

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
Geology and Soils				
<p>Mitigation Measure 4-2: Conduct Building Inspections</p> <p>Prior to approving an occupancy permit for any building on the Castle site, the County shall inspect the building to ensure that it meets state and County seismic safety codes. If any code deficiencies are identified, they shall be rectified prior to occupancy.</p>	Prior to occupancy permit	County of Merced	County of Merced	Verify before issuance of building permit
<p>Mitigation Measure 4-3: Geotechnical Survey—Incorporate Recommendations</p> <p>Prior to approving new construction on the Castle site, a geotechnical survey shall be completed for the Project site to identify any areas that could be prone to ground failure or liquefaction of soils. If such soils are found, the Project shall be designed in compliance with the recommendations of the geotechnical survey.</p>	Prior to construction	Specific Project Proponents	County of Merced	Verify before issuance of building permit

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<p>Mitigation Measure 4-4: Use Best Management Practices to Reduce Erosion</p> <p>All construction occurring on the Castle site shall use the following Best Management Practices (BMP), or equally effective measures</p> <ul style="list-style-type: none"> • Schedule grading and excavation activities to minimize the extent and duration of disturbance in any given area and avoid earthwork during the rainy season. • Lay foundations, complete paving, or apply mulch or mulch and seed combinations to disturbed areas as practical after grading or excavation is completed. <p>Establish perimeter controls through the use of silt fences, berms, sand bags, or other physical means to contain sediment and runoff and direct it to an engineered sediment trap or basin.</p>	During construction	Specific Project Proponents/Contractors	County of Merced	<p>Require in grading and building permits</p> <p>Verify periodically during construction</p>
<p>Mitigation Measure 4-5: Site-Specific Geotechnical Survey—Incorporate Recommendations</p> <p>Prior to any new construction, a site-specific geotechnical study shall be performed by a Certified Engineering Geologist or Licensed Geotechnical Engineer to assess detailed geologic and soil conditions. The study shall include an evaluation of expansiveness and other structural characteristics and shall identify specific geotechnical recommendations designed to mitigate for soil hazards, consistent with state and local building codes. In addition, recommendations for adequate building design including excavation and fill requirements for any identified soil constraints shall be included in the analysis. These recommendations shall be incorporated into project design.</p>	Prior to construction	Specific Project Proponents	County of Merced	Verify before issuance of building permit
<p>Mitigation Measure HYD-1 (New): Comply with the National Pollutant Discharge Elimination System</p> <p>To reduce or eliminate construction-related water quality effects, the redevelopment project applicant will obtain coverage under the NPDES General Construction Permit from the Central Valley Regional Water Quality Control Board (RWQCB) before the onset of any construction activities where the disturbed area is 1 acre or greater in size. As a performance standard, the redevelopment project applicant will implement controls of pollutant discharges that utilize the best available technology that is economically achievable, the best conventional pollutant control technology to reduce pollutants, and any more stringent controls necessary to meet water quality standards. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other nonpoint-source runoff. Measures range from source control, such as reduced surface disturbance, to the treatment of polluted runoff, such as detention or retention basins. BMPs to be implemented as part of a General Construction Permit issued within the Project area will include, at a minimum, the following.</p> <ul style="list-style-type: none"> • Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, geofabric, sandbag dikes, and temporary revegetation or other ground cover) will be used to control erosion from disturbed areas. 	Prior to construction	Specific Project Proponents	County of Merced	Verify before issuance of building permit

Table 1. Continued

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<ul style="list-style-type: none"> • Compliance with state and local disposal requirements will be required. • Grass or other vegetative cover will be established on the construction site as soon as possible after disturbance. At a minimum, vegetative application will be completed by September 15 to allow plants to establish. No disturbed surfaces will be left without erosion control measures in place between October 15 and April 15. <p>The final selection of BMPs for specific future projects will be subject to approval by the Central Valley RWQCB. The County will verify that a notice of intent (NOI) has been filed with the State Water Resources Control Board (SWRCB), for either a construction or industrial stormwater discharge permit, or both, and that a Storm Water Pollution Prevention Plan (SWPPP), or SWPPP-equivalent, has been developed before allowing construction to begin. . The County will perform inspections of the construction area to verify that the BMPs specified in the SWPPP are properly implemented and maintained. The County will notify contractors immediately if there is a noncompliance issue and will require compliance.</p>				
Biological Resources				
<p>Mitigation Measure BIO-1a (New): Minimize Potential Impacts on Special-Status Plant Species</p> <p>To reduce the level of this impact to less than significant, the Project proponent will retain qualified botanists to conduct botanical surveys at appropriate times that correspond to the blooming periods of the 15 special-status species with the potential to occur in the study area. The botanical surveys will be conducted in accordance with floristic methods recommended by the DFG (California Department of Fish and Game 2000) and California Native Plant Society (CNPS) guidelines (California Native Plant Society 2001). The guidelines specify that all plants be identified to the level necessary to determine whether they qualify as special-status plants or plant species with unusual or significant range extensions. Any special-status plant populations identified during the field surveys will be mapped and documented as part of the public record.</p> <p>If special-status plants are found within the redevelopment area and will be disturbed as a result of construction, then the Project proponent will redesign or modify the Project to avoid indirect or direct impacts on special-status plants. If avoidance is not feasible, the Project proponent will compensate for the loss of area occupied by special-status plants by implementing a compensation measure (e.g., purchasing and protecting another population or purchasing mitigation credits). Specific compensation for any loss of special-status plants will be developed in cooperation with the DFG and the USFWS.</p>	Prior to Construction	Specific Project Proponents	Merced County	Verify prior grading permit
<p>Mitigation Measure BIO-1b (New): Conduct Mandatory Contractor/Worker Awareness Training for Construction Personnel</p> <p>Before the start of construction activities, including grading, the Project proponent will retain a qualified biologist to conduct mandatory contractor/worker awareness training for construction personnel. The awareness training will be provided to all construction personnel to brief them on the identified location of sensitive biological resources, including how to identify species (visual and</p>	Prior to Construction	Specific Project Proponents	Merced County	Verify prior grading permit

