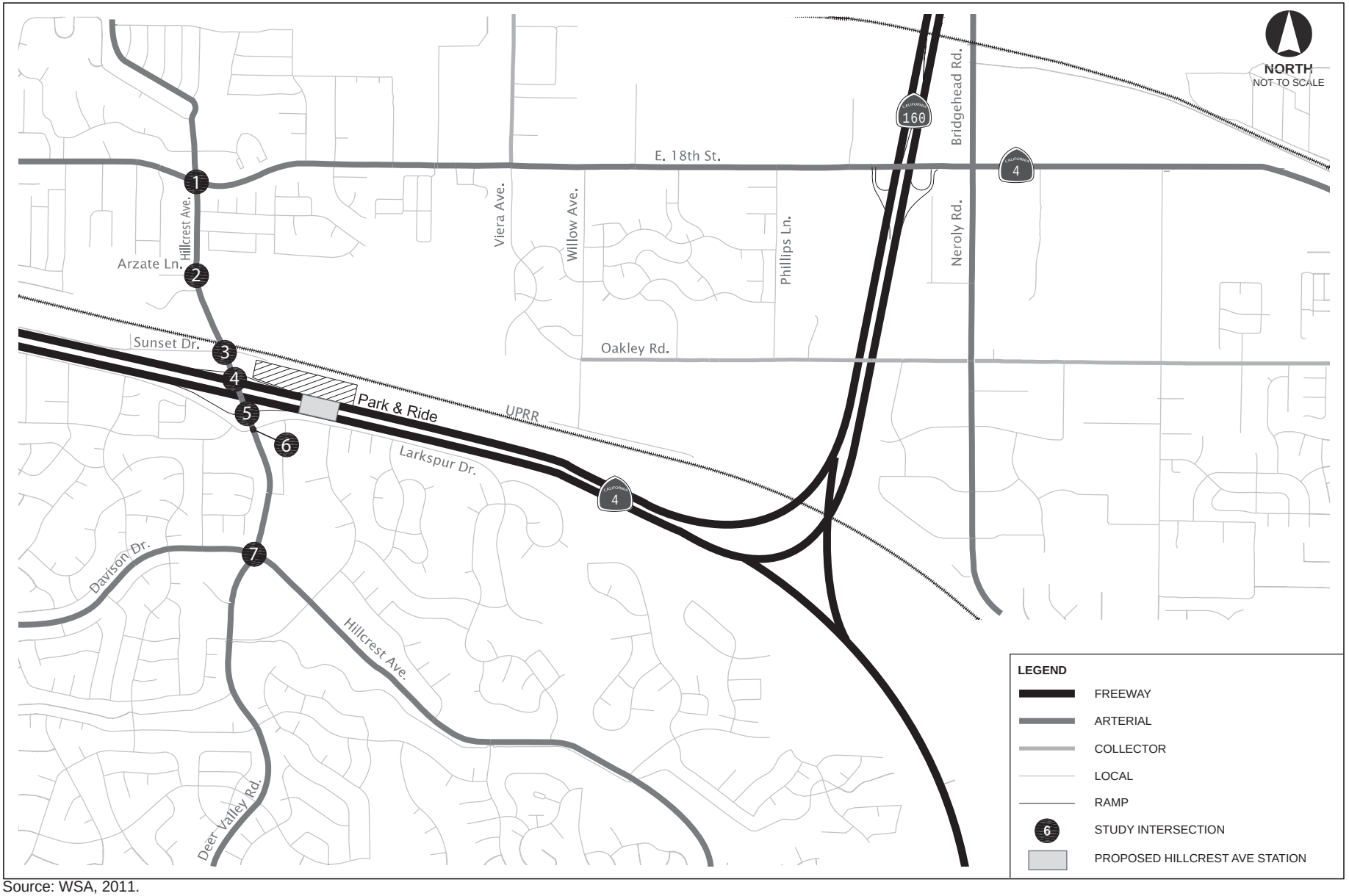
c. *Source*: East Contra Costa BART Extension Final EIR, April 2009

Even with the Without Railroad Avenue scenario, the mode split of the original eBART patrons at the Hillcrest Avenue Station would remain the same as that reported in the Final EIR; approximately 80 percent of the riders would access it by automobile, 15 percent by transit, and 5 percent by bicycle/walk. It is assumed that due to the increase in the travel distance to the BART station, the riders who would have accessed the Railroad Avenue Station using bicycle/walk modes would access the nearest (in terms of total travel distance) BART or eBART stations using either automobile or transit. As such, the riders accessing the Hillcrest Avenue Station using bicycle/walk modes would remain the same and there would be a slight increase in total station usage by transit and automobile.

Study Area. The study area for this analysis includes the circulation network located in the vicinity of the Hillcrest Avenue Station. Since the redistributed trips from the Railroad Avenue Station to the Hillcrest Avenue Station would access it from the west, traffic operations of the intersections located east of the Hillcrest Avenue Station would remain unaffected due to the delay in the opening of the Railroad Avenue Station. Hence, for this Addendum, the study area is limited to the portion of the Hillcrest Avenue Station area that is located west of the station. This consists of the following seven study intersections:

1. Hillcrest Avenue/E. 18th Street
2. Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway
3. Sunset Drive/Hillcrest Avenue
4. SR 4 Westbound Ramps/Hillcrest Avenue
5. SR 4 Eastbound Ramps/Hillcrest Avenue
6. Larkspur Drive/Hillcrest Avenue
7. Davison Drive/Hillcrest Avenue – Deer Valley Road

The study area is exhibited in Figure 6 which shows the location of the intersections that were studied.



Source: WSA, 2011.

HILLCREST AVENUE STATION AREA STUDY INTERSECTIONS

FIGURE 6

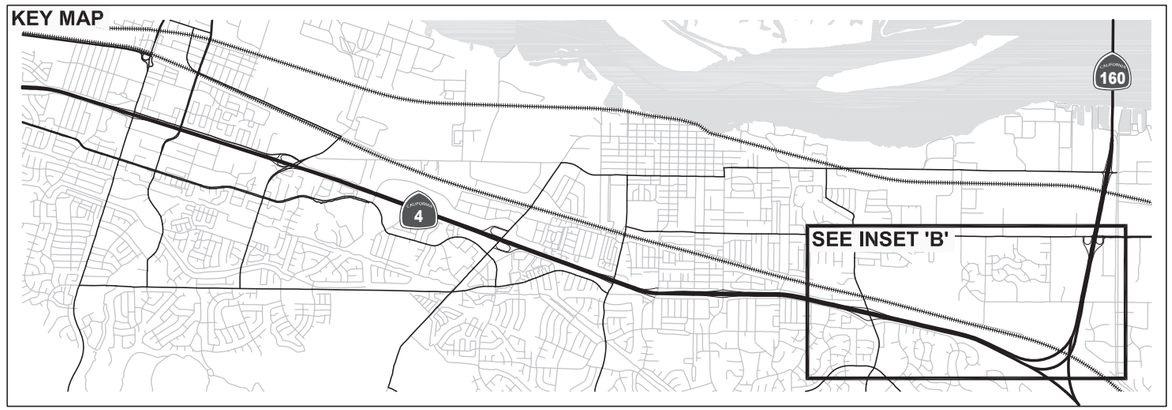
Traffic Impacts Without the Railroad Avenue Station. The construction of eBART without the Railroad Avenue Station would not result in any eBART-related trips to the Railroad Avenue Station area. Therefore, the delay in the construction of the Railroad Avenue Station would not cause any transportation impacts in the vicinity of this station. The circulation network neighboring the Railroad Avenue Station would continue to operate the same as under 2015 and 2030 No Project scenarios.

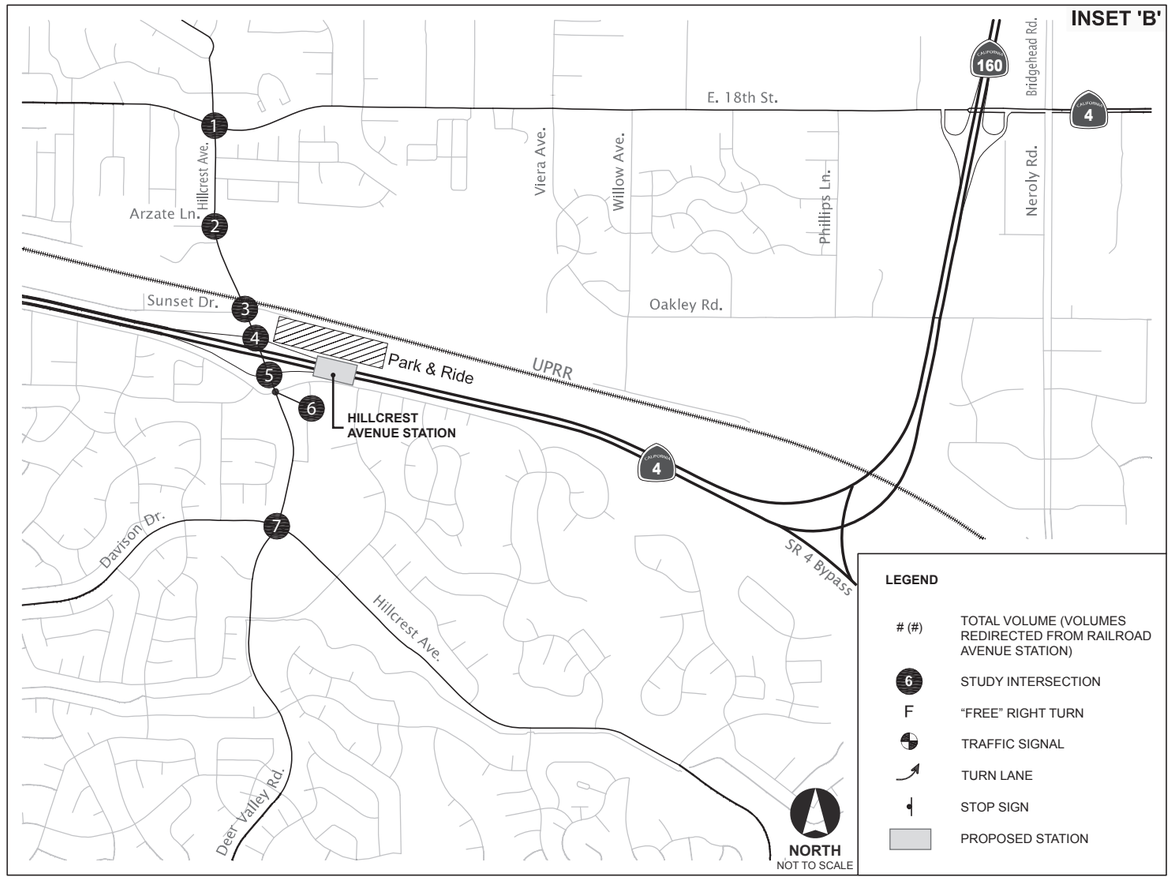
Using the ridership redistribution factor for the Hillcrest Avenue Station (15 percent) identified earlier, the projected Railroad Avenue Station ridership is redistributed to the study intersections. The turning movement volumes and geometric configurations of the study intersections under the Without Railroad Avenue Station scenario under 2015 conditions are exhibited in Figure 7 and under 2030 conditions are exhibited in Figure 8. For each study intersection, the type of traffic control, governing jurisdiction, and the LOS threshold determined based on the governing agency's guidelines are presented in Table 3.

Table 3
Hillcrest Area Intersections: Study Intersection Features

#	Intersection	Traffic Control	Jurisdiction	LOS Threshold
1	Hillcrest Avenue/E. 18th Street	Signal	TRANSPLAN	D
2	Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway	TWSC	City of Antioch	D
3	Sunset Drive/Hillcrest Avenue	Signal	TRANSPLAN	D
4	SR 4 Westbound Ramps/Hillcrest Avenue	Signal	Caltrans	C/D[1]
5	SR 4 Eastbound Ramps/Hillcrest Avenue	Signal	Caltrans	C/D[1]
6	Larkspur Drive/Hillcrest Avenue	Signal	TRANSPLAN	D
7	Davison Drive/Hillcrest Avenue – Deer Valley Road	Signal	TRANSPLAN	D

Source: Wilbur Smith Associates, 2011.
Notes:
TWSC – Two-way Stop Control
The TRANSPLAN Committee constitutes the Cities of Antioch, Brentwood, Oakley, and Pittsburg; and the Contra Costa County.
a. Represents a target LOS at the transition between LOS C and LOS D.





Source: WSA, 2008.

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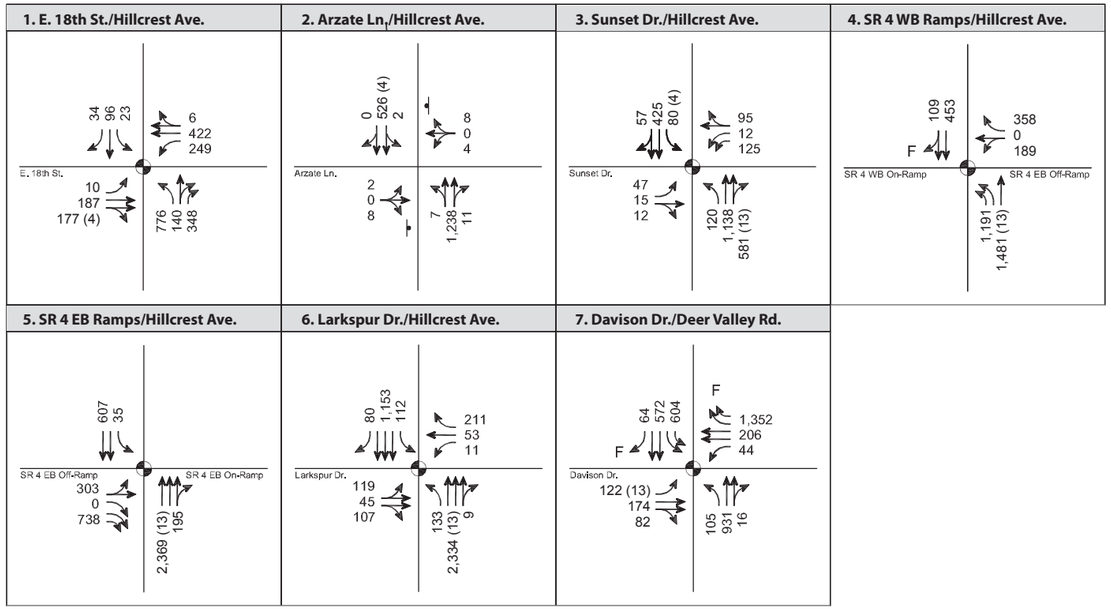

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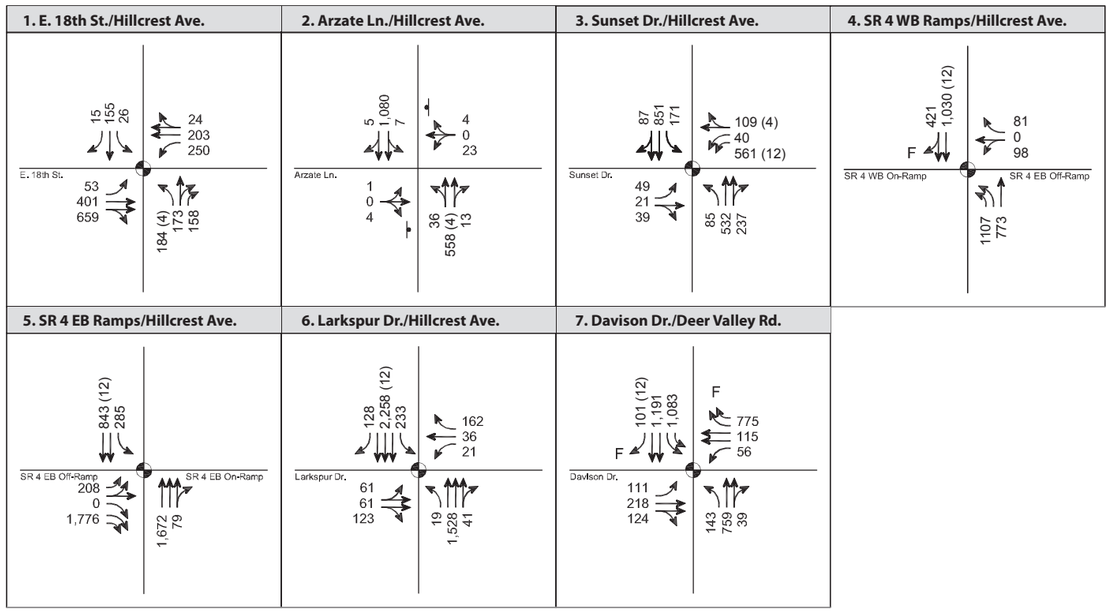
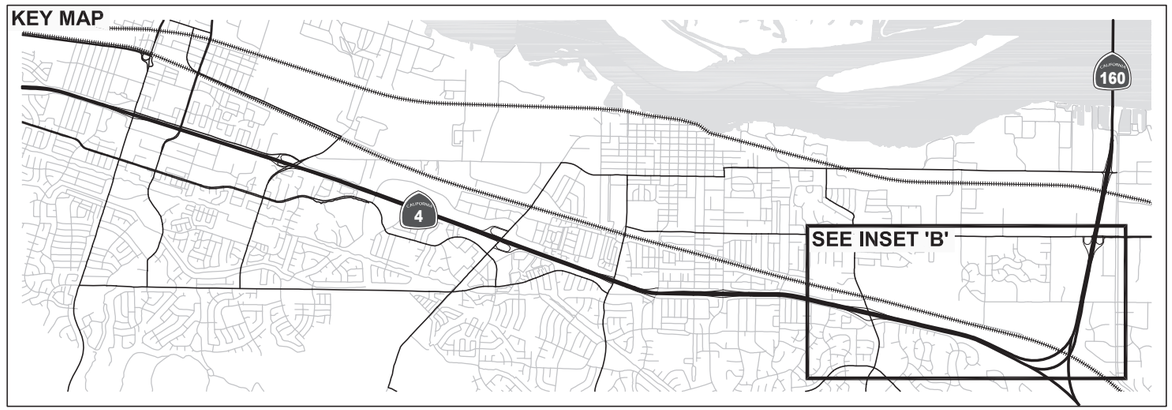
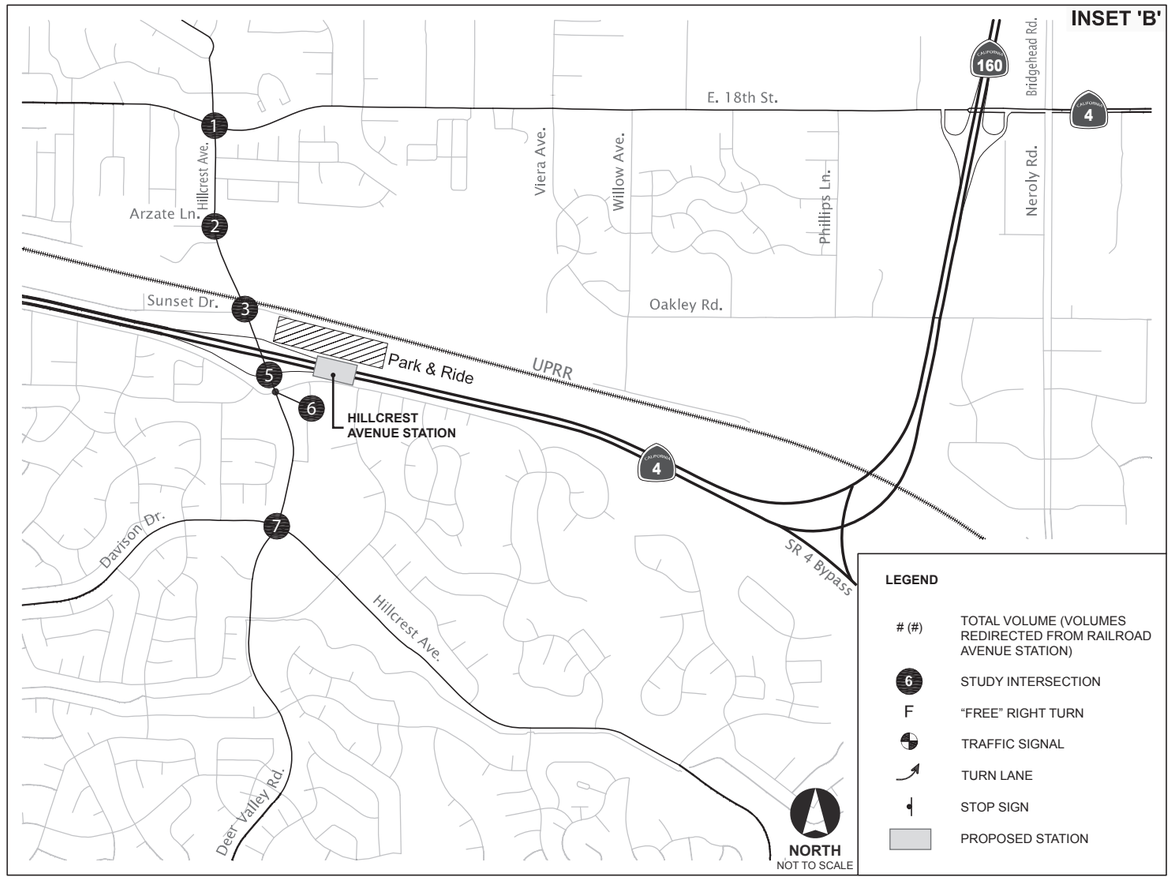


