

APPENDIX A: CALIFORNIA HIGH-SPEED RAIL IMPACT AVOIDANCE AND MINIMIZATION FEATURES FOR COMMUNITY AND SOCIOECONOMIC IMPACTS

SO-IAMF#2: Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act. The Authority must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended (Uniform Act), which would apply to all acquisitions of real property or displacements of persons resulting from this federally assisted project. The Uniform Act provides benefits to displaced individuals to assist them financially and with advisory services related to relocating their residence or business operation. Benefits are available to both owner occupants and tenants of either residential or business properties and are determined on an individual basis and explained in detail by an assigned right-of-way specialist.

AG-IAMF#2: Permit Assistance. Prior to disturbance causing activities affecting any segment of a confined animal facility, the Authority will assign a representative to act as a single point of contact to assist each confined animal facility owner during the process of obtaining new or amended permits or other regulatory compliance necessary to the continued operation or relocation of the facility. The Authority will consider and may provide compensation when acquisition of a confined animal site would require either relocation of the facility or amendment of its existing regulatory permits. The Authority will create a permit assistance center for landowners and operators whose operations would be out of compliance with permits because of the HSR. This permit center will focus on helping the permit holders modify or obtain any new permits that are required because of the HSR impacts.

AVR-IAMF#2: Context Sensitive Solutions. Prior to construction the Contractor shall document, through issue of a technical memorandum, how the Authority's *Urban Design Guidelines for the California High Speed Train Project* (Authority 2011), which discusses the principles of context-sensitive solutions to guide the design of stations, have been employed to mitigate visual impacts through context-sensitive design. This approach is equally applicable to elevated guideways.

AQ-IAMF#1: Fugitive Dust Emissions. During construction, the Contractor shall employ the following measures to minimize fugitive dust emissions. The Contractor shall prepare a fugitive dust control plan for each distinct construction segment. At a minimum, the plan shall describe how each measure will be employed and identify an individual responsible for ensuring implementation. At a minimum, the plan shall address the following components unless alternative measures are approved by the applicable air quality management district.

- Cover all vehicles transported on public roads to limit visible dust emissions, and maintain at least 6 inches of freeboard space from the top of the container or truck bed.
- Clean all trucks and equipment before exiting the construction site using an appropriate cleaning station that does not allow runoff to leave the site or mud to be carried on tires off the site.
- Water exposed surfaces and unpaved roads at a minimum three times daily with adequate volume to result in wetting of the top 1 inch of soil but avoiding overland flow. Rain events may result in adequate wetting of top 1 inch of soil thereby alleviating the need to manually apply water.
- Limit vehicle travel speed on unpaved roads to 15 miles per hour (mph).
- Suspend any dust-generating activities when average wind speed exceeds 25 mph.
- Stabilize all disturbed areas, including storage piles that are not being used on a daily basis for construction purposes, by using water, a chemical stabilizer/suppressant, hydro mulch or by covering with a tarp or other suitable cover or vegetative ground cover, to control fugitive dust emissions effectively. In areas adjacent to organic farms, the Authority will use non-chemical means of dust suppression.

- Stabilize all on-site unpaved roads and off-site unpaved access roads, using water or a chemical stabilizer/suppressant, to effectively control fugitive dust emissions. In areas adjacent to organic farms, the Authority will use non-chemical means of dust suppression.
- Apply water or presoak all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities to control fugitive dust emissions effectively.
- For buildings up to 6 stories in height, wet all exterior surfaces of buildings during demolition.
- Limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at a minimum of once daily, using a vacuum type sweeper.
- Apply sufficient water or a chemical stabilizer/suppressant after the addition of materials to, or the removal of materials from, the surface or outdoor storage piles to control fugitive dust emissions effectively.

AQ-IAMF#2: Selection of Coatings. During construction, the Contractor shall use:

- Low-volatile organic compound (VOC) paint that contains less than 10 percent of VOC contents (VOC, 10%).
- Super-compliant or Clean Air paint that has a lower VOC content than that required by South Coast Air Quality Management District Rule 1113 and San Joaquin Valley Unified Air Pollution Control District Rule 4601 (**note: update to name relevant air district and rules, as appropriate**), when available. If not available, the Contractor shall document lack of availability and obtain concurrence from the Authority on appropriate paint.