Table 1. Continued

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>auditory) most likely to be present, the need to avoid impacts on biological resources (e.g., special-status plants, special-status wildlife, and wetlands) and to brief them on the penalties for not complying with biological mitigation requirements. If new construction personnel are added to redevelopment projects, the contractor will ensure that they receive the mandatory training before starting work.</p>				
<p>Mitigation Measure BIO-1c (New): Install Construction Barrier Fencing to Protect Sensitive Biological Resources Adjacent to the Construction Zone</p>	<p>Prior to Construction</p>	<p>Specific Project Proponents</p>	<p>Merced County</p>	<p>Verify prior grading permit</p>
<p>The Project proponent or its contractor will install orange construction barrier fencing to identify environmentally sensitive areas that are to be avoided. The construction specifications will require that a qualified biologist identify sensitive biological resources (e.g., special-status plants, and wetlands) on site and identify areas to avoid during construction. Sensitive communities within the area required for construction, including staging and access, will be fenced off to avoid disturbance in these areas.</p>				
<p>Mitigation Measure BIO-2a (New): Determine whether California Tiger Salamanders Occur in the Redevelopment Area</p>	<p>Prior to and During Construction</p>	<p>Specific Project Proponents</p>	<p>Merced County</p>	<p>Verify prior grading permit</p>
<p>The Project proponent or its contractor will retain a qualified biologist to prepare a site assessment and, if necessary, conduct surveys to document the presence or absence of California tiger salamanders prior to the implementation of individual redevelopment projects. The biologist will implement the USFWS’ <i>Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander—October 2003</i> in all suitable aquatic habitat and areas of nonnative annual grassland within the redevelopment area.</p> <p>Because California tiger salamanders use aquatic and upland habitats (up to 1.24 miles from aquatic habitat) during their life cycle, they may be present in either or both habitats on a given property. For this reason, California tiger salamanders located in the aquatic habitats on adjacent lands potentially could use upland habitat areas on the Project site. First, the biologist will prepare a site assessment and submit it to the USFWS to determine whether field surveys are appropriate. If the USFWS determines that there is a potential for the California tiger salamander to occur in upland habitat within the redevelopment area, the Project proponent or its contractor can either assume there is a presence or require surveys to determine a presence or absence of California tiger salamanders. The biologist then will conduct surveys to determine a presence or support a negative finding.</p> <p>As noted, another option is to forgo surveys and assume a presence. At sites that contain both upland and potential aquatic breeding habitat (i.e., pools that contain standing water continuously for at least 10 weeks, extending into April), aquatic sampling during two breeding seasons and a drift fence study in the intervening winter will be conducted to support a negative finding. Aquatic sampling surveys are conducted in potential breeding pools and repeated three times each season. Surveys will be conducted once each in March, April, and May. Drift fence surveys are conducted in fall and winter and must be in place by October 15 and until March 15, or until 20 nights of surveying under proper conditions have been completed.</p>				

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<p>Any California tiger salamanders identified during the field surveys will be mapped and documented as part of the public record. The Project proponent or its contractor will implement Mitigation Measure BIO-2b in conjunction with this measure to avoid or minimize significant impacts on California tiger salamanders.</p>				
<p>Mitigation Measure BIO-2b: Avoid or Minimize Impacts on California Tiger Salamander Populations by Protecting Salamander Populations during Construction (if Necessary)</p>				
<p>The Project proponent or its contractor will implement the following measures pursuant to the USFWS’ <i>Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander—October 2003</i> to avoid or minimize impacts on California tiger salamanders.</p>				
<ul style="list-style-type: none"> • Temporary construction disturbances to California tiger salamander habitat will be minimized to the extent practicable. All Project-related vehicle traffic will be restricted to established roads, construction areas, and other sensitive biological areas that will be identified during the implementation of Mitigation Measure BIO-1c. • A qualified biologist (one who the USFWS has agreed is qualified to monitor and move salamanders if necessary) will be on site during all activities that may result in the take of California tiger salamanders. The biologist will be given the authority to stop any work that may result in the take of this listed species. • The biologist will be responsible for ensuring that the exclusion fence installed around the sensitive biological areas that will be identified during the implementation of Mitigation Measure BIO-1c is inspected before the start of each day and remains intact until project construction is complete. • Plastic monofilament netting (erosion control matting) or similar material will not be used for erosion control or other purposes in the construction area because California tiger salamander may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding. • The project proponent or its contractor will implement BMPs to prevent sediment from entering suitable California tiger salamander habitat near the pipeline alignment, through the use of silt fencing and sterile hay bales, by avoiding cleaning equipment in drainages or other wetlands, through temporary sediment disposal, and through other measures. • A worker training program that includes the California tiger salamander will be conducted for construction personnel before groundbreaking at individual redevelopment project sites. • A speed limit of 20 miles per hour (mph) will be observed within construction areas, particularly on rainy nights when California tiger salamanders are most likely to be moving between their breeding ponds and upland habitat. To the extent possible, nighttime construction will be minimized. Off-road traffic outside designated construction areas will be prohibited. • To prevent entrapment of California tiger salamanders during construction, any trenches, holes, or other excavations into which California tiger salamander could fall and become trapped will be covered. The opening will be completely covered at the end of each workday with plywood or 				

Table 1. Continued

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<p>other appropriate materials in a manner that prevents the animals from falling into them. Before the trench is filled, it must be thoroughly inspected for trapped animals. If a trapped California tiger salamander is discovered, the on-site biologist will take a photograph, remove it by hand, and place it at the entrance of a suitable rodent burrow within walking distance of the excavation site but outside the area where the animal could be killed or injured. The USFWS will be notified by e-mail within 1 working day.</p> <ul style="list-style-type: none">• If construction occurs during the onset of fall and winter rains, the on-site biologist will examine the work site for California tiger salamanders each morning after any measurable precipitation has occurred. The biologist will search in pipes and beneath vehicles. If a California tiger salamander is found, the biologist will implement the same methods described in the above paragraph. <p>Runoff from dust control, oil, or other chemicals used in construction activities will be retained on the construction site and prevented from entering any aquatic habitat.</p> <p>Upon completion of individual redevelopment projects, all California tiger salamander habitat subject to temporary ground disturbances will be recontoured if appropriate in the opinion of the on-site biologist and revegetated to promote restoration of the area to natural conditions within 2 working days of completion of the project. Appropriate methods and locally collected seeds from native plant species will be used to revegetate these areas.</p>				

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<p>Mitigation Measure BIO-3 (New): Conduct Preconstruction Surveys for Active Burrowing Owl Burrows and Implement the California Department of Fish and Game Guidelines for Burrowing Owl Mitigation, if Necessary</p> <p>The DFG (1994) recommends that preconstruction surveys be conducted at all construction sites (except paved areas) in the study area and in a 250-foot-wide buffer zone around the construction site to locate active burrowing-owl burrows. The Project proponent or its contractor will retain a qualified biologist to conduct preconstruction surveys for active burrows according to the DFG guidelines. The surveys will include one in the nesting season and one in the wintering season, which is the season immediately preceding construction.</p> <p>If no burrowing owls are detected, then no further mitigation is required. If active burrowing owls are detected, the following measures will be implemented by the project proponent or its contractor.</p> <ul style="list-style-type: none"> • Occupied burrows will not be disturbed during the nesting season (February 1–August 31). • When the destruction of occupied burrows is unavoidable outside the nesting season (September 1–January 31), unsuitable burrows will be enhanced (enlarged or cleared of debris), or new burrows will be created (by installing artificial burrows) at a ratio of 2:1 on protected lands approved by the DFG. Newly created burrows will follow guidelines established by the DFG. • If owls must be moved away from Project construction areas, passive relocation techniques (e.g., installing one-way doors at burrow entrances) will be used instead of trapping. At least 1 week will be necessary to accomplish passive relocation and allow owls to acclimate to alternate burrows. • If active burrowing-owl burrows are found, and the owls must be relocated, the Project proponent or its contractor will offset the loss of foraging and burrow habitat in the Project construction areas by acquiring and permanently protecting a minimum of 6.5 acres of foraging habitat per occupied burrow identified in the Project construction area. The protected lands should be located adjacent to the occupied burrowing owl habitat in the Project construction area or at another occupied site near the Project construction area. The location of the protected lands will be determined in coordination with the DFG. The Project proponent or its contractor will prepare a monitoring plan also and provide long-term management and monitoring of the protected lands. The monitoring plan will specify success criteria, identify remedial measures, and require an annual report to be submitted to the DFG. <p>If avoidance is the preferred method of dealing with potential impacts, no disturbance will occur within 160 feet of occupied burrows during the nonbreeding season (September 1–January 31) or within 250 feet during the breeding season. Avoidance also requires that at least 6.5 acres of foraging habitat (calculated based on an approximately 300-foot foraging radius around an occupied burrow), contiguous with occupied burrow sites, be permanently preserved for each pair of breeding burrowing owls or single unpaired resident bird. The configuration of the protected site will be submitted to the DFG for approval.</p>				

