4.0 MITIGATION MONITORING AND REPORTING PROGRAM

PURPOSE

The Mitigation Monitoring Program (MMP) has been prepared in conformance with Section 21081.6 of the California Environmental Quality Act. It is the intent of this program to (1) verify satisfaction of the required mitigation measures of the EIR; (2) provide a methodology to document implementation of the required mitigation; (3) provide a record of the Monitoring Program; (4) identify monitoring responsibility; (5) establish administrative procedures for the clearance of mitigation measures; (6) establish the frequency and duration of monitoring; and (7) utilize existing review processes wherever feasible.

INTRODUCTION

The Mitigation Monitoring Program describes the procedures that will be used to implement the mitigation measures adopted in connection with the approval of the project and the methods of monitoring such actions. A Monitoring Program is necessary only for impacts which would be significant if not mitigated. The following consists of a monitoring program table noting the responsible entity for mitigation monitoring, the timing, and a list of all project-related mitigation measures.

Table 4.0-1
Mitigation Monitoring and Reporting Program Matrix

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
Impact – None				
MM 2.0-1 RBOC shall be responsible for removal of all trash and debris associated with NFL events. Clean up shall commence within 24 hours of an NFL event and shall including all areas where patrons are directed to park within the Central Arroyo. Clean up shall be conducted to the satisfaction of the Department of Public Works. The RBOC shall provide funding as necessary.	Within 24 hours of an NFL event	Department of Public Works		
MM 2.0-2 After each NFL event at the Rose Bowl, RBOC shall be responsible for visually inspecting parked areas for signs of oil, fluids, or other potentially harmful substances within 24 hours of an NFL event. In the event such substances are discovered, the soil shall be removed and disposed of in accordance with applicable regulations. RBOC shall provide the City of Pasadena Department of Public Works with a written summary of the visual inspection and any necessary soil removal.	Within 24 hours of an NFL event	Department of Public Works		
Impact – Air Quality				
MM 3.1-1 Any RFP for vendors to serve NFL events shall specify that the vendor must utilize 2010 or later diesel trucks or alternatively fueled delivery trucks or demonstrate practices that will provide equivalent reduction of air emissions compared to a typical vendor who does not use such equipment.	Ongoing	Department of Finance		
MM 3.1-2 Any maintenance vehicles or forklift purchased to serve NFL events at the Rose Bowl shall be electric or use alternative fuel, provided that electric or alternative fuel equipment is available.	Ongoing	Department of Public Works		
MM 3.1-3 Prior to the hosting of an NFL game at the Rose Bowl, the RBOC shall provide electrical outlets to the extent feasible in Lot I to allow for electric barbecues to be used by those who choose to tailgate and use portable electric barbecues.	Prior to first NFL event	Department of Public Works		
MM 3.1-4 The RBOC shall ensure that cleaning products used to clean the Rose Bowl and surrounding areas after NFL games are water based or low VOC cleaning products	Ongoing	Department of Public Works		

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
Impact - Recreation				
MM 3.6-1 The RBOC shall ensure for the timely repair (repair shall commence within 24 Hours) of damaged Brookside Golf Course turf areas, and any other grassy areas (such as Lot H), that are damaged as a result of parking during NFL events. The RBOC shall ensure that all turf areas are returned to useable conditions within one-day of an NFL event. Prior to the commencement of the use of the Rose Bowl by the NFL, the RBOC shall approve a plan for maintenance of damaged turf areas. The plan shall be developed in coordination with the City and Brookside Golf Course Management and shall include a timetable detailing estimated time of repair and methodology for the repair of the turf areas. RBOC shall be responsible for the costs of all repairs.	Within 24 hours of an NFL event	Department of Public Works		