NV-IAMF#1: Noise and Vibration. Prior to Construction the Contractor shall prepare and submit to the Authority a noise and vibration technical memorandum documenting how FRA guidelines for minimizing construction noise and vibration impacts will be employed when work is being conducted within 1,000 feet of sensitive receptors.

PK-IAMF#1: Design Features. The HSR project design may incorporate features to avoid or minimize impacts on parks, recreation, and open space. Typical design measures to avoid or minimize impacts on parks and recreation may include:

- Locate HSR guideway system components to maintain safe and attractive access for present travel modes (e.g., motorists, bicyclists, pedestrians—as applicable) to park and recreation facilities.
- Maintain sufficient separation of the HSR guideway system and facilities from existing parks, recreation facilities, and open space areas to preserve, to the extent feasible, user experience for intended recreational purpose (e.g., passive recreation, active recreation, wilderness experience).

Design guideway and station features in such a way as to encourage or enhance the surrounding local communities in a way that provides easy crossing of the guideway and or allows for community sponsored use under the guideway or at station areas.

TR-IAMF#1: Protection of Public Roadways during Construction. Repair any structural damage to public roadways, returning any damaged sections to their original structural condition. Survey the condition of the public roadways along truck routes providing access to the proposed project site both before construction and after construction is complete. Complete a before- and after-survey report and submit to the Authority for review, indicating the location and extent of any damage. This feature will ensure that the Project does not result in the deterioration of local streets from construction traffic. This will avoid traffic conflicts and maintenance costs that would otherwise accompany streets that are in disrepair.

TR-IAMF#2: Construction Transportation Plan. The design-build contractor shall prepare a detailed CTP for the purpose of minimizing the impact of construction and construction traffic on adjoining and nearby roadways. Prepare the CTP in close consultation with the pertinent city or county. The Authority must review and approve the CTP before commencing any construction

activities. The CTP will address, in detail, the activities to be carried out in each construction phase, with the requirement of maintaining traffic flow during peak travel periods. Such activities include, but are not limited to, the routing and scheduling of materials deliveries, materials staging and storage areas, construction employee arrival and departure schedules, employee parking locations, and temporary road closures, if any. The CTP will provide traffic controls pursuant to the *California Manual on Uniform Traffic Control Devices* sections on temporary traffic controls (CALTRANS 2014) and will include a traffic control plan that includes, at a minimum, the following elements:

- Temporary signage to alert drivers and pedestrians to the construction zone
- Flag persons or other methods of traffic control
- Traffic speed limitations in the construction zone
- Temporary road closures and provisions for alternative access during the closure
- Detour provisions for temporary road closures—alternating one-way traffic will be considered as an alternative to temporary closures where practicable and where it would result in better traffic flow than would a detour
- Identified routes for construction traffic
- Provisions for safe pedestrian and bicycle passage or convenient detour
- Provisions to minimize access disruption to residents, businesses, customers, delivery vehicles, and buses to the extent practicable—where road closures are required during construction, limit to the hours that are least disruptive to access for the adjacent land uses
- Provisions for farm equipment access
- Provisions for 24-hour access by emergency vehicles
- Safe vehicular and pedestrian access to local businesses and residences during construction—the CTP will provide for scheduled transit access where construction would otherwise impede such access. Where an existing bus stop is within the work zone, the design-builder will provide a temporary bus stop at a convenient location away from where construction is occurring. Adequate measures will be taken to separate students and parents walking to and from the temporary bus stop from the construction zone.
- Advance notification to the local school district of construction activities and rigorously maintained traffic control at all school bus loading zones, to ensure the safety of school children. Review existing or planned Safe Routes to Schools with school districts and emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route and access needs during project construction and HSR operations.
- Identification and assessment of the potential safety risks of project construction to children, especially in areas where the project is located near homes, schools, day care centers, and parks
- Promotion of child safety within and near the project vicinity. For example, crossing guards could be provided in areas where construction activities are located near schools, day care centers, and parks
- CTPs will consider and account for the potential for overlapping construction from reasonably foreseeable projects
- This feature reduces the potential for interruptions in traffic flow during construction. Although traffic congestion cannot be avoided in all circumstances, a CTP ensures that traffic control will be handled in a consistent manner that complies with industry standards for traffic management. This will reduce the impact of delays resulting from construction.