Table 1. Continued

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>Mitigation Measure BIO-4 (New): Compensate for a Loss of Swainson’s Hawk Foraging Habitat</p> <p>The closest nest record in the CNDDDB is within 5 miles of the redevelopment area. To mitigate for a loss of foraging habitat, Project proponents will provide habitat management lands to the DFG based on DFG foraging habitat mitigation requirements for projects located within 5 miles of an active nest (California Department of Fish and Game 1994). Mitigation is as follows: 0.75 acre of habitat management lands will be preserved for each acre of development authorized. All habitat management lands will be preserved, by fee title or conservation easement on agricultural lands or other suitable habitats, for each acre of development authorized.</p>	Prior to grading permit	Specific Project Proponents	Merced County	Verify prior to grading permit
Cultural Resources				
<p>4-35 (Updated): Stop Work if Buried Cultural Deposits Are Encountered during Construction Activities</p> <p>If buried cultural resources such as chipped or ground stone, historic debris, or building foundations, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within a 100-foot radius of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop a Response Plan, with appropriate treatment measures, in consultation with the County, the State Historic Preservation Officer (SHPO), and other appropriate agencies. Preservation in place shall be the preferred treatment method per CEQA Guideline sec. 15126.4(b)(avoidance, open space, capping, easement). Data recovery of important information about the resource, research, or other actions determined during consultation, is allowed if it is the only feasible treatment method.</p>	During Construction	Specific Project Proponents	County of Merced	<p>Require in grading and building permits</p> <p>Verify periodically during construction</p>
<p>4-37 (Updated). Stop Work if Human Remains Are Encountered during Construction Activities</p> <p>If human skeletal remains are encountered, ground disturbing activities stop within a 100 foot radius of the discovery. The County Coroner must be contacted immediately and is required to examine the discovery within 48 hours. If the County Coroner determines that the remains are Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) within 24 hours. A qualified archaeologist (QA) should also be contacted immediately. The Coroner is required to notify and seek out a treatment recommendation of the NAHC-designated Most Likely Descendant (MLD).</p> <ul style="list-style-type: none"> If the NAHC identifies an MLD, and the MLD makes a recommendation, and the landowner accepts the recommendation, then ground-disturbing activities may resume after the QA verifies and notifies the County that the recommendations 	During Construction	Specific Project Proponents	County of Merced	<p>Require in grading and building permits</p> <p>Verify periodically during construction</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>have been completed.</p> <ul style="list-style-type: none"> • If the NAHC is unable to identify the MLD, or the MLD makes no recommendation, or the landowner rejects the recommendation, and mediation per PRC 5094.98(k) fails, then ground disturbing activities may resume, but only after the QA verifies and notices the County that the landowner has completely reinterred the human remains and items associated with Native American burials with appropriate dignity on the property, and ensures no further disturbance of the site per PRC 5097.98(e) by county recording, open space designation, or a conservation easement. • If the coroner determines that no investigation of the cause of death is required and that the human remains are not Native American, then ground-disturbing activities may resume, after the Coroner informs the County of Merced of such determination. According to state law, six or more human burials at one location constitute a cemetery and disturbance of Native American cemeteries is a felony. 				
Aesthetics				
<p>4-32 Review Project Designs</p> <p>Prior to approval of a building permit, the County shall review project designs to ensure that the following elements are included to the extent feasible:</p> <ul style="list-style-type: none"> • Existing visual features, including mature trees, are retained in the design where appropriate. • The mass, height, fenestration, and surface treatment of new buildings is compatible with surrounding development and visual features. <p>Landscape features are incorporated into the site design, including, where appropriate, linkages to adjacent sites.</p>	Prior to approval of building permit	County of Merced	County of Merced	Verify prior to issuing building permits
<p>4-33 Review Landscaping Design</p> <p>Prior to approval of building permit, the County shall review the landscaping design to ensure that, for development adjacent to light sensitive uses such as temporary housing, exterior lights are placed and shielded to prevent spillover onto adjacent properties.</p>	Prior to approval of building permit	County of Merced	County of Merced	Verify prior to issuing grading and building permits
4-34 Minimize Glare	Prior to approval of	County of Merced	County of	Verify prior

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Glare shall be minimized by use of non-reflective surface and roofing materials in areas that can be seen from roadways and sensitive uses.	building permit		Merced	to issuing grading and building permits
Air Quality				

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>Mitigation Measure AQ-1 (New): Incorporate Additional Innovative Measures to Reduce Greenhouse Gas Impacts</p> <p>The SJVAPCD encourages innovation in measures to reduce air quality impacts. Several measures will be incorporated into the design and operation of the proposed Project to provide additional reductions in the overall level of emissions, where feasible. These measures include those listed below.</p> <ul style="list-style-type: none"> • Energy-efficient design will be provided for homes and buildings, including automated control systems for heating and air conditioning and energy efficiency beyond 24 CCR (California Building Standards Code) requirements, lighting controls and energy-efficient lighting in buildings, increased insulation beyond 24 CCR requirements, and light-colored roof materials to reflect heat. • Large canopy trees will be carefully selected and located to protect buildings from energy-consuming environmental conditions and shade paved areas. Trees will be selected to shade 50% of paved areas within 15 years. • Deciduous trees will be planted on the south- and west-facing sides of buildings. • Trees will be planted adjacent to all sidewalks 30 foot on center and at a ratio of one tree for each parking space. Structural soil will be used under paved areas to improve tree growth in locations where street trees are located or planned. • The County will implement measures to reduce the amount of vehicle traffic to and from the Project area to further reduce air pollution in the valley. This could include provisions such as encouraging employees to rideshare or carpool to the Project site, or incentives for employees to use alternative transportation. • If transit service is available to the Project site, improvements will be made to encourage its use. If transit service is not currently available but is planned for the area in the future, easements will be reserved to provide for future improvements. These include bus turnouts, loading areas, route signs, and shade structures. Pedestrian access will be directed to the main entrance of the Project from existing or potential public transit stops, and appropriately designed sidewalks will be provided. Such access will consist of paved walkways or ramps and will be separated physically from parking areas and vehicle access routes. Appropriations made to facilitate public or mass transit will help mitigate trips generated by the Project. • Sidewalks and bicycle paths will be provided throughout as much of the Project as possible and connect to any nearby open space areas, parks, schools, and commercial areas to encourage walking and bicycling. Connections to nearby public uses and commercial areas will be made as direct as possible to promote walking for some trips. Sidewalks and bikeways will be designed to separate pedestrian and bicycle pathways from vehicle paths. Sidewalks and bikeways will be designed to be accommodating and appropriately sized for anticipated future pedestrian and bicycle use. Such pathways will be easy to navigate and designed to facilitate pedestrian movement through the Project and create a safe environment for all potential users (pedestrian, bicycle, and disabled) from obstacles and automobiles. Pedestrian walkways will be created to connect all 	<p>Prior to approval of building permit</p>	<p>County of Merced/Specific Project Proponents</p>	<p>County of Merced</p>	<p>Verify prior to issuing grading and building permits</p>