MM 3.6-2 In accordance with the provisions of the Santa Monica Mountains Conservancy trail agreement dated January 10, 1985 (SMMC Grant), the RBOC shall ensure access as required by the agreement.	During an NFL event	Department of Public Works		
MM 3.6-3 RBOC shall notify residents and neighborhood associations of upcoming NFL games. A schedule of games shall be provided to nearby residents, neighborhood associations and interested parties prior to the start of each NFL season.	Ongoing	Office of the City Manager		
MM 3.6-4 The City and the NFL shall ensure, through provisions in the lease agreement, that the Tournament of Roses and Rose Bowl game activities will be accommodated in a manner consistent with the traditional operating circumstances, needs, and locations of Tournament activities.	Prior to execution of lease	Office of the City Manager		
MM 3.6-5 Prior to any NFL use of the Rose Bowl, the City shall develop a plan for monitoring park use during event days and develop a strategy for repairing or improving parks and recreational areas as necessary to address potential increased usage on event days. The City shall be responsible for funding those repairs and/or improvements.	Prior to any NFL use of the Rose Bowl	Department of Public Works/Department of Human Services		
Impact - Traffic				
MM 3.7-1 The following 22 significantly impacted intersections are projected to operate at LOS C or better during both arrival (prior to event) and departure (post-event) under both the weekday or/and weekend Existing With Project and Future With Project scenarios: Intersection 1: San Rafael Avenue & SR-134 Freeway EB Ramps Intersection 4: West Drive and Seco Street Intersection 5: Rosemont Avenue and Washington Boulevard Intersection 11: I-210 Freeway EB Ramps & Howard Street Intersection 12: Lincoln Avenue & I-210 Freeway WB Ramps Intersection 19: I-210 Freeway WB Ramps & Berkshire Place				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
Intersection 20: Linda Vista Avenue & Highland Drive				
Intersection 21: Linda Vista Avenue & Oak Grove Drive				
Intersection 23: North Arroyo Boulevard/Windson Avenue & Woodbury Road				
Intersection 24: Arroyo Boulevard & Lower Arroyo Park Entrance				
Intersection 25: Arroyo Boulevard & California Boulevard				
Intersection 30: St. John Avenue & Colorado Boulevard				
Intersection 31: Pasadena Avenue & Union Street				
Intersection 32: Pasadena Avenue & Colorado Boulevard				
Intersection 39: Lincoln Avenue & Woodbury Road				
Intersection 40: Fair Oaks Avenue & Woodbury Road				
Intersection 41: Lincoln Avenue & Washington Boulevard				
Intersection 45: St. John Avenue/I-210 Eastbound Off-Ramp & Walnut Street				
Intersection 46: Pasadena Avenue/I-210 Westbound On-Ramp & Walnut Street				
Intersection 50: Arroyo Parkway & Union Street				
Intersection 61: St. John Avenue & Del Mar Boulevard				
Intersection 62: Pasadena Avenue & Del Mar Boulevard				
Proposed Project Feature: Out of the aforementioned 22 intersections, the following 11 intersections will either be supplemented with a traffic control officer (TCO) to prioritize event traffic flow through the intersection or will operate under an optimized traffic signal timing plan to prioritize peak event traffic flow:				
Traffic Control Office Post*				
Intersection 1: San Rafael Avenue & SR-134 Freeway EB Ramps				
Intersection 4: West Drive and Seco Street				
Intersection 5: Rosemont Avenue and Washington Boulevard				
Intersection 24: Arroyo Boulevard & Lower Arroyo Park Entrance				
Intersection 25: Arroyo Boulevard & California Boulevard				
Intersection 41: Lincoln Avenue & Washington Boulevard				
Traffic Signal Optimization				
Intersection 31: Pasadena Avenue & Union Street				
Intersection 32: Pasadena Avenue & Colorado Boulevard				
Intersection 41: Lincoln Avenue & Washington Boulevard				
Intersection 45: St. John Avenue/I-210 Eastbound Off-Ramp & Walnut Street				
Intersection 46: Pasadena Avenue/I-210 Westbound On-Ramp & Walnut Street				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
*Appendix A of the traffic study includes details of changes in lane configuration at some of the intersection where a TCO is deployed during arrival or/and departure of event traffic.				
