

3.19 Design Variant to Optimize Speed

3.19.1 Purpose

The purpose of this section is to document the incremental differences in environmental effects for a design variant that is available to optimize speeds along the San Francisco to San Jose Project Section (Project Section, or project).

3.19.2 Description and Rationale for Design Options

The California High-Speed Rail Authority (Authority) has developed a design variant intended to optimize train speed within the San Jose Diridon Station Approach Subsection. The design variant is located north and south of Diridon Station and at the station platforms and, if adopted, would apply only to Alternative A.

3.19.2.1 Diridon Design Variant

The Diridon Design Variant (DDV) consists of alterations to Alternative A (i.e., as compared to the preliminary design in Volume 3, Preliminary Engineering Plans) in the San Jose Diridon Station north and south approaches and platform modifications to increase the 15-mile-per-hour (mph) limitation to the design speed of the existing alignment to a 40-mph design. North of the station, the design alterations would change the horizontal placement of the freight and electrified passenger tracks up to 37 feet to the east between Santa Clara Street and Julian Street. This design alteration would require up to 23 feet of additional property from the SAP Center parking lot on the east side of the rail corridor and one additional commercial property. In the platform area of Diridon Station, the high-speed rail (HSR) southbound track would shift 4 to 10 feet to the east in two discrete areas (one 117 feet long on the north side of the station and the other 92 feet long on the south side), and the platforms would be cut or filled to adjust to the revised alignment. The HSR northbound track would shift up to 2 feet to the west in one discrete area (466 feet long in the southern part of the station), and the platform would be filled to adjust. The two westernmost station tracks (used by Caltrain and occasionally other services) would move up to 5 feet to the west on the southern end of the station. None of the track shifts in the station area would require the acquisition of additional right-of-way. From the south end of the station to San Carlos Street, the design alterations would adjust the horizontal placement of the electrified passenger tracks by up to 1 foot and would not require any additional right-of-way. The Santa Clara Valley Transportation Authority (VTA) light-rail line storage track south of the station would be cut short by about 50 feet to maintain adequate spacing to the HSR mainline tracks (Authority 2020).

The rationale for the Alternative A preliminary design without the DDV was to bring HSR service to San Jose Diridon Station with minimum changes to the Peninsula Corridor Electrification Project infrastructure, where track geometry restricts speeds approaching and through the station to 15 mph. The Authority has developed the DDV to provide design speeds of 40 mph to, from, and through the San Jose Diridon Station, comparable to the design speeds provided by Alternative B. The location of the DDV is identified on Figure 3.19-1.





Source: Authority 2019 CEMOF = Centralized Equipment Maintenance and Operation Facility MARCH 2020

Figure 3.19-1 Extent of Diridon Design Variant

3.19.3 Environmental Impact Differences of Diridon Design Variant Compared to Alternative A Without the Diridon Design Variant

This section describes the incremental differences in environmental effects between Alternative A with the DDV and Alternative A without the DDV.

3.19.3.1 Areas with No Differences

Alternative A with the DDV would not have environmental impact differences as compared to Alternative A without the DDV in the following areas.

Greenhouse Gases

Construction

The construction effort and materials for Alternative A with the DDV would be approximately the same as Alternative A without the DDV; therefore, associated greenhouse gas (GHG) emissions would be approximately the same.

Operations

Train operation under Alternative A with the DDV would use slightly more electricity than Alternative A without the DDV due to higher speeds facilitated by the DDV. The analysis in Section 3.3, Air Quality and Greenhouse Gases, conservatively assumes the HSR system would be powered by the state's current electrical grid, which is composed of renewable and nonrenewable generating units. The Authority's goal is to use 100 percent renewable energy to power the HSR system. If the electricity used to power HSR trains comes from renewable energy sources in whole, this energy source would avoid GHG emissions from electricity generation, and there would be no increase in GHG emissions from operations with the DDV as compared to operations under Alternative A without the DDV. If the energy used to power HSR trains is partially derived from renewable sources, then there would be a slight increase in electricityrelated GHG emissions. However, the project would still result in a substantial net reduction in GHG emissions so that the level of effect with the DDV would not change compared to Alternative A without the DDV.

Electromagnetic Fields/Electromagnetic Interference

Construction

Construction effort for Alternative A with the DDV would be approximately the same as Alternative A without the DDV and would occur in the same general location and thus construction would not result in any change in the generation of electromagnetic fields (EMF) during construction.