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<p>buildings throughout the Project. The walkways will create a safe and inviting walking environment for people wishing to walk from one building to another. Walkways will be installed to direct pedestrians from the street sidewalk to the buildings. Safe and convenient pathways will be provided for pedestrian movement in large parking lots. Mid-block paths will be installed to facilitate pedestrian movement through long blocks (over more than 500 feet in length) and cul-de-sacs. Sidewalks will be designed for high visibility (e.g., they will be painted brightly or will be a different color of concrete) when crossing parking lots, streets, and similar vehicle paths. Pathways through the Project will be built in anticipation of future growth/development.</p> <ul style="list-style-type: none"> • Exits to adjoining streets will be designed to reduce time to reenter traffic from the Project site. • Efficient interior circulation and pedestrian access within the Project area and logical connection points for future development on the surrounding properties will be provided. • Measures will be implemented to reduce the amount of vehicle traffic to and from the residential area(s) that further reduce air pollution in the SJVAB. This could include providing an information center for residents to coordinate carpooling. • As many energy-conserving features as feasible will be incorporated into the design and operation of the proposed Project. These include: <ul style="list-style-type: none"> • increased energy efficiency; • increased wall and ceiling insulation (beyond building code requirements); • energy-efficient windows (double-paned or Low-E); • high-albedo (reflecting) roofing materials; • cool paving; • radiant heat barriers; • energy-efficient lighting, appliances, and heating and cooling systems; • solar water-heating systems; • low NOX-emitting or high-efficiency, energy-efficient water heaters; • clean-energy features that promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems, and small wind turbines); • geothermal heat pump systems; • programmable thermostats for all heating and cooling systems; • awnings or other shading mechanisms for windows; • porch, patio, and walkway overhangs; 				

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<ul style="list-style-type: none"> • ceiling fans or whole-house fans; • passive solar cooling and heating designs (e.g., natural convection, and thermal flywheels); • daylighting (natural lighting) systems such as skylights, light shelves, and interior transom windows; • electrical outlets around the exterior of units to encourage the use of electric landscape maintenance equipment; • bicycle parking facilities for patrons and employees in covered secure areas (conveniently located at each destination point); • low- and no-VOC coatings and paints; • natural gas fireplaces (instead of wood-burning fireplaces or heaters) and natural gas lines (if available to the Project area) in backyard or patio areas to encourage the use of gas barbecues; • on-site employee cafeterias or eating areas; • pre-wired units with high-speed modem connections/DSL and extra phone lines; • employee shower and locker areas for bicycle and pedestrian commuters; and <p>use of low- or non-polluting landscape maintenance equipment (e.g., electric lawn mowers, reel mowers, leaf vacuums, and electric trimmers and edgers).</p>				
Hazards and Hazardous Materials				
<p>4-16 Prior to issuance of a permit for demolition or renovation of each building under the Reuse Plan, the County shall review the asbestos register to determine whether the presence of asbestos-containing materials, if any, could pose a health risk.</p>	Prior to issuance of demolition, building or grading permits	County of Merced	County of Merced	Verify prior to issuance of demolition, building or grading permits
<p>4-17 Prior to demolition or renovation of any building that contains asbestos, the asbestos will be removed or remediated in accordance with Air Force policy and Cal/OSHA regulations and standards.</p>	Prior to demolition and/or renovation	Specific Project Proponents	County of Merced	Verify prior to issuance of demolition, building or grading permits

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<p>4-18 Prior to approval of an occupancy permit, for any use that could expose children to materials that could contain lead, including but not limited to painted walls and exterior soils that could contain lead chips, a lead survey shall be conducted. If any lead is found, the building and/or soil will be remediated according to Cal/OSHA regulations and standards. Lead content in soils shall not exceed California standards.</p>	Prior to Issuance of Occupancy Permit	Specific Project Proponents	County of Merced	Verify prior to issuance of occupancy permit
<p>4-19 Any demolition, renovation or construction occurring in areas with lead-containing materials shall be conducted according to Cal/OSHA standards in order to protect construction workers.</p>	Prior to demolition, renovation and/or construction	Specific Project Proponents	County of Merced	Verify prior to issuance of demolition, building or grading permits
<p>4-20 Prior to any activities occurring in the outdoor small arms range, the explosive ordnance disposal range or the grenade launching range, all ordnance shall be properly packaged and transported off-base.</p>	Prior to any activities on ranges	Specific Project Proponents/County of Merced	County of Merced	Verify prior to issuance of demolition, building or grading permits, or other appropriate permits, such as special use permits
<p>4-21 Any underground storage tank that does not meet current regulations, as determined by the County Department of Health must be deactivated and removed prior to excavation, grading or construction in the vicinity of the UST.</p>	Prior to Excavation, Grading or Construction	Specific Project Proponents	County of Merced	Verify prior to issuance of demolition, building or grading permits

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<p>4-22</p> <p>Prior to approval of a building permit for any project area landfill site, the landfill material shall be remediated and geotechnically engineered according to federal and State regulations to support the intended use.</p>	Prior to Issuance of Building Permit	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
Hydrology and Water Quality				
<p>4-6 Prepare a Drainage Study and Incorporate Drainage Improvements</p> <p>Any project that would construct buildings or impervious surfaces on undeveloped land will prepare a study of pre- and post-project drainage flows at the project or building permit review stage. The project will incorporate any detention and storm drainage improvements necessary to satisfy the standards of the <i>Merced County Storm Drainage Design Manual</i>. Projects implemented as part of the 2007 Redevelopment Plan will be required to comply with the Small MS4 General Permit for the MSWG.</p>	Prior to Grading or Construction	Specific Project Proponents	County of Merced	Verify prior to issuance of demolition, building or grading permits
<p>4-8</p> <p>All buildings intended to be occupied shall be elevated above the 100-year flood plain, or floodproofed, in compliance with FEMA and local flood protection ordinances.</p>	Prior to Issuance of Occupancy Permit/Construction	Specific Project Proponents	County of Merced	Verify prior to issuance of, building or grading permits and again prior to issuance of occupancy permit.
<p>4-9</p> <p>No structures that interfere with the flow of flood waters shall be built in the 100 year flood plain.</p>	Prior to Issuance of Occupancy Permit/Construction	Specific Project Proponents	County of Merced	Verify prior to issuance of, building or grading permits and again prior to issuance of occupancy permit.