HILLCREST AVENUE STATION AREA INTERSECTION VOLUMES - 2015 WITHOUT RAILROAD AVENUE STATION

FIGURE 7





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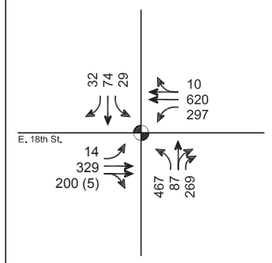
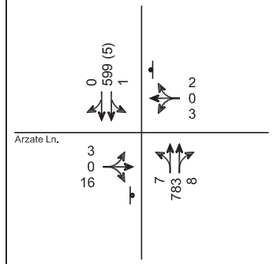
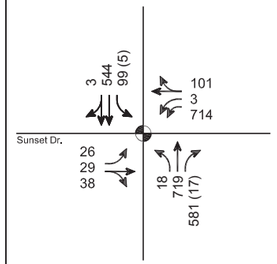
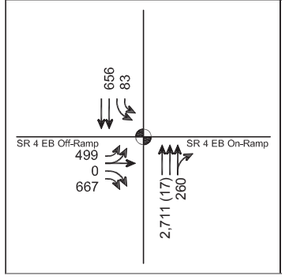
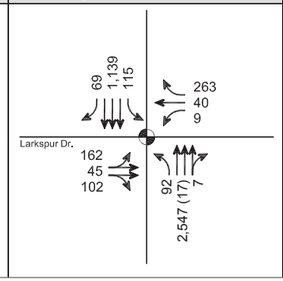
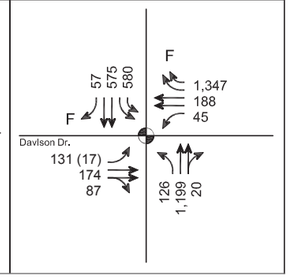
1. E. 18th St./Hillcrest Ave.	2. Arzate Ln./Hillcrest Ave.	3. Sunset Dr./Hillcrest Ave.
		

5. SR 4 EB Ramps/Hillcrest Ave.	6. Larkspur Dr./Hillcrest Ave.	7. Davison Dr./Deer Valley Rd.
		

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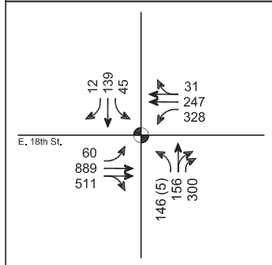
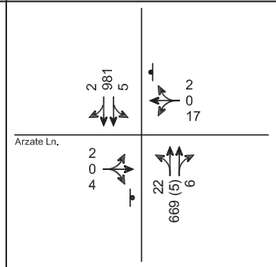
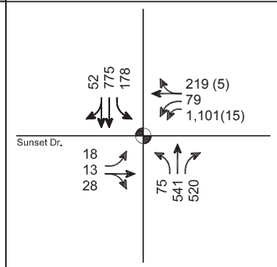
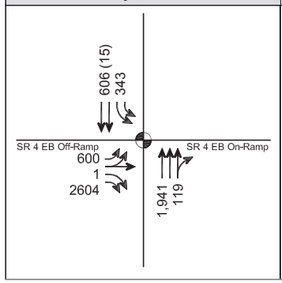
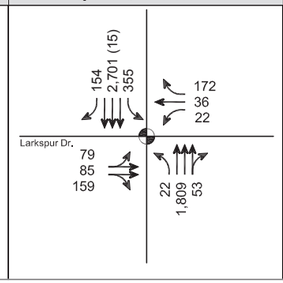
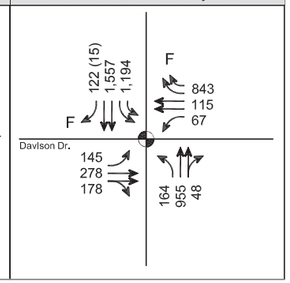
1. E. 18th St./Hillcrest Ave.	2. Arzate Ln./Hillcrest Ave.	3. Sunset Dr./Hillcrest Ave.
		

5. SR 4 EB Ramps/Hillcrest Ave.	6. Larkspur Dr./Hillcrest Ave.	7. Davison Dr./Deer Valley Rd.
		

Source: WSA, 2008.

HILLCREST AVENUE STATION AREA INTERSECTION VOLUMES -2030 WITHOUT RAILROAD AVENUE STATION

FIGURE 8

The operating conditions of the study intersections under with and without Railroad Avenue Station scenarios are compared in Table 4 and Table 5.

2015 Conditions. Traffic analysis suggests that under 2015 Conditions the three intersections that would have significant traffic impacts under With Railroad Avenue Station scenario would also have significant impacts under the Without Railroad Avenue scenario. Under 2015 Conditions, the following four intersections would operate at an unacceptable LOS under the Without Railroad Avenue Station scenario:

1. Hillcrest Avenue/E. 18th Street (AM peak hour)
2. Sunset Drive/Hillcrest Avenue (PM peak hour)
3. SR 4 Westbound Ramps/Hillcrest Avenue (AM and PM peak hours)
4. SR 4 Eastbound Ramps/Hillcrest Avenue (PM peak hour)

However, one of the intersections, Hillcrest Avenue /E. 18th Street, would actually operate better under the Without Railroad Avenue Station scenario compared to No Project conditions. This is due to the reduction in the vehicle trips compared to the No Project scenario, since some of the vehicle trips are diverted to the transit system with the construction of eBART.

The remaining three intersections would experience operational conditions worse than the No Project scenario as follows:

- Sunset Drive/Hillcrest Avenue
  - Under the 2015 PM peak hour, this intersection would operate at a V/C ratio of 0.76 and LOS F under the Without Railroad Avenue Station scenario, which is worse than 2015 No Project Conditions (LOS C, V/C ratio of 0.58).
- SR 4 Westbound Ramps/Hillcrest Avenue
  - Under the AM peak hour for 2015 Conditions, this intersection would operate at LOS E, with a V/C ratio of 1.13 under the Without Railroad Avenue Station scenario, which is worse than 2015 No Project Conditions (LOS C, V/C ratio of 0.94).
  - Under the PM peak hour for 2015 Conditions, this intersection would operate at a V/C ratio of 0.94 and LOS D under the Without Railroad Avenue Station scenario, which is worse than 2015 No Project Conditions (LOS D, V/C ratio of 0.87).
- SR 4 Eastbound Ramps/Hillcrest Avenue
  - Under the PM peak hour for 2015 Conditions, this intersection would operate at LOS F, with an average delay of 104 seconds and a V/C ratio of 1.15 under the Without Railroad Avenue Station scenario, which is worse than 2015 No Project Conditions (LOS F, average delay of 96 seconds, and V/C ratio of 1.19).

Table 4
Hillcrest Avenue Station Area Intersections: 2015 Peak Hour Intersection Operations - With and Without Railroad Avenue Station

#	Intersection	2015 No Project[a]			2015 (With Railroad Avenue)			2015 (Without Railroad Avenue)		
		V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
AM Peak Hour										
1	Hillcrest Avenue/E. 18th Street	**1.1**	**>80.0**	**F**	**1.00**	**69.1**	**E**	**1.00**	**69.4**	**E**
2	Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway	0.11 (WB)	17.2 (WB)	C	0.09 (WB)	14.6 (WB)	B	0.09 (WB)	14.5 (WB)	B
3	Sunset Drive/Hillcrest Avenue	0.62	25.6	C	0.77	23.8	C	0.77	24.0	C
4	SR 4 Westbound Ramps/Hillcrest Avenue	0.94	31.5	C	**1.13**	**65.8**	**E**	**1.13**	**67.5**	**E**
5	SR 4 Eastbound Ramps/Hillcrest Avenue	0.84	31.0	C	0.84	15.4	B	0.85	15.4	C
6	Larkspur Drive/Hillcrest Avenue	0.77	34.3	C	0.75	23.5	C	0.75	25.9	D
7	Davison Drive/Hillcrest Avenue – Deer Valley Road	**0.97**	**61.1**	**E**	0.96	50.1	D	0.97	52.0	D
PM Peak Hour										
1	Hillcrest Avenue/E. 18th Street	**0.97**	**64.8**	**E**	0.88	48.2	D	0.88	48.4	D
2	Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway	0.20 (EB)	28.6 (EB)	D	0.26 (WB)	20.6 (WB)	C	0.26 (WB)	20.7 (WB)	C
3	Sunset Drive/Hillcrest Avenue	0.58	30.8	C	**0.75**	**>80**	**F**	**0.76**	**>80**	**F**
4	SR 4 Westbound Ramps/Hillcrest Avenue	**0.87**	**38.5**	**D**	**0.94**	**41.0**	**D**	**0.94**	**42.4**	**D**
5	SR 4 Eastbound Ramps/Hillcrest Avenue	**1.19**	**>80**	**F**	**1.15**	**>80**	**F**	**1.15**	**>80**	**F**
6	Larkspur Drive/Hillcrest Avenue	0.74	24.9	C	0.67	21.5	C	0.67	21.5	C
7	Davison Drive/Hillcrest Avenue – Deer Valley Road	0.89	48.3	D	0.84	47.4	D	0.84	47.4	D

Source: Wilbur Smith Associates, 2011.

Notes:

a. *Source:* East Contra Costa BART Extension Final EIR, April 2009

Delay presented in seconds per vehicle.

Delay and LOS presented for worst approach for two-way stop controlled intersections.

Boldfaced type indicates unacceptable values.

Table 5
Hillcrest Avenue Station Area Intersections: 2030 Peak Hour Intersection Operations - With and Without Railroad Avenue Station

#	Intersection	2030 No Project[a]			2030 (with Railroad Avenue)			2030 (without Railroad Avenue)		
		V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
AM Peak Hour										
1	Hillcrest Avenue/E. 18th Street	**0.93**	**60.2**	**E**	0.90	47.7	D	0.90	47.8	D
2	Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway	0.04 (WB)	14.8 (WB)	B	0.04 (WB)	15.5 (WB)	C	0.04 (WB)	15.5 (WB)	C
3	Sunset Drive/Hillcrest Avenue	0.89	47.3	D	0.91	53.0	D	0.91	53.1	D
4	SR 4 Westbound Ramps/Hillcrest Avenue	**Not present in future**			**Not present in future**			**Not present in future**		
5	SR 4 Eastbound Ramps/Hillcrest Avenue	0.90	24.4	C	0.91	30.2	C	0.92	31.3	C
6	Larkspur Drive/Hillcrest Avenue	**0.96**	**35.5**	**D**	0.90	30.0	C	0.86	30.8	C
7	Davison Drive/Hillcrest Avenue – Deer Valley Road	**1.16**	**>80**	**F**	**1.15**	**>80**	**F**	**1.15**	**>80**	**F**
PM Peak Hour										
1	Hillcrest Avenue/E. 18th Street	**0.99**	**72.9**	**E**	**1.00**	**73.7**	**E**	**1.00**	**73.7**	**E**
2	Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway	0.19 (WB)	19.5 (WB)	C	0.18 (WB)	19.0 (WB)	C	0.18 (WB)	19.1 (WB)	C
3	Sunset Drive/Hillcrest Avenue	0.88	39.7	D	**1.17**	**>80**	**F**	**1.16**	**>80**	**F**
4	SR 4 Westbound Ramps/Hillcrest Avenue	**Not present in future**			**Not present in future**			**Not present in future**		
5	SR 4 Eastbound Ramps/Hillcrest Avenue	**1.14**	**>80**	**F**	**1.21**	**>80**	**F**	**1.21**	**>80**	**F**
6	Larkspur Drive/Hillcrest Avenue	0.90	28.8	C	0.84	23.7	C	0.88	23.7	C
7	Davison Drive/Hillcrest Avenue – Deer Valley Road	**0.98**	**67.0**	**E**	**0.92**	**55.6**	**E**	**0.92**	**55.5**	**E**

Source: Wilbur Smith Associates, 2011.

Notes:

a. *Source:* East Contra Costa BART Extension Final EIR, April 2009

Delay presented in seconds per vehicle.

Delay and LOS presented for worst approach for two-way stop controlled intersections.

Boldfaced type indicates unacceptable values.

Therefore, based on the standards of significance and the approach to determine impacts, significant traffic impacts would occur at three intersections under the Without Railroad Avenue scenario – two intersections in the PM peak period (Sunset Drive/Hillcrest Avenue and SR 4 Eastbound Ramps/Hillcrest Avenue) and one intersection in both the AM and PM peak periods (SR 4 Westbound Ramps/Hillcrest Avenue). However, since the same three intersections would have significant traffic impacts under the With and Without Railroad Avenue Station scenarios as compared to the Adopted Project, the delay in the opening of the Railroad Avenue Station would not result in any additional traffic impacts to the study intersections under the Without Railroad Avenue Station scenario.

2030 Conditions. Similar to 2015 Conditions, under 2030 Conditions, the three intersections that would have significant traffic impacts under the With Railroad Avenue Station scenario would continue to have significant impacts under the Without Railroad Avenue scenario as well.

Under 2030 Conditions, the following four intersections would operate at an unacceptable LOS under the Without Railroad Avenue Station scenario:

- Hillcrest Avenue/E. 18th Street (PM peak hour)
- Sunset Drive/Hillcrest Avenue (PM Peak hour)
- SR 4 Eastbound Ramps/Hillcrest Avenue (PM peak hour)
- Davison Drive/Hillcrest Avenue – Deer Valley Road (AM and PM peak hours)

However, one of the intersections, Davison Drive/Hillcrest Avenue – Deer Valley Road, would actually operate better under the Without Railroad Avenue Station scenario compared to No Project conditions. This is due to the reduction in the vehicle trips compared to the No Project scenario, since some of the vehicle trips are diverted to the transit system with the construction of eBART. The remaining three intersections would experience operational conditions worse than No Project scenario as follows:

- Hillcrest Avenue/E. 18th Street
  - For the PM peak hour under 2030 Conditions, this intersection would operate at LOS E, with a V/C ratio of 1.00 under the Without Railroad Avenue Station scenario, which is worse than 2030 No Project Conditions (LOS E, V/C ratio of 0.99).
- Sunset Drive/Hillcrest Avenue
  - For the PM peak hour under 2030 Conditions, this intersection would operate at LOS F, with a V/C ratio of 1.16 under the Without Railroad Avenue Station scenario, which is worse than 2030 No Project Conditions (LOS D, V/C ratio of 0.88).
- SR 4 Eastbound Ramps/Hillcrest Avenue
  - For the PM peak hour under 2030 Conditions, this intersection would operate at LOS F, with a V/C ratio of 1.21 under the Without Railroad Avenue Station scenario, which is worse than 2030 No Project Conditions (LOS F, with a V/C ratio of 1.14).

Therefore, under the Without Railroad Avenue Station scenario, significant traffic impacts would occur at three intersections during the PM peak hour – Hillcrest Avenue/E. 18th Street, Sunset Drive/Hillcrest Avenue, and SR 4 Eastbound Ramps/Hillcrest Avenue. However, similar to 2015 Conditions, under 2030 Conditions, the same three study intersections that would have significant traffic impacts under the With Railroad Avenue Station scenario would continue to result in significant impacts under the Without Railroad Avenue Station scenario too. As such, the eBART Project would result in traffic impacts to the same intersections under the With and Without Railroad Avenue Station scenarios for both 2015 and 2030 Conditions. Hence, compared to the With Railroad Avenue Station scenario, the delay in the construction of the Railroad Avenue Station would not cause any additional traffic impacts under the Without Railroad Avenue Station scenario.

