

MITIGATION MONITORING + REPORTING PROGRAM

PROJECT NAME APPLICATION 17PLN-00212 Highway 101 Overcrossing and Adobe

NUMBER Creek Tail Project

City of Palo Alto Public Works

APPROVED BY City of Palo Alto Planning and DATE 09/01/2017

Community Environment APPLICANT/OWNER

Engineering Division

The Draft Mitigated Negative Declaration (MND) for the Highway 101 Overcrossing and Adobe Creek Tail Project identifies the mitigation measures that will be implemented to reduce the impacts associated with the project. The California Environmental Quality Act (CEQA) was amended in 1989 to add Section 21081.6, which requires a public agency to adopt a monitoring and reporting program for assessing and ensuring compliance with any required mitigation measures applied to proposed development. As stated in section 21081.6(a)(1) of the Public Resources Code:

... the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.

Section 21081.6 also provides general guidelines for implementing mitigation monitoring programs and indicates that specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined as part of adopting an MND.

The mitigation monitoring table lists those mitigation measures that would be included as conditions of approval for the project. To ensure that the mitigation measures are properly implemented, a monitoring program has been devised which identifies the timing and responsibility for monitoring each measure.



MITIGATION MONITORING + REPORTING PROGRAM

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	AIR QUALITY			
Impact AQ-1: Dust generated by various construction activities could adversely impact residences and/or other receptors located in the project vicinity.	MM AQ-1.1: Implementation of MM AQ-1.1, described below, will ensure that any significant adverse effects associated with construction-generated dust are avoided.	Applicant/Contractor	During construction	Planning and Community Environment Department
	 Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or covered. 			·
	 Haul trucks transporting soil, sand, or other loose material off-site shall be covered. 			
	 Visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 			
	 Roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. 			
	A publicly visible sign shall be posted with the telephone number and name of an individual working for the construction contractor who can be contacted regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air Quality Management District's phone number shall also be visible to ensure compliance with applicable			

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	regulations.			
	BIOLOGICAL RESOURCES			
Impact BIO-1: If project construction occurs during a flooding event that inundates the area Flood Control Basin, there is the potential for project activities to result in take of salt marsh harvest mice and impacts to salt marsh wandering shrews.	 MM BIO-1.1: The project contractors will implement the following measures to avoid potential take of salt marsh harvest mice and impacts to salt marsh wandering shrews: Work Schedule: Work within the biological study area will occur between April 15 and October 15. If it is not possible to schedule project activities between April 15 and October 15 within the biological study area, then pre-construction surveys by a United States Fish and Wildlife Service (USFWS)-approved biologist for salt marsh harvest mouse and wandering shrews will be conducted by a qualified biologist to ensure that these species will not be disturbed during project implementation. These surveys will be conducted no more than one month prior to the initiation of project activities conducted prior to April 15 and after October 15. 	Applicant/Contractor	Prior to and During construction	Planning and Community Environment Department; USFWS
	 Worker Environmental Awareness Program. Before any construction activities begin, a USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the importance of the species, general measures that are being implemented to conserve these species as they relate to the project, and boundaries within which the project may be accomplished, and if 			

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	found (living or dead) their observations must be immediately reported to the Resident Engineer and USFWS-approved biologist			·
	• Herbaceous Cover Removal. Prior to the start of project activities within the Flood Control Basin portion of the biological study area (including vehicle/equipment access), herbaceous vegetation will be removed from impact areas to eliminate cover for salt marsh harvest mice and salt marsh wandering shrews, thereby discouraging them from occurring in impact areas. The grassland land cover within the project footprint on the northeast side of Highway 101 will be trimmed to within two inches of the ground level prior to the start of ground disturbing activities. Vegetation removal will start where the San Francisco Bay Trail crosses Adobe Creek, and will proceed gradually northwards towards the open marsh habitat in the Flood Control Basin. Vegetation will not be removed during a flooding event that inundates the Flood Control Basin, as these are the conditions in which salt marsh harvest mice and salt marsh wandering shrews are most likely to be present in the biological study area. A USFWS-approved biologist familiar with the biology of these species will conduct a pre-construction survey prior to vegetation			