Mitigation Measures for intersections operating at LOS D, E, and F				
The following 38 significantly impacted intersections are projected to operate at LOS D, E or F during either/both arrival (prior to event) and departure (post-event) under the weekday or/and weekend Existing With Project and Future With Project scenarios:				
Intersection 2: San Rafael Avenue & SR-134 Freeway WB Ramps				
Intersection 3: West Drive and Salvia Canyon Road				
Intersection 6: Rosemont Avenue and Seco Street				
Intersection 7: Orange Grove Boulevard & Holly Street/I-210 Freeway WB Off-Ramp and EB On-Ramp				
Intersection 8: Orange Grove Boulevard & SR-134 Freeway EB Off-Ramp and WB On-Ramp/Colorado Boulevard				
Intersection 9: North Arroyo Boulevard & I-210 Freeway WB Ramps				
Intersection 10: North Arroyo Boulevard & I-210 Freeway EB Ramps				
Intersection 13: I-210 Freeway EB Ramps & Mountain Street				
Intersection 14: I-210 Freeway WB Ramps & Mountain Street				
Intersection 18: I-210 Freeway EB Ramps & Berkshire Place				
Intersection 26: Orange Grove Boulevard & California Boulevard				
Intersection 27: Arroyo Parkway & California Boulevard				
Intersection 28: Pasadena Avenue & California Boulevard				
Intersection 29: St. John Avenue & California Boulevard				
Intersection 34: Fair Oaks Avenue & Walnut Street				
Intersection 35: Fair Oaks Avenue & Union Street				
Intersection 36: Pasadena Avenue & Colorado Boulevard				
Intersection 37: Fair Oaks Avenue & Green Street				
Intersection 38: Arroyo Parkway & Colorado Boulevard				
Intersection 43: Lincoln Avenue & Mountain Street/Seco Street				
Intersection 44: Fair Oaks Avenue & Mountain Street				
Intersection 47: Fair Oaks Avenue & Orange Grove Boulevard				
Intersection 48: Fair Oaks Avenue & Maple Street/I-210 Westbound Ramps/SR 134 Westbound Ramps				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
Intersection 49: Fair Oaks Avenue & Corson Street/SR 134 Eastbound Ramps				
Intersection 51: Linda Vista Avenue & Holly Street				
Intersection 52: Arroyo Parkway & Del Mar Boulevard				
Intersection 53: Fair Oaks Avenue & California Boulevard				
Intersection 54: Fair Oaks Avenue & Glenarm Street				
Intersection 55: Arroyo Parkway & Glenarm Street				
Intersection 56: Fair Oaks Avenue & I-110 Southbound On-Ramp/State Street				
Intersection 57: Fair Oaks Avenue & I-110 Northbound Off-Ramp/Grevalia Street				
Intersection 58: Orange Grove Avenue & I-110 Southbound Ramps				
Intersection 59: Orange Grove Avenue & I-110 Northbound Ramps				
Intersection 60: Orange Grove Avenue & Del Mar Boulevard				
Intersection 63: Fair Oaks Avenue & Del Mar Boulevard				
Intersection 64: Orange Grove Avenue & Columbia Street				
Intersection 65: Pasadena Avenue/Fremont Avenue & Columbia				
Intersection 66: Fair Oaks Avenue & Columbia Street				
Proposed Project Feature: As part of the proposed project traffic operations plan, out of the aforementioned 38 intersections, the following 23 intersections will either be deployed with a TCO to prioritize event traffic flow through the intersection or will operate under an optimized traffic signal timing plan to prioritize peak event traffic flow:				
Traffic Control Office Post*				
Intersection 2: San Rafael Avenue & SR-134 Freeway WB Ramps				
Intersection 3: West Drive and Salvia Canyon Road				
Intersection 6: Rosemont Avenue and Seco Street				
Intersection 7: Orange Grove Boulevard & Holly Street/I-210 Freeway WB Off-Ramp and EB On-Ramp				
Intersection 8: Orange Grove Boulevard & SR-134 Freeway EB Off-Ramp and WB On-Ramp/Colorado Boulevard				
Intersection 9: North Arroyo Boulevard & I-210 Freeway WB Ramps				
Intersection 10: North Arroyo Boulevard & I-210 Freeway EB Ramps				
Intersection 26: Orange Grove Boulevard & California Boulevard				
Intersection 43: Lincoln Avenue & Mountain Street/Seco Street				
Intersection 51: Linda Vista Avenue & Holly Street				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
Intersection 53: Fair Oaks Avenue &California Boulevard Intersection 54: Fair Oaks Avenue & Glenarm Street Intersection 60: Orange Grove Avenue & Del Mar Boulevard Intersection 63: Fair Oaks Avenue & Del Mar Boulevard Intersection 64: Orange Grove Avenue & Columbia Street **Traffic Signal Optimization** Intersection 34: Fair Oaks Avenue & Walnut Street Intersection 35: Fair Oaks Avenue & Union Street Intersection 36: Pasadena Avenue & Colorado Boulevard Intersection 37: Fair Oaks Avenue & Green Street Intersection 44: Fair Oaks Avenue & Mountain Street Intersection 47: Fair Oaks Avenue & Orange Grove Boulevard Intersection 48: Fair Oaks Avenue & Maple Street/I-210 Westbound Ramps/SR 134 Westbound Ramps Intersection 49: Fair Oaks Avenue & Corson Street/SR 134 Eastbound Ramps *Appendix A of the traffic study includes details of changes in lane configuration at some of the intersection where a TCO is deployed during arrival or/and departure of event traffic. In addition, it is recommended that traffic management strategies, including a program of operational improvements be employed as mitigation to help manage demand and improve traffic operations over and above the changes currently proposed as part of project's traffic operations plan. The operational improvements include priority or additional roadway capacity for certain traffic movements to or from the Rose Bowl during arrival or departure of event traffic. To quantitatively account for the benefit of proposed mitigations, additional capacity has been applied to the prioritized movements in the V/C and LOS analysis under the "with mitigations" scenarios. Reduced capacities have been applied to non-prioritized movements, reflecting the priority that would be transferred to other movements				