Mitigation Measures for Traffic Impacts. The mitigations measures that were developed and reported earlier in the *East Contra Costa BART Extension Final EIR* (April 2009) to improve the intersection operations under the With Railroad Avenue Station scenario are sufficient to enhance the intersection operations under the Without Railroad Avenue Station scenario as well due to the following reasons:

- Traffic operating conditions of the study intersections under both the With and Without Railroad Avenue Station scenarios are similar.
- The mitigation measures developed earlier would enhance the traffic operations of the affected intersections so that impacts are reduced to a less-than-significant level under the With Railroad Avenue Station scenario too.

Hence, no new mitigation measures are required under the Without Railroad Avenue Station conditions. The recommended intersection improvements developed in the Final EIR under Mitigation Measures TR-1.1, TR-2.1, and TR-1.3 would also apply to the Without Railroad Avenue Station scenario.

Parking Impacts. A comparison of the parking demand estimates at the proposed eBART stations under the With and Without Railroad Avenue scenarios is provided in Table 6.

Even with the delay in the construction of the Railroad Avenue, the parking demand at the Hillcrest Avenue Station is estimated to be less than its parking supply under both 2015 and 2030 Conditions – the occupancy at the Hillcrest Avenue Station's parking lot is estimated to be approximately 95 percent under both 2015 and 2030 Conditions. Therefore, the construction of eBART without the Railroad Avenue Station would not result in any parking impacts at the Hillcrest Avenue Station.

As also shown in Table 6, the parking demand at the Railroad Avenue Station under 2015 Conditions is estimated to be less than its parking supply under 2015 Conditions, even if reconfiguration of the existing park-and-ride lot is deferred until after 2015. The occupancy at the Railroad Avenue Station's parking lot is estimated to be approximately 48 percent under 2015 Conditions if the lot includes 300 spaces, and 78 percent under 2015 Conditions with 185 spaces. Reconfiguration of the lot to include 300 spaces would be deferred until a later date; in collaboration with the City of Pittsburg and others, BART will ensure that the reconfiguration is completed by 2030. Accordingly, under 2030 Conditions, reconfiguration of the lot to 300 spaces would be expected to be complete under the Revised Project, providing the same parking supply as was evaluated in the Final EIR.

Table 6
Proposed Parking Demand at eBART Stations, 2015 and 2030 Conditions

	2015		2030	
	Railroad Avenue	**Hillcrest Avenue**	**Railroad Avenue**	**Hillcrest Avenue**
With Railroad Avenue Station[a]				
Park-and-Ride Station Entries	150	977	380	2,542
Auto Occupancy	1.04	1.06	1.04	1.06
Parking Demand	144	922	365	2,398
Parking Supply[b]	300/185	1,025	300	2,600
Occupancy[b]	48%/78%	89%	122%	92%
Excess Demand	—	—	65	—
Without Railroad Avenue Station				
Park-and-Ride Station Entries	—	1,010	—	2,626
Auto Occupancy	—	1.06	—	1.06
Parking Demand	—	953	—	2,478
Parking Supply	—	1,025	—	2,600
Occupancy	—	93%	—	95%
Excess Demand	—	—	—	—

Source: Wilbur Smith Associates, 2011.
Notes:
a. *Source*: East Contra Costa BART Extension Final EIR, April 2009
b. The parking supply at Railroad Avenue in the initial phase of construction may be reduced to 185 spaces, compared to the 300 spaces evaluated in the Final EIR.

As described in the Final EIR, because there would be a demand for 365 spaces, there would be a parking shortfall of 65 spaces. This would be a significant impact of the project that can be mitigated to a less-than-significant level with implementation of Mitigation Measure TR-7.1 in the Final EIR. Therefore, the construction of the Railroad Avenue Station with reduced parking in the initial phase construction would not result in any additional parking impacts at the Railroad Avenue Station.

Freeway Impacts. As mentioned earlier, all the redistributed trips to the Hillcrest Avenue Station are expected to use arterials and local streets, instead of SR 4. As such, the delayed construction of the Railroad Avenue Station would not result in additional freeway impacts, compared to the With Railroad Avenue Station scenario.

Transit Impacts. The construction of eBART without the Railroad Avenue Station would increase the transit-based daily trips to the Hillcrest Avenue Station by 8 trips (from 252 to 260 trips) under 2015 Conditions and by 21 trips (from 656 to 677 trips) under 2030 Conditions. Since the increase in the number of daily transit riders is relatively small, local transit services would not experience decreased service quality or productivity as a result of the delayed construction of the Railroad Avenue Station.

Pedestrian and Bicycle Impacts. As mentioned earlier, due to the increase in the travel distance to the nearby BART stations, the projected pedestrian-based and bicycle-based trips to the Railroad Avenue Station would be converted to either automobile-based or transit-based trips under the Without Railroad Avenue Station scenario. Therefore, the number of pedestrian/bicycle-based trips to the Hillcrest Avenue and Pittsburg/Bay Point stations would remain the same under both the With and Without the Railroad Avenue Station scenarios. Hence, compared to the With Railroad Avenue Station scenario,

there would be no additional pedestrian and bicycle related impacts due to the delayed construction of the Railroad Avenue Station.

Construction Impacts. Compared to With Railroad Avenue Station scenario, the initial construction of eBART without the Railroad Avenue Station would not result in any additional construction impacts.

Eliminate Railroad Avenue Station West Entrance. As proposed in the Adopted Project, pedestrian access to the DMU station platform at the Railroad Avenue Station would be from sidewalks on the west and east side of the Railroad Avenue overpass, where one stairway and one elevator on each side of the overpass would descend to the DMU platform below. In an effort to reduce costs, patron access from the west side of Railroad Avenue to the station platform would be eliminated.

Pedestrian Impacts at the Railroad Avenue Station. This section discusses the pedestrian-related impacts to the Railroad Avenue sidewalks due to the elimination of the Railroad Avenue Station west entrance.

Methodology. Pedestrian analysis for the Railroad Avenue sidewalks has been performed based on the *2000 Highway Capacity Manual (2000 HCM)* methodology. According to this methodology, operating conditions of a sidewalk are measured in terms of its LOS. Similar to intersections, LOS for sidewalks range from LOS A to LOS F, LOS A representing free flow conditions and LOS F representing congested conditions. The LOS value is identified based on the pedestrian unit flow rate (V_P), which is calculated using the peak 15-minute pedestrian flow rate (V_{15}) and effective walkway width (W_E) as follows:

$$V_P = V_{15} / (15 * W_E)$$

The LOS criteria used to identify the sidewalk operating conditions are shown in Table 7.

Table 7
Level of Service Criteria – Sidewalks

Level of Service	Flow Rate (passengers/minute/feet)
A	0 – 5
B	5 – 7
C	7 – 10
D	10 – 15
E	15 – 23
F	variable

Source: Transportation Research Board, *Highway Capacity Manual* 2000.

Analysis. The pedestrian trips generated by the Railroad Avenue Station under 2015 and 2030 Conditions are shown in Table 8, while the distribution of the overall pedestrian trips along the east side and west side of Railroad Avenue is provided in Table 9.

Table 8
Pedestrian Trips Generated by the Railroad Avenue Station, 2015 and 2030 Conditions

	Ridership		AM peak Hour			PM Peak Hour		
	Total	Split	Inbound	Outbound	Total	Inbound	Outbound	Total
2015 Conditions	750	375	94	4	98	11	86	98
2030 Conditions	1,900	950	238	10	247	29	219	247

Source: Wilbur Smith Associates, 2011.

Notes:

a. Total ridership indicates two-way ridership.

b. Split ridership indicates one-way ridership.

Table 9
Pedestrian Trips Along Railroad Avenue

	AM Peak Hour			PM Peak Hour		
	Eastside	Westside	Total	Eastside	Westside	Total
Existing	33	71	104	18	20	38
Year 2015	34	73	107	20	22	42
Year 2030	41	69	130	23	25	48
Project during 2015	98	0	98	98	0	98
Project during 2030	247	0	247	247	0	247
Year 2015 + Project	131	73	205	117	22	139
Year 2030 + Project	288	89	377	270	25	295

Source: Wilbur Smith Associates, 2011.

Using the above pedestrian trips and the 2000 HCM methodology described above, the operations of the Railroad Avenue sidewalk under 2015 and 2030 Conditions have been estimated and compiled in Table 10. These sidewalk operations have been identified by adding forecasted pedestrian trips along the west sidewalk to projected trips along the east sidewalk.

Even with the elimination of the Railroad Avenue Station west entrance, the sidewalk located along the eastside of Railroad Avenue would operate at LOS A, under both 2015 and 2030 Conditions. Therefore, the east sidewalk would be able to accommodate the increased pedestrian volumes associated with the proposed elimination of the west station entrance without causing any significant project-related pedestrian impacts.

Other Transportation Impacts at the Railroad Avenue Station. The above mentioned changes to the Railroad Avenue Station entrance would not result in any other transportation-related impacts, including traffic impacts, bicycle impacts, transit impacts, parking impacts, and construction impacts to the circulation network located in the vicinity of this station.

Table 10
Sidewalk Operations at the Railroad Avenue Bridge Crossing, 2015 and 2030 Conditions (With West Side Pedestrian Trips Added to the East Side)

	AM Peak Hour		PM Peak Hour	
	Flow Rate	**LOS**	**Flow Rate**	**LOS**
2015 Conditions				
West of Railroad Avenue	0.90	A	0.27	A
East of Railroad Avenue	0.52	A	0.37	A
2030 Conditions				
West of Railroad Avenue	1.10	A	0.37	A
East of Railroad Avenue	1.15	A	0.85	A

Source: Wilbur Smith Associates, 2011.

Note:

Flow rate is reported in pedestrian per minute per feet.

Land Use

The Final EIR evaluated the Adopted Project's consistency with plans, policies, and programs, and the eBART Project's compatibility with existing uses. According to California Government Code 53090, BART is exempt from local land use plans, policies, and zoning ordinances. Therefore, were the Revised Project inconsistent with such local regulations, such inconsistency would not be a significant environmental impact and mitigation would not be required. BART nevertheless wishes to emphasize to the public and to local jurisdictions the extent to which the project is consistent with local plans, policies, and zoning ordinances.

Changes in land uses associated with a project generally occur over long periods of time and would not typically change as a direct result of construction activities. Construction impacts tend to be associated with short-term increases in traffic, noise, dust, and air emissions surrounding a site, which generally do not have substantial long-term impacts on surrounding land uses. The evaluation of construction impacts is applicable to the environmental topic areas mentioned above, that would have separate impacts associated with construction alone. Those analyses are found within the appropriate environmental topic sections of this Addendum.

A review of the existing land uses in the project area determined that land uses in the vicinity of the Revised Project have not changed since publication of the Final EIR.[5] The Final EIR determined that the Adopted Project would be compatible with surrounding land uses and local plans and policies. Additionally, the Final EIR determined that the Adopted Project would not physically divide existing communities or adversely impact agricultural land uses.

Deferred Construction of Railroad Avenue Station. The Revised Project would not change the proposed uses at the Railroad Avenue Station. The Revised Project would include an optional phased construction, where the guideway would be constructed in the median of SR 4 to the Hillcrest Avenue Station, and the Railroad Avenue Station would be constructed as an infill station at a later date.

[5] PBS&J completed a survey of existing land uses using recent aerial photography and GIS databases in February 2011. No changes in existing land uses since the adoption of the Final EIR were identified in the area surrounding the Revised Project.

Because the proposed phasing for construction of the Railroad Avenue Station would not result in changes to the proposed uses at the station, the Revised Project would not change the less-than-significant impact determination made in the Final EIR. The Revised Project would have no impacts associated with division of an established community and conversion of agricultural lands uses due to the changes at the Railroad Avenue Station, for the reasons described in the Final EIR.

The Final EIR found that the Adopted Project would be consistent with the local policies encouraging transit-oriented development in the City of Pittsburg. Adopted in 1999, the BART System Expansion Policy (SEP) identifies goals, strategies, and project advancement criteria to evaluate both extension projects and infill stations. The project advancement criteria consider ridership in the context of project cost effectiveness, surrounding land use and access, connections with other transit systems, effects on the existing BART system, and the degree of partnering and community support. In order to demonstrate sufficient anticipated ridership to support the proposed new BART stations and to direct transit-oriented development surrounding these stations, the cities of Pittsburg and Antioch prepared Ridership Development Plans (RDPs). Prior to adopting a system expansion project or planning new station locations, BART must consider whether RDPs developed for each station can collectively demonstrate that the project will achieve a threshold ridership level evaluated at the corridor-wide level. The corridor-wide eBART threshold has been defined as 5,801 weekday entries and exits by 2030. As identified in Table 2, above, the Hillcrest Avenue Station alone would provide 8,482 entries and exits by 2030, more than satisfying the corridor-wide eBART threshold. Therefore, by deferring construction of the Railroad Avenue Station, the eBART Project would still satisfy the SEP ridership threshold in the interim.

The Revised Project would also need to demonstrate compliance with the Metropolitan Transportation Commissions (MTC) Resolution #3434. The MTC adopted Resolution #3434 in 2005 to aid the various jurisdictions throughout the Bay area region in addressing multiple goals: improving the cost effectiveness of regional investments in new transit expansions; easing the Bay Area's chronic housing shortage; creating vibrant new communities; and helping preserve regional open space by ensuring cooperation in creating development patterns that support transit services. In order to evaluate the potential for a transit project to meet the goals established in Resolution #3434, the MTC has created housing unit thresholds within one-half mile of potential stations. The housing thresholds vary depending on the type of transit service proposed. The eBART Project is defined as a commuter rail service and thus requires an average of 2,200 existing and planned housing units per station (Pittsburg/Bay Point, Railroad Avenue, and Hillcrest Avenue) by 2030, within the project corridor. Since completion of the Final EIR, new information regarding development around the Pittsburg/Bay Point Station has become available. The most recent information regarding development around the three stations is presented in Table 11. As shown in the Table 11, the Revised Project would meet the MTC Resolution #3434 thresholds with or without the Railroad Avenue Station. The eBART Project would average 3,689 housing units per station in 2030 without the Railroad Avenue Station and 3,608 housing unit with the Railroad Avenue Station based on information included in the RDPs for the station area developments, thereby satisfying the Resolution #3434 threshold established for the project corridor.

Eliminate Railroad Avenue Station West Entrance. The Revised Project would change the layout of the Railroad Avenue Station by eliminating the pedestrian access from the west side of the station. All other features at the Railroad Avenue Station would remain unchanged. Because removal of the pedestrian access on the west side of the station would not change the proposed uses at the station, this

aspect of the Revised Project would have no impact on adjacent or surrounding land uses and would not divide an established community or convert agricultural land.

Cumulative Impacts. Implementation of the changes at the Railroad Avenue Station under the Revised Project was found to have no impact on land uses in the project corridor or surrounding area. Therefore, the Revised Project would not contribute to cumulative land use impacts.

Table 11
Comparison of MTC Resolution #3434 Targets
with Proposed Project Station Area Development

Station	Housing Units in 2030 with RDP[a]
MTC Target (average per station)	2,200
Pittsburg/Bay Point	3,992[b]
Railroad Avenue	3,445
Hillcrest Avenue	3,387
Per Station Average with Railroad Avenue	**3,689**
Per Station Average without Railroad Avenue	**3,608**

Source: City of Pittsburg, *Pittsburg/Bay Point BART Station Area Specific Plan Final EIR,* December 2001; City of Pittsburg, *Railroad Avenue Station Area Specific Plan Draft EIR,* February 25, 2009; City of Antioch, *Hillcrest Station Area Specific Plan, January 2009.*

Notes:

a. Housing units within one-half mile of station sites.

b. The housing estimate for the Pittsburg/Bay Point Station includes an estimated 2,110 housing units in the one-half mile radius around the station, and 1,882 projected housing units within the one-half mile radius as identified in the Pittsburg/Bay Point Station Specific Plan, which was adopted by Contra Costa County. Note that the Pittsburg/Bay Point Station Specific Plan has not been adopted by the City of Pittsburg; however, the City is looking at a Priority Development Area (covering a one-quarter mile radius around the Pittsburg/Bay Point Station), which anticipates 3,909 housing units within the one-quarter mile radius.

Population and Housing

The Population and Housing evaluation in the Final EIR provided an overview of the population, housing, and economic characteristics of the communities in the project corridor, specifically focused on the areas surrounding proposed station locations in the cities of Pittsburg and Antioch. The Final EIR also described project effects related to the displacement of residential and business uses.

Population-driven effects related to construction are not specifically addressed in this population and housing analysis because those impacts are temporary, whereas impacts associated with changes in population related to project operations occur over long periods of time and are not directly associated with construction activities. Therefore, this section will summarize those impact determinations made in the Final EIR that are applicable to the Railroad Avenue Station.

Deferred Construction of Railroad Avenue Station. The Final EIR evaluated potential population and housing impacts associated with construction of the Railroad Avenue Station in the City of Pittsburg. In particular, the Final EIR described the indirect growth inducing effects associated with the construction and operation of the Railroad Avenue Station. The Final EIR determined that growth

resulting from implementation of the eBART Project would not exceed that which has been planned for through various city- and county-wide planning documents. Specifically, the Final EIR cited the City of Pittsburg's Draft Specific Plan for the Railroad Avenue Station area (Ridership Development Plan), which anticipates and directs both household and economic growth in the vicinity of the Railroad Avenue Station. Implementation of the Revised Project would defer the full construction of the Railroad Avenue Station until an unspecified later date. Although, as stated in the Final EIR, implementation of the Ridership Development Plan is likely to move forward more quickly should improved transit service occur in the area, the Plan specifically indicates that it is not dependent on the eBART Project or any particular mode of transit to meet its development goals.[6] Therefore, the implementation of the Revised Project would only reduce the rate of growth surrounding the Railroad Avenue Station, but would not conflict with the overall growth plan formulated by the City of Pittsburg. This impact would be less than significant.

Eliminate Railroad Avenue Station West Entrance. The Revised Project would eliminate patron access from the west side of Railroad Avenue in an effort to reduce project cost. Design modification of the Railroad Avenue Station would only affect patron access to and from the station and would have no impact on population, housing, or the overall economic characteristics of the project area.