Operations

Due to higher speeds in the area of the DDV, HSR train operations would generate slightly higher EMFs in the DDV area than Alternative A without the DDV. However, the analysis in Section 3.5, Electromagnetic Fields and Electromagnetic Interference, of Alternative A without the DDV shows that HSR train operation EMFs would not have significant effects under the California Environmental Quality Act (CEQA) even at the maximum speeds with the DDV to receptors who are the same distance or closer to the alignment than receptors along the DDV segments.

Public Utilities and Energy

Construction

The change in alignment with the DDV may affect additional buried utilities, but with implementation of PUE-IAMF#3: Public Notifications, the construction contractor would coordinate with utility providers to minimize and manage any temporary utility disruption and there would be no change in utility impacts compared to Alternative A without the DDV.

Operations

HSR train operations could use slightly more electricity due to the increase in speeds in the DDV area. There would be adequate electricity supply to meet this slight increase in electricity. The project would still result in a substantial net reduction in energy consumption due to the offsetting effects of reducing vehicular fuel consumption.

Hydrology and Water Quality

Construction

There are no waterbodies or wetlands affected by the change in alignment or footprint associated with the DDV. The amount of construction effort for the DDV would be approximately the same as Alternative A without the DDV; therefore, the construction period potential for erosion/sedimentation/construction material spills would be approximately the same.

Operations

The DDV would slightly change the amount of impervious surfaces as compared to Alternative A without the DDV, but this would not materially change the amount of surficial runoff. The DDV is not in a floodplain or regulated floodway and thus there would be no change in flooding effects.

Geology, Soils, Seismicity, and Paleontological Resources

Construction

The amount of construction effort for the design variant would be approximately the same as Alternative A without the DDV and thus construction period potential for erosion would be approximately the same. The DDV is in the same geological, soils, seismic and paleontological resources setting; therefore, the construction period effects would be the same.

Operations

The DDV is in the same geological, soils, and seismic setting as Alternative A without the DDV and thus potential geological, soil, and seismic hazards to the HSR system would be the same.

Hazardous Materials and Wastes

Construction

The amount of construction effort for the DDV would be approximately the same as Alternative A without the DDV and thus construction period use of hazardous materials and potential generation of hazardous wastes would be approximately the same. The DDV is in the same location as Alternative A without the DDV and thus the potential to encounter existing soil or groundwater contamination would be the same.

Operations

Project use of hazardous materials or generation of hazardous waste would not change with the DDV because the same amount of train operations and maintenance would occur.

Safety and Security

Construction

The amount of construction effort for the design variant would be approximately the same and would occur in the same locations as Alternative A without the DDV; therefore, construction period effects on safety and security would be the same.

Operations

The DDV would not result in a change in ridership or train service; therefore, there would be no change in emergency response times related to station traffic or changes in gate-down times at the at-grade crossings. The DDV alignment would be designed to safely operate at the proposed increased speeds and thus no change in the safety of HSR operations would occur. The DDV would increase structure elevation in areas of concern for aviation.



Station Planning, Land Use and Development

Construction

The amount of construction with the DDV would be essentially the same as Alternative A without the DDV. Project features would minimize impacts by providing continuous property access, maintaining traffic flow, minimizing fugitive dust emissions, minimizing impacts from noise and vibration, and restoring construction staging areas to their original condition after construction. There would be no change in anticipated population growth during construction compared to Alternative A without the DDV.

Operations

The DDV would not introduce any additional incompatible uses that would result in substantial alteration of land use patterns compared to Alternative A without the DDV.

Parks, Recreation, and Open Space

Construction

There are no parks or open space within or adjacent to the DDV and thus the minor change in alignment and associated footprint would not change construction-period impacts on parks or open space. There would be no additional acquisition of parks or open space lands with the DDV.

Operations

There are no parks or open space within or adjacent to the DDV and thus the minor change in alignment and speeds would not change noise impacts on parks or open space.

Aesthetics and Visual Quality

Construction

The amount of construction effort for the DDV would be approximately the same and would occur in the same locations as Alternative A without the DDV and thus construction-period impacts on aesthetics and visual quality would be the same.

