ATTACHMENT B

Addendum No. 2 to the Environmental Impact Report for the Santa Ana/Garden Grove Fixed Guideway Project Orange County, California

SCH No. 2010051060

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1. INTRODUCTION

This Environmental re-evaluation and Addendum to the Santa Ana/Garden Grove Fixed Guideway Project (Project) Final Environmental Impact Report (EIR) has been prepared to address minor design modifications to the Project resulting from engineering refinements in advancing Preliminary Engineering (30%) design to 60% design. These minor changes include physical and operational improvements.

The California Environmental Quality Act (CEQA) requires that if there are minor technical changes or additions to a project and no new or substantially more severe significant effects result, an Addendum to an approved EIR must be prepared. This Addendum describes design modifications that the Orange County Transportation Authority (OCTA) is proposing for the Project and summarizes the evaluation of how these minor changes affect the previous environmental analysis contained in the EIR.

Section 15164(a) of the CEQA Guidelines states that "the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." Pursuant to Section 15162(a) of the State CEQA Guidelines, a subsequent EIR or Negative Declaration is only required when:

> *(1) Substantial changes are proposed in the project 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;*
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> *(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; or*
>
> *(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable 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 or negative declaration;*
> - *(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.*

If major revisions of the EIR are not necessary and none of the conditions described in State CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR have occurred, CEQA mandates that an addendum be prepared.

2. BACKGROUND

The Project is an approximately 4-route mile modern streetcar line that will connect the Santa Ana Regional Transportation Center (SARTC) to Downtown Santa Ana and a new transportation hub located near the intersection of Harbor Boulevard and Westminster Avenue in Garden Grove.

Construction and operation of the Project (the adopted Locally Preferred Alternative, or "LPA") was approved by the Federal Transit Administration (FTA) in a Finding of No Significant Impact (FONSI), dated March 10, 2015 based on the findings of the Revised Environmental Assessment (EA) (January 2015), pursuant to the National Environmental Policy Act (NEPA). The City of Santa Ana certified the EIR (State Clearinghouse #2010051060) in January 2015, which was subsequently adopted by OCTA. OCTA is a CEQA "Responsible Agency" as defined by CEQA Guideline 15381. Pursuant to CEQA Guideline 15381, "Responsible Agency" means "a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration."

The approved Project was based on a conceptual level of engineering. Subsequent to Project approval in 2015, OCTA has taken the lead in advancing the design and implementation of the Project to 30% design. As part of this design phase, OCTA proposed some modifications to the Project as it was defined and analyzed in the EIR. The modifications are comprised of physical and operational improvements, and are partly derived from value engineering and risk workshops conducted in 2015, as well as design coordination with OCTA's partner cities and stakeholders. An Environmental Re-evaluation and CEQA Addendum was prepared and presented by OCTA staff to the OCTA Board of Directors in July 2016.

The Project has since advanced to the completion of 60% Design in December 2016. The 60% design includes minor physical and operational modifications due to design refinement for the Project and consideration of risk register updates performed by the Project team in a workshop conducted in 2016.

The design modifications at 30% design and 60% design are not anticipated to result in changes to the maintenance plan for the Project.

3. DESCRIPTION OF DESIGN MODIFICATIONS

The following describes the proposed design modifications that are the basis of evaluation in this Addendum #2. Table 1 provides a listing of design updates comparing the description of Project features in the EIR, the revised description of Project features resulting from design modifications at the 30% design (which was addressed in an EIR Addendum dated June 2016, hereafter "Addendum #1")), and additional modifications from the 60% design which are the basis of analysis in this Addendum #2.

The corresponding figures for each modification as a result of advancing preliminary engineering (30% design) to 60% design are referenced in Table 1 and are attached to this Addendum #2. Figure 1A provides an overview of the proposed traffic signal prioritization areas. Figure 2A provides a figure of the proposed track shift. Figure 10A and Figure 10B depict the proposed relocated traction power substation (TPSS) unit 4 to SARTC.

Table 1. Project Description Comparison of Approved Project (2015 EIR), Modifications (30% Design Revisions – May 2016) and Additional Modifications (60% Design Revisions – December 2016)

Update ID	Project Description			Figure
	Approved Project in 2015 EIR	30% Design – May 2016 (Addressed in EIR Addendum #1 June 2016)	60% Design – December 2016 (Subject of Addendum #2)	
1	Single-track bridge across the Santa Ana River south of the existing historic bridge.	Double-track bridge across the Santa Ana River; north of the existing historic bridge. The double-track bridge is the same distance away from the historic bridge as the single-track bridge.	No Change	N/A
2	Track positioned in the center of the former Pacific Electric Right-of-Way (PE ROW).	Track shifted to the northern side of the PE ROW; no private property is required.	Track shifted to the center of the PE ROW starting from 140-ft east of SAR Bridge to 5th Street at-grade crossing resulting in a slight track shift to the southern side of the PE ROW between 5th Street at-grade crossing and the Maintenance and Storage Facility (MSF), no private property is required.	Figure 2A
3	At-grade Santa Ana River Trail crossing on the West Bank.	Provision of a Santa Ana River Trail undercrossing at the West Bank by including an extra span on the Santa Ana River bridge	No Change	N/A
4	Streetcar Maximum Speed of 35 mph in PE ROW	Streetcar Maximum Speed of 45 mph in PE ROW	Streetcar Maximum Operating Speed of 44 mph in PE ROW	N/A
5	Willowick Station Stop within PE ROW.	No Willowick Station Stop within the PE ROW.	No Change.	N/A
6	Side platforms at Harbor Blvd., Fairview St. (staggered, farside), and Raitt St., farside Bristol St. eastbound, farside Ross St. westbound, stops at Broadway and Main.	Center platforms at Harbor Blvd., Fairview St., and Raitt St., nearside Bristol St. westbound, nearside Ross St. westbound, stops at Sycamore (farside westbound, farside eastbound), No private property is required for the platforms.	No Change	N/A
7	Double crossover west of Maintenance and Storage Facility (MSF), turnout and tail track beyond Santa Ana Regional Transportation Center (SARTC) platform.	Single crossovers on both sides of the MSF, revised MSF track layout, single crossovers on both ends of downtown couplet, double-crossover prior to SARTC platform.	No Change	N/A
8	No consideration for traffic signal priority for the streetcar.	Traffic signal priority at all traffic signals along the route except for Main St., Broadway, and Bristol St. The TSP extends a green phase or shortens an opposing green phase by as much as 20 seconds.	Traffic signal priority at all traffic signals along the route including Main St., Broadway, and Bristol St. The TSP extends a green phase or shortens an opposing green phase by as much as 20 seconds.	1A
9	Tied-Arch Bridge at Westminster Avenue	Concrete Box Girder Bridge at Westminster Avenue	No Change	N/A

