MITIGATION MONITORING REPORTING PROGRAM

The California Environmental Quality Act requires that a lead agency adopt a mitigation monitoring and reporting program (MMRP) to ensure that project revisions and mitigation measures, which were identified in an EIR to mitigate or avoid significant environmental effects, are implemented (CEQA Guidelines §15097). The lead agency can delegate reporting and monitoring responsibilities, but remains responsible for ensuring implementation of the mitigation measures until they have been completed. The MMRP identifies responsible parties and timing for implementation.

The mitigation measures and other project features that the Sacramento Regional Transit District (RT) committed to in the DEIR to reduce adverse impacts are summarized in Table 1. This summary table is provided as part of the Final EIR to facilitate the monitoring of the implementation of the mitigation measures. However, the DEIR provides the full description of all mitigation measures that are included in the project. RT will establish a program for monitoring the implementation of the mitigation measures as part of its Project Management Plan.

TABLE 1: DNA LIGHT RAIL TRANSIT MOS-1 PROJECT MITIGATION MEASURES SUMMARY

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.1 Air Quality	**Mitigation Measures AQ-1:** The construction contractor shall provide a plan, for approval by the lead agency and SMAQMD, demonstrating that the heavy-duty (> 50 horsepower) self-propelled off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction.	Revised page 5.1-13	Contractor	RT	Pre-Construction
	Mitigation Measures AQ-2: The construction contractor shall submit to the lead agency and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road	Revised page 5.1-13	Contractor	RT	Pre-Construction and Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.1 Air Quality (continued)	equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.				
	Mitigation Measures AQ-3: Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and the lead agency and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in¬operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or State rules or regulations.	Revised page 5.1-13	Contractor	RT	Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.1 Air Quality (continued)	**Mitigation Measures AQ-4:** The construction contractor shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour.	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-5: The construction contractor shall ensure that active grading and parking areas are watered at least twice daily.	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-6: The construction contractor shall ensure that exposed stockpiles are enclosed, covered, watered twice daily.	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-7: The construction contractor shall ensure that all trucks hauling dirt, sand, silt, or other loose materials are covered or maintain at least two feet of freeboard.	Revised page 5.1-13	Contractor	RT	Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.1 Air Quality (continued)	**Mitigation Measures AQ-8:** The construction contractor shall utilize ultra-low sulfur fuel (< 15 parts per million) at an incremental cost of $0.20 to $0.50 per gallon. Locations where ultra-low sulfur fuel is available in California are available at: http://ecdiesel.com/business/locator.	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-9: The construction contractor shall establish an idling limit (e.g., 5 minutes per hour).	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-10: The construction contractor shall ensure that equipment is tuned to manufacturers' specifications at the manufacturers' recommended frequency.	Revised page 5.1-13	Contractor	RT	Contractor
	Mitigation Measures AQ-11: The construction contractor shall prohibit any tampering with engines and continuing adherence to manufacturer's recommendations will be required.	Revised page 5.1-13	Contractor	RT	Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.1 Air Quality (continued)	**Mitigation Measures AQ-12:** If necessary, additional emissions limits shall be established within 1,000 feet of any K-12 school, based on CARB proposals.	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-13: Notification shall be provided to all schools within 1,000 feet of a construction site.	Revised page 5.1-13	Contractor	RT	Pre-Construction
	Mitigation Measures AQ-14: Truck trips shall be reduced and/or hours of driving shall be restricted through residential communities.	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-15: Receipts of ultra-low sulfur fuel purchase and equipment tuning/repair shall be kept and made available upon request.	Revised page 5.1-13	Contractor	RT	Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.1 Air Quality (continued)	**Mitigation Measures AQ-16:** The construction contractor's Project Manager shall conduct spot checks for compliance with committed measures.	Revised page 5.1-13	Contractor	RT	Construction
	Mitigation Measures AQ-17: The construction contractor shall water exposed soil with adequate frequency to ensure that soil is continually moist per SMAQMD guidelines throughout the construction process.	Revised page 5.1-14	Contractor	RT	Construction
	Mitigation Measures AQ-18: In the event that the project site is identified as containing ACMs, either naturally-occurring or those found within structures, the construction contractor shall consult with the SMAQMD to ensure the proper handling and removal of ACMs.	Revised page 5.1-17	Contractor	RT	Construction
Section 5.2 Transportation	**Mitigation Measures TC-2:** Provisions would need to be made for bicycles and pedestrians within the existing underpass during construction. The existing sidewalk would be widened as much as possible while providing a southbound traffic lane. This temporary facility will be designed and constructed in accordance with applicable state and City standards	Revised Page 5.2-16	Contractor	RT	Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.2 Transportation (continued)					
	Mitigation Measures TC-4: Prior to beginning of construction, a construction traffic and parking management plan would be prepared by Contractor to the satisfaction of the City traffic engineer and subject to review by all affected agencies. The plan would ensure that acceptable operating conditions on local roadways and freeway facilities are maintained. The plan would include: • The number of truck trips, time, and day of street closures. • Time of day of arrival and departure of trucks. • Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting. • Provision of a truck circulation pattern. • Provision of driveway access plan so that safe vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas). • Maintain safe and efficient access routes for emergency vehicles. • Manual traffic control when necessary. • Proper advance warning and Construction	Revised Page 5.2-19	Contractor	RT	Pre-construction
Section 5.2					