There would be no vertical change in profile with the DDV. The DDV would require additional atgrade encroachment into the SAP Center parking lot, which would not change the visual quality of the parking lot. In addition, the DDV would encroach on one additional commercial property, displace one additional commercial structure and expand the encroachment into the SAP Center parking lot. The only public view of the removed commercial structure is from Julian Street just east of the Caltrain right-of-way and the views are mostly obscured by existing fencing such that the only view of the removed buildings is of the aluminum roof. The building removal with the DDV would not materially degrade the visual quality or views from surrounding areas compared to the aesthetic effects of Alternative A without the DDV.

Operations

With the DDV, there would be no change in visual aesthetics due to train operations because the number of trains would not change, there would be no change in HSR building and facility lighting, and the shift in alignment would not result in a substantial change in visual quality due to train movement compared to Alternative A without the DDV.

Cultural Resources

Construction

The footprint with the DDV would shift up to 23 feet east into a new area of footprint, which would expand the archaeological area of potential effect. The change in footprint associated with the DDV would not affect any new built-environment or archaeological resources compared to Alternative A without the DDV.



As discussed in Section 3.19.3.2, Areas with Impact Differences, under Noise and Vibration, no additional building damage (including to any potential historic buildings) due to pile-driving vibration with the DDV would occur compared to Alternative A without the DDV.

The DDV would remove up to 7 feet and add up to 10 feet of infill to the platforms between tracks 6 and 7 and between tracks 8 and 9 in a 117-foot section on the north end of Diridon Station to accommodate track shifts. The DDV would add up to 4 feet of infill to the platforms between tracks 6 and 7 and between tracks 8 and 9 in a 92-foot section on the south end of the station to accommodate track shifts. These platforms are not historic elements of the Diridon Station. The DDV would also add 2 feet of infill on the west side of the platform between tracks 4 and 5. The platform between tracks 4 and 5 is not a historic feature, but the butterfly shelter over the platform is historic. The addition of 2 feet of infill would not modify the butterfly shelter structure or appearance. Thus, the track shifts and platform modifications with the DDV would not affect the character-defining features of the historic Diridon Station. Thus, there would be no changes in impacts on cultural resources compared to Alternative A without the DDV.

Operations

The only operational change with the DDV would be in relation to increased vibration from higher speeds. The vibration analysis associated with the design variation indicated no change to the vibration impact assessment for Alternative A without the DDV because vibration impacts are more influenced by the number of train events per day than minor shifts in alignment. As a result, there would be no change in vibration impacts on any adjacent historic structures.

Section 4(f) and 6(f)

Construction

There would be no change in construction impacts on parks, open space, or cultural resources with the DDV compared to Alternative A without the DDV. Thus, there would be no change in construction effects on Section 4(f) and 6(f) resources.

Operations

There would be no change in operations impacts on parks, open space, or cultural resources with the DDV compared to Alternative A without the DDV. Thus, there would be no change in operations effects on Section 4(f) and 6(f) resources.

3.19.3.2 Areas with Impact Differences

This section describes environmental impact differences of Alternative A with the DDV compared to Alternative A without the DDV for the following areas.

Transportation

Construction

The construction effort for the DDV would be approximately the same as for Alternative A without the DDV and thus construction traffic would be approximately the same. Construction of the DDV would not affect any different transportation facilities than Alternative A without the DDV.

Under Alternative A without the DDV, up to 397 parking spaces would be temporarily displaced in and around Diridon Station, including 81 spaces in the SAP Center parking lot north of Santa Clara Avenue. With the DDV, there would be additional construction in the SAP Center parking lot north of the Diridon Station, which would temporarily displace up to 35 additional parking spaces for a total of 116 spaces in the SAP Center parking lot and 432 spaces overall. At any one time, some of this parking may be available for station or special event users, but this analysis conservatively assumes that temporary loss of these spaces may occur at the same time. Construction of the San Jose Diridon Station and approaches and related parking displacement could take 2 to 2.5 years.