Update ID	Project Description			Figure
	Approved Project in 2015 EIR	30% Design – May 2016 (Addressed in EIR Addendum #1 June 2016)	60% Design – December 2016 (Subject of Addendum #2)	
10	Santa Ana Blvd. from Flower St. to Raitt St. maintained as a four-lane street (two lanes in each direction with streetcar in the outside lanes).	Santa Ana Blvd from Flower St. to Raitt St. with a raised 4-ft median and re-striped as a two-lane street (one lane in each direction) with left and U-turns allowed only at signalized intersections and striped bike lanes. No private property is required.	No Change	N/A
11	Santa Ana Blvd. from French St. to Flower St. with three-lanes westbound.	Santa Ana Blvd. from French St. to Flower St. with two-lanes westbound and a protected bike lane on the north side of the street. No private property is required.	No Change.	N/A
12	Six traction power substations (TPSS) located at the following locations: (1) At Harbor Blvd.; (2) At Susan St. (outside PE ROW); (3) On east side of Santa Ana River (outside of PE ROW); (4) At Pacific Ave.; (5) In a parking structure at 5th and Main; and (6) On south side of Santa Ana Blvd at Garfield St.	Elimination of two TPSS to result in a total of four TPSS for the Project, with the following revised locations. No private property is required: (1) On south side of Westminster Ave in the PE ROW; (2) At the Maintenance and Storage Facility (MSF) site; (3) On north side of Santa Ava Blvd east of Parton St.; and (4) On north side of Santa Ana Blvd and N. Garfield St. Locations 1 and 2 are within the ROW previously cleared. Locations 3 and 4 are identified on the updated APE.	No change to the number of TPSS or locations, with the exception of TPSS (4) as described below. No private property is required: (4) On north side of the parking structure at Santa Ana Regional Transportation Center (SARTC), adjacent to Santiago Street Location 4 is within the ROW previously cleared in certified EIR.	10A and 10B
13	Appendix P to the EIR, the Drainage Technical Report, indicate storm drain improvements on many streets outside the project alignment.	Modification of scope of drainage improvements to rely less on connections to storm drain network and use surface conveyance in streets to maintain existing drainage patterns to the maximum extent practicable while addressing surface storm water drainage needs generated by the Project, or change in drainage patterns caused solely by the Project.	No Change	N/A
14	Single contact wire in PE ROW.	Two-wire catenary in the PE ROW.	No Change.	N/A
15	No provision for underground fiber optics cable	Underground fiber optics cable (communications) from SARTC to OCTA Garden Grove Bus Annex north of PE ROW, approximately 1500 feet west of Harbor Blvd	No Change.	N/A

Physical Improvements: The modifications from 60% design would result in the following changes to Project features from 30% design:

1) Track shifted to the center of the PE ROW starting from 140-ft east of Santa Ana River (SAR) Bridge to 5th Street at-grade crossing resulting in a slight track shift to the southern side of the PE ROW between 5th Street at-grade crossing and the Maintenance and Storage Facility (MSF), no private property is required. The Project footprint is not affected by this change.

2) Revised location of the TPSS unit. 4 formerly proposed at the north east corner of Santa Ana Blvd. and N. Garfield Ave. to the north side of the parking structure at SARTC, adjacent to N. Santiago Street. The Project footprint is not affected by this change.

3) Minor project footprint modifications and anticipated revised construction limits result from the process of advancement of 30% design to 60% design due to the following Project elements:

   a) Trenching in the public right-of-way (ROW) for drainage improvements and utility connections at West 5th Street;
   b) Paving, striping, signing, curb ramp and driveway approach improvements at N. Harbor Boulevard (Blvd.), N. Western Avenue (Ave.), N. Forest Street (St.), N. Pacific Ave., N. Hesperian St., N. Bristol St., N. Baker St., N. Spurgeon St., French St., N. Minter St., 4th St., E. Santa Ana Blvd., and Santiago St.;
   c) Temporary Construction Easements (TCE) for a maintenance road turnaround on the east side of the SAR;
   d) Sidewalk paving re-construction at Nova Academy on the corner of Ross Street and 4th St.; and
   e) Anticipated improvements at the driveway approach to the County of Orange Sherriff's Department Complex on W. Santa Ana Blvd.

Operational Improvements: The modifications from 60% design would result in the following changes to the Project's operations from 30% design:

1) Reducing the maximum speed within the PE ROW from 45 miles per hour (mph) to 44 mph.

2) Implementation of Traffic Signal Priority (TSP) at all traffic signals along the route including at Main Street, Broadway, and Bristol Street.

4. ENVIRONMENTAL ANALYSIS OF DESIGN MODIFICATIONS

To evaluate whether the proposed design modifications would result in a new significant impact, increase in the severity of an impact, or require new mitigation measures, OCTA undertook environmental review and where needed, conducted a technical analysis of each Project feature update. The following technical reports were prepared as part of this analysis and are included as attachments to this Addendum #2:

- Visual Impact Analysis Re-evaluation Technical Memo Update, (HDR, February 2017) (Appendix A)
- Cultural Resources Technical Memo Update (HDR, February 2017) (Appendix B)
- Traffic Study Addendum v4 (IBI Group, February 2017) (Appendix C)
- Noise and Vibration Technical Addendum (HDR, February 2017) (Appendix D)

The technical analysis was coordinated with the 60% design work that was progressing on the Project. In some cases, specific design modifications were refined based upon analysis undertaken in the 60% design work.