Cumulative Impacts. The Final EIR evaluated the potential for the Adopted Project, in combination with other existing and planned projects, to create additional demand for housing and employment; and to displace people, jobs, and housing through property land acquisition. The Final EIR determined that these cumulative impacts would be less than significant. As described above, implementation of the Revised Project would reduce the rate of growth surrounding the Railroad Avenue Station, but would not conflict with the overall growth plan of the City of Pittsburg. Compared to the Adopted Project, the Revised Project would not create additional demand for housing and employment or require property land acquisitions in the vicinity of the Railroad Avenue Station. Therefore, this effect of the Revised Project would not be cumulatively considerable, and the cumulative population and housing impact would be less than significant.

Visual Quality

The Visual Quality section of the Final EIR evaluated the effects of the Adopted Project related to its visual compatibility with the surrounding environment, the effect on significant views, and the potential for disruptive light and glare. The visual environment surrounding the Railroad Avenue Station has remained largely consistent with the description in the Final EIR.

Deferred Construction of Railroad Avenue Station. Implementation of the Revised Project would postpone the construction of the Railroad Avenue Station and the reconfiguration of the existing BART park-and-ride lot, but would not change the location or primary appearance of the station or parking lot as evaluated in the Final EIR. Additionally, the Revised Project would not change the light and glare associated with the Railroad Avenue Station or parking. As such, the Revised Project would have the same less-than-significant impacts on the visual character of the surrounding area as determined in the Final EIR.

[6] City of Pittsburg, *Railroad Avenue Specific Plan*, Ordinance No. 09-1319, adopted on November 2, 2010.

As identified in the Final EIR, in order to prevent harmful glare or visual interference for motorists from station lighting, the Railroad Avenue Station would adhere to design requirements that minimize light spillover from the station. Additionally, construction staging areas associated with the Railroad Avenue Station would be screened so that views of stockpiled and stored construction materials and equipment are minimized.

Eliminate Railroad Avenue Station West Entrance. The Revised Project would eliminate patron access from the west side of Railroad Avenue. The elimination of the west entrance would result in a reduction in the level of new construction at the Station site. Therefore, the proposed changes would result in the same less-than-significant impacts on the visual character of the surrounding area as determined in the Final EIR.

Cumulative Impacts. Compared to the Adopted Project, implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on the visual quality of the station site or surrounding area. Although implementation of the Revised Project would defer construction of the Railroad Avenue Station until a later date, the ultimate construction of the Railroad Avenue Station would result in a station with similar visual characteristics as the Adopted Project. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative visual quality impact would be less than significant.

Cultural Resources

The Final EIR evaluated the operational and construction effects of the Adopted Project on archaeological and historic resources in the project corridor. The Final EIR determined that construction activities have the potential to damage or destroy undocumented archaeological resources. Adherence to the procedural construction requirements as part of the mitigation measures identified in the Final EIR would ensure that construction activities would have a less-than-significant impact on cultural resources.

Deferred Construction of Railroad Avenue Station. Implementation of the Revised Project would postpone the construction of the Railroad Avenue Station and would introduce minor design alterations. The necessary construction activities involved in the Revised Project would be the same as those required by the Adopted Project. In addition, under the Revised Project, reconfiguration of the existing 185-space BART park-and-ride lot would be deferred until a later date. As such, implementation of the Revised Project would result in the same ground-disturbing activities as under the Adopted Project, and would therefore result in the same impacts on historic or unknown archeological resources in the vicinity of the Railroad Avenue Station as analyzed in the Final EIR. Implementation of the mitigation measures identified in the Final EIR would reduce impacts associated with the Revised Project to less than significant.

Eliminate Railroad Avenue Station West Entrance. The Revised Project would eliminate patron access from the west side of Railroad Avenue. This minor design alteration would have a negligible effect on the necessary construction activities involved in the Revised Project. Therefore, elimination of the west station entrance would not change the potential impacts to historic or archeological resources as evaluated in the Final EIR. The mitigation measures identified in the Final EIR would reduce impacts associated with the Revised Project to less than significant.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to cultural resources. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on archaeological and historic resources in the project area beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative cultural resources impact would be less than significant.

Geology, Soils, and Seismicity

The Final EIR assessed the geologic, soil, and seismic hazards along the project corridor, and the potential for transit service in this corridor to expose people or structures to these hazards. In addition, Section 3.7, Geology, Soils, and Seismicity of the Final EIR determined that because the Railroad Avenue Station site, within the SR 4 median, was previously graded, it is unlikely that paleontological resources would be found intact during construction of the Adopted Project. In general, the project corridor was found to have little or no scientific value for the recovery of paleontological resources.

The San Francisco Bay Area is a seismically active area and for this reason public safety is a critical consideration in project design. Site-specific geologic conditions, such as soil types and underlying geologic materials, provide the basis for determining which areas along the corridor are susceptible to seismic and geologic hazards. The Final EIR analyzed the potential for the Adopted Project to result in soil erosion impacts triggered by excavation and grading activities. Soil evaluation conducted for the project corridor identified silty soils within the project area, indicating a low potential for soil erosion. Mitigation measures identified in the Final EIR would require BART's contractors to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that would include standard temporary erosion control measures. Implementation of best management practices (BMPs) included in the SWPPP would reduce impacts to less than significant throughout the various construction phases. Construction of the Adopted Project would also adhere to applicable standards described under Impact GEO-2 in the Final EIR that are intended to avoid structural failure from soil and limitations and geologic hazards during operation.

Deferred Construction of Railroad Avenue Station. Implementation of the Revised Project would postpone the construction of the Railroad Avenue Station. Construction of the Revised Project would be required to adhere to the same engineering design criteria as the previously approved project, which would result in less-than-significant impacts. Additionally, the mitigation measures identified in the Final EIR, which require the implementation of a SWPPP and BMPs to minimize the risk of soil erosion from construction activities would apply to the construction of the Railroad Avenue Station. Furthermore, under the Revised Project, reconfiguration of the existing 185-space BART park-and-ride lot would be deferred until a later date. As such, implementation of the Revised Project would result in the same ground-disturbing activities and potential for soil erosion as the Adopted Project. Therefore, the Revised Project would have a less-than-significant impact on geology, soils, and seismicity during construction and operation.

Eliminate Railroad Avenue Station West Entrance. The Revised Project would eliminate patron access from the west side of Railroad Avenue. As stated above, construction of the Revised Project would be required to adhere to the same engineering design criteria as the previously approved project, which would result in less-than-significant impacts.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to geology, soils, and seismicity._ Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on geology, soils, and seismicity beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative geology, soils, and seismicity impact would be less than significant.

Hydrology and Water Quality

The Final EIR described the existing hydrology and water quality conditions along the project corridor, and examined the Adopted Project with respect to potential impacts on surface water quality, groundwater, flooding, hydrology, and stormwater runoff. Since these analyses were conducted for the Final EIR, there have not been any substantial hydrologic changes in the project area. As described in the Final EIR, the Railroad Avenue Station and associated surface parking lot would be sited on existing developed land, and as such, would not result in additional impervious acreage or impede groundwater recharge. In addition, ground-disturbing activities at the Railroad Avenue Station would not expose soil to substantial erosion since the area is already disturbed and relatively small in size. The Final EIR determined that construction activities from Railroad Avenue Station would have less-than-significant impacts on potential flooding caused by soil erosion and siltation. Note that Mitigation Measure HY-1.1 has been updated as part of this Addendum to identify the appropriate State NPDES permit. The revised Mitigation Measure HY-1.1 would apply to both the Adopted Project and the Revised Project to reduce impacts to less than significant.

Deferred Construction of Railroad Avenue Station. The Final EIR determined that construction and operation of the Adopted Project within the SR 4 median would have less-than-significant impacts to hydrology and water quality because this area is already developed, contains highly disturbed soils, and is relatively small in size. Under the Revised Project, the Railroad Avenue Station would remain within the SR 4 median, although implementation would be part of a later construction phase. Furthermore, under the Revised Project, reconfiguration of the existing 185-space BART park-and-ride lot would be deferred until a later date. As such, implementation of the Revised Project would result in the same ground-disturbing activities and potential for soil erosion as the previously Adopted Project. The Revised Project would have less-than-significant impact on hydrology and water quality in the vicinity of the Railroad Avenue Station.

Eliminate Railroad Avenue Station West Entrance. The Revised Project would eliminate patron access from the west side of Railroad Avenue. This minor design alteration would have a negligible effect on construction activities necessary to implement the Railroad Avenue Station. Impervious surface cover associated with the Railroad Avenue Station would be slightly less than under the Adopted Project. This aspect of the Revised Project would not introduce additional impacts related to hydrology and water quality not evaluated in the Final EIR.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to hydrology and water quality. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on hydrology and water quality beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative hydrology and water quality impact would be less than significant.

Biological Resources

The Final EIR evaluated the biological resources along the project corridor and the potential for the Adopted Project to disturb sensitive biological species and habitats. The Final EIR determined that operation of the Adopted Project would have a less-than-significant impact on biological resources in the project corridor.

Deferred Construction of Railroad Avenue Station. As described in the Final EIR, the Railroad Avenue Station would be constructed in the SR 4 median, and of the existing land uses within one-half mile of the proposed station only 5.3 acres (one percent) is undeveloped land. Furthermore, the impact analysis conducted in the Biological Resources section of the Final EIR did not identify impacts associated with the operation or construction of the Railroad Avenue Station. Therefore, implementation of a phased construction plan for the Railroad Avenue Station under the Revised Project would have the same less-than-significant effects as the Adopted Project.

Eliminate Railroad Avenue Station West Entrance. Elimination of the west station entrance at the Railroad Avenue Station would result in minor design alterations that would not directly affect special status species or indirectly affect undeveloped land or natural resources that could serve as nesting or foraging habitat for special status species. Therefore, this minor design alteration would have no impact on biological resources adjacent to the proposed station or in the surrounding area.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to biological resources. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on biological resources beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative biological resources impact would be less than significant.

Noise and Vibration

The Final EIR evaluated the noise and vibration characteristics associated with the proposed DMUs and the potential impacts to communities along the project corridor. The Final EIR determined that the noise and vibration impacts associated with the operation of the Adopted Project and the increase in traffic surrounding the Railroad Avenue Station would be less than significant. Although construction-related noise and vibration impacts would be temporary, the Final EIR determined that construction activities could have potentially significant impacts on sensitive receptors along the project corridor. Additionally, given the uncertainty about the equipment to be used and the potential proximity to sensitive receptors, temporary construction impacts may be significant and unavoidable even with mitigation measures in place.

As discussed above, operation of the Adopted Project alone would have less-than-significant noise and vibration impacts. However when considered in the context of future development in the vicinity of the stations and other foreseeable future development in the project corridor, noise impacts may be cumulatively significant. Due to the speculative nature of future development, even with implementation of the mitigation measures identified in the Final EIR, cumulative noise impacts could remain significant and unavoidable.

Deferred Construction of Railroad Avenue Station. The Revised Project would postpone the construction of the Railroad Avenue Station until necessary funding is available from the City of Pittsburg. Depending on the availability of funding, the duration of time until full project build-out may be extended due to the phased construction plan, but the noise and vibration impacts at full build-out would not change. Furthermore, under the Revised Project, reconfiguration of the existing 185-space BART park-and-ride lot would be deferred until a later date. At the time of construction of the Railroad Avenue Station and the reconfiguration of the parking lot, potential construction equipment noise and vibration impacts would be the same as evaluated in the Final EIR. In addition, all mitigation measures related to noise and vibration impacts identified in the Final EIR would be implemented at the time of construction of the Railroad Avenue Station.

Eliminate Railroad Avenue Station West Entrance. Elimination of the west station entrance at the Railroad Avenue Station may result in slightly reduced construction activities during construction of the Railroad Avenue Station, particularly in the area west of Railroad Avenue. However, the effects of this would be minimal in comparison to the overall construction at the Railroad Avenue Station. Therefore, elimination of the west station entrance would result in approximately the same noise and vibration impacts during operation and construction as the Adopted Project.

Cumulative Impacts. The Final EIR determined that the Adopted Project would result in significant and unavoidable cumulative impacts with regard to noise and vibration. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on noise and vibration beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would remain cumulatively considerable and the cumulative noise and vibration impact would be significant and unavoidable, similar to the Adopted Project.

Air Quality

As described in the Final EIR, the Adopted Project would have a beneficial impact on the Bay Area's implementation of the Clean Air Plan as well as a net reduction in regional greenhouse gas and ozone precursor emissions. Construction activities would generate exhaust pollutants, including carbon monoxide (CO), reactive organic gases (ROG), nitrous oxides (NO_x), and particulate matter (PM_{10} and $PM_{2.5}$), through the use of construction equipment. Construction activities would also generate fugitive dust that could adversely affect sensitive receptors. According to the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines, CO, ROG, and NO_x emissions from construction equipment are accounted for in the regional air quality plans and are not expected to impede the region's attainment status. Adherence to BAAQMD's PM_{10} control measures for construction activities would reduce potential construction-related emissions to less than significant. In addition, odors and diesel particulate matter (DPM) emitted from construction equipment exhaust would have potentially significant impacts. BART's contractor would design and implement a construction emissions reduction plan for heavy equipment exhaust that would reduce all exhaust related impacts to a less-than-significant level.

On June 2, 2010, the BAAQMD adopted new guidelines containing significance standards and procedures for analysis of air quality impacts pursuant to CEQA. However, the BAAQMD Board resolution adopting the new guidelines provides that they are applicable only to projects for which environmental analysis was begun on or after the date of adoption. Since work on this Addendum began prior to June 2, 2010, the new BAAQMD guidelines do not apply.

Deferred Construction of Railroad Avenue Station. Implementation of the Revised Project would postpone the construction of the Railroad Avenue Station and would introduce minor changes to the station design. Construction activities at full project build-out would be the same as assumed in the Final EIR. The eventual construction of the Railroad Avenue Station would adhere to the mitigation measures detailed in the Final EIR. Furthermore, under the Revised Project reconfiguration of the existing 185-space BART park-and-ride lot would be deferred until a later date. As such, implementation of the Revised Project would result in the same potential for equipment exhaust and dust related air pollution, but construction of the station and parking lot areas may occur at different times. Therefore, the Revised Project would have the same less-than-significant impacts on operational and construction-related air quality as described in the Final EIR.

Eliminate Railroad Avenue Station West Entrance. Elimination of the west station entrance at the Railroad Avenue Station would reduce operational or construction related air pollutants, and therefore could result in less overall construction emissions than the Adopted Project.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to air quality. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on air quality beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative air quality impact would be less than significant.

Public Health and Safety

The Final EIR described hazards that may exist along the project corridor and the potential for these hazards to adversely affect public health and safety. Potential public hazards along the corridor include hazardous materials sites, hazardous materials used in project construction and operation, and overall system safety. Operation and maintenance of transit vehicles requires the use of hazardous materials including diesel fuel, car-washing chemicals, solvents, and oils that if accidentally released could significantly impact public health and safety. The Final EIR describes the emergency response procedures that BART has established through its system safety department to minimize the impacts of an accidental release of hazardous materials.

The exposure of construction workers to hazardous materials in contaminated soil and groundwater or to materials containing asbestos, lead, or other hazardous materials would constitute a significant impact. If demolition of existing structures is required during construction, a hazardous materials survey would precede any construction activities. If hazardous materials are found, construction activities must be performed in accordance with the proper notification and emission control requirements. As noted in the Project Description, Mitigation Measure HS-9.1 has been expanded to include surveys for lead and other hazardous materials, in addition to asbestos, for all structures within the project corridor, including areas outside the SR 4 median. This revised mitigation measure would apply to both the Adopted Project and the Revised Project. As such, adverse impacts would be reduced to less than significant.

Deferred Construction of Railroad Avenue Station. Implementation of the Revised Project without the Railroad Avenue Station would not change the eventual location or the construction activities associated with the Railroad Avenue Station. Therefore, the determinations made in the Final EIR regarding the public health and safety impacts of construction and operation of the Railroad Avenue

Station would apply to the Revised Project as well. Additionally, the findings of the hazardous site assessment conducted in the Final EIR would apply to the Revised Project along with the mitigation measures described in the Final EIR and expanded in this Addendum. Furthermore, under the Revised Project reconfiguration of the existing 185-space BART park-and-ride lot would be deferred until a later date. As such, implementation of the Revised Project would result in the same ground-disturbing activities as the previously Adopted Project and the potential for impacts from exposure of workers or the public to hazardous materials would be the same.

Eliminate Railroad Avenue Station West Entrance. The Revised Project identifies a potential modification to the design of the Railroad Avenue Station, where pedestrian access to the DMU station platform would be eliminated from the west side of Railroad Avenue. Access from the east side of Railroad Avenue would be unchanged. Access to the station platform from the east side of Railroad Avenue would be designed to be consistent with safety requirements set forth by the California Public Utilities Commission and the National Fire Protection Association 130 to ensure that adequate emergency access is provided to the platform. Therefore, the Revised Project would have a less-than-significant impact on overall system safety.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to public health and safety. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impacts on public health and safety beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative public health and safety impact would be less than significant.

Community Services

The Final EIR described community services, such as police, fire, and emergency medical services along the eBART Project corridor. Information regarding existing service levels was obtained for these service providers in order to evaluate how the Adopted Project might affect their capacity to meet the demand generated by the extension of transit services along SR 4. As described in the Final EIR, BART would assume responsibility for law enforcement at the proposed Railroad Avenue Station and associated parking lot. The Pittsburg Police Department expects an increased workload related to the Adopted Project, but would not require additional police facilities to maintain existing service levels. In addition, operation of the Adopted Project would increase the demand for Contra Costa County Fire Protection District (CCCFPD) emergency services, but would not trigger the need for additional fire facilities. The Railroad Avenue Station is close to existing CCCFPD stations that could provide sufficient emergency response services with existing staff levels. Therefore, the Final EIR determined that operation of the Adopted Project would have a less-than-significant impact on emergency services in the City of Pittsburg.

Construction of the Adopted Project would have the potential to create traffic disruptions and road detours that could impede emergency response times by police and fire departments. In order to reduce this potentially significant impact to a less-than-significant level, BART would require that its contractor prepare a Traffic Management Plan (TMP) to be implemented during construction of the Adopted Project. The TMP would be consistent with City and Caltrans roadway construction guidelines and could be implemented as a part of construction-related mitigation measures identified in Section 3.2, Transportation, of the Final EIR.

Deferred Construction of Railroad Avenue Station. The Revised Project would postpone the full construction of the Railroad Avenue Station and postpone reconfiguration of the existing park-and-ride lot, reducing the demand for community services in the short term. The location and expected ridership at the Railroad Avenue Station, when constructed, would remain unchanged from those anticipated in the Final EIR. Therefore, the Revised Project would have a less-than-significant impact on community services in the vicinity of the Railroad Avenue Station.