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>Mitigation Measure HYD-1 (New): Comply with the National Pollutant Discharge Elimination System</p> <p>To reduce or eliminate construction-related water quality effects, the redevelopment project applicant will obtain coverage under the NPDES General Construction Permit from the Central Valley RWQCB before the onset of any construction activities where the disturbed area is 1 acre or greater in size. As a performance standard, the redevelopment project applicant will implement controls of pollutant discharges that utilize the best available technology that is economically achievable, the best conventional pollutant control technology to reduce pollutants, and any more stringent controls necessary to meet water quality standards. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other nonpoint-source runoff. Measures range from source control, such as reduced surface disturbance, to the treatment of polluted runoff, such as detention or retention basins. BMPs to be implemented as part of a General Construction Permit issued within the Project area will include, at a minimum, the following.</p> <ul style="list-style-type: none"> • Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, geofabric, sandbag dikes, and temporary revegetation or other ground cover) will be used to control erosion from disturbed areas. • Compliance with state and local disposal requirements will be required. • Grass or other vegetative cover will be established on the construction site as soon as possible after disturbance. At a minimum, vegetative application will be completed by September 15 to allow plants to establish. No disturbed surfaces will be left without erosion control measures in place between October 15 and April 15. <p>The final selection of BMPs for specific future projects will be subject to approval by the Central Valley RWQCB. The County will verify that an NOI has been filed with the SWRCB and that a SWPPP has been developed before allowing construction to begin. The County will perform inspections of the construction area to verify that the BMPs specified in the SWPPP are properly implemented and maintained. The County will notify contractors immediately if there is a noncompliance issue and will require compliance.</p>	<p>Prior to Excavation, Grading or Construction</p>	<p>Specific Project Proponents</p>	<p>County of Merced</p>	<p>Verify prior to issuance of demolition, building or grading permits</p>
<p>Mitigation Measure HYD-2 (New): Implement a Spill Prevention and Control Program</p> <p>The redevelopment project applicant shall be required to develop and implement a spill prevention and control program to minimize the potential for spills of hazardous, toxic, or petroleum-based substances that would be used during construction activities. The program will be completed before any construction activities begin. Implementation of this measure</p>	<p>Prior to Excavation, Grading or Construction</p>	<p>Specific Project Proponents</p>	<p>County of Merced</p>	<p>Verify prior to issuance of demolition, building or grading</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
will comply with state and federal water quality regulations regarding spills of reportable quantities and requirements for emergency response and cleanup.				permits
Land Use				
<p>4-1 The County shall amend its general plan and zoning ordinance to incorporate the designations identified in the Reuse Plan and Redevelopment Plan and to delete references to the JPA as appropriate.</p>	When general plan and zoning ordinance updates are prepared	County of Merced	County of Merced	Confirm at the time of adoption of general plan and zoning ordinance amendments
Noise				
<p>4-23 Restrict Development of Sensitive Land Uses in Areas That Exceed Noise Standards Merced County and the City of Atwater shall restrict new development of residential and other sensitive land uses in areas that exceed exterior noise levels of 65 L_{dn}, unless a noise study has been conducted that identifies noise attenuation measures that could reduce noise levels to acceptable levels. Such attenuation measures shall be required in new construction.</p>	Prior to Tentative Map Approval or Building Permit Issuance	County of Merced and City of Atwater	County of Merced	ongoing
<p>4-24: Restrict Development That Would Increase Traffic Near Certain Land Uses Merced County and the City of Atwater shall restrict development that would increase traffic along roadways where existing or planned residences and other sensitive land uses are experiencing exterior noise levels above 65 L_{dn}, unless measures to reduce the noise levels have been identified and required as a condition of development. If 65 L_{dn} cannot be achieved, residential buildings shall be renovated with noise attenuation measures to achieve an interior noise level of 45 L_{dn}.</p>	Prior to Tentative Map Approval or Building Permit Issuance	County of Merced and City of Atwater	County of Merced	ongoing
<p>Mitigation Measure NOISE-1 (New): Employ Noise-Reducing Construction Practices: Noise-reducing construction practices shall be employed such that noise from construction activities that occurs outside the hours of 7 a.m.–6 p.m. does not exceed 55 dBA during the applicable daytime hours (6 p.m.–10 p.m.) and 45 dBA during nighttime hours (10 p.m.–7 a.m.) at noise-sensitive uses. Measures that can be employed to achieve this include:</p> <ul style="list-style-type: none"> • limiting noise-generating construction operations to the hours between 7 a.m. and 6 p.m., • locating equipment as far as practical from noise-sensitive uses, and 	During Construction	Specific Project Proponents	County of Merced	Require in grading and building permits Verify periodically during construction

Table 1. Continued

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
using noise-reducing enclosures around noise-generating equipment and constructing barriers between noise sources and noise-sensitive land uses or taking advantage of existing barrier features (terrain or structures) to block sound transmission.				
<p>4-25: Ensure Interior Noise Levels Meet Standards</p> <p>Prior to approval of Aviation/Industrial and Public Facilities uses within the 65 CNEL contour, a noise analysis shall be conducted to determine whether interior noise levels meet the standards presented in Table 10-1. If the interior noise levels do not meet the standards, the buildings shall be fitted with noise attenuation measures adequate to reduce noise to acceptable levels.</p>	Prior to approval of Building Permits for Aviation/Industrial and Public Facilities uses within the 65 CNEL contour	County of Merced/Specific Project Proponents	County of Merced	Verify prior to issuing grading and building permits
Public Services and Utilities				
<p>4-10</p> <p>The following measures will be used during all grading, excavation and construction.</p> <ul style="list-style-type: none"> - All material excavated, graded, or otherwise disturbed will be sufficiently watered to prevent excessive amounts of dust. Watering should occur at least twice daily with complete coverage, preferably in the late morning and after work is completed for the day. - All clearing, grading, earth moving, or excavation activities will cease when wind speeds are equal to or greater than 20 miles per hour. - On-site vehicle speed will be limited to 15 miles per hour. 	During Construction	Specific Project Proponents	County of Merced	Require in grading and building permits Verify periodically during construction
<p>4-12</p> <p>Compliance with applicable permitting requirements for new or modified emission sources subject to air pollution control district rules and regulations will be required.</p>	During Construction	Specific Project Proponents	County of Merced	Require in grading and building permits Verify periodically during construction
<p>4-26</p> <p>Prior to approving an occupancy permit for any existing building, the Fire Marshal shall inspect the building to ensure that it does not contain any fire hazards, pursuant to state and</p>	Prior to Issuance of Occupancy Permits for existing	Fire Marshal/Specific Project Proponents	County of Merced	Verify prior to issuing occupancy