The CEQA Guidelines require that a brief explanation be provided to support the findings that no subsequent EIR or Negative Declaration is needed for further discretionary approval. A summary of findings from the re-evaluation of each of the environmental issue areas that were analyzed in the EIR are described below.

Effects Determined Not Adverse

The EIR identified the following environmental resource areas that would not be impacted by the proposed Project: coastal zones, wetlands and navigable waterways, ecologically sensitive areas, and endangered and/or threatened plant and animal species.

The proposed four minor design modifications would not significantly impact these resources as these resources are not present within, or in proximity to, the limits of disturbance associated with implementation of the design modifications. No additional impacts would occur to these environmental resources and the conclusion that the Project would not result in a significant impact to these resources as identified in the EIR remain accurate.

Land Use and Zoning

The potential land use and zoning impacts (including agricultural and forestry resources) associated with the construction and operation of the Project were evaluated in the EIR. Since the certification of the EIR, there have been no changes to the land use or zoning environment, and the fundamental characteristics of the Project as evaluated in the EIR have not changed. The EIR concluded that impacts related to land use and zoning and agricultural and forestry resources were determined to be less than significant. No mitigation measures were required.

The proposed four minor design modifications would not change the fundamental characteristics of the Project. The proposed Project design modifications would not expand or increase the development footprint in such a manner as to create a land use or zoning impact, and there are no agricultural or forestry resources located within the construction footprint. Both the construction and operations of the Project would be similar to the Project as evaluated in the EIR. No additional land use and zoning impact would occur and the conclusions that the Project would not result in a significant land use and zoning impact as identified in the EIR remain accurate.

Land Acquisition and Displacements

This environmental resource issue area is only applicable to the analysis pursuant to NEPA, and no further analysis is warranted in this Addendum #2. In addition, no additional displacements are anticipated by the design changes.

Section 4(f) Resources

This environmental resource issue area is only applicable to the analysis pursuant to NEPA, and no further analysis is warranted in this Addendum #2.

Community Effects and Environmental Justice

This section of the EIR includes an evaluation of potential impacts associated with fire protection, police protection, schools, parks, and other public facilities. The EIR determined that impacts to fire and police protection would be less than significant, and that there would be no impact to schools, parks or other public facilities. The design changes do not involve any modifications to the characteristics of the project that would affect any of these facilities. Both the construction and operations of the Project would be similar to the Project as evaluated in the EIR. No additional community effects impact would occur and the conclusions that the Project would not result in a significant community effects impact as identified in the EIR remain accurate.

Visual Quality

The potential visual quality impacts associated with the construction and operation of the Project were evaluated in the EIR. The EIR determined that the Project would result in less than significant impacts to visual quality including scenic vistas, scenic resources, or aesthetic features, or substantially degrade the existing visual quality or character of the

area. Since the certification of the EIR, there have been no changes to the aesthetic environment of the Project as evaluated in the EIR. However, as described under "Description of Design Modifications" there is an additional design modification resulting from 60% design development that has been determined to potentially affect visual resources, and therefore further visual analysis evaluation was performed to address the revised location of TPSS unit 4 at SARTC.

In order to address the potential visual quality impact associated with the proposed new location of TPSS unit 4, a supplemental visual impact analysis was prepared (see Visual Impact Analysis Re-evaluation Technical Memo Update, Appendix A). The purpose of the analysis was to identify any changes to visual effects that were previously disclosed in the EIR.

The supplemental visual impact analysis update concludes that no new significant visual impacts and no increase in the severity of an impact would result as compared to the Project as evaluated in the EIR. No additional visual quality impact would occur and the conclusions that the Project would not result in a significant visual quality as identified in the EIR remain accurate.

Cultural Resources

In July of 2016, HDR performed a cultural resources technical analysis re-evaluation in response to advancements in engineering by the OCTA Project. The purpose of that 2016 analysis was to identify whether any of the proposed minor design modifications to the adopted Locally Preferred Alternative (LPA) would affect the previous findings regarding cultural resources (both historic and archaeological) within the previously-approved Area of Potential Effects (APE), and the revised APE to reflect design modifications. That updated cultural resources analysis confirmed that the proposed engineering refinements to the Project did not change the previous conclusions regarding cultural resources and Federal Transit Administration (FTA) recommended that there would be no adverse effects within the expanded APE under NEPA and a less than significant impact would remain the finding for the design modifications within the expanded APE under CEQA. The sensitivity of the area for archaeological resources and the recommendation for archaeological monitoring to be conducted for earth-disturbing activities that could encounter previously undisturbed soils remained unchanged and consistent with the 2015 EA/EIR.

On October 14, 2016, the California State Historic Preservation Officer (SHPO) concurred with the findings of that Cultural Resources Technical Memo Update (OHP reference number FTA111011B, see Appendix B, Attachment A). In regard to the revised APE, the SHPO noted that "the APE should include the entirety of individual resources and historic properties located within it. As shown on sheet 4 of 15 of the APE, only part of the Pacific Electric Railroad Bridge (P-30-161847) is located within the APE. The APE should be expanded to include the whole property."

The Project has since advanced with the completion of the 60% design. OCTA, as the agency responsible for design and implementation of the Project, is again proposing minor design modifications to the adopted LPA comprised of four physical and operational improvements. The design modifications were reviewed against their potential to affect the previous findings regarding cultural resources (both historic and archaeological) within the previously-approved APE, and, where necessary, the APE was revised to reflect these design modifications. An update to the cultural resources technical analysis re-evaluation was completed (see Appendix B).

Physical improvement 1) The track shift occurs within the existing APE and there are no previously identified cultural resources in this area east of the SAR Bridge. As such, this proposed design modification does not directly or indirectly affect the existing cultural resource findings since it will not have a visible and/or audible or atmospheric impact or vibration impacts from construction on any previously identified historic property, nor necessitate a change in the APE.

Physical improvement 2) The change of TPSS unit 4 location is to a new location within the existing APE limits (within APN 398-351-04, Sheet 15 of 15 of the APE map). The TPSS sites for the Project are described as small mundane utilitarian elements intended to match the existing setting within the APE. The TPSS sites would be visually consistent

with other objects and equipment located along the sidewalks and ROW, such as generators and telecommunication equipment. Since, TPSS unit 4 will be constructed adjacent to an existing parking structure at the modern SARTC facility, it will not have a visible and/or audible or atmospheric impact or vibration impact from construction on any previously identified historic property, nor necessitate a change in the APE.