Eliminate Railroad Avenue Station West Entrance. Elimination of the west station entrance to the Railroad Avenue station would have a minor effect on the circulation of patrons through the Railroad Avenue Station. This effect of the Revised Project would not change the demand for community services and would have no impact on community services.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to community services. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on community services beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative community services impact would be less than significant.

Utilities

The Final EIR described the location of existing utility lines and evaluated how construction and operation of the Adopted Project could interrupt or damage the proper functioning of these lines. In addition, the Final EIR considered whether the existing water and wastewater treatment systems serving the project corridor could accommodate the increased load created by the Adopted Project.

Operation of the Adopted Project would not require new or expanded municipal water supply entitlements to meet the expected water demand. Similarly, the Adopted Project would generate negligible amounts of wastewater from station and ancillary facilities and would not exceed the capacity of the existing wastewater conveyance system. Therefore, the Adopted Project was determined to have less-than-significant impacts to water and wastewater treatment facilities.

The criteria for evaluating construction-related impacts in the Final EIR were based on the potential for ground breaking activities to disrupt the use of utility lines in the project area. The Final EIR identified a number of utility lines within the SR 4 median that would require relocation as part of the construction of the Adopted Project. However, with the implementation of mitigation measures to restrict utility relocations to off-peak hours, arrange temporary backup service, and notify customers of service interruptions, these impacts would be reduced to less than significant.

Deferred Construction of Railroad Avenue Station. Under the Revised Project, construction of the Railroad Avenue Station would be postponed until sufficient funding becomes available. The potential impacts related to construction within the SR 4 median would apply when the station is constructed in the future. Implementation of the mitigation measures identified in the Final EIR would reduce impacts to less than significant.

Eliminate Railroad Avenue Station West Entrance. Elimination of the west station entrance to the Railroad Avenue station would have a minor effect on the design and construction activities associated with the Railroad Avenue Station. This aspect of the Revised Project would have no impact on utilities.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to utilities. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on utilities beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative utilities impact would be less than significant.

Energy

The Final EIR considered the energy required for both the construction and operation of the Adopted Project as well as the energy savings associated with the reduction in vehicle miles traveled. An assessment of the potential impacts to energy resources as a result of the Adopted Project was included in the impact analysis. As described in the Final EIR, the Adopted Project would result in an overall net reduction in energy consumption by providing an alternative means of transportation to individuals along the project corridor. Additionally, the Adopted Project would have beneficial impacts on petroleum demand by reducing reliance on automobiles and thereby reducing vehicle miles traveled.

Energy would be consumed by the use of construction equipment and vehicles necessary to transport construction materials. The Final EIR identifies mitigation measures that ensure the development and implementation of a construction energy conservation plan that would reduce impacts to less than significant.

Deferred Construction of Railroad Avenue Station. Construction and operation of the Railroad Avenue Station under the Revised Project would not change the expected energy demand. The potential for lower ridership within the Adopted Project corridor as a result of delaying construction of the Railroad Avenue Station would reduce the beneficial energy impacts of the Revised Project associated with reduced vehicle miles traveled until the station is constructed. However, even with the reduction in ridership at the Railroad Avenue Station, the Revised Project would still result in a net energy benefit.

Eliminate Railroad Avenue Station West Entrance. Elimination of the west station entrance to the Railroad Avenue station would have a minor effect on the design and construction activities associated with the Railroad Avenue Station. This aspect of the Revised Project would only temporarily reduce the energy associated with the construction activities, and would therefore have no additional impact on energy compared to the Adopted Project.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to energy. Implementation of the Railroad Avenue Station under the Revised Project was found to have no additional impact on energy use beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative energy impact would be less than significant.

Hillcrest Avenue Station

As noted in the Project Description, a number of changes to the adopted Hillcrest Median Station site plan are being considered: A number of changes to the adopted Hillcrest Median Station site plan are being considered: (i) relocation of the parking lot to the east; (ii) elevation of the relocated parking lot above the surrounding grade to allow a future connection to Viera Avenue (extending from the north) to cross over the Union Pacific Railroad (UPRR) tracks; (iii) expansion of the DMU Control and Maintenance Center; (iv) realignment of the proposed access road serving the parking lot and the maintenance center; (v) installation of solar panels over the center of the parking lot; (vi) excavation of the knoll at the east end of the project site to accommodate the expanded Control and Maintenance Center and to provide fill for the elevated parking lot; and (vii) relocation of certain utilities. In order to provide a comparison between the adopted Hillcrest Avenue Median Station site plan and the Revised Project, Figure 9 shows an overlay of the Revised Project footprint compared to the footprint of the site plan adopted by the BART Board in April 2009. The following analysis addresses the potential for impacts associated with the changes proposed under the Revised Project compared to the Adopted Project.

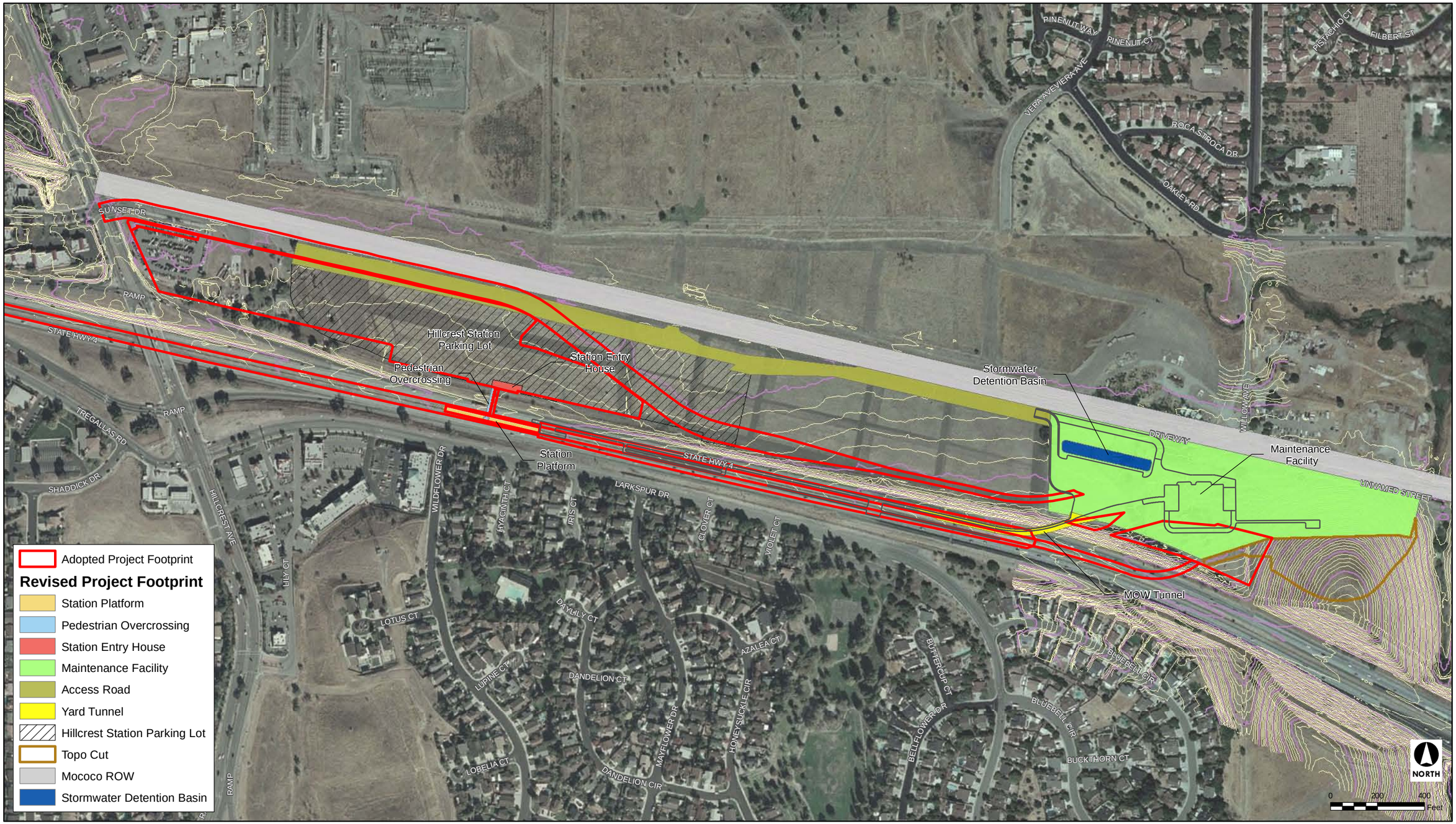
Transportation

eBART Station Parking Lot. The proposed changes to the Hillcrest Avenue Station parking lot would only cause a minor modification to the traffic circulation pattern near this station. Although shifted 800 feet to the east, the Revised Project would result in the same size parking lot as the Adopted Project, and would also have the same number of entrances and exits to the parking lot as the Adopted Project. Therefore, this potential modification would not result in any changes to the circulation network located in the vicinity of the Hillcrest Avenue Station.

During construction, approximately 14,950 truckloads would be required to transfer material excavated from the knoll to the parking lot area located near Hillcrest Avenue Station. Even though these trucks would travel about 3,500 feet to transfer the material, the majority of these trips would be on-site trips. Trucks carrying excavated fill would not travel on public streets. Therefore, construction truck trips related to the excavation of the knoll would not affect traffic circulation near this station. Excavation of the knoll would not result in any transportation-related impacts, including pedestrian impacts, traffic impacts, bicycle impacts, transit impacts, parking impacts, and construction impacts to the circulation network located in the vicinity of the Hillcrest Avenue Station.

Parking Lot Solar Panels. Proposed installation of the parking lot solar panels/shade structures would not affect traffic circulation near this station. Therefore, this potential modification to the parking lot would not result in any transportation-related impacts.

Control and Maintenance Center and Extended Tailtracks. Potential changes to the Control and Maintenance Center would not affect traffic circulation near this station. The Revised Project would include a spur track north from the Control and Maintenance Center to the UPRR to provide a rail connection to UPRR tracks. This connection would be used on a very limited basis, such as maintenance access or delivery of the DMU vehicles. Because the spur track would be used on such a limited basis, there would be no significant impacts to operation of the UPRR or at any associated at-grade crossings. Therefore, the Control and Maintenance Center would not result in any transportation-related impacts.



Source: BART, 2011; PBS&J 2011.

REVISED PROJECT FOOTPRINT COMPARED TO ADOPTED PROJECT FOOTPRINT
FIGURE 9

Roads and Utilities. The revised roadway design of the access road and future Slatten Ranch Road aligns the roadway adjacent to the UPRR tracks for its entire alignment, rather than veering south so it could travel along SR 4 before turning north again to run adjacent to the UPRR tracks. Because the revised alignment would only occur adjacent to the parking lot and Control and Maintenance Center, there would be no changes to the traffic operations of the circulation network located in the vicinity of the Hillcrest Avenue Station.

Proposed changes to construction to account for the utility lines located near Hillcrest Avenue Station would also not affect traffic circulation near this station. The traffic operations of the nearby study intersections would remain the same as reported in the Final EIR under the With Slatten Ranch Road scenario. Therefore, the proposed changes to the Slatten Road alignment would not cause any transportation-related impacts.

Land Use

As described in the Final EIR, the most predominant land uses surrounding the Hillcrest Avenue Median Station are undeveloped lands, single family residential, and industrial activities. Since most of the area immediately surrounding the Hillcrest Avenue Station is generally undeveloped, there would be no land use conflicts with existing uses. Furthermore, the Final EIR determined that project components at the Hillcrest Avenue Station that would occur outside of the SR 4 median would not divide an existing community since the area is currently undeveloped.

eBART Station Parking Lot. The Revised Project would relocate the Hillcrest Median Station parking lot from its original location adjacent to Hillcrest Avenue north of SR 4 to a location approximately 800 feet east of Hillcrest Avenue. Additionally, the Revised Project would raise the relocated parking area above its existing elevation. Although elevated and shifted slightly, the parking lot would remain within the boundary of the study area analyzed in the Final EIR and would not change the proposed use of the station or conflict with existing land uses. Relocation and raising the elevation of the parking lot would also ensure that the Adopted Project does not conflict with future transportation projects in the surrounding area, including the proposed modifications to the Hillcrest Avenue interchange and future extension of Viera Avenue.

The Hillcrest Station Area Specific Plan identifies most of the location of the Revised Project parking lot as "Public/Institutional." However, due to the shifting of the parking lot to the east, the eastern end of the relocated parking lot would project into an area designated for "Office TOD" by the Specific Plan. BART has coordinated with the City of Antioch on the proposed changes at the Hillcrest Avenue Station, including the parking lot relocation, and the City has concurred with those changes. Moreover, BART is in any event exempt by State law from local General and Specific Plans. Accordingly, the inconsistency with the current designation in the Specific Plan is not considered to be significant.

Parking Lot Solar Panels. BART may install photo voltaic panels over the central portion of the station parking lot. Implementation of photo voltaic panels would not interfere with the proposed land uses at the Hillcrest Avenue Station and would have no impact on surrounding land uses.

Control and Maintenance Center and Extended Tailtracks. The Revised Project would expand the Control and Maintenance Center north and east from its original position adjacent to SR 4, but would remain within the study area for the Hillcrest Avenue Median Station. The Final EIR identifies that the maintenance annex proposed under the Adopted Project would not result in land use compatibility impacts since the maintenance annex would be physically separated from nearby residential uses. Although the Revised Project would shift the footprint and some of the maintenance activities from the SR 4 median to the Control and Maintenance Center, and add a wheel truing machine to one of the maintenance buildings, the Control and Maintenance Center would still be physically separated from the closest residential uses and would therefore not result in any land use compatibility impacts.

The Hillcrest Station Area Specific Plan identifies the location of the Revised Project Control and Maintenance Center as divided between "Community Retail" and "Town Center Mixed Use." BART has coordinated with the City of Antioch on the proposed changes at the Hillcrest Avenue Station, including the Control and Maintenance Center relocation, and the City has concurred with this change. Moreover, BART is in any event exempt by State law from local General and Specific Plans. Accordingly, the inconsistency with the current designation in the Specific Plan is not considered to be significant.

Roads and Utilities. The Revised Project would change the alignment of the access road and future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. This aspect of the Revised Project would not move the roadway or any associated uses close to residential uses, and would not physically divide any existing communities. Therefore, the proposed realignment of the roadway would not result in land use conflicts or interfere with surrounding land uses.

Relocation of the existing underground pipelines would occur during construction of the Hillcrest Avenue Station parking lot, and construction of these pipelines would be contained within the footprint of the parking lot. This aspect of the Revised Project would not result in land use conflicts or interfere with surrounding land uses. Therefore, this aspect of the Revised Project would have no impact on land uses.

Cumulative Impacts. The Final EIR found the cumulative land use impacts of the Adopted Project together with reasonably foreseeable future projects to be less than cumulatively considerable. Implementation of the Hillcrest Avenue Station under the Revised Project was found to have no additional significant impacts on land use in the station footprint or surrounding area beyond those evaluated in the Final EIR. As discussed above, inconsistency with the Hillcrest Station Area Specific Plan, which identifies the location of the Revised Project's Control and Maintenance Center as divided between "Community Retail" and "Town Center Mixed Use", is not considered a significant impact. More generally, BART has coordinated with the City of Antioch regarding the Revised Project changes at the Hillcrest Station. The realigned access road would accommodate the City's plans for a future Slatten Ranch Road serving Transit-Oriented Development (TOD) as contemplated by the Specific Plan. Raising the station parking elevation to accommodate the City's future Viera Road overcrossing would also facilitate access for future TOD. These improvements, together with foreseeable future projects under the Specific Plan, would have a beneficial effect on implementation of the City's plans for land uses in the station area. Therefore, the Revised Project's contribution to land use changes would not represent a significant cumulative land use impact.

Population and Housing

The Final EIR determined that the eBART Project could affect 16 privately-owned parcels in the vicinity of the Hillcrest Avenue Median Station. Given the evolving design for project facilities at the time the Final EIR was adopted, this assessment conservatively assumes that the entire parcel would be acquired if affected by a project feature; in reality, some parcels may only need to be partially acquired to accommodate the eBART Project.

eBART Station Parking Lot. The Revised Project would raise the parking lot above its existing elevation and shift the location of the parking lot east compared to the adopted Hillcrest Median Station option. However, the Revised Project would not affect additional parcels not previously identified in Table 3.4-5 of the Final EIR.

Parking Lot Solar Panels. Installation of photo voltaic panels over the central portion of the station parking lot would be within the footprint of the station site. Photo voltaic panels would not induce population growth or housing development nor would they require additional acquisition of property. This aspect of the Revised Project would have no impact on population and housing.

Control and Maintenance Center and Extended Tailtracks. The Revised Project would expand the Control and Maintenance Center north and east from its original position adjacent to SR 4, but would remain within the study area for the Hillcrest Avenue Station. Excavation of the north side of the knoll to allow relocation of the Control and Maintenance Center would not affect any additional parcels not previously identified in Table 3.4-5 of the Final EIR. Therefore, this modification would have no additional impact related to land acquisitions.

Roads and Utilities. The Revised Project would change the alignment of the access road and future Slatten Ranch Road (as compared to the alignment evaluated in the Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. Realignment of the future Slatten Ranch Road would require additional acquisition of property in the Hillcrest Avenue Median Station footprint. Therefore, this aspect of the Revised Project would have no impact on population and housing. Furthermore, modification to the existing underground pipelines would occur beneath the station parking lot. As described above, implementation of the parking lot would not affect additional parcels not previously identified in Table 3.4-5 of the Final EIR. Therefore, this modification would also have no impact on population and housing.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to population and housing. Implementation of the Hillcrest Avenue Median Station under the Revised Project was found to have no additional impacts on population and housing beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative population and housing impact would be less than significant.