The loss of up to 432 parking spaces adjacent to San Jose Diridon Station during construction of Alternative A with the DDV would affect 3 percent of the approximately 13,695 total publicly



available parking spaces within 0.5 mile of the station and 13 percent of 3,390 total publicly available parking spaces within 0.33 mile of the station.¹

The amount of parking available for use under Alternative A with the DDV (2,998 spaces) within 0.33 mile of the station would not meet the parking obligations specified in the Arena Management Agreement between the SAP Center and the City of San Jose (3,175 spaces). Alternative A with the DDV would leave enough parking outside construction areas (13,303 spaces) to meet agreement requirements relative to the 0.5-mile radius requirements (6,175 spaces).²

Per TR-IAMF#8: Construction during Special Events, project construction contractors would identify adequate off-street parking using existing remote parking areas or vacant land to replace any temporary displacement of parking utilized for special events at the SAP Center on a 1:1 basis during construction. Contractors would arrange for shuttle vehicles between the remote parking areas and the SAP Center for any remote parking areas that are more than 0.5 mile from the SAP Center. Contractors would also work with the SAP Center to provide advance and real-time information about parking availability for special events during times in which construction displaces existing available special event parking.

As a result, while the DDV would increase the number of parking spaces temporarily displaced in the SAP Center parking lot, temporary replacement parking would be provided during construction. Also, there would be no significant secondary impacts under CEQA related to parking during construction.

Operations

The DDV would not change HSR ridership compared to Alternative A without the DDV and thus would not change station traffic or transit operations or parking demand. There would be no change to HSR train operations at any at-grade crossing compared to Alternative A without the DDV because the speed changes would not occur at any alignment areas with at-grade crossings; as a result, there would be no changes in traffic impacts relative to at-grade crossings.

Alternative A without the DDV would permanently displace up to 52 publicly available parking spaces in SAP Center Lots A, B, and C. Replacement parking (on a 1:1 basis) would be provided in a new parking structure on the north side of SAP Center Lots A, B, and C. With the DDV, due to the track shift north of Diridon Station, Alternative A would permanently displace up to 116 publicly available parking spaces in SAP Center Lots A, B, and C. Replacement parking (on a 1:1 basis) would be provided in a new parking structure on the north side of SAP Center Lots A, B, and C. Replacement parking (on a 1:1 basis) would be provided in a new parking structure on the north side of SAP Center Lots A, B, and C. Thus, the DDV would not result in any net change in available parking for the SAP Center relative to Alternative A without the DDV, nor would it result in any loss in available parking spaces; there would be no significant secondary impacts under CEQA related to parking during operations with or without the DDV.

Air Quality

Construction

The amount of construction effort for the DDV would be approximately the same as Alternative A without the DDV and thus the amount of construction period criteria pollutant and toxic air contaminant (TAC) emissions would be approximately the same.

Construction with the DDV would be closer to a few sensitive receptors east of the construction area north of the SAP Center than construction under Alternative A without the DDV. As discussed in Section 3.3, construction TAC emissions exposure to the nearest affected receptors from Alternative A without the DDV would not result in exceedance of any of the Bay Area Air

¹ The count of total available spaces considers the temporary loss of 755 spaces during Bay Area Rapid Transit (BART) Phase II construction. Data sources for parking spaces are described in Section 3.2, Transportation.

² The count of total available spaces includes the loss of 715 spaces permanently displaced by the BART Phase II Extension. Data sources for parking spaces are described in Section 3.2.



Quality Management District (BAAQMD) significance thresholds. The receptors closest to the DDV construction would not be immediately adjacent to construction and would be located further away from construction than the most affected receptors along the rest of Alternative A without the DDV. Thus, the nearest receptors during DDV construction would not be exposed to TAC emissions above the BAAQMD thresholds.

Operations

The track shift with the DDV would move freight operations approximately 37 feet closer to receptors off West Julian Street and North Montgomery Street, which would put them closer to diesel particulate matter emissions from freight trains and could increase their health risk. The Authority reviewed the geographic information system data for the freight operational health risk at this location and concluded that the revised incremental cancer risk would be 8.4 per million, which would be slightly higher at this location than Alternative A without the DDV, but it would be below the BAAQMD incremental cancer risk threshold of 10 per million. Direct project impacts would be considered less than significant under CEQA with the 37-foot shift of tracks north of the Diridon Station with the DDV. The minor track shifts in the station area and south of the station would not include a shift of mainline track 1, which is the dedicated freight track.

For cumulative impacts relative to the DDV, there are two stationary sources within 1,000 feet of the residences most affected by the track shift. Based on BAAQMD's online database (BAAQMD 2020), the background cancer risks from these sources are below the BAAQMD cumulative threshold of 100 per million cancer risk. Also, based on a review of the stationary sources and the existing roadway values, these sources would also be less than 100 per million for roadway risk at the cumulative level. Thus, although the DDV could slightly increase the health risk, the cumulative health risk to the most affected residences would still be less than the BAAQMD cumulative threshold. The impact would be less than significant under CEQA, which is the same conclusion as Alternative A without the DDV.