Area of Potential Effects (APE) The only impacts to the APE result from footprint modifications and anticipated revised construction limits resulting from advancement of 30% design to 60% design modifications which include trenching in public streets for drainage improvements, utility connections, paving, striping, signing, curb ramp and driveway approach improvements, the addition of a TCE for a maintenance road turnaround on the east side of the SAR, sidewalk paving re-construction to match existing at Nova Academy on the corner of Ross Street and 4th Street (APN 398-221-19), and anticipated improvements at the driveway approach to the County of Orange Sherriff's Department Complex and specifically the parcel containing the Orange County Coroner's Office on W. Santa Ana Boulevard (APN 405-201-13). As a result, the APE was expanded to include consideration of effects on adjacent parcels APN 405-201-13 and APN 398-221-19. An additional change to the APE was made in response to the SHPO's 2016 comments regarding the inclusion of the entirety of individual resources and historic properties located within it. Minor updates have also been made to the APE in response to comments received from the SHPO in October 14, 2016 regarding the comment to include of the entirety of the Pacific Electric Railroad Bridge (P-30-161847). The current APE map set is included in Appendix B, Attachment B, and updates are reflected on Sheets 2, 4, 6, 7, 8, 10, 12, 13, and 15.

Identification of Historic Properties The areas of the expanded 2017 APE do not include any newly identified historic properties since the 2014 survey, and what was included in the 2015 APE. None of the properties added to the expanded APE are 50 years of age or older.

- Nova Academy (APN 398-221-19) built in 2005
- Orange County Coroner's Office (APN 405-201-13) built in 1981

Conclusion

Minor updates have been made to the APE in response to comments received from the SHPO in October 14, 2016 regarding the comment to include of the entirety of the Pacific Electric Railroad Bridge (P-30-161847) within the APE of the Project, and to address expanded limits of construction for minor surface improvements and utility trenching and consideration of adjacent parcels to paving re-construction at Nova Academy and anticipated driveway approach improvements at the County of Orange Sherriff's Department Complex (and specifically on the APN containing the Orange County's Coroner Office).

The expanded 2017 APE does not include any newly identified historic properties from what has been previously reported for the Project. None of the parcels added to the expanded 2017 APE contain buildings that are 50 years of age or older.

Indirect visual and/or audible atmospheric impacts or vibration impacts from changes in construction have been considered in this assessment. There are no known archaeological resources eligible for listing in the NRHP located within the expanded 2017 APE.

The current cultural resources analysis confirms that the proposed engineering refinements to the project do not change the previous conclusions regarding cultural resources. No adverse effects are expected for the design modifications under NEPA. Under CEQA, a less than significant impact would remain the finding for the design modifications. The sensitivity of the area for archaeological resources and the recommendation for archaeological monitoring to be conducted for earth-disturbing activities that could encounter previously undisturbed soils remain unchanged and will remain consistent with the 2015 EA/EIR.

Geology, Soils, and Seismicity

The potential geology, soils, and seismicity impacts associated with the construction and operation of the Project were evaluated in the EIR. Since the certification of the EIR, there have been no changes to the geological, soils or seismic environment or changes to the characteristics of the proposed Project as evaluated in the EIR that would affect these resources. The EIR concluded that impacts related to geologic and seismic hazards were less than significant and that no mitigation measures are required. No additional geology, soils, and seismicity impact would occur and the conclusions regarding no significant impacts identified in the EIR remain accurate.

Hazardous Materials

The potential hazardous materials impacts associated with the construction and operation of the Project was evaluated in the EIR. Since the certification of the EIR, there have been no changes to the hazardous materials environment or changes to the characteristics of the proposed project as evaluated in the EIR that would affect hazardous materials. As previously identified in the EIR, the Project would require limited acquisition of property which could have the potential to contain hazardous materials. Three properties identified as potentially hazardous sites would be acquired as part of Operations & Maintenance (O&M) Facility Site B (which is the currently proposed location for the O&M facility). As described in the EIR, a detailed Phase I Environmental Site Assessment would be required to ascertain if employees working at the O&M Facility would be exposed to toxic levels of hazardous materials. The EIR recommended implementation of Mitigation Measure HAZ1 to reduce this potential impact to a level less than significant. Because the proposed design modifications do not involve a change with respect to the location of the proposed O&M Facility Site B, the conclusions regarding hazardous materials would remain the same.

The EIR indicates that operation of the streetcar along the Project alignment would not involve the use of hazardous materials. As stated previously, no change to streetcar maintenance activities is proposed as part of the design modifications; therefore, no new significant impact or the increase in the severity of a significant impact would result. The conclusions that the potential hazardous materials impact would be reduced to a level of less than significant with the implementation of Mitigation Measure HAZ1 as identified in the EIR remain accurate.

Traffic and Parking

The potential traffic and parking related impacts associated with the construction and operation of the Project were evaluated in the EIR.

Since the certification of the EIR, there have been some changes to the transportation network within the Project area. Also, as described under "Description of Design Modifications," some of the design modifications were determined to have the potential to impact traffic, and further analysis was warranted. The potential traffic and parking impacts associated with the 30% design changes were addressed in Addendum #1.

However, in order to evaluate the potential traffic impacts associated with the 60% operational design modification of adding Traffic Signal Priority to intersections at Santa Ana Boulevard/Main Street, Santa Ana Boulevard/Broadway, Santa Ana Boulevard/Bristol Street, 4th Street/Broadway and 4th Street/Main Street, an update to the previously-prepared Traffic Study Addendum v2, see Traffic Study Addendum v4 attached as Appendix C. The purpose of the analysis was to identify any additional changes to traffic impacts that were previously disclosed in the EIR and Addendum #1 that are due to the operational design modification with the advancement of engineering since the Project (and conceptual design) was approved in 2015 and further advanced to 30% design and 60% design.