removal process. Vegetation will be removed using hand-held equipment (e.g., weed-whackers). This will allow any small mammals, including salt marsh harvest mice and salt marsh wandering shrews, to

escape the biological study area under the cover of vegetation, and will encourage movement of such small mammals towards available vegetated habitat to the north outside the biological study area. Herbaceous vegetation that could potentially conceal a salt marsh harvest mouse or salt marsh wandering shrew within the biological study area will be removed, including herbaceous understory vegetation on the north bank of Adobe Creek. Vegetation that is removed will be hauled offsite the day it is removed, and will not be left on the site to provide potential cover for small mammal species. It is possible that vegetation within the Flood Control Basin portion of the biological study area will be removed during the fall prior to construction to reduce potential impacts to nesting birds. In such a case, if sufficient herbaceous cover regrows prior to construction the following year, this herbaceous cover will again be removed by hand prior to initiation of construction activities.

• Exclusion Barrier. Following vegetation trimming and prior to the start of construction activities on the northeast side of Highway 101, a fence will be installed at the outer limits of the work area, as shown in the Initial Study. The fence will be designed to exclude salt marsh harvest mice from the project footprint, define the limits of the footprint, and provide a visual screen. This barrier, which will be constructed under the guidance of a Service-Approved Biologist, will consist of a three-foot tall, tight cloth,

toed into the soil at least three inches deep and supported with stakes placed on the inside of the barrier. A USFWS-Approved Biologist will conduct a preconstruction survey of the area where vegetation was trimmed prior to construction access, and will monitor the installation of the barrier. Following the installation of the barrier, designated construction personnel will check its integrity each morning that construction activities occurring, and will initiate repairs immediately as needed. The area of vegetation removal will extend approximately two to three feet beyond the area where equipment and personnel will operate during project construction to create an open area that will discourage salt marsh harvest mice and salt marsh wandering shrews from approaching the exclusion barrier

- Environmentally Sensitive Area Fencing.
 Within the Flood Control Basin, biological
 - Within the Flood Control Basin, biological study area limits will also be clearly demarcated with Environmentally Sensitive Area fencing to avoid inadvertent disturbance of any habitat outside of the designated construction area during construction activities. This fencing can be combined with the exclusion barrier but must not be outside that barrier.
- Visual Screening. Additional green-screen fencing will be installed along the limits of the biological study area between work areas and natural habitats within the Palo Alto Flood Control Basin to screen project

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	activities from view of the Baylands and avoid potential visual disturbance of salt marsh harvest mice and salt marsh wandering shrews. This fencing can be combined with the fencing described above but must not be outside the exclusion barrier.			
	 High-water Work Suspension. All ground work on the northeast side of highway 101, including vegetation trimming, will be suspended while there are flood waters within 100 feet of the project footprint (other than waters within the Adobe Creek channel). 			
	• Immediate Work Stoppage. If a salt marsh harvest mouse or salt marsh wandering shrew, or an animal that could be a harvest mouse or wandering shrew (e.g., a similar species of mouse or shrew), is observed within the biological study area during project activities, all work that could result in the injury or death of the individual will stop and the USFWS-approved biologist will be immediately notified. The animal will be allowed to leave the area on its own and will not be handled before work in that area resumes.			
	 Work Limits. All activity will be limited to the existing and proposed footprint, access, and staging described in the May 2017 Biological Assessment, prepared by H.T. Harvey & Associates. Environmentally sensitive areas, such as wetlands and tidal habitat, will be identified on contract plans and discussed in the Special Provisions. Temporary orange fencing or other obvious system will be used to identify 			