Noise and Vibration

Construction

The amount of construction effort for the DDV would be approximately the same as Alternative A without the DDV and thus construction generation of noise and vibration would be approximately the same.

However, the DDV would be built closer to a few sensitive receptors east of the construction area north of the SAP Center. As discussed in Section 3.4, Noise and Vibration, construction would temporarily and periodically substantially increase ambient noise levels in the project vicinity. The project would incorporate NV-IAMF#1: Noise and Vibration to minimize noise impacts. However, even with NV-IAMF#1, some sensitive receptors would be exposed to construction noise that exceeds Federal Railroad Administration (FRA) guidelines. The Authority would implement NV-MM#1: Construction Noise Mitigation Measures, which would require the contractor to prepare and implement a noise-monitoring program and noise control plan to comply with the FRA construction noise limits wherever feasible. Implementation of this mitigation measure would reduce construction noise levels but not always below the FRA noise standards, particularly at night. As a result, construction noise impacts would be significant and unavoidable under CEQA. With the DDV, there may be a few additional receptors that may be subject to such unavoidable impacts under CEQA during construction.

As discussed in Section 3.4, nighttime annoyance during construction would potentially occur as far out as 300 feet from pile driving, 140 feet from vibratory compaction, and as close as 50 feet from short-duration, transient events. Pile driving may occur on bridge retrofit structures along the DDV. The only bridge structure work where the alignment may shift with the DDV is the Julian Street overpass. The DDV would only shift construction closer to sensitive receptors north of Julian Street. There are three residences along Julian Street that would be within 300 feet of the Julian Street bridge work with the DDV; the closest residence would be about 185 feet from the Julian Street bridge work. Nighttime annoyance due to pile driving could increase slightly in intensity as the work may be approximately 20 feet closer to these three residences with the DDV

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then under Alternative A without the DDV. Other construction would not result in vibration levels above the annoyance threshold for these residences. Incorporation of NV-IAMF#1 would minimize construction vibration and the potential for it to cause annoyance to occupants at vibration-sensitive land use. However, even with NV-IAMF#1, some sensitive receptors would still be exposed to ground-borne vibration that would result in annoyance during nighttime hours.

As described in Section 3.4, pile driving very close to buildings (within 50 feet for wood-framed building with plaster and within 30 feet for modern, reinforced concrete buildings) would potentially exceed the 0.2 inch/second peak particle velocity threshold and cause building damage. There are two modern-style buildings within 30 to 50 feet of construction of the Julian Street overpass with the DDV. The nearest building would be demolished as part of the DDV construction (and thus would not be damaged by vibration) and the second building is more than 30 feet from the overpass construction area with the DDV. Thus, no additional building damage due to pile driving vibration during construction is expected.

Operations

As described in Section 3.4, only severe noise impacts are considered significant impacts under CEQA. Table 3.19-1 summarizes the change in moderate and severe noise impacts with the DDV by land use category compared to Alternative A without the DDV in the San Jose Diridon Station Approach Subsection. In some cases, new receptors would have moderate or severe noise impacts under Alternative A without the DDV would have moderate or severe noise impacts under Alternative A without the DDV would have moderate or severe noise impacts. In some cases, receptors that would not have moderate or severe noise impacts under Alternative A without the DDV would have moderate or severe impacts with the DDV. In some cases, receptors that would have moderate noise impacts under Alternative A without the DDV would have moderate noise impacts under Alternative A without the DDV would have moderate noise impacts under Alternative A without the DDV would have moderate noise impacts under Alternative A without the DDV.

		Alternative A		Alternative B	
Subsection	Land Use Category ¹	Moderate	Severe	Moderate	Severe
San Jose Diridon Station Approach	2	+4	+2	nc	nc
	1, 3	+1	nc	nc	nc
Total	1, 2, 3	+5	+2	nc	nc

Table 3.19-1 Summary of Change in 2040 Project Noise Impacts with Diridon Design Variant Compared to Alternative A without Diridon Design Variant (before mitigation)

nc = no change

¹ Federal Railroad Administration Land Use Categories: Category 1 = Areas where quiet is an essential element to the land use; Category 2 = Residential; Category 3 = Institutional use and passive-use parks