Traffic Signal Priority for the Streetcar. Table 3-7 of the Traffic Study Addendum v4 (see Appendix C) summarizes the delay and corresponding LOS for 2035 Streetcar Conditions, with and without the transit signal priority adjustments, and using Highway Capacity Manual (HCM) Methodology. As shown on Table 3-7, overall intersection delay would change with implementation of Traffic Signal Priority, with minor decreases in delay at some locations, and minor

increases in delay at other locations. However, in no instance would the minor increase in delay result in a new significant impact, or increase in the severity of an impact. All intersections would continue to operate at an acceptable LOS. Table 3-8 summarizes the delay and corresponding LOS for 2035 Streetcar Conditions, with and without the transit signal priority adjustments, and using Intersection Capacity Utilization (ICU) Methodology. As shown in Table 3-8, the application of Traffic Signal Priority to all of the affected intersections would not result in any deterioration of LOS from acceptable to unacceptable.

Based on this supplemental traffic impact analysis of 60% design modifications, no new significant traffic impacts and no increase in the severity of an impact would result as compared to the originally approved Project as evaluated in the EIR. No additional traffic impacts would occur and the conclusion that the Project would result in a less than significant traffic impact as identified in the EIR remains accurate.

Noise and Vibration

A Noise and Vibration Technical Addendum was prepared to address the potential noise and vibration impacts associated with the proposed design modifications (see Appendix D).

Decrease in Speed

Reducing the maximum speed within the PE ROW from 45 mph to 44 mph would have no effect on the streetcar vibration levels.

Centerline Re-Alignment (Alignment Shift)

The proposed modification at 60% design would shift the railroad alignment within the PE ROW. Table K lists the vibration levels calculated by HDR (June 2016) for the 30% design. Only the receptors included within the affected area (PE ROW) are listed.

Table L of the supplement analysis (see Appendix D) lists the distances from the modeled receivers to the 30% design alignment and the distances to the currently proposed 60% design alignment. Table L (see Appendix D) also lists the streetcar operation vibration levels associated with the 30% and 60% design streetcar alignments.

The impact threshold for Land Use Category 2 is 72 VdB and for Land Use Category 3 is 75 VdB. As shown in Table L of Appendix D, the vibration levels are below the impact threshold at all receptor locations. Therefore, no minimization design features are required.

Traction Power Substation Noise Analysis

The 60% design plans move TPSS unit 4 to the Santa Ana Regional Transportation Center (SARTC) on the north side of the parking structure adjacent to Santiago Street. At this location the TPSS unit would be located within 100 feet of the main SARTC structure and 350 feet from the nearest residences.

Table M (see Appendix D) shows the predicted noise level at the TPSS sites assuming the units are specified to have a maximum sound level of 50 dBA at a distance of 50 feet from any surface. As shown, by orienting the TPSS units so that the noise from the HVAC units is directed away from the sensitive uses, the noise levels at all receptors closest to the TPSS units would result in no impacts.

Air Quality

The potential air quality and greenhouse gas emissions (global climate change) impacts associated with both the construction and operation of the proposed Project were evaluated in the EIR. There have been no changes to the air quality environment as evaluated in the EIR. The proposed minor design modifications would change some of proposed improvements within the corridor; however, the general Project construction characteristics as described in the EIR would not be altered in such a manner as to result in an increase in the daily construction emissions, and no new mitigation measures would be required.

In terms of short-term, construction-related air quality impacts, as described in the EIR (and applicable to the Project with the proposed design modifications), construction activities would be completed in a segment by segment basis to minimize the disruption to local residents and businesses in the Study Area. As concluded in the EIR, there would be no exceedances of South Coast Air Quality Management District (SCAQMD) regional significance thresholds as a result of daily construction emissions. This conclusion would still apply with implementation of the proposed Project modifications as the construction parameters and characteristics would be the same; no new significant short-term air quality impact, increase in the severity of an impact, or new mitigation measure would be required associated with implementation of the proposed design modifications.

In terms of long-term, operational air quality and greenhouse gas emissions impacts, with the exception of an almost discernable decrease in maximum speed in the PE ROW (from 45 MPH to 44 MPH), and the implementation of traffic signal priority, no changes to the operational characteristics are proposed that would affect the previous conclusions of "less than significant impact" for operational air quality and greenhouse gas emissions impacts. The Traffic Study Addendum v4 (provided in Appendix C), indicates that all roadway segments and intersections would operate at an acceptable LOS with the implementation of the traffic signal priority. Therefore, the conclusion that long-term impacts associated with localized CO concentrations (due to poor intersection LOS) would be less than significant would remain. No additional air quality or greenhouse gas emissions impacts would occur and the conclusions identified in the EIR remain accurate.

Energy Resources

The EIR identified a less than significant impact to Energy Resources as a result of the Project. This is attributed to the reduction of Vehicle Miles Traveled (VMT) that is anticipated with the operation of the streetcar. The proposed design modifications would not affect the anticipated ridership for the Project; therefore, there would be no new impact, or increase in the severity of an impact related to Energy Resources and the conclusions identified in the EIR remain accurate.

Water Quality, Hydrology, and Floodplains

The potential water quality, hydrology, and floodplains impacts associated with the construction and operation of the Project were evaluated in the EIR. The EIR determined that impacts to these resources would be less than significant related to water quality, water discharge, stormwater runoff and as related to alteration of drainage patterns. The currently proposed four minor design changes do not involve any additional changes to proposed drainage improvements. Appendix P (Drainage Technical Report) of the EIR, described storm drain improvements on many streets outside the Project alignment. Therefore, because there would be no further proposed design modifications to the drainage plan for the Project, there would not result in the increase in a new impact related to hydrology, increase in the severity of an impact related to hydrology, or require new mitigation measures in order to address drainage and/or hydrology impacts. The EIR identifies that the Project would be required to comply with BMPs to address pollutants of concern and hydrologic conditions of concern associated with the Project's stormwater runoff. With implementation of the BMPs, the Project would result in less than significant impacts to water quality, water discharge, and stormwater runoff. The construction and operation of the Project would be the same as evaluated in the EIR. No additional water quality, hydrology, or floodplains impact would occur and the conclusions that impacts to these environmental resource areas are less than significant as identified in the EIR remain accurate.