Table 1. Continued

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
County law. If any fire hazards are identified, they shall be rectified prior to occupancy.	buildings			permits
4-27 The private security force shall continue to provide the necessary security services to ensure public safety on the Castle site until it is determined that the Sheriff’s Department has adequate resources.	Ongoing	County of Merced	County of Merced	Consult with Sheriff
4-30: Ensure Conformance to Codes Prior to approving an occupancy permit for any existing building, the County Building Inspector shall inspect the building to ensure that it does not pose any electrical hazards to the occupants. If any electrical deficiencies are noted, they shall be rectified prior to occupancy. All new buildings shall conform to current County building codes and State law.	Prior to Issuance of Occupancy Permits for existing buildings	County Building Inspector/Specific Project Proponents	County of Merced	Verify prior to issuing occupancy permits
4-31 Prior to approving an occupancy permit for any existing building, the County Building inspector shall inspect the building to ensure that it does not pose any health hazards to the occupants. If any deficiencies are noted (i.e., no gas meter), they shall be rectified prior to occupancy. All new buildings shall conform to current County building codes, pursuant to State law.	Prior to Issuance of Occupancy Permits for existing buildings	County Building Inspector/Specific Project Proponents	County of Merced	Verify prior to issuing occupancy permits
Transportation				
Mitigation Measure TRA-1 (New): Impact Fee Fund Developer(s) of property within the Redevelopment Plan area will ensure that the Project include each subsequent specific project’s fair share of all feasible physical improvements necessary and available to reduce the severity of the project’s significant transportation-related impacts, as identified in this traffic analysis after considering the pre-CAFB-closure levels of operation as the existing baseline consistent with the policies and exceptions set forth in the Circulation Chapter of the Merced County Year 2000 General Plan, as amended. The project’s contribution toward such improvements, which the County recognizes will not be sufficient to mitigate all cumulative transportation-related impacts to less-than-significant levels, may take any, or some combination, of the following forms: <ul style="list-style-type: none">• construction of roads and related facilities within and adjacent to the boundaries of the Redevelopment Plan area, which may be subject to fee credits and/or reimbursement, coordinated by the County, from other fee-paying development projects with respect to roads or other facilities that would also serve fee-paying development projects other than the Redevelopment Plan area;• construction of roads and/or road improvements or other transportation facilities outside the boundaries of the Redevelopment Plan area but within unincorporated Merced County, subject in some instances to future reimbursement, coordinated by the County, from other fee-paying development projects where the roads or improvements at issue would also serve fee-paying development projects other than the Redevelopment Plan Project;• the payment of impact fees to the County in amounts that constitute the Redevelopment Plan area’s	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>fair share contributions to the construction of transportation facilities to be built or improved within unincorporated Merced County, consistent with the County’s CIP/RTP;</p> <ul style="list-style-type: none"> • the payment of impact fees to MCAG, as the Regional Transportation Authority (RTA), in amounts that constitute the Project’s fair share contribution to the construction of transportation facilities funded through fees collected through the RTP for Tier 1 and/or Tier 2 projects; • the payment of other adopted regional or “zone of benefit” impact fees that would provide improvements to roadways, intersections, and/or interchanges that are affected by multiple jurisdictions; • the payment of impact fees to the County in amounts that constitute the Redevelopment Plan’s fair share contributions to the construction of transportation facilities and/or improvements within Atwater or the City of Merced needed in whole or in part because of the Redevelopment Plan, to be made available to the City of Atwater and/or City of Merced, if and when those jurisdictions and the County enter into an enforceable agreement. At the time of issuance of building permits for individual development projects within the Redevelopment Plan area, the County will collect fair share fee payments for improvements or facilities addressed by its CIP/RTP, as it exists at that time; • the payment by developers of property within the Redevelopment Plan area of impact fees to Merced County in amounts that constitute the Redevelopment Plan’s fair share contributions to the construction of transportation facilities and/or improvements on federal or state highways or freeways needed in part because of the Redevelopment Plan, to be made available to Caltrans if and when Caltrans and the County enter into an enforceable agreement consistent with State law; and • in pursuing a single agreement or multiple agreements with the City of Atwater, City of Merced, and Caltrans, negotiation in good faith by Merced County with these other jurisdictions to enter into fair and reasonable arrangements with the intention of achieving, within a reasonable time period after certification of this SEIR for the Redevelopment Plan, commitments for the provision of adequate fair share mitigation payments from the Redevelopment Plan for its out-of-jurisdiction traffic impacts and its impacts on federal and state freeways and highways. 				
<p>Consistent with Mitigation Measure TRA-1, as part of development agreement negotiations, the County will work with the City of Atwater and the City of Merced to implement a program whereby new development projects within this area of Merced County will each pay a traffic fee to fund certain major regional traffic infrastructure projects that provide relief for traffic congestion to Merced County. The applicant(s) may satisfy part, or all, of its regional traffic mitigation obligations, set forth in Mitigation Measure TRA-1, by paying its fair share fees into a comprehensive region-wide fee program. Because the adoption of such a region-wide fee program is beyond the authority of Merced County, there is no guarantee that such a program would be established.</p>				
<p>Mitigation Measure TRA-2 (New): Signalize Intersection and Alter Lane Configuration at the Intersection of Walnut Avenue and Santa Fe Drive</p>	<p>Prior to Issuance of Building Permits</p>	<p>Specific Project Proponents</p>	<p>County of Merced</p>	<p>Verify prior to issuance of building</p>
<ul style="list-style-type: none"> • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and 				