Under Alternative A without the DDV, there would be 124 severe noise impacts on sensitive receptors in the San Jose Diridon Station Approach Subsection. With the DDV (because of the horizontal shift of alignment up to 37 feet and the increased speed from 15 mph to 40 mph), the number of noise impacts on sensitive receptors would increase by two severe impacts. Two residences that would have a moderate impact under Alternative A without the DDV would instead have a severe impact with the DDV. The two additional severe noise impacts with the DDV could be reduced to a less-than-significant level under CEQA with noise barriers and implementation of a quiet zone along the DDV. With the DDV, there would also be five additional moderate noise impacts for Alternative A compared to Alternative A without the DDV.

Analysts also analyzed the DDV design effect on vibration impacts. The vibration analysis indicates no change to the vibration impact assessment for Alternative A without the DDV because vibration impacts are more influenced by the number of train events per day than minor shifts in alignment.



Biological Resources

Construction

The DDV construction area is entirely disturbed, urbanized land, without wetlands, waters, or habitat for common or rare, threatened, or endangered species and thus construction would not change impacts compared to Alternative A without the DDV.

Operations

There are no biological resources in or adjacent to the DDV area, so there would be no change in operations impacts on biological resources.

Socioeconomics and Communities

Under Alternative A without the DDV, there would be 19 commercial and industrial displacements in the San Jose Diridon Station Approach Subsection. With the DDV, there would be partial acquisition of one additional commercial parcel and displacement of one additional commercial building. There would also be up to 23 feet of additional property acquisition in the SAP Center parking lot in the San Jose Diridon Station Approach Subsection. Property acquisition would also occur in the SAP Center parking lot under Alternative A without the DDV, but the area of acquisition would be greater with the DDV.

The DDV would not disrupt or divide established communities. There are no schools or facilities for children in or adjacent to the DDV area so there would be no change in impacts on children's health and safety or schools. No residences would be displaced so there would no change in impacts on school district funding. Due to the commercial displacements with the DDV, there would be a slight reduction in property and sales tax revenue compared to Alternative A without the DDV.

Environmental Justice

As discussed in Chapter 5, Environmental Justice, the determination of whether an alternative would have a disproportionate high and adverse effect on minority populations and low-income populations is made on an end-to-end basis considering the effects along the entire Project Section.

Construction

The DDV would not result in any substantial differences in construction impacts compared to Alternative A without the DDV, except for the additional commercial displacements associated with the DDV. These displacements would occur in a census district with a higher percentage of low-income persons than the reference community. As described in Chapter 5, Alternative A without the DDV would not result in a disproportionate high and adverse effect on minority populations and low-income populations relative to displacements. While the DDV would add one additional commercial displacement, this would not change the overall end-to-end effect of Alternative A to a disproportionately high and adverse effect. Thus, the conclusion that Alternative A would not have a disproportionately high and adverse effect to minority populations and low-income populations would not be changed with the DDV.

Operations

As discussed in the analysis of noise and vibration, the DDV would increase the number of moderate and severe noise impacts. Some of these impacts would occur in census districts with a higher percentage of low-income persons than the reference community. As described in Chapter 5, Alternative A without the DDV would not result in a disproportionately high and adverse effect on minority populations and low-income populations relative to noise impacts on an end-to-end basis. While the DDV would add two severe noise impacts for Alternative A, this would not change the overall end-to-end effect of Alternative A to a disproportionately high and adverse effect. Thus, the conclusion that Alternative A would not have a disproportionately high and adverse effect on minority populations and low-income populations would not be changed with the DDV.

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Cumulative Impacts

The resource study areas used for the cumulative analysis in Section 3.18, Cumulative Impacts, are at least 1,000 feet from the project. The maximum DDV alignment change would be approximately 37 feet, so all relevant cumulative projects are already accounted for in the analysis of Alternative A without the DDV.

For most resources, the DDV would not change impacts relative to Alternative A without the DDV. Environmental impacts of the alternative without the DDV would be increased due to the DDV relative to SAP Center event parking, biological resources, noise, and commercial displacements. Accordingly, the project's contribution to cumulative impacts related to SAP Center event parking, biological resources, noise, and commercial displacements would be slightly greater with the DDV compared to Alternative A without the DDV. However, due to the limited scale of these changes, there would be no change in the significance of any cumulative impacts or the project's contribution to cumulative impacts under CEQA.