Safety and Security

This environmental resource issue area is only applicable to the analysis pursuant to the NEPA, and no further analysis is warranted in this CEQA Addendum.

Construction

The potential construction impacts associated with the proposed Project construction were evaluated in the EIR. This chapter of the EIR evaluated potential construction impacts related to visual quality, energy resources, traffic, circulation, parking, hazardous materials, air quality, noise and vibration, and land use. Since the certification of the EIR, there have been no changes to the construction characteristics of the proposed Project as evaluated in the EIR. Proposed construction activities would remain the same as previously evaluated with respect to these environmental resource areas.

The proposed design modifications would not change the previous conclusions regarding construction impacts. No additional impacts would occur to these environmental resources and the conclusions that the Project would not result in a significant impact to these resources as identified in the EIR remain accurate.

Other Considerations

The EIR addressed several environmental issue areas within Chapter 3.17 Other Considerations. These included: Biological Resources, Utilities and Service Systems (Wastewater Treatment and Facilities, Stormwater Drainage Facilities, Water Supply, and Solid Waste Disposal and Compliance Regulations), Parklands and Recreational Facilities, Growth Inducing Impacts, Significant Irreversible Environmental Changes, and Summary of Significant Unavoidable Impacts.

Biological Resources. The proposed design modifications would not significantly impact biological resources as these resources are not present within, or in proximity to, the limits of disturbance associated with implementation of the design modifications. No additional impacts would occur to this environmental resource and the conclusions that the Project would not result in a significant impact to this resource as identified in the EIR remain accurate.

Utilities and Service Systems. The proposed design modifications would result in less than significant impacts to wastewater treatment facilities, stormwater drainage facilities, water supply, and solid waste disposal.

As with the Project described in the EIR, implementation of the design modifications would not generate wastewater from activity along the alignment or at stations. Wastewater would be generated by the O&M Facility, but no change to the O&M Facility is proposed, and as identified in the EIR, the O&M Facility would not put added strain on existing wastewater treatment capacity.

Project modifications are proposed related to drainage improvements as described previously under "Water Quality, Hydrology and Floodplains." No change to the previous conclusion of less than significant impact would occur.

The design modifications would not change the water use associated with operation and maintenance of the Project, such as vehicle washing and worker hygiene. No change to the previous conclusion of less than significant impact would occur.

Solid waste receptacles would be placed at stations, and solid waste would be generated at the O&M Facility. However, no changes to these aspects of the Project are proposed with the design modifications; therefore, no change to the previous conclusion of less than significant impact would occur.

Parklands and Recreational Facilities. The proposed design modifications would not significantly impact parklands and recreational facilities. No additional impacts would occur to these environmental resources and the conclusions that the project would not result in a significant impact to these resources as identified in the EIR remain accurate.

Findings from Environmental Re-evaluation

(1). Substantial changes are not proposed for the project that will require major revisions of the previous EIR due to the involvement of new, significant environmental effects or a substantial increase in the severity of previously identified effects.

Substantial changes have not occurred with respect to the circumstances under which the Project was undertaken, that would require major revisions to the EIR. Since certification of the EIR in January 2015, there have been no major updates to the CEQA Guidelines or adoption of new legislation requiring additional environmental analysis. Therefore, no proposed changes or revisions to the EIR are required. In addition, all previously adopted mitigation measures are incorporated herein by reference.

(2). Substantial changes have not occurred with respect to the circumstances under which the project is undertaken, that would require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

As described in the preceding text for each environmental issue area, no substantial changes have occurred with respect to the circumstances under which the proposed Project four minor design modifications would be undertaken that would suggest that its adoption and implementation would result in any new significant environmental effects or a substantial increase in the severity of the previously identified significant effects not previously discussed in the certified EIR would occur. Therefore, no proposed changes or revisions to the EIR are required. In addition, all previously adopted mitigation measures presented in the EIR are incorporated herein by reference and would be implemented in compliance with the adopted MMRP for the Project.

(3). No new information has been provided, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete that would indicate that the proposed project would result in one or more significant effects not discussed in the previous EIR, significant effects would be substantially more severe, mitigation measures or alternatives previously found to be infeasible would in fact be feasible, or 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 proponent declines to adopt the mitigation measure or alternative.

There is nothing in the proposed Project four minor design modifications that would suggest that its adoption and implementation would result in any new significant environmental effects or the increase in the severity of an environmental effect not previously discussed in the EIR. Therefore, no proposed changes or revisions to the EIR are required. In addition, all previously adopted mitigation measures presented in the EIR are incorporated herein by reference and would be implemented in compliance with the adopted MMRP for the Project.