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Transportation (continued)	posted signage concerning street closures. • Provisions for pedestrian safety. A copy of the construction traffic management plan would be submitted to local emergency response agencies and these agencies should be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways.				
Section 5.2	**Mitigation Measures TC-5:** Intersection of 8th Street and G Street – Modify the traffic signal cycle length during the a.m. peak hour by increasing the signal cycle length from 50 seconds to 100 seconds. This mitigation measure would improve traffic operations to level of service (LOS) "D" with 40.5 seconds of delay, less than the Cumulative No project Alternative - Railyards EIR Option. Intersection of 7th Street and H Street – Modify the traffic signal cycle length during the p.m. peak hour by increasing the signal cycle length from 50 seconds to 100 seconds. This mitigation measure would improve traffic operations to LOS "E" with 65.8 seconds of delay, less than the Cumulative No project Alternative - Railyards EIR Option. Intersection of 7th Street and H Street – Modify the traffic signal cycle length during the p.m. peak hour by increasing the signal cycle length from 50 seconds to 100 seconds. This mitigation measure would improve	5.2-22	RT	RT City Traffic Engineer	Pre-Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Transportation (continued)	traffic operations to LOS "E" with 75.0 seconds of delay, less than the Cumulative No project Alternative - Railyards EIR Option. Intersection of 7th Street and G Street – Modify the traffic signal cycle length during the p.m. peak hour by increasing the signal cycle length from 50 seconds to 100 seconds. This mitigation measure would improve traffic operations to LOS "F" with 185.0 seconds of delay, less than the Cumulative No project Alternative - Network 1 Option.				
Section 5.3 Noise/Vibration	**Mitigation Measures NV-1:** Noise control devices, such as equipment mufflers, enclosures, and barriers can be used to reduce construction noise. Natural and artificial barriers such as ground elevation and existing buildings can shield construction noise. Staging areas should be kept as far from sensitive noise receptors as possible. Noise barriers, such as temporary walls or piles of excavated material, should be constructed between noisy activities and noise-sensitive receivers. Avoid residential areas when planning haul truck routes. Replace noisy equipment with quieter equipment, such as vibratory pile driver instead of a conventional pile driver, enclosed air compressors, and mufflers on all engines.	Page 5.3-7	Contractor	RT	Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Section 5.3 Noise/Vibration (continued)	**Mitigation Measures NV-3:** Sound insulation could be used to reduce impacts by adding glazing to windows, or replacing outdated single-paned windows to acoustically-rated modern dual-pane windows. These forms of sound insulation can result in a 10 to 30-dB noise reduction; thus, the noise levels would be mitigated. The types and details of window material and design shall be discussed during the final stage of design. At locations along the alignment where there are tight-turn radii in the tracks, wheel squeal may become a source of noise complaints. To avoid wheel squeal, it is recommended that the track turn radius be kept above 1,000 feet at all locations. However, RT is aware that one turning radius would be 82 feet. Rail lubrication on sharp turns would be used to reduce or minimize squeal. As rails wear, both noise levels may increase. Grinding down or replacing worn rail will assist with maintaining operating levels of noise and vibration. Also, wheel truing, the grinding down of flat spots on the rails' wheels that occur due to braking, will reduce noise and vibration effects. Overall vehicle maintenance will help reduce the likelihood of increased noise and vibration. In regards to the warning device, transit gongs are designed to be clearly audible for safety	Page 5.3-11	RT	RT	Operations