TR-IAMF#3: Off-Street Parking for Construction-Related Vehicles. Identify adequate off-street parking for all construction-related vehicles throughout the construction period. If adequate parking cannot be provided on the construction sites, designate a remote parking area and use a shuttle bus to transfer construction workers to the job site. This feature will reduce conflict between existing users and construction vehicles over parking space by providing an option for off-site parking.

TR-IAMF#4: Maintenance of Pedestrian Access. Prepare specific construction management plans to address maintenance of pedestrian access during the construction period. Actions to limit pedestrian access would include, but not be limited to, sidewalk closures, bridge closures, crosswalk closures or pedestrian rerouting at intersections, placement of construction-related material within pedestrian pathways or sidewalks, and other actions that may affect the mobility or safety of pedestrians during the construction period. If sidewalks are maintained along the construction site frontage, provide covered walkways. Maintain pedestrian access where feasible (i.e., meeting design, safety, Americans with Disabilities Act requirements). This feature will reduce the potential hazards to pedestrians of construction activities by implementing specific measures to accommodate pedestrians and provide for their safety at construction sites.

TR-IAMF#5: Maintenance of Bicycle Access. Prepare specific construction management plans to address maintenance of bicycle access during the construction period. Actions to limit bicycle access would include, but not be limited to, bike lane closures or narrowing, closure or narrowing of streets that are designated bike routes, bridge closures, placement of construction-related materials within designated bike lanes or along bike routes, and other actions that may affect the mobility or safety of bicyclists during the construction period. Maintain bicycle access where feasible (i.e., meeting design, safety, Americans with Disabilities Act requirements). This feature will reduce the potential hazards to bicyclists of construction activities by implementing specific measures to accommodate bicyclists and provide for their safety at construction sites.

TR-IAMF#6: Restriction on Construction Hours. Limit construction material deliveries between 7 a.m. and 9 a.m. and between 4 p.m. and 6 p.m. on weekdays. Limit the number of construction employees arriving or departing the site between the hours of 7:00 a.m. and 8:30 a.m. and 4:30 p.m. and 6:00 p.m. Limits will be determined as part of the CTP. This feature will reduce potential conflicts between existing vehicles and construction traffic. It will also limit construction-related noise to working hours.

TR-IAMF#7: Construction Truck Routes. Deliver all construction-related equipment and materials on the appropriate truck routes. Prohibit heavy-construction vehicles from accessing the site via other routes. Truck routes will be established away from schools, day care centers, and residences, or at a location with the least impact if the Authority determines those areas are unavoidable. This feature will reduce potential conflicts between existing vehicles and construction traffic, as well as hazards related to placing new truck traffic on streets that are not suited to truck traffic due to the types of uses that adjoin them.

TR-IAMF#8: Construction during Special Events. Provide a mechanism to prevent roadway construction activities from reducing roadway capacity during major athletic events or other special events that attract a substantial number of visitors. Mechanisms include the presence of police officers directing traffic, special-event parking, use of within-the-curb parking, or shoulder lanes for through-traffic, traffic cones, and so on. Maintain roadway capacity through such mechanisms.

This feature reduces the potential for interference with special events during construction. Although traffic congestion cannot be avoided in all circumstances, this feature commits the Authority to traffic controls that comply with industry standards for traffic management. This will reduce the impact of delays resulting from construction.

TR-IAMF#9: Protection of Freight and Passenger Rail during Construction. Repair any structural damage to freight or public railways, and return any damaged sections to their original structural condition. If necessary, during construction, a “shoofly” track would be constructed to allow existing train lines to bypass any areas closed for construction activities. Upon completion, tracks would be opened and repaired; or new mainline track would be constructed, and the “shoofly” would be removed.

References

- California Department of Transportation (Caltrans). 2014. *California Manual on Uniform Traffic Control Devices*. Available: <http://www.dot.ca.gov/trafficops/camutcd/camutcd2014.html>.
- California High-Speed Rail Authority (Authority). 2011. *Urban Design Guidelines California High-Speed Train Project*. Sacramento, CA, and Washington, DC. March 2011.

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