6. CONCLUSIONS

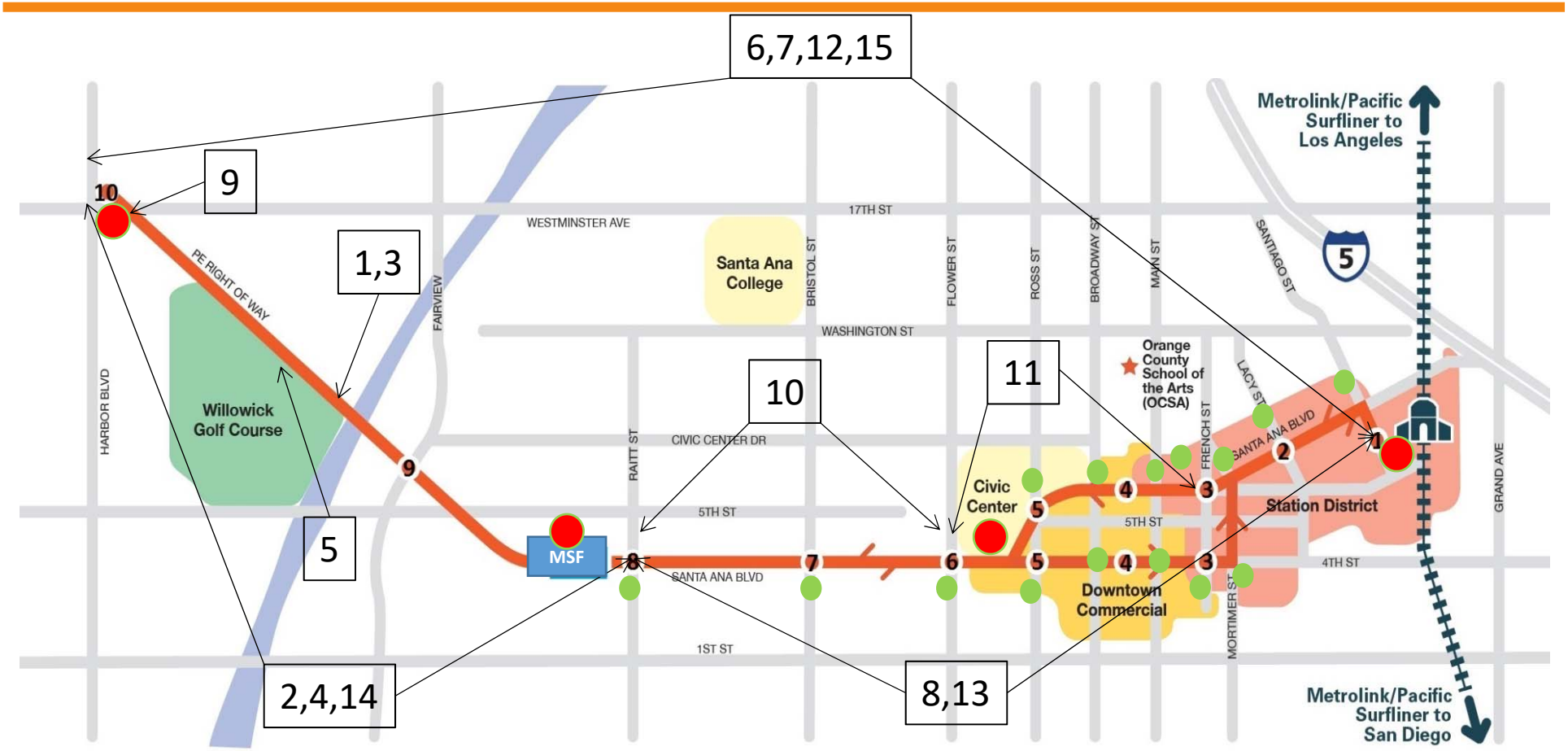
Based on the findings and information contained in the EIR, the analysis above, the CEQA statute and State CEQA Guidelines, including Sections 15164 and 15162, the proposed four minor design modifications will not result in any new, increased, or substantially different impacts, other than those previously considered and addressed in the Project EIR. No changes or additions to the Project EIR analyses are necessary, nor is there a need for any additional mitigation measures. Therefore, a Supplemental EIR is not required. This Addendum #2 to the EIR is the appropriate environmental documentation for the proposed modifications to the Project.

List of Figures:

Appendices are not included with the Addendum, but can be made available upon request.

List of Appendices:

Figure 1A: Santa Ana/Garden Grove Fixed Guideway Minor Design Modifications Overview



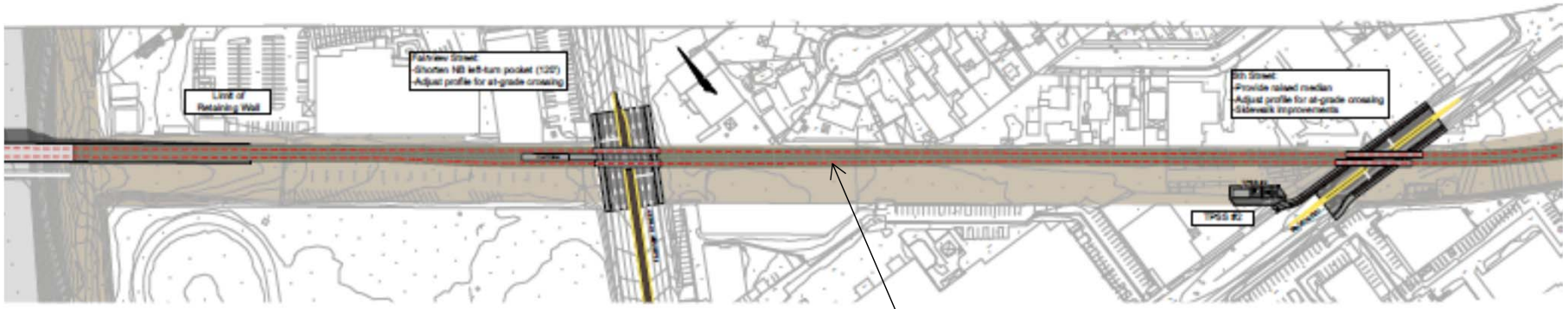
1-Santa Ana River Bridge
2-Alignment within PE ROW
3-Trail Undercrossing West Bank SAR
4-44 mph Speed in the PE ROW
5-Delete Willowick Station

6-Station Locations
7-Crossover Locations
8-Traffic Signal Priority
9-Westminster Ave Bridge Type
10-West Santa Ana Blvd

11-Santa Ana Blvd Downtown
12-TPSS Locations
13-Street Drainage
14-Two Wire OCS in PE ROW
15-Communications Fiber Run

Figure 2A: Update ID # 2 Track Centerline Repositioning

30% Design Track Alignment in PE ROW (SAR Bridge to 5th Street)



60% Design Track Alignment in PE ROW (SAR Bridge to 5th Street)