Visual Quality

The Visual Quality section of the Final EIR evaluated the effects of the Adopted Project related to its visual compatibility with the surrounding environment, the effect on significant views, and the potential for disruptive light and glare. The visual environment surrounding the Hillcrest Avenue Station has remained largely consistent with the description in the Final EIR. The Final EIR determined that the Hillcrest Avenue Median Station parking lot would appear out of character with the surrounding undeveloped landscape resulting in a significant impact. There are no feasible measures available to mitigate the loss of rural character in the proposed parking lot areas; therefore, the impact would remain significant and unavoidable. In addition, the Final EIR identified potentially significant impacts associated with light and glare from the stations and tailtrack areas. Implementation of mitigation measures to ensure the compatibility of lighting levels would reduce potential impacts to less than significant. However, the glare associated with the Hillcrest Avenue Median Station parking lot was determined to be significant and unavoidable even after the implementation mitigation measures to screen the parking lot with landscaping. The Final EIR also identified potentially significant impacts associated with stockpiling and storage of materials and equipment during construction. However, mitigation measures proposed in the Final EIR would visually screen these areas from surrounding viewpoints reducing the impact to a less-than-significant level.

eBART Station Parking Lot. The significant visual impacts associated with the Hillcrest Avenue Station are due to the size and location of the parking lot. The Revised Project would shift the location of the station parking lot east of the location evaluated in the Final EIR and would raise the elevation of the parking lot with respect to the surrounding grade. A visual simulation of the station parking lot as envisioned under the Revised Project is provided in Figure 10. As shown in Figure 10, views from SR 4 toward the parking lot would be similar to the views shown in the Final EIR for the Hillcrest Avenue Median Station (Figure 3.5-9 in the Final EIR). The overall area and parking capacity would remain unchanged. The modified station parking lot would remain out of character with the surrounding undeveloped landscape. Therefore, the significant and unavoidable impacts identified in the Final EIR regarding the loss of rural character would be applicable to the Revised Project.

As shown in Figure 10, the parking lot at Hillcrest Avenue would be raised to accommodate the future extension of Viera Avenue from the north. Since this feature would be raised, it would be slightly more visible from SR 4 than the Adopted Project. However, views of the residential buildings to the north, beyond the Hillcrest Avenue parking lot, are currently interrupted by a series of transmission lines, although they are still visible. Therefore, the addition of the raised parking lot and roadways under the Revised Project would not further degrade the visual quality of the landscape.

Parking Lot Solar Panels. BART may include approximately 0.99 acres of photo voltaic panels over the central portion of the parking lot. As shown in the Final EIR, the parking lot for the Adopted Project would have a significant and unavoidable visual impact, due to the inconsistency with the visual character of the surrounding landscape. As shown in Figure 10, the photo voltaic panels would be visible within the proposed parking lot from SR 4, but would not add a conspicuous new visual element to the parking lot. As described above, even with mitigation, implementation of the proposed parking lot would remain a significant impact, but the impact would not be substantially more severe than that identified in the Final EIR due to the addition of the photo voltaic panels.

Existing View

Simulated View

Source: WKA, 2011.

NORTHWEST VIEW OF HILLCREST AVENUE STATION
FIGURE 10

Control and Maintenance Center and Extended Tailtracks. Figure 11 shows the Hillcrest Avenue Station and proposed Control and Maintenance Center as seen from the residential neighborhood to the northeast of the station. Repositioning of the Control and Maintenance Center closer to this residential area and excavation of the north side of the knoll would change the physical appearance of the facilities and landscape compared to the station options analyzed in the Final EIR. However, as shown in Figure 11, due to the distance of these facilities from the residential neighborhood, this element of the Revised Project would not be visually prominent. Impacts associated with views of the Control and Maintenance Center would remain the same as identified in the Final EIR.

Roads and Utilities. The Revised Project would change the alignment of the planned Slatten Ranch Road (compared to the Adopted Project) so that it follows the UPRR railroad tracks for its entire alignment. As shown in Figure 10, the parking lot at the Hillcrest Avenue Station would be raised to accommodate the future extension of Viera Avenue from the north. This would include elevation of the section of the access road and future Slatten Ranch Road adjacent to the parking lot. As noted above, these features would be slightly more visible from SR 4 than the Adopted Project due to the proposed elevation changes. However, views of the residential buildings to the north, beyond the Hillcrest Avenue parking lot, are currently obstructed by a series of transmission lines. Therefore, the addition of the raised parking lot and roadways under the Revised Project would not further degrade the visual quality of the landscape. The private access driveway adjacent to the Control and Maintenance Center would not be visible from the residential area northeast of the station, as shown in Figure 11. Therefore, realignment of Slatten Ranch Road would not create additional visual quality impacts from SR 4 or the residential area northeast of the station.

The utility pipelines would remain below grade after vertical relocation and would therefore not be visible from any view point.

Cumulative Impacts. The Adopted Project was found to have significant and unavoidable visual quality impacts associated with the parking lot. However, the addition of the elevated grade and photo voltaic panels do not render this impact substantially more severe than that studied in the Final EIR. Similarly, the cumulative analysis conducted in the Final EIR determined that the Adopted Project, in combination with other existing and foreseeable projects would have a significant and unavoidable impact on the conversion of undeveloped land to developed land. Again however, the additional impacts associated with implementation of the proposed changes to Hillcrest Avenue Station as evaluated in this Addendum would not render the contribution of the parking lot to cumulative impacts substantially more severe.

Cultural Resources

The Final EIR evaluated the operational and construction effects of the Adopted Project on archaeological and historic resources in the project corridor. The Final EIR determined that construction activities have the potential to damage or destroy undocumented archaeological resources. Adherence to the procedural construction requirements as part of the mitigation measures identified in the Final EIR would ensure that construction activities would have a less-than-significant impact on cultural resources.

Existing View

Simulated View

Source: WKA, 2011.

SOUTHWARD VIEW OF CONTROL AND MAINTENANCE CENTER
FIGURE 11

eBART Station Parking Lot. As described in the Project Description, the Revised Project would raise the parking lot above its existing elevation and shift the location of the parking lot east of the adopted Hillcrest Median Station option. In addition, the upper portion of the knoll located east of the proposed Control and Maintenance Center would be excavated to provide fill material for elevation of the parking lot. The revised footprint of the parking lot and the knoll slated for excavation are both within the general study area evaluated in the Final EIR. Therefore, the studies conducted in the Final EIR to determine the presence of cultural resources in the project area would also apply to the Revised Project. Similar ground-disturbing construction activities would be necessary for implementation of the Revised Project as required by the Adopted Project. Therefore, the Revised Project would result in the same impacts on historic or archeological resources in the vicinity of the Hillcrest Avenue Station as analyzed in the Final EIR, and mitigation measures proposed in the Final EIR would also reduce impacts from the Revised Project to a less-than-significant level.

Parking Lot Solar Panels. Under the Revised Project BART may elect to install photo voltaic panels in the central portion of the parking lot. Installation of photo voltaic panels would not require additional ground-disturbing activities beyond those evaluated above for the parking lot and would therefore have no additional impact on archaeological or historic resources.

Control and Maintenance Center and Extended Tailtracks. The Revised Project would expand the Control and Maintenance Center north and east from its original position adjacent to SR 4, but would remain within the general study area evaluated in the Final EIR. Excavation of the north side of the knoll to allow relocation of the Control and Maintenance Center would also occur within the general study area evaluated in the Final EIR. Therefore, this aspect of the Revised Project would not introduce new impacts to archaeological and historic resources not analyzed in the Final EIR, and mitigation measures proposed in the Final EIR would reduce impacts from the Revised Project to a less-than-significant level.

Roads and Utilities. As identified in the Project Description section of this Addendum, the Revised Project would change the alignment of the future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. This realignment would occur within the general study area evaluated in the Final EIR. As identified above, the studies conducted in the Final EIR to determine the presence of cultural resources in the project area would also apply to the Revised Project. Therefore, this modification to the Adopted Project would not introduce the potential for new impacts to archaeological and historic resources not analyzed in the Final EIR.

There are existing underground pipelines that cross north-south through the Hillcrest Avenue Station area. The revised parking lot would be located on top of these pipelines. Due to the added weight that would result from elevation of the parking lot, the existing pipelines would be abandoned in place, and new pipelines would be vertically relocated to match the new grade of the parking lot. Pipeline relocation would occur at the same time as construction of the parking lot and would not introduce additional ground-disturbing impacts beyond those identified above for the parking lot. Furthermore, implementation of the mitigation measures identified in the Final EIR would ensure that the Revised Project would not disturb or destroy undocumented archaeological resources that may be present in the vicinity of the Hillcrest Avenue Station.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to cultural resources. Implementation of the Hillcrest Avenue Median Station under the Revised Project was found to have no additional impacts on archaeological and historic resources beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative cultural resources impact would be less than significant.

Geology, Soils, and Seismicity

The Hillcrest Avenue Median Station is characterized by similar geologic conditions, paleontological resources, and seismic hazards as described above for the Pittsburg Railroad Avenue Station. In addition, excavation and grading activities at the Hillcrest Avenue Station would have the potential for similar soil erosion impacts as identified for the Railroad Avenue Station. As described above, mitigation measures and design standards identified in the Final EIR would reduce potentially significant geology, soils, and seismicity impacts to a less-than-significant level.

eBART Station Parking Lot. As described in the Project Description, the Revised Project would raise the parking lot above its existing elevation and shift the location of the parking lot east of the adopted Hillcrest Median Station option. The elevation of the station parking lot would require placement of approximately 260,000 cubic yards of fill across 13 acres. BART anticipates that the fill for the parking lot would be provided on-site by the material excavated from the north side and upper portion of the knoll. If the geotechnical conditions of the knoll make it undesirable as a source of fill, only the lower portion (necessary for relocation of the Control and Maintenance Center) of the knoll would be excavated, and the additional fill material needed for the parking lot elevation raise would be provided from an off-site location. Excavation and fill activities such as those described above could have potentially significant impacts with regard to slope and soil stability. However, applicable standards described in the Final EIR under Impact GEO-2 would ensure that the Revised Project would have a less-than-significant impact.

Parking Lot Solar Panels. The Revised Project may include installation of photo voltaic panels in the central portion of the parking lot. Installation of the photo voltaic panels would comply with the applicable standards described in the Final EIR under Impact GEO-2, thereby reducing impacts related to seismic hazards to less than significant.

Control and Maintenance Center and Extended Tailtracks. The new footprint of the Control and Maintenance Center would require substantial excavation, filling, and grading activities to the small knoll located east of the previously adopted footprint. Excavation of the knoll could result in significant impacts to soil erosion during construction activities. As described above, compliance with the applicable standards described in the Final EIR under Impact GEO-2would ensure that the Revised Project would have less-than-significant impacts.

Roads and Utilities. As identified in the Project Description section of this Addendum, the Revised Project would change the alignment of the future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. Construction of the first phase of Slatten Ranch Road and the proposed access road, as evaluated in this Addendum, would adhere to the applicable standards described in the Final EIR. Additionally, relocation of the existing pipelines

located beneath the Hillcrest Avenue Station footprint would be required to adhere to the applicable standards described in the Final EIR under Impact GEO-2. Therefore, this aspect of the Revised Project would not create additional impacts to the Adopted Project.

Cumulative Impacts. Potential geo-seismic impacts are site-specific and dependent on the underlying soils and geologic materials in a particular location. However, the cities of Pittsburg and Antioch share similar types of soils and geologic materials, providing the appropriate context for evaluating the geo-seismic impacts of the Revised Project in combination with other foreseeable projects is the area. As described above, during construction, the Revised Project would adhere to engineering design standards and principles that are intended to avoid structural failure from soil limitations and geologic hazards. Other foreseeable projects as well as the Revised Project would be constructed to an acceptable standard of safety, and soil erosion would be reduced through compliance with the Statewide NPDES program. Therefore, the incremental increase in less-than-significant geo-seismic and construction impacts associated with the Revised Project would be less than cumulatively considerable.

Hydrology and Water Quality

The Final EIR described the existing hydrology and water quality conditions along the project corridor, and examined the Adopted Project with respect to potential impacts on surface water quality, groundwater, flooding, hydrology, and stormwater runoff. Since these analyses were conducted for the Final EIR, there have not been any substantial hydrologic changes in the project area.

Construction activities associated with the Hillcrest Avenue Station and ancillary facilities could have potentially significant impacts primarily related to soil erosion and siltation and the violation of water quality standards. Construction of the Hillcrest Avenue Station would involve substantial ground-disturbing activities that could expose soils and soil stockpiles to erosion. The process of sedimentation affects water quality through interference with dissolved oxygen levels and through habitat degradation for aquatic species. Additionally, the delivery, handling, and storage of construction materials and wastes, as well as the use of construction equipment, could result in accidental releases of oil and grease, hydrocarbons, and other pollutants. Through implementation of BMPs targeted at reducing sedimentation and water quality degradation, in combination with mitigation measures described in the Final EIR, potential impacts to hydrology and water quality within the project site and surrounding area would be reduced to a less-than-significant level.

As determined by the Final EIR, operation of the Adopted Project would have potentially significant impacts related to the increased volume and pollutant load of stormwater runoff from impervious surfaces associated with the Hillcrest Avenue Station. In anticipation of these potentially significant events, the Final EIR identified the following design measures to mitigate excessive stormwater runoff. The parking lot at the Hillcrest Avenue Station would include bioswales to capture and treat surface water runoff. Additional runoff from the parking lots, Control and Maintenance Center, and Slatten Ranch Road would be accommodated by a proposed Contra Costa County Flood Control and Water Conservation District (CCCFCWCD) detention basin to reduce peak runoff. These design protocols are further supported by mitigation measures, which have been updated as part of this Addendum, that would ensure that BART comply with stormwater permit requirements, including preparation of a

stormwater management plan that identifies BMPs to reduce stormwater pollution. The following are several BMPs that may be included:

- strip retention system to treat runoff prior to discharge;
- oil/water separators to prevent contaminated stormwater from entering drainage system;
- construction of additional detention basins and/or use of pervious pavement in order to allow infiltration of stormwater into the soil where runoff could be filtered naturally and pollutants removed; and
- installation of rain barrels near the roofs at the Median Station and/or maintenance facilities.[7]

Adherence to these design and mitigation measures would reduce potential impacts to less than significant.

eBART Station Parking Lot. Under the Revised Project, the Hillcrest Avenue Station parking lot would be shifted east by 800 feet, no longer utilizing the existing park-and-ride lot adjacent to Hillcrest Avenue, since the existing park-and-ride lot would fall within the area proposed for the Hillcrest Avenue interchange improvements. The proposed parking lot modification would increase impervious surface cover by 5 percent over the Adopted Project. The Final EIR determined that the potential for significant impacts to stormwater runoff would be reduced to less than significant with implementation of bioswales and an on-site detention basin. The quantification of runoff volumes and rates in order to design effective detention and drainage facilities is required by the state stormwater permit. The affects of the Revised Project on impervious surfaces would be included in these calculations to ensure that the design and BMPs would reduce all impacts to a less-than-significant level.

Furthermore, an additional 60,000 cubic yards of fill material may be excavated from the upper portion of the knoll for the purpose of the parking lot grading. The construction activities required to elevate the parking lot above the existing grade, including excavation of the upper portion of the knoll, would expose substantial amounts of soil to erosion as compared to the Adopted Project. However, compliance with the Statewide NPDES permit and implementation of a SWPPP by BART's contractor would reduce potential water quality impacts to a less-than-significant level.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the station parking. Implementation of photo voltaic panels would not require ground disturbing activities and would not increase the amount of impervious acreage at the Hillcrest Avenue Station. Therefore, this aspect of the Revised Project would have no impact on hydrology and water quality.

Control and Maintenance Center and Extended Tailtracks. The Revised Project would also increase the level and intensity of ground disturbing construction activities associated with construction of the Control and Maintenance Center. In order to accommodate the re-positioning of the Control and Maintenance Center and maintain a level footprint, the north side of a small knoll would be excavated. The excavated material would be transported to the station parking lot where it would be used as fill to elevate the lot. The activities associated with excavation of the knoll could have the potential to expose soils to erosion, leading to increased sedimentation of nearby water bodies. However, the mitigation

[7] Aboveground water storage container that captures runoff from the roof.

measures in the Final EIR would be sufficient to reduce risk of water quality violations and the generation of increased sediment loads to a less-than–significant level.

As noted, the knoll to the south of the drainage will be graded to provide a level footprint for the extended tailtracks. The regrading of the knoll would result in a decrease in the surface area of the watershed feeding the drainage and adjacent marsh. No direct impacts would occur to either the drainage, or the adjacent marsh, but the grading of the knoll would result in a change to the hydrology feeding those features. In an effort to determine if this change would be likely to significantly alter the hydrology of these features, a hydrologic analysis was conducted by BART engineers to estimate how much of the knoll currently provides runoff to the drainage and marsh, and what the change would be if the proposed grading takes place. Based on the proposed grading, it is estimated that approximately 6.60 acres of the knoll currently provides runoff that drains to the adjacent drainage/marsh. After the proposed grading, that area would be reduced to 5.03 acres, a decrease of 1.57 acres (approximately 24 percent), of the surface area that currently provides runoff to these features. While a 24 percent decrease in surface runoff would be significant if it were the only source of runoff for these features, the drainage and adjacent marsh also receive runoff from the adjacent knoll to the east and from the entire watershed of the drainage to the south. The change in surface area of 1.57 acres would be substantially less than the entire watershed for this feature based on a review of topographic mapping of the area. The basin to the east of the marsh has a surface area of approximately 6.2 acres, and the basin to the south of the marsh has a surface area of approximately 136.68 acres. Calculations of flows during storm events both before and after the excavation demonstrate that the existing flow is approximately 87.36 cubic feet per second in a 10-year storm event and 145.44 cubic feet per second in a 100-year storm event. Since none of the remaining areas of the watershed that feed the drainage/marsh would be affected by the Revised Project, the change due to the excavation would be quite small. Subsequent to the excavation, the combined flows from all drainages would be approximately 86.45 cubic feet per second in a 10-year storm event and 143.91 cubic feet per second in a 100-year storm event. Therefore, the proposed grading of the knoll would not have a significant effect on the water supply to the drainage and adjacent marsh.

Roads and Utilities. As identified in the Project Description section of this Addendum, the Revised Project would change the alignment of the access road and future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. Realignment of the roadway would not substantially change the associated construction activities or amount of impervious acreage previously considered in the Final EIR. In addition, modification of the existing utilities located beneath the Hillcrest Avenue Station footprint would be undertaken concurrently with construction of the parking lot. Furthermore, because the existing pipelines would be abandoned in place, the utility modifications would not require additional ground-disturbances (i.e., excavation) beyond those evaluated for the Station parking lot.