MM 3.7-2 Unless on-the-ground conditions (e.g., traffic accidents or other unanticipated traffic events) require the Pasadena Police Department to deviate from these specific mitigation measures and implement alternative traffic control measures, the traffic operations plan shall include, and the City shall implement, the following intersection-specific mitigation measures: Intersection #8 Orange Grove Boulevard and SR-134 Freeway EB Off-Ramp and WB On-Ramp/Colorado Boulevard – As an additional improvement over				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
and above the aforementioned traffic operations plan, the westbound right turns from Colorado Boulevard would be allowed to operate as free-flow with the provision of an additional receiving lane on northbound Orange Grove Boulevard using traffic cones. Intersection #9 North Arroyo Boulevard and I-210 Freeway WB Ramps – During the peak hour for departure traffic after a game, this intersection's signal would be placed in flash mode and manually controlled by a TCO to prioritize the northbound traffic from Rosemont Avenue onto the I-210 freeway westbound on-ramp. This intersection would be operated using way-finding signage and traffic cones to allow left turns from both the northbound left-turn lane and adjacent through lane. Intersection #10 North Arroyo Boulevard and I-210 Freeway EB Ramps – As an additional improvement over and above the aforementioned traffic operations plan, the northbound approach at this location would operate as two through lanes and an exclusive right-turn lane using traffic cones Intersection 13# I-210 Freeway EB Ramps and Mountain Street – During the peak hour for arrival traffic before a game, this intersection would be manually controlled by a TCO to prioritize westbound traffic on Mountain Street. During the peak hour for departure traffic after a game, this intersection would be operated to allow three lanes of eastbound traffic with one free flow right-turn lane onto the I-210 westbound on-ramp, one shared through/right-turn lane and one through lane using traffic cones. During egress, pedestrian movement at the intersection impacts the flow of vehicles. A TCO is recommended to control pedestrian movement and facilitate the flow of vehicular traffic. Intersection #14 I-210 Freeway WB Ramps and Mountain Street – During the peak hour for arrival traffic before a game and departure traffic after a game, this intersection would be manually controlled by a TCO to improve traffic flow and coordinate with operations at adjacent intersection #13 – I-210 Freeway Eastbound Ramps and Mountain Avenue. Intersection #34 Fair Oaks Avenue & Walnut Street – In addition to the traffic signal optimization by the City of Pasadena Traffic Management Center (TMC) as part of the proposed Project traffic operations plan, eastbound left turns off the freeway would be allowed from both the left-turn lane and the adjacent through lane using way-finding signage and traffic cones. Intersection #49 Fair Oaks Avenue & Corson Street/SR 134 Eastbound Ramps – The northbound right-turn lane would operate as a free-flow right-turn lane onto the Corson Street using traffic cones. The eastbound approach would operate as one left-turn lane, one shared through/left-turn lane, and two right-turn lanes.				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
Intersection #53 Fair Oaks Avenue & California Boulevard – This intersection's signal would be manually controlled by a TCO to provide additional green time to northbound traffic during the peak hour for arrival traffic before a game and southbound traffic during the peak hour for departure traffic after a game. Intersection #54 Fair Oaks Avenue & Glenarm Street – This intersection's signal would be manually controlled by a TCO to provide additional green time to northbound traffic during the peak hour for arrival traffic before a game and southbound traffic during the peak hour for departure traffic after a game. Intersection #56 Fair Oaks Avenue & I-110 Southbound On-Ramp/State Street – This intersection's signal would be manually controlled by a TCO to provide additional green time to northbound traffic during the peak hour for arrival traffic before a game and southbound traffic during the peak hour for departure traffic after a game. Intersection #57 Fair Oaks Avenue & I-110 Northbound Off-Ramp/Grevalia Street – During the peak hour for arrival traffic before a game, this intersection's signal would be placed in flash mode and manually controlled by a TCO. The northbound off-ramp would operate as one left-turn lane and one shared left/through/right-turn lane onto Fair Oaks Avenue. No mitigation measure has been identified for the departure peak hour after a game. In addition to the operational improvements recommended in Mitigation Measure 3.7-2, a transportation demand management program might further reduce impacts to a small and not quantifiable extent by encouraging the use of transportation other than automobiles, encouraging ride sharing, and increasing the efficiency by which vehicles could be moved off of streets and into the Rose Bowl parking lots. Therefore, a transportation demand management program is recommended as Additional Measure 3.7-2.1. However, as the success of this program is neither guaranteed nor quantifiable, no credit for reducing impacts has been calculated as a result of this recommended measure and it is not considered to be mitigation. Additionally, some flexibility has been provided to coordinate measures with the future team that would play football at the Rose Bowl and to be able to adjust programs based on whether any individual incentive or implementation measure is proving successful.				