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>p.m. peak hours and therefore should be considered for signalization.</p> <ul style="list-style-type: none"> Split out the southbound and westbound combined left/through/right-turn lane to include an exclusive left-turn lane and a combined through/right-turn lane. Split out the northbound and eastbound combined left/through/right-turn lane to include an exclusive left-turn lane, an exclusive through lane, and an exclusive right-turn lane. <p>The proportionate share attributable to the Project is 20.0%.</p> <p>With implementation of this improvement, the intersection would operate at an acceptable LOS D and LOS C with 48.5 and 34.3 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				permits
<p>Mitigation Measure TRA-3 (New): Add Additional Eastbound and Westbound Lanes to Santa Fe Drive and Alter Lane Configuration on Santa Fe Drive</p> <ul style="list-style-type: none"> Add one additional westbound and one additional eastbound through lane to Santa Fe Drive. Split out the westbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Santa Fe Drive. <p>The proportionate share attributable to the Project is 20.0%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-3, the intersection would operate at an acceptable LOS C and D, with 21.1 and 48.0 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvements also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-4 (New): Alter Lane Configurations at the Intersection of Shaffer Road and Santa Fe Drive and Add an Additional Westbound and Eastbound Through Lane to Santa Fe Drive</p> <ul style="list-style-type: none"> Split out the southbound and northbound combined left/through/right-turn lane to include an exclusive left-turn lane and a combined through/right-turn lane on Shaffer Road. Add an exclusive left-turn lane to the southbound approach creating dual left-turn lanes on Shaffer Road. Split out the westbound and eastbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Santa Fe Drive. 	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<ul style="list-style-type: none"> • Add an additional westbound and eastbound through lane to Santa Fe Drive. • Split out the northbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Shaffer Road. • Add an exclusive left-turn lane to the westbound approach, creating dual left-turn lanes on Santa Fe Drive. • Add a southbound receiving lane on Shaffer Road. <p>The proportionate share attributable to the Project is 22.3%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-4, the intersection would operate at an acceptable LOS D, with 35.1 and 44.3 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvements also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-5 (New): Signalize Intersection, Add Additional Lanes to Santa Fe Drive, and Reconfigure Lanes on Santa Fe Drive and Wallace Road</p> <ul style="list-style-type: none"> • Split out the southbound combined through/left-turn lane to include an exclusive through lane and an exclusive left-turn lane on Santa Fe Drive. • Add an additional northbound and southbound through lane to Santa Fe Drive. • This intersection meets the MUTC peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. • Split out the westbound combined left/right-turn lane to include an exclusive left-turn lane and an exclusive right-turn lane on Wallace Road. <p>The proportionate share attributable to the Project is 40.3%.</p> <p>With implementation of the improvements described in Mitigation Measures TRA-1 and TRA-5, the intersection would operate at an acceptable LOS B and D with 15.0 and 43.2 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvements also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-6 (New): Signalize Intersection of Hospital Road and Wallace Road</p> <p>This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>The proportionate share attributable to the Project is 93%.</p> <p>With implementation of this improvement, the intersection would operate at an acceptable LOS A, with 4.2 and 4.6 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-7 (New): Improve Intersection of Santa Fe Drive and Buhach Road</p> <ul style="list-style-type: none"> • Split out the eastbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane. Add an exclusive left-turn lane to the eastbound approach, creating dual left-turn lanes on Santa Fe Drive. • Add an exclusive left-turn lane to the westbound approach, creating dual left-turn lanes on Santa Fe Drive. • Split out the northbound combined through/left-turn lane to include an exclusive through lane and an exclusive left-turn lane on Buhach Road. Split out the northbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Buhach Road. Add an exclusive left-turn lane to the northbound approach, creating dual left-turn lanes on Buhach Road. Add an additional northbound through lane to Buhach Road. • Add an exclusive left-turn lane to the southbound approach, creating dual left-turn lanes on Buhach Road. Add an additional southbound through lane to Buhach Road. 	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>The proportionate share attributable to the Project is 61%.</p> <p>With implementation of the improvements described in Mitigation Measures TRA-1 and TRA-7, the intersection would operate at an acceptable LOS C and D with 30.5 and 49.4 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-8 (New): Install Roundabout at Intersection of Airdrome Entry and G Street</p> <p>This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours. However, the spacing between this intersection and Santa Fe Drive is too short to allow for a signal. A roundabout would improve intersection operations to acceptable levels.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>The proportionate share attributable to the Project is 85%.</p> <p>With implementation of this improvement, the intersection would operate at an acceptable LOS A and B, with 8.8 and 16.8 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-9 (New): Signalize Intersection and Add Lanes to Santa Fe Drive and Bellevue Road</p> <ul style="list-style-type: none"> • Add an exclusive left-turn lane to the northbound approach, creating dual left-turn lanes on Santa Fe Drive. • Add an exclusive right-turn lane to the westbound approach, creating dual right-turn lanes on Bellevue Road. • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. 	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>The proportionate share attributable to the Project is 42.6%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-9, the intersection would operate at an acceptable LOS B and LOS C, with 19.4 and 24.4 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-10 (New): Add Lanes and Reconfigure Intersection of Spaceport Entry and Santa Fe Drive</p> <ul style="list-style-type: none"> • Add an exclusive left-turn lane to the eastbound approach, creating dual left-turn lanes on Santa Fe Drive. • Split out the westbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Santa Fe Drive. 	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>The proportionate share attributable to the Project is 54%.</p> <p>With implementation of these improvements, the intersection would operate at an acceptable LOS B and LOS D with 16.6 and 38.2 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study</p>				