Cumulative Impacts. Implementation of the Hillcrest Avenue Station, as evaluated in this Addendum, would result in an increase in impervious surface cover and exposed soil, both of which have the potential to adversely affect hydrology and water quality. However, the Revised Project would adhere to all of the mitigation measures identified in the Final EIR, thereby reducing stormwater runoff and construction related surface runoff to a less-than-significant level. It is anticipated that other existing and foreseeable projects would be required to comply with the Statewide NPDES program described above. The Final EIR determined that the Adopted Project would have a less than cumulatively

considerable impact related to hydrology and water quality. Similarly, the incremental increase of hydrology and water quality impacts associated with construction and operation of the Revised Project would not trigger a significant cumulative impact. This aspect of the Revised Project would be less than cumulatively considerable.

Biological Resources

The Final EIR evaluated the biological resources along the project corridor and the potential for the Adopted Project to disturb sensitive biological species and habitats. The Final EIR determined that operation of the Adopted Project would have a less-than-significant impact on biological resources in the project corridor. However, construction of the Revised Project would have the potential to result in potentially significant impacts to foraging habitat for certain bird species. Potential construction impacts to wildlife would be localized to the Hillcrest Avenue Station area as this is the section of the project corridor in which suitable habit for wildlife species is present.

The Biological Resources analysis conducted in the Final EIR identified a number of special-status nesting birds, such as the Swainson's hawk and burrowing owl, in the vicinity of the Hillcrest Avenue Station. The area surrounding the proposed station footprint contains grasslands/ruderal vegetation, trees, and coastal/valley freshwater marsh habitats, which are indicators for the presence of nesting birds. Construction of the Hillcrest Avenue Station could potentially result in the loss of foraging habitat for Swainson's hawk and active nest sites for other special-status birds. Section 3.9 of the Final EIR provides a list of mitigation measures that would reduce the potential impacts to foraging and nesting habit to a less-than-significant level. In addition, the eBART Project is a Covered Project under the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP) and is included in the inventory area for which the Plan would grant compensation, avoidance, and minimization of impacts for covered species. Since adoption of the Final EIR and MMRP, BART has elected to participate in the HCP, and therefore, construction for the eBART Project will be in compliance with the applicable measures in the Final EIR related to the provisions of the HCP, such as those described in Mitigation Measure BIO-4.5 in the Final EIR.

Construction of the Hillcrest Avenue Station may require the removal of trees. Although BART is exempt by State law from compliance with local land use requirements, BART considers loss of protected trees a significant impact. In order to minimize impacts to trees, BART would employ a certified arborist to survey and evaluate trees before their removal, and replacement trees would be planted at a 1:1 or 3:1 ratio.

The Final EIR evaluated impacts from all of the station options proposed for the Hillcrest Avenue Station. These station options were located within the general study area bounded by Hillcrest Avenue, SR 4, SR 160, and the UPRR tracks. The Revised Project would not introduce new project components for the Hillcrest Avenue Station located outside of the general study area analyzed in the Final EIR.

eBART Station Parking Lot. Under the Revised Project, the station parking lot would remain within the site area previously analyzed for vegetative communities and wildlife after minor relocation. Shifting the station parking lot footprint would impact a slightly different area of sensitive habitat, and the acreage of the parking lot would increase by 0.7 acres. However, the area that would be impacted by the revised parking lot is characterized by similar biological resources as evaluated in the Final EIR.

The revised parking lot would result in a slightly greater area of impact than the Adopted Project, and would not extend into new wildlife habitat beyond that evaluated in the Final EIR. To compensate for the additional habitat impact on the knoll, BART will incorporate the additional area of the knoll into its agreement under the HCP, thereby reducing significant impacts to a less-than-significant level.

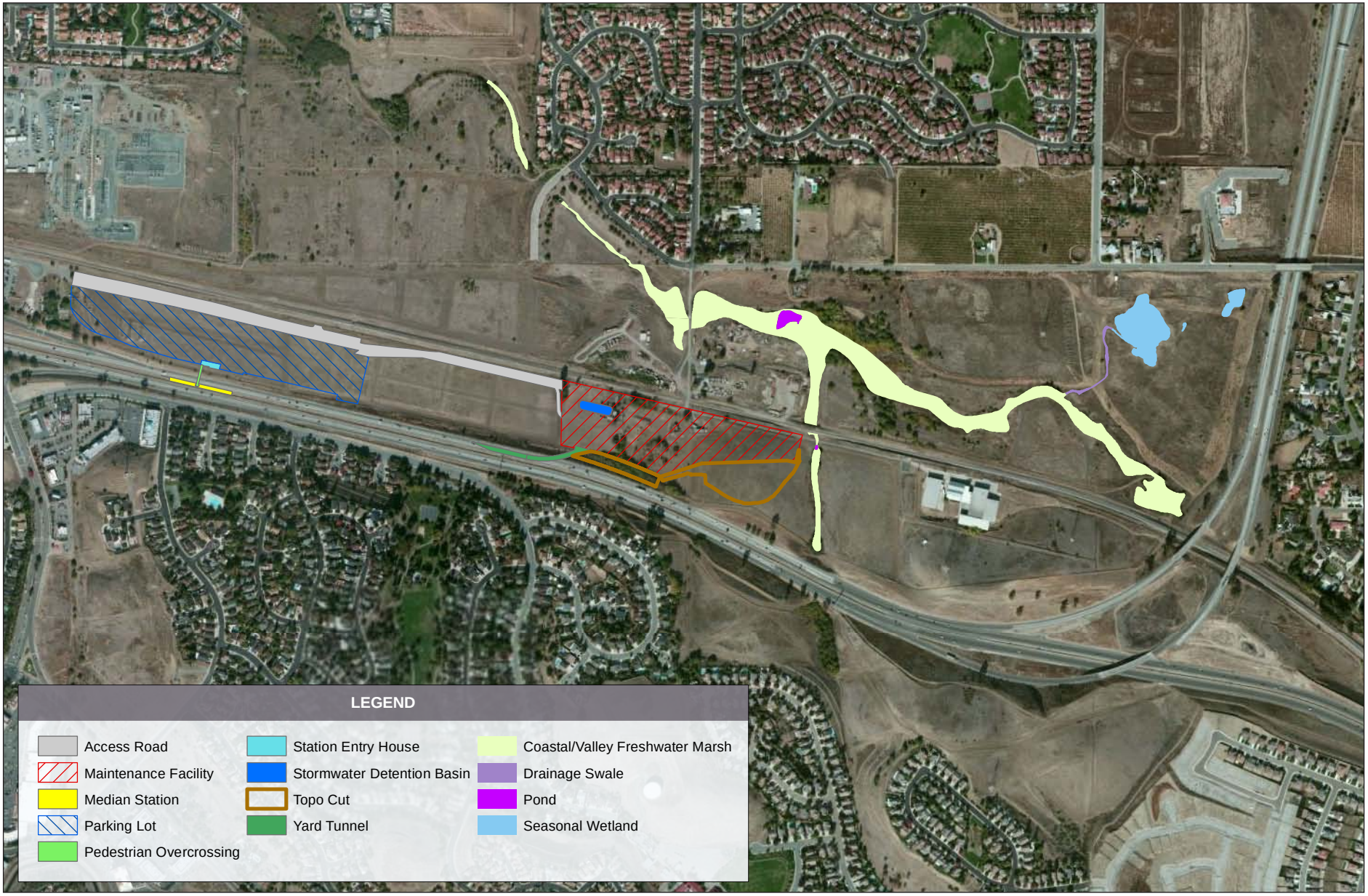
Additionally, elevation of the parking lot would require excavation of the upper portion of the knoll located east of the Control and Maintenance Center. As identified in the analysis of the Control and Maintenance Center, below, the knoll contains nesting and foraging habitat for special status species. This aspect of the Revised Project would comply with all mitigation measures related to biological resources described in the Final EIR, thereby reducing direct and indirect impacts to special status species to less than significant.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the station parking lot. Because these photo voltaic panels would be located in an area slated for construction they would have no impact on special status species or sensitive habitat.

Control and Maintenance Center and Extended Tailtracks. During a site visit at the Hillcrest Avenue Station nesting habitat for burrowing owls was identified on the knoll located in the eastern portion of the station footprint where proposed excavation would occur.[8] The knoll also provides foraging habitat for Swainson's hawk. The Revised Project includes a plan to excavate and grade the north side of the knoll to accommodate the proposed relocation of the Control and Maintenance Center. Shifting the footprint of the proposed Control and Maintenance Center to the east would impact a slightly different area of pasture land. However, applicable mitigation measures identified in the Final EIR for the Adopted Project related to protection of special status species and associated habitat would apply to the Revised Project, thereby reducing potential impacts to less than significant. To compensate for the additional habitat impact on the knoll, BART will incorporate the additional area of the knoll into its agreement under the HCP, thereby reducing significant impacts to a less-than-significant level.

As identified in Figure 3.9-4 of the Final EIR, there is a north to south oriented section of coastal valley freshwater marsh located adjacent to the east side of the knoll proposed for excavation. However, as shown in Figure 12, the Control and Maintenance Center and associated trackwork would not encroach on the freshwater marsh. Proposed excavation activities and operation of the Control and Maintenance Center could result in potentially significant water quality impacts on the adjacent freshwater marsh. However, mitigation measures identified in the Final EIR would reduce soil erosion and stormwater runoff impacts from the Control and Maintenance Center to a less-than-significant level. In addition, the proposed grading activities could affect the volume of stormwater runoff that feeds the freshwater marsh. However, as described above under Hydrology and Water Quality, the change in surface area due to the grading activities would be a decrease of approximately 1.57 acres (24 percent) of the surface area that currently provides runoff to these features. While a 24 percent decrease in surface runoff would be significant if it were the only source of runoff for these features, the drainage and adjacent marsh also receive runoff from the adjacent knoll to the east and from the entire watershed of the drainage to the south. While the surface area of the entire watershed was not quantified, the change in surface area of 1.57 acres would be substantially less than the entire watershed for this feature, as described in greater detail above under Hydrology and Water Quality.

[8] PBS&J conducted a site reconnaissance on April 11, 2008.



Source: BART, 2011; BKF, 2007; PBS&J, 2011.

SENSITIVE HABITAT IN THE VICINITY OF THE REVISED HILLCREST AVENUE STATION

FIGURE 12

None of the remaining areas of the watershed that feed the drainage/marsh would be affected by the Revised Project; therefore, it is unlikely that the proposed grading of the knoll would have a significant effect on the water supply to the drainage and adjacent marsh.

Roads and Utilities. As identified in the Project Description section of this Addendum, the Revised Project would change the alignment of the access road and future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. The portion of the Hillcrest Avenue Station footprint through which both the original and revised alignment of Slatten Ranch Road travels is characterized by pasture land, as identified in Figures 3.9-01B and C of the Final EIR. Because the alignment areas are characterized by similar vegetative communities, its suitability as foraging and/or nesting habitat and the occurrence of special status species would be similar under both the Adopted Project and Revised Project alignments. Therefore, the realignment of Slatten Ranch Road would not result in additional biological impacts beyond those identified in the Final EIR. This aspect of the Revised Project would therefore result in the same impacts on biological resources as determined in the Final EIR. Modification of the existing utilities located beneath the Hillcrest Median Station would be undertaken concurrently with construction of the parking lot. Therefore, utility modifications would not introduce additional impacts to biological resources.

Cumulative Impacts. The Revised Project would result in an incremental increase in less-than-significant impacts to biological resources as compared with the Adopted Project for nesting birds and indirect impacts to the adjacent freshwater marsh. As noted in the Final EIR, historical development from projects throughout east Contra Costa County have encroached upon and displaced biological resources within the area. The Revised Project would contribute to the significant impacts to special status species identified in the Final EIR. These impacts would also occur during construction of other foreseeable projects in east Contra Costa County. The mitigation measures proposed in the Final EIR for the Adopted Project would also apply to the Revised Project, which would reduce the Revised Project's incremental contribution to the loss of special-status species and their habitat. The mitigation measures would reduce the Revised Project's contribution to less than cumulatively considerable. In addition, mitigation measures identified for protected bird species, including burrowing owls, are applicable to other development projects that may affect these species. As a result, cumulative impacts to special status wildlife species would be reduced to less than significant.

Noise and Vibration

As identified in the Project Description, the Revised Project would introduce several changes to the design and construction of the Hillcrest Avenue Station. Activities associated with the Revised Project that were not analyzed in the Final EIR include the excavation of the knoll, raising the elevation of the parking lot, the relocation of the existing pipelines, and the operation of a wheel-truing machine in the Control and Maintenance Center. Table 3.10-18 and Table 3.10-19 of the Final EIR identify the distances at which significant noise and vibration impacts would occur from the various construction activities involved in the Adopted Project. The use of impact pile drivers, which have the greatest potential for significant noise and vibration impacts, is not necessary for the above mentioned construction activities.

eBART Station Parking Lot. Relocating the parking lot 800 feet east of Hillcrest Avenue will increase the separation distance between construction activities and the commercial and institutional

uses west of Hillcrest Avenue. As identified in the Project Description, excavated material from the knoll may be transported to the parking lot to be used as fill material. Truck trips for transporting excavation material would travel generally along the east-west corridor south of the UPRR railroad tracks where the maintenance facility access driveway would be constructed. Trucks traveling along this corridor would remain outside the range of potentially significant noise and vibration impacts described in the Final EIR to the closest sensitive receptors (i.e., residential areas). In addition, construction activities under the Revised Project would adhere to the same mitigation measures identified in the Final EIR, which would further reduce construction generated noise and vibration. If all 260,000 cubic yards of fill were excavated from the knoll, and assuming trucks with a maximum capacity of 20 cubic yards are used and a 15 percent compaction rate, approximately 14,950 truckloads would be required to transport the fill. As noted, these trips would remain within the proposed construction area and would not approach sensitive receptors; therefore, there would be no additional impacts to off-site receptors.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the parking lot. Because the photo voltaic panels would be located on the parking lot, construction activities necessary for their implementation would be outside the range of significant noise and vibration impacts.

Control and Maintenance Center and Extended Tailtracks. Shifting the Control and Maintenance Center footprint north by 150 feet will increase the separation distance from the residential area south of SR 4. However, the eastern boundary of the Control and Maintenance Center and extended tailtracks would be approximately 3,500 feet from the nearest residential area, east of SR 160. Based on Table 3.10-18 and Table 3.10-19 in the Final EIR, equipment operations required to excavate the knoll east of the maintenance facility would be located outside the range of potentially significant noise and vibration impacts for nearby residential uses. The proposed wheel-truing machine would be located in a pit inside of a maintenance building in the Control and Maintenance Center, which is located approximately 1,110 feet from a residential neighborhood on Oakley Road to the north and approximately 650 feet from a residential neighborhood on Bluebell Circle to the south. Access for the rail vehicles to the maintenance building would be provided by rolling doors at either end of the building; when the doors are open, noise would emanate from the large portals. The building would be long enough to accommodate one vehicle with both doors closed. However, based on data from other BART maintenance facilities it is common practice to keep the doors open, especially during the warmer months of the year. Noise measurements taken at other BART maintenance facilities[9] indicate that noise from the wheel truing activities can generate noise levels up to 70 dBA at 30 feet from the building when the doors are open. At the closest sensitive receptors (650 feet), this noise level would be less than 45 dBA. Therefore, because this maintenance activity is located at considerable distance from the nearest residential area, the wheel truing machine would have a less–than-significant impact on nearby sensitive receptors.

Roads and Utilities. As identified in the Project Description section of this Addendum, the Revised Project would change the alignment of the access road and future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. The revised alignment of future Slatten Ranch Road would be located along the northern boundary of the Hillcrest

[9] Wilson Ihrig Associates, BART Concord Yard Wheel Truing Facility Project, Noise Assessment, 2011.

Station footprint approximately 921 feet from the nearest residence. Therefore, operational and construction-related noise would be outside the range of potential impacts as identified in Section 3.10, Noise and Vibration, of the Final EIR.

In addition, relocation of existing pipelines located beneath the Hillcrest Avenue Station would be undertaken concurrently with construction of the parking lot. As described above the proposed station parking lot would be located outside the range of potential construction related noise; and therefore, utility modifications would not introduce additional noise impacts to nearby sensitive receptors.

Cumulative Impacts. The Final EIR determined that the Adopted Project would result in significant and unavoidable cumulative impacts with regard to noise and vibration. Implementation of the Hillcrest Avenue Station under the Revised Project was found to have no additional impact on noise and vibration beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would remain cumulatively considerable and the cumulative noise and vibration impact would be significant and unavoidable.

Air Quality

The previously adopted Hillcrest Avenue Median Station would have similar operational and construction related air quality impacts as described for the Pittsburg Railroad Avenue Station above. Construction activities associated with the Hillcrest Avenue Station would be subject to the construction emissions reduction plan identified in the Final EIR. Adherence to this plan would reduce construction related air pollution to a less–than-significant level. This section of the Addendum evaluates potential air quality impacts related to implementation of the modifications to the Hillcrest Avenue Station under the Revised Project. Operation of the Hillcrest Avenue Station after implementation of the Revised Project would be unchanged as compared to the Adopted Project. As identified in the Project Description above, the primary effects of the Revised Project would be the slight relocation of the station parking lot and Control and Maintenance Center.

eBART Station Parking Lot. Under the Revised Project, the Station parking lot would be shifted slightly east and raised above the existing elevation, which would require additional grading and fill activities. The modified parking lot would provide the same amount of parking spaces as specified in the Project Description above. With regard to operation of the Revised Project, the parking lot relocation would not introduce new impacts not evaluated in the Final EIR.

With regard to construction related air quality impacts, as noted in the Project Description, the additional 260,000 cubic yards of fill that would be needed for the raised parking lot may be obtained from the excavation of the knoll on the east end of the project site and would generate approximately 14,950 truckloads all traveling within the Station site. The construction activities associated with the modified parking lot would be subjected to the same equipment exhaust and fugitive dust mitigation measures as described in Section 3.11, Air Quality, of the Final EIR. Implementation of these mitigation measures would reduce construction emissions from the Revised Project to a less-than-significant level.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the parking lot. Installation of the photo voltaic panels would require minor construction activities and would not result substantial ground disturbance. Furthermore, all construction activities associated

with the Revised Project would be subjected to the equipment exhaust and fugitive dust mitigation measures as described in the Final EIR. Therefore, this aspect of the Revised Project would have no impact on air quality.