AM 3.7-2.1 The RBOC, in conjunction with the tenant, shall implement a transportation demand management program that shall incorporate the following elements to promote ride sharing, alternative forms of transportation, and to maximize the efficiency of vehicle travel. ***Incentivize Carpooling*** Develop and implement incentives for carpools of four or more persons per				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
car, and incentives for alternative fuel vehicles. Incentives may include, without limitation, preferential parking, reduced parking costs, or other discounts. ***Pre-paid Parking Program*** Provide pre-paid parking options. The use of pre-paid parking passes could increase the throughput for vehicles at the Rose Bowl parking entrances by eliminating the need to collect parking fees at critical access points to the stadium from those vehicles with pre-paid parking, thus improving traffic operations. ***Bicycle Valet at Parsons*** Provide a bicycle valet parking service at the Parson's parking lot. Spectators may valet park their bicycles and ride on the shuttle bus to/from the Rose Bowl. This would incentivize the use of bicycles as a mode of travel to/from the event and help reduce the number of vehicular trips. ***Charter Bus*** Solicit interest in charter bus service from season ticket holders, groups and other potential users and provide charter bus service from locations such as downtown and neighboring cities in response to demand. The service will include the concept of "park-and-ride," which will encourage event patrons to leave their vehicles and transfer on to a charter bus for the remainder of the journey. Rose Bowl will encourage charter bus service by providing drop off for passengers in preferred areas close to the stadium. ***Rideshare Program for Employees*** The RBOC will implement a Rideshare program for employees. ***Temporary Changeable Message Signs*** The use of temporary changeable message signs is already employed at different locations around the Rose Bowl. Expand the use of temporary changeable message signs to include two changeable message signs along the I-210 or/and SR-134, depending on traffic demands, to help facilitate ingress/egress on game days. ***Way Finding Signage for Transit Patron*** The City of Pasadena and RBOC will work together with Metro to install way-finding signage to guide patrons to/from the Gold Line Memorial Park Station and the shuttle bus pick-up/drop-off location. ***Use of Social Media*** Use social media to communicate current information regarding directions to/from the Rose Bowl from regional freeways and roadways, preferred routes to various parking lots, and detailed information regarding potential modes of				

Mitigation Measure	Mitigation Monitoring Timing	Responsible Monitoring Entity	Mitigation Measure Complete?	Effectiveness
travel other than passenger vehicles to/from the Rose Bowl (rail/bus/shuttle routes, timetables, etc.).				
MM 3.7-3 To mitigate the potential impact to the regional transit system, it is recommended that Metro increase transit service to meet the demand of both commuter peak hour transit ridership, as well as the demand generated from the project. Since this mitigation measure is the responsibility of another jurisdiction, it is recommended that the City of Pasadena provide information to Metro in order to determine the level of transit service that is adequate to meet game day demands				
MM 3.7-4 The Traffic Command Center shall coordinate with PDOT and Caltrans to place two changeable message signs along the I210 or/and SR-134 to help facilitate ingress/egress on game days. However, given the volume of traffic that would utilize the freeways, there is no feasible operational mitigation measure that could fully mitigate the project's potential for impacts.				
MM 3.7-5 Parking operators shall monitor parking demand on game days to ensure sufficient supply is available to meet parking demand around the Rose Bowl. If excess parking demand is anticipated, stacked parking will be implemented as needed in one or more of the following parking lots to ensure that there is sufficient supply to meet demand: Lot H, Lot BD 2 & 3, Lot 1 A, Lot 1, Lot 2, Lot 3, Lot 4, Lot 5, Lot 6, Lot 7, Lot 8A, Lot 9, Lot 10 The use of stacked parking at these lots can increase parking supply by up to approximately 3,000 spaces.				
MM 3.7-6 Parking and traffic management staff for the Rose Bowl will implement all traffic and parking control plans for NFL game days, as are implemented for other events at the Rose Bowl to monitor and direct traffic to minimize spillover parking and other disruptions to residential neighborhoods adjacent to the Rose Bowl.				