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
	reasons. Various gong sounding treatment options or mounting modifications can be applicable for noise reduction.				
Section 5.4 Aesthetics	**Mitigation Measures VIS-1:** Work with the community during preliminary through final design to develop Aesthetic and Design Guidelines for the project improvements through a formalized structure that allows for community input (Context Sensitive Solutions). Design the overhead contact systems (OCS) to preserve the existing mature street trees along 7th Street in the Alkali Flat Neighborhood area.	Page 5.4-12	RT Designer	RT	Pre-Construction
	Mitigation Measures VIS-2: Design the OCS to preserve the existing mature street trees along 7th Street in the Alkali Flat Neighborhood area. If trees are impacted, replacement trees would be planted to restore the Alkali Flat view shed.	Page 5.4-12	Contractor	RT	Pre-Construction and Operation
	Mitigation Measures VIS-3: Work with the community during preliminary through final design to develop Aesthetic and Design Guidelines for the project improvements through a formalized structure that allows for community input (Context Sensitive Solutions).	Page 5.4-12	RT	RT	Pre-Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Appendix A: Cultural Resources	**Mitigation Measures CUL:** **CR-1** - Implement preconstruction training for construction employees to familiarize them with cultural resources and to explain the protocols on how to proceed if subsurface cultural resources are encountered during construction. The legal ramifications of impacting cultural resources will also be explained.	Page 38	Cultural Resource Specialist (Working for RT)	RT	Pre-Construction
	CR-2 - A qualified archaeologist, who is certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61) should monitor the project site during earthmoving or excavation construction activities (deeper than 12 to 18 inches). A site-specific cultural resource monitoring plan will be developed by Regional Transit, prior to construction, once the construction activities are better defined.	Page 38	Cultural Resource Specialist (Working for RT)	RT	Construction
	CR-3 - In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 50 yards of the resources shall be halted, and the qualified archaeologist would assess the significance of the find and monitor the site. Archeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find	Page 38	Cultural Resource Specialist (Working for RT)	RT	Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Appendix A: Cultural Resources (continued)	is determined to be significant by the qualified archeologist, RT representatives and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. In addition, a report shall be prepared by the qualified archeologist according to current professional standards. The report will be submitted to RT. **CR-4 -** If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives. If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions. In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists. **CR-5 -** If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the	Page 38 Page 38	Cultural Resource Specialist (Working for RT) Cultural Resource Specialist (Working for RT)	RT RT	Construction Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Appendix A: Cultural Resources (continued)	County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the appropriate actions have taken.		Contractor County Corner		
Appendix A: Water	**Mitigation Measures WAT:** In the event that groundwater is encountered during construction, dewatering would be conducted locally. Dewatering effluent would be tested for contamination. Contaminated effluent would be disposed of in accordance with applicable federal, state, and local regulations.	Page 15	Contractor	RT	Construction
Appendix A: Hazardous Waste	**Mitigation Measures HAZ:** **HM-1 - Confirming the Status of Remediation Activities**. If any of the excavations occur within the Railroads area, a review will be conducted of the remediation status of the site. If remediation activities will be complete before construction of the project, then no further mitigation will be necessary. If remediation would not be completed prior to project construction, then an alternate mitigation	Page 28	Hazmat Specialist (Working for RT)	RT	Pre-Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
Appendix A: Hazardous Waste (continued	plan will be prepared and implemented. **HM-2 - Site Evaluation.** If any of the excavations occur within the other nine potential hazardous substance sites in the project area (see Table 9-1), a Phase II Site Specific Evaluation will be made of any known and suspected contaminated sites that would be disturbed by construction operations before any soil is removed from affected areas for construction, using the following procedure: 1) implementation of a Worker Health and Safety Plan; 2) preparation of a site-specific work plan specifying the proposed location for surface samples or soil borings or trenches; 3) soil boring or trenching and sample collection; 4) laboratory analysis of samples; and 5) preparation of a findings and recommendations report. If the site-specific evaluations determine that contaminants are present, RT will determine the type and extent of contamination and will prepare and implement a remediation plan to avoid risks to public health and safety. **HM-3 - Worker Health and Safety Plan & Training.** To avoid health effects on construction personnel, all personnel who may come in contact with contaminated soil or groundwater would be trained in accordance with the OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (29CFR 1910. 120). A site-specific worker health and safety plan defining potential contaminants and, where	Page 28 Page 28	Hazmat Specialist (Working for RT) Hazmat Specialist (Working for RT)	RT RT	Pre-Construction Pre-Construction

Chapter/ Section	Measure/Description	DEIR Location (Page #)	Party Responsible for Implementation	Party Responsible for Verification	Timing
	appropriate, proper personnel protective equipment would be employed. Proper decontamination procedures for workers and equipment would be followed. **HM-4 - Notify Appropriate Regulatory Agencies and Enact Specific Mitigation Plans.** RT will notify the State Department or Toxic Substances Control, Sacramento County Environmental Health Department and the local fire department of any contaminants encountered during construction.	Page 28	RT	RT	Construction