Control and Maintenance Center and Extended Tailtracks. The Revised Project would shift the footprint of the Control and Maintenance Center requiring more intensive excavation and grading activities for the adjacent knoll than required by the Adopted Project. However, the construction activities associated with construction of the Control and Maintenance Center would be subjected to the same equipment exhaust and fugitive dust mitigation measures as described in Section 3.11, Air Quality, of the Final EIR. Implementation of these mitigation measures would reduce construction emissions from the Revised Project to a less-than-significant level.

Roads and Utilities. As identified in the Project Description section of this Addendum, the Revised Project would change the alignment of the access road and future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. The overall size and extent of the Slatten Ranch Road alignment, as evaluated in the Revised Project, would be similar to that which was assessed for the Adopted Project. Therefore, construction of the modified Slatten Ranch Road would have similar operational and construction related air quality impacts as described in the Final EIR. Construction of the first phase of Slatten Ranch Road, under the Revised Project, would be subject to the Air Quality Construction Control Measures identified by the BAAQMD and provided in the Final EIR. Implementation of the mitigation measures described in Section 3.11, Air Quality, of the Final EIR would reduce construction emissions from the Revised Project to a less-than-significant level.

In addition, relocation of existing pipelines beneath the Hillcrest Avenue Station site would be undertaken concurrently with construction of the parking lot. Construction equipment and activities necessary for relocation of the existing pipelines would comply with the Air Quality Construction Control Measures identified in the Final EIR. This impact would be less than significant.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to air quality. Implementation of the Revised Project would have an incremental increase in construction impacts to air quality as compared with the Adopted Project. However, as with the Adopted Project, implementation of the mitigation measures described in Section 3.11 of the Final EIR would reduce construction emissions of the Revised Project to less than cumulatively considerable and the cumulative air quality impact would be less than significant.

Public Health and Safety

The Final EIR described hazards that may exist along the project corridor and the potential for these hazards to adversely affect public health and safety. Hazardous materials associated with vehicle maintenance would be used and/or stored pursuant to all hazardous material handling/disposal regulations, such as the Resource Conservation and Recovery Act (RCRA) and the California Hazardous Waste Control Law. BART would be required to develop a Hazardous Materials Business Plan with local oversight from Contra Costa County, which lists quantities of hazardous materials above specified thresholds and emergency response procedures. As part of mitigation requirements in the Final EIR, BART would prepare and implement a Spill Prevention Plan outlining measures that

would be in place to control hazardous materials use and storage. The combination of the above mentioned emergency response plans and government oversight would reduce significant impacts to a less-than-significant level.

A Phase I environmental site assessment was conducted of the properties included in the Hillcrest Avenue Station site under the Revised Project.[10] The Phase I report identified a number of environmental conditions that could potentially affect soil and groundwater on the properties, including past use of agricultural chemicals, potential contamination from historic railroad operations and leaks from petroleum pipelines along the UPRR right-of-way, existing residential buildings potentially containing asbestos and lead-based paint, trash piles and four abandoned 55 gallon drums, and aerially-deposited lead in the areas adjacent to SR 4. In response to these findings, BART currently is conducting a site-specific Phase II soil and groundwater investigation of the Hillcrest properties. If hazardous materials are identified in soil and groundwater at levels that present a public health risk, remediation would ensue before construction activities could begin, as required by Mitigation Measure HS-8.3 in the Final EIR.

eBART Station Parking Lot. The modified Station parking lot would remain within the project area analyzed in the Final EIR. As such, the findings from Phase I Site Assessment detailed in the Final EIR for the Adopted Project would also apply to the Revised Project.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the parking lot. Implementation of photo voltaic panels would involve ground disturbing activities within the project area analyzed in the Final EIR. As such, the findings from Phase I Site Assessment detailed in the Final EIR for the Adopted Project would also apply to the Revised Project.

Control and Maintenance Center and Extended Tailtracks. The Phase I environmental site assessment identified a number of environmental conditions affecting the parcel which contains the knoll, including potential contamination from historic railroad operations and leaks from petroleum pipelines along the UPRR right-of-way. In addition, during the geotechnical investigation in the area of the UPRR right-of-way, an odor of petroleum hydrocarbons was detected in one of the soil borings. The Control and Maintenance Center site is located near the UPRR right–of-way, which extends along the northern border of the parcel. However, contaminants from railroad operations and leaking pipelines would spread downslope and laterally in the direction of groundwater flow, which is generally to the north. Contaminants would not move up the knoll, in the opposite direction and uphill, and no evidence of petroleum or other contaminants was detected in the extensive geotechnical investigation on the knoll itself. Accordingly, the prospect that significant contaminants might be present in the knoll soils to be excavated for the Control and Maintenance Center and for fill for grading the parking lot, above the elevation of the UPRR right-of-way and pipelines, is considered remote. Nevertheless, if significant contaminants are identified during the Phase II site investigation or construction, Mitigation Measure HS-8.3 in the Final EIR would apply. BART would prepare and implement a Remedial Action Plan and, depending on contaminant levels, might perform on-site remediation and/or cap the contaminated area beneath the regraded Control and Maintenance Center site, subject to the approval of County Environmental Health Department. BART would also consider

[10] Camp Dresser McKee, eBART Phase I Environmental Site Assessment, Parcels P-5020, P-5030, P-5040, P-5050 and P-5060, Antioch, California (February 25, 2011).

redesigning the Control and Maintenance Center and tail tracks to avoid any contaminant "hot spot" areas if feasible.

The Phase I report also identified a nearby former aluminum slag/scrap sorting facility, Metallics Refining Inc., which could be a source of contaminants further to the east from the knoll excavation site. However, this facility is also below the elevation of the knoll and would not be expected to affect soil or groundwater on the knoll. In addition, the knoll parcel may be affected by aerially-deposited lead. However, lead contamination would be concentrated at the south margin of the parcel adjacent to SR 4, on the opposite side of the knoll from the excavation area.

Roads and Utilities. As identified in the Project Description section of this Addendum, the Revised Project would change the alignment of the access road and future Slatten Ranch Road (as compared to the alignment evaluated in Final EIR). The alignment under the Revised Project would follow the UPRR railroad tracks for its entire alignment, rather than turning south towards SR 4. Realignment of Slatten Ranch Road and relocation of the existing pipelines would occur within the project area analyzed in the Final EIR. As such, findings from the Phase I Site Assessment detailed in the Final EIR would also apply to the Revised Project. Furthermore, ground-disturbing activities associated with the construction of the first phase of Slatten Ranch Road and relocation of the existing pipelines would be subject to all mitigation measures identified in Section 3.12, Hazards and Hazardous Materials, of the Final EIR. The above mentioned components of the Revised Project would not introduce additional impacts related to public health and safety that were not assessed in the Final EIR.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to public health and safety. Implementation of the Revised Project was found to have an incremental increase in less-than-significant impacts to public health and safety as compared with the Adopted Project. However, as with the Adopted Project, implementation of the mitigation measures described in Section 3.12 of the Final EIR would reduce potential for exposure of construction workers and the public to hazardous materials to less than cumulatively considerable and the cumulative public health and safety impact would be less than significant.

Community Services

The Revised Project does not introduce changes to the size or location of the Hillcrest Avenue Station, and proposed modifications are limited to parking lot design, Control and Maintenance Center footprint, utilities modifications, and improvement of Sunset Drive. The Revised Project would not increase the number of BART personnel or the expected level of ridership at the Hillcrest Avenue Station. Therefore, the police and fire services identified in the Final EIR would have sufficient capacity to serve the Hillcrest Avenue Station as implemented under the Revised Project. Additionally, the Revised Project would not change the expected construction-related impacts to roads and freeways in the project area. The mitigation measures identified in Section 3.2, Transportation, of the Final EIR would reduce these potential impacts to less than significant.

eBART Station Parking Lot. Under the Revised Project the station parking lot would be shifted slightly east and raised above the existing elevation. Parking lot capacity would remain unchanged, and would not change the number of people accessing the site on a daily basis. Therefore, this aspect of the Revised Project would have no impact on community services.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the parking lot. Implementation of photo voltaic panels would not require additional police, fire, or other emergency services and would not interfere with the provision of these services. Therefore, this aspect of the Revised Project would have no impact on community services.

Control and Maintenance Center and Extended Tailtracks. Relocation of the Control and Maintenance Center, including necessary site preparation activities, would not introduce new employees or activities not anticipated under the Adopted Project. Therefore, the Revised Project would not result in the need for additional community services at the Hillcrest Avenue Station, and this impact would be less than significant.

Roads and Utilities. The Revised Project would change the alignment of the planned Slatten Ranch Road. Realignment of future Slatten Ranch Road would not create the need for additional police, fire, or emergency services. This aspect of the Revised Project would have no impact on community services.

In addition, because the existing underground pipelines that cross the Hillcrest Avenue Median Station footprint are located beneath the proposed parking lot location, they would be vertically relocated concurrently with construction of the parking lot. Relocation of the existing pipelines would not create the need for additional police, fire, or emergency services. This aspect of the Revised Project would have no impact on community services.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to community services. Implementation of the Revised Project was found to have no additional impact on community services beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative community services impact would be less than significant.

Utilities

The Final EIR described the location of existing utility lines and evaluated how construction and operation of the Adopted Project could interrupt or damage the proper functioning of these lines. Ground disturbing activities outside of the SR 4 median (i.e. construction of the Hillcrest Avenue Station parking lot and Control and Maintenance Center) could conflict with underground utilities resulting in a significant impact on service. Under California Government Code (Sections 4216-4216.9) BART would be required to notify and coordinate with the affected utility providers prior to beginning construction. The mitigation measures identified for the Adopted Project would ensure that potential impacts to utilities outside of the SR 4 median would be reduced to a less-than-significant level.

eBART Station Parking Lot. Utilities for modifications to the Station, including water, sewer, stormwater, and power would be extended from Hillcrest Avenue. Demand for these utilities would be similar to that which was described in the Final EIR, except the Revised Project would also include a public restroom in addition to staff restroom facilities. If the public restrooms are not constructed as part of the Revised Project, the water needs of the station would be as characterized in the Final EIR, including staff restrooms, drinking fountains, and landscaping for parking areas. The addition of public restrooms would add to the Station's water supply demand. Based upon the water demand and

patronage at the El Cerrito Del Norte BART Station, water use is estimated at approximately 0.3 gallons per patron.[11] Assuming a maximum of 8,482 patrons per day at the Hillcrest Avenue Station, water use would be approximately 2,550 gallons per day or approximately 930,000 gallons annually. In addition, the Control and Maintenance Center is expected to utilize 640 gallons per day for train washing activities, resulting in a total of 1,163,600 gallons annually for the Station and the train washing. A typical California household utilizes between 163,000 and 326,000 gallons per year. Therefore, the water demand for the Station, including public restrooms, plus train washing is equivalent to that of approximately 7 households, representing a less-than-significant impact.

Wastewater for uses at the parking lot, including uses for the station entry house, would be connected to Antioch sewer system near the Hillcrest Avenue intersection. The additional wastewater treatment demand associated with the Revised Project would be similar in quantity to the additional water supply demand, as noted above. The Final EIR notes that Delta Diablo Sanitation District, the wastewater provider in the City of Antioch, would have available treatment capacity and has the ability to accommodate future flows. Elevation and relocation of the station parking lot would require ground-disturbing activities that may result in significant impacts to utility services. However, the Revised Project would comply with all mitigation measures identified in the Final EIR, thereby reducing significant impacts to a less-than-significant level.

Furthermore, there are existing underground pipelines that cross north-south below the proposed parking lot. Because these pipelines are not constructed to support the additional weight that would result from elevation of the parking lot, BART has proposed to vertically relocate the section of these pipelines that runs underneath the parking lot. Modification of the existing underground pipelines is a separate component of the Revised Project, and is further discussed below. Adherence to the mitigation measures identified in the Final EIR, as well as implementation of the pipeline relocation component of the Revised Project would ensure that construction of the parking lot has a less-than-significant impact on existing underground water pipelines.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the parking lot. Implementation of these photo voltaic panels would not increase the demand for utilities and therefore would have no impact.

Control and Maintenance Center and Extended Tailtracks. Under the Revised Project the Control and Maintenance Center would be shifted east in comparison to the footprint evaluated in the Final EIR. In addition, a wheel-truing machine would be installed in one of the maintenance buildings at the Control and Maintenance Center. The wheel-truing machine would not generate additional water or wastewater demands, and no additional maintenance activities that would generate a substantial water or wastewater demand would occur under the Revised Project. As identified above, ground breaking activities outside of the SR 4 median could conflict with underground utilities resulting in a significant impact on service. However, the mitigation measures identified previously would ensure that potential impacts to utilities outside of the SR 4 median would be reduced to a less-than-significant level.

Roads and Utilities. The Revised Project would change the alignment of the future Slatten Ranch Road. The overall size and extent of future Slatten Ranch Road would be the same as considered in the

[11] BART and US FTA, BART-San Francisco Airport Extension Draft Environmental Impact Report/Technical Appendix, January 1995, p. 3.5-10. Patronage at El Cerrito Del Norte BART Station estimate based on March 2011 of 14,475 entries and exits.

Final EIR. Furthermore, construction of the first phase of Slatten Ranch Road, as evaluated in this Addendum, would require the same ground-disturbing activities as assessed in the Final EIR. Therefore, this aspect of the Revised Project would not create additional utility impacts.

Existing underground pipelines are located east of the Median Station platform, approximately 4 to 6 feet below grade. The pipelines follow a north to south alignment and run below the SR 4 median and the proposed station parking lot. To protect the pipelines from the weight of the DMU vehicles within the median, a reinforced concrete slab would be placed over the pipelines. The pipelines would then be relocated to a higher elevation within the parking lot area to reflect the new grade of the raised elevation. The existing pipelines would be abandoned in place. Adherence to California Government Code (Sections 4216-4216.9) and the mitigation measures identified in the Final EIR for interruption to utility service would ensure that relocation impacts to utility lines would be reduced to a less-than-significant level.

Cumulative Impacts. The Revised Project would result in an incremental increase in less-than-significant impacts to water and wastewater demand compared to the Adopted Project. However, as noted above, the Contra Costa Water District and Delta Diablo Sanitation District have sufficient capacity to accommodate the Adopted Project as well as future buildout within the City of Antioch. The incremental increase associated with the Revised Project would also be able to be accommodated within the available water and wastewater capacities. Therefore, the Revised Project would not result in a cumulatively considerable impact to utility providers.

In addition, Chevron Corporation owns two underground petroleum pipelines (one 12-inch line, one 8-inch line) that are located in an easement along the south side of the UPRR right-of-way through the project area. BART is not proposing any changes to the pipelines. The Revised Project is designed so the toe of the slope along the north side of the parking lot is at least 5 feet from the centerline of that southernmost pipeline. The fill slope is designed to be a maximum of 2:1 (horizontal:vertical). As part of the Adopted Project, BART's two-lane road providing access to the parking lot would be located along the top of the east-west running slope. When the future Slatten Ranch Road is constructed by the City of Antioch, with an additional two lanes north of the eBART access road, a retaining wall may need to be constructed along a line south of the pipes to protect Chevron's easement. Construction of the retaining wall would ensure that the future Slatten Ranch Road would have a less-than-significant impact on the Chevron pipelines.

Energy

eBART Station Parking Lot. Elevation and relocation of the Station parking lot would require additional energy intensive construction activities, such as grading and fill operations, not evaluated in the Final EIR. However, adherence to the construction energy conservation plan identified in the Final EIR would reduce impacts associated with construction activities to a less-than-significant level.

Parking Lot Solar Panels. BART may elect to install photo voltaic panels over the central portion of the parking lot. The panels could produce up to approximately one megawatt of electricity to be used on site or returned to the electrical grid serving the Hillcrest Avenue Station. This option would result in a beneficial impact on energy use and would help to offset increased energy requirements associated with construction of the modified parking lot and Control and Maintenance Center and tailtrack extension.

Control and Maintenance Center and Extended Tailtracks. Energy required for operation of the Control and Maintenance Center would be similar to that described in the Final EIR for the maintenance facility located in the SR 4 median. However, excavation of the knoll on the east side of the Hillcrest Avenue Station site in order to shift the location of the Control and Maintenance Center would require energy intensive construction activities not evaluated in the Final EIR. As required for all construction activities involved in the Revised Project, excavation of the knoll and transport of the excavated material would adhere to the construction energy conservation plan developed and implemented by BART. Therefore, this impact would be less than significant.

Roads and Utilities. As described above, all construction activities involved in the Revised Project would be required to comply with the construction energy conservation plan developed and implemented by BART. Modification of the existing utility pipelines and realignment of future Slatten Ranch Road would comply with the energy conservation plan. Therefore, this impact would be less than significant.

Cumulative Impacts. The Final EIR found the Adopted Project to be less-than-cumulatively considerable with regard to energy. Implementation of the Hillcrest Avenue Median Station under the Revised Project was found to have no additional impact on energy use beyond those evaluated in the Final EIR. Therefore, this effect of the Revised Project would not be cumulatively considerable and the cumulative energy impact would be less than significant.

Changes to the Mitigation Monitoring and Reporting Plan (MMRP)

In order to clarify or expand mitigation measures in the Mitigation Monitoring and Reporting Plan (adopted April 23, 2009), the Revised Project includes several changes to two of the adopted mitigation measures.

Mitigation Measure HY-1.1 is being revised to identify the appropriate State National Pollutant Discharge Elimination System (NPDES) stormwater permits with which BART must comply. All of the State stormwater permits have similar requirements for development and implementation of stormwater management or pollution prevention plans. As such, there would be no change to the findings of significance for impacts that require implementation of Mitigation Measure HY-1.1 in the Final EIR. As identified in the impact assessments above for Pittsburg Railroad Avenue Station and Hillcrest Avenue Station, implementation of Mitigation Measure HY-1.1 would reduce water quality and water quantity impacts associated with surface water runoff from construction and operation of the Revised Project to a less-than-significant level. This would continue to apply with the proposed modifications to Mitigation Measure HY-1.1.

Furthermore, the Final EIR inadvertently provided too narrow a description of the scope of the hazardous materials survey required by Mitigation Measure HS-9.1. Therefore, Mitigation Measure HS-9.1 is being expanded to include surveys for lead and other hazardous materials in addition to asbestos for all structures within the project corridor, including areas outside the SR 4 median. As such, implementation of the revised Mitigation Measure HS-9.1 would provide a greater level of safety regarding potential health impacts to construction workers and the public associated with exposure to hazardous materials. Public health and safety impacts found to be less than significant by the Final EIR and by this Addendum would be further reduced by the revised Mitigation Measure HS-9.1.