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
(see Appendix B of this SEIR).				
<p>Mitigation Measure TRA-11 (New): Signalize Intersection and Reconfigure Lanes at Santa Fe Drive and Avenue Two</p> <ul style="list-style-type: none"> • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. • Split out the eastbound combined left/right-turn lane to include an exclusive left-turn lane and an exclusive right-turn lane on Avenue Two. <p>The proportionate share attributable to the Project is 33.0%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-11, the intersection would operate at an acceptable LOS C, with 20.8 and 27.1 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-12 (New): Signalize Intersection of Franklin Road and Bellevue Road</p> <p>This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization.</p> <p>The proportionate share attributable to the Project is 14.2%.</p> <p>With implementation of this improvement, the intersection would operate at an acceptable LOS A and C, with 8.7 and 25.1 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-13 (New): Signalize and Reconfigure Intersection of SR 59 and Bellevue Road</p> <ul style="list-style-type: none"> • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. • Split out the southbound, northbound, eastbound, and westbound combined left/through/right-turn lane to include an exclusive left-turn lane, an exclusive through lane, and a combined through/right-turn lane on SR 59 and Bellevue Road. <p>The proportionate share attributable to the Project is 14.6%.</p> <p>These improvements should be implemented only if the SR 59 realignment between</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>Bellevue Road and SR 99 does not take place. At this time, no final selection has occurred for the alignment, and it is not fully funded. The SR 59 alignment would help to relieve congestion along the existing SR 59 corridor.</p> <p>With implementation of this improvement, the intersection would operate at an acceptable LOS C, with 25.5 and 24.8 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-14 (New): Reconfigure Lanes at the Intersection of Franklin Road and Santa Fe Drive</p> <ul style="list-style-type: none"> • Split out the northbound combined left/through/right-turn lane to include a combined through/left-turn lane and an exclusive right-turn lane on Franklin Road. • Split out the westbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Santa Fe Drive. • Split out the northbound combined through/left-turn lane to include an exclusive through lane and an exclusive left-turn lane on Franklin Road. • Add an additional eastbound and westbound through lane to Santa Fe Drive. <p>The proportionate share attributable to the Project is 29.7%.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>With implementation of the improvements described in Mitigation Measure TRA-14, the intersection would operate at an acceptable LOS C and LOS D, with 32.5 and 35.9 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-15 (New): Improve Intersection of Buhach Road and Bellevue Road</p> <ul style="list-style-type: none"> • Split out the northbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Buhach Road. • Split out the southbound combined through/left-turn lane to include an exclusive through lane and an exclusive left-turn lane on Buhach Road. Add two additional southbound through lanes to Buhach Road. • Add an exclusive eastbound and westbound through lane to Bellevue Road. Add an exclusive left-turn lane to the eastbound and westbound approaches, creating dual left- 	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>turn lanes on Bellevue Road.</p> <p>The proportionate share attributable to the Project is 61%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-15, the intersection would operate at an acceptable LOS C and LOS D, with 29.0 and 48.9 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (the traffic study is Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-16 (New): Reconfigure Lanes on Buhach Road and Avenue Two and Add Lanes on Avenue Two and Buhach Road</p> <ul style="list-style-type: none"> • Split out the northbound and southbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Buhach Road. • Add an additional eastbound through lane to Avenue Two. • Add an additional westbound through lane and split out the westbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Avenue Two. • Add an additional northbound and southbound through lane to Buhach Road. • Add an exclusive left-turn lane to the northbound and southbound approaches, creating dual left-turn lanes on Buhach Road. <p>The proportionate share attributable to the Project is 44.8%.</p> <p>With implementation of the improvements identified in Mitigation Measure TRA-16, the intersection would operate at an acceptable LOS D and C, with 47.5 and 28.0 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-17 (New): Add Lanes to Buhach Road</p> <p>Add an additional northbound and southbound through lane to Buhach Road.</p> <p>The proportionate share attributable to the Project is 52%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-17, the intersection would operate at an acceptable LOS D and C, with 41.6 and 21.6 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
included in Appendix A of the traffic study (see Appendix B of this SEIR).				
<p>Mitigation Measure TRA-18 (New): Improve the Intersection of Ashby Road and Buhach Road</p> <ul style="list-style-type: none"> • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. • Add an exclusive left-turn lane to the northbound approach, creating dual left-turn lanes and split out the northbound combined left/through lane to include an exclusive left-turn lane and an exclusive through lane on Ashby Road. • Add an exclusive left-turn lane to the eastbound approach, creating dual left-turn lanes, and split out the eastbound combined left/right-turn lane to include an exclusive left-turn lane and an exclusive right-turn lane on Buhach Road. • Split out the southbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Ashby Road. Add an eastbound and southbound departure lane for approximately 500 feet and then taper back to one lane. • Add an additional northbound and southbound through lane to Ashby Road. <p>The proportionate share attributable to the Project is 30.4%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-18, the intersection would operate at an acceptable LOS D and LOS C, with 38.3 and 27.4 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-19 (New): Signalize and Reconfigure Lanes at the Intersection of Broadway Avenue and Buhach Road</p> <ul style="list-style-type: none"> • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. • Split out the northbound combined through/left-turn lane to include an exclusive through lane and an exclusive left-turn lane on Buhach Road. <p>The proportionate share attributable to the Project is 37%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-19, the intersection would operate at an acceptable LOS B, with 10.8 and 15.3 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
Appendix A of the traffic study (see Appendix B of this SEIR).				
<p>Mitigation Measure TRA-20 (New): Signalize and Reconfigure Intersection of Ashby Road and Buhach Road Overcrossing</p> <ul style="list-style-type: none"> This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. Split out the eastbound combined through/right-turn lane to include an exclusive through lane and an exclusive right-turn lane on Ashby Road. Split out the westbound combined through/left-turn lane to include an exclusive through lane and an exclusive left-turn lane on Ashby Road. <p>The proportionate share attributable to the Project is 22.1%.</p> <p>With implementation of the improvements described in Mitigation Measure TRA-20, the intersection would operate at an acceptable LOS D, with 35.9 and 43.9 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (Appendix B of the SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-21 (New): Signalize Intersection of SR 99 Southbound Ramps and Ashby Road</p> <p>This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization.</p> <p>The proportionate share attributable to the Project is 27.7%.</p> <p>With implementation of this improvement, the intersection would operate at an acceptable LOS C, with 30.1 and 33.5 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-22 (New): Signalize Intersection of Franklin Road and Ashby Road and Reconfigure Lanes on Ashby Road</p> <ul style="list-style-type: none"> This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. Split out the eastbound and westbound combined left/through/right-turn lane to include an exclusive left-turn lane and a combined through/right-turn lane on Ashby Road. <p>The proportionate share attributable to the Project is 9.2%.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>With implementation of the improvements described in Mitigation Measure TRA-22, the intersection would operate at an acceptable LOS D, with 46.2 and 47.6 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-23 (New): Signalize and Reconfigure Intersection of SR 99 Northbound Ramps and Sycamore Avenue</p>	<p>Prior to Issuance of Building Permits</p>	<p>Specific Project Proponents</p>	<p>County of Merced</p>	<p>Verify prior to issuance of building permits</p>
<ul style="list-style-type: none"> • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. • The combined westbound left/through lane should be split out to include an exclusive left-turn lane and an exclusive through lane. • The combined northbound left/right-turn lane should be split out to include an exclusive left-turn lane and an exclusive right-turn lane. <p>The proportionate share attributable to the Project is 11%.</p>				
<p>With implementation of this improvement, the intersection would operate at an acceptable LOS B and LOS A with 10.7 and 9.4 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				
<p>Mitigation Measure TRA-24 (New): Signalize and Reconfigure Intersection of SR 99 Southbound Ramps and Bell Lane</p>	<p>Prior to Issuance of Building Permits</p>	<p>Specific Project Proponents</p>	<p>County of Merced</p>	<p>Verify prior to issuance of building permits</p>
<ul style="list-style-type: none"> • This intersection meets the MUTCD peak-hour signal warrant during both the a.m. and p.m. peak hours and therefore should be considered for signalization. • The combined southbound left/through/right-turn lane should be split out to include an exclusive left-turn lane and a combined through/right-turn lane. <p>The proportionate share attributable to the Project is 12%.</p>				
<p>With implementation of this improvement, the intersection would operate at an acceptable LOS C and D with 21.2 and 40.5 seconds of delay during the a.m. and p.m. peak hours, respectively. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level. A detailed intersection operation sheet showing improved operations is included in Appendix A of the traffic study (see Appendix B of this SEIR).</p>				

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>Mitigation Measure TRA-25 (New): Widen Santa Fe Drive between Shaffer Road and Wallace Road from Two to Four Lanes</p> <p>The proportionate share attributable to the Project is 28%.</p> <p>With implementation of this improvement, the roadway segment would operate at an acceptable LOS C. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-26 (New): Widen Santa Fe Drive between Wallace Road and Buhach Road from Two to Four Lanes</p> <p>The proportionate share attributable to the Project is 26%.</p> <p>With implementation of this improvement, the roadway segment would operate at an acceptable LOS B. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-27 (New): Widen Santa Fe Drive between Spaceport Entry and Franklin Road from Four to Six Lanes</p> <p>The proportionate share attributable to the Project is 32%.</p> <p>With implementation of this improvement, the roadway segment would operate at an acceptable LOS C. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-28 (New): Widen Bellevue Road between SR 59 and Franklin Road from Two to Four Lanes</p> <p>The proportionate share attributable to the Project is 11%.</p> <p>With implementation of this improvement, the roadway segment would operate at an acceptable LOS A. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits
<p>Mitigation Measure TRA-29 (New): Widen Buhach Road between Green Sands Avenue and Ashby Road from Two to Four Lanes</p> <p>The proportionate share attributable to the Project is 46%.</p> <p>With implementation of this improvement, the roadway segment would operate at an acceptable LOS C. Implementation of the recommended improvement also would reduce the significance of the impact to a less-than-significant level.</p>	Prior to Issuance of Building Permits	Specific Project Proponents	County of Merced	Verify prior to issuance of building permits