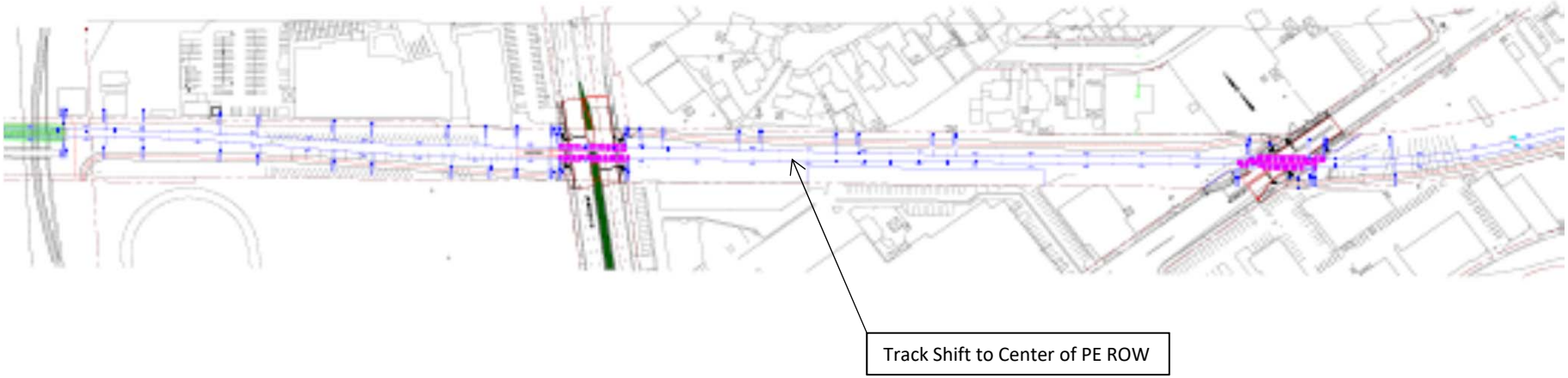
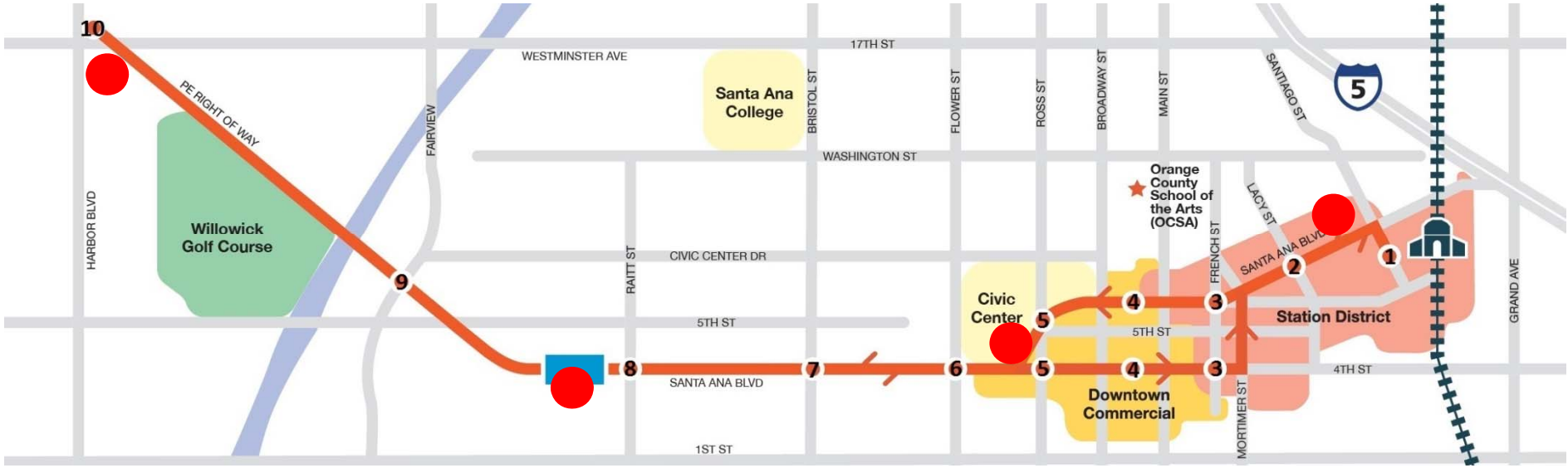
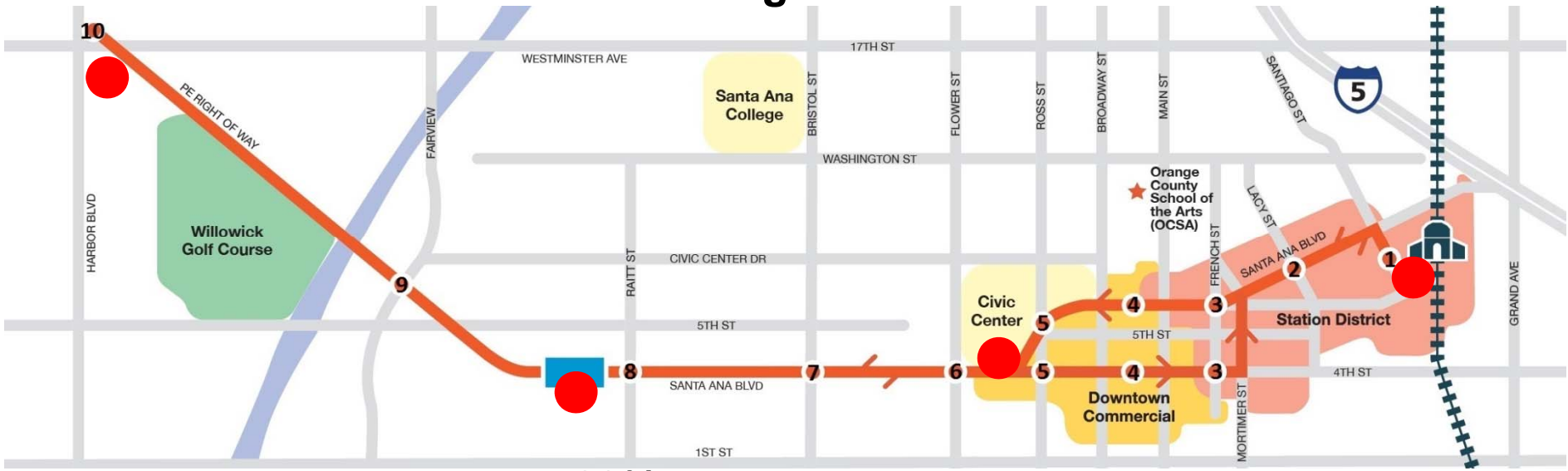


Figure 10A: Update ID # 12 - Traction Power Substation Locations



30% Design



60% Design

Figure 10B: Update ID # 12 - Traction Power Substation at SARTC