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	areas of avoidance and will remain in place until all construction is completed.			
	 Night Work Lighting. If night-time work is conducted, the use of temporary artificial lighting during nighttime construction hours will be minimized to the maximum extent practicable and will be directed at the associated work zone and away from adjacent tidal wetland habitat. 			
	 Trash. Food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a day from the work area. 			
	 Firearms Forbidden. No firearms will be allowed on the project except for those carried by authorized security personnel, or local, state, or federal law enforcement officials. 			
	 Pets Forbidden. To prevent harassment, injury or mortality of wildlife species, no pets will be permitted on the project site. 			
	Water Quality. The potential for adverse effects to water quality will be avoided by implementing temporary and permanent Best Management Practices (BMPs) outlined in Section 7-1.01 G of the Caltrans Standard Specifications. Caltrans erosion control BMPs will be used to minimize any wind or water-related erosion. The State Water Resources Control Board has issued a National Pollution Discharge Elimination System Statewide Storm Water Permit to Caltrans to regulate storm water and non-storm water discharges from Caltrans facilities. A Storm Water Pollution			

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
impace	Prevention Plan (SWPPP) will be developed for the project, as one is required for all projects that have at least 1.0 acre of soil disturbance. The SWPPP complies with the Caltrans Storm Water Management Plan (SWMP). The SWMP includes guidance for Design staff to include provisions in construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges.		Сотришнес	
	The SWPPP will reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges and can be found at the following website: http://www.dot.ca.gov/hq/construe/stormwater/ manuals.htm. Protective measures will be included in the contract, including, at a minimum:			
	 No discharge of pollutants from vehicle and equipment cleaning are allowed into the storm drain or water courses. 			
	 Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from water courses. 			
	 c) Concrete wastes are collected in washouts and water from curing operations is collected and disposed of and not allowed into water courses. 			

d) Dust control will be implemented,

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	including use of water trucks and tackifiers to control dust in excavation and fill areas, rocking temporary access road entrances and exits, and covering temporary stockpiles when weather conditions require.			
	e) Coir rolls will be installed along or at the base of slopes during construction to capture sediment and temporary organic hydromulching will be applied to all unfinished disturbed and graded areas.			
	 f) Work areas where temporary disturbance has removed the pre- existing vegetation will be restored and re-seeded with a native seed mix. 			
	Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toe of slopes or along edges of designated staging areas, and erosion-control netting (such as jute or coir) as appropriate.			
Impact BIO-2: Construction activities associated with the proposed project could result in impacts to nesting birds through the loss of fertile eggs or nest abandonment.	 MM BIO-2.1: The following measures will be implemented to ensure that project activities avoid substantial impacts to nesting birds and their eggs, which are protected under the migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CDGC). Avoidance of the Nesting Bird Season. To the extent feasible, project activities will be scheduled to avoid the avian nesting season. If such activities are scheduled to take place outside the nesting season, impacts on nesting birds, including raptors, 	Applicant/Contractor/Qualified Biologist	Prior to and During construction	Planning and Community Environment Department

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	protected under the MBTA and CFGC, will be avoided. The nesting season for most birds in Santa Clara County typically extends from February 1 through August 31.			
	 Vegetation Removal during the Non-Nesting Season. If project activities will not be initiated until after the start of the nesting season, potential nesting substrate (e.g., bushes, trees, grasses, and other vegetation) that is scheduled to be removed by the project, if any, may be removed prior to the start of the nesting season (e.g., prior to February) to reduce the potential for initiation of nests. The project schedule includes vegetation removal in the Flood Control Basin portion 			
	of the biological study area during the fall prior to construction to minimize impacts to nesting birds the following spring. If it is not feasible to schedule vegetation removal during the nonbreeding season, or where vegetation cannot be removed (e.g., in areas immediately adjacent to the			

activities. During this survey, a qualified

biological study area), then pre-

be conducted as described below.

construction surveys for nesting birds will

Pre-construction/Pre-disturbance Surveys for Nesting Birds. If it is not possible to schedule project activities between

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	biologist will inspect all potential nesting habitats (e.g., trees, shrubs, grasslands, and buildings) within 300 feet of impact areas for raptor nests and within 100 feet of impact areas for nests of non-raptors.			
	e Buffers around Active Nests. If an active nest (i.e., a nest with eggs or young, or any completed raptor nest attended by adults) is found sufficiently close to work areas to be disturbed by these activities, the biologist, in consultation with California Department of Fish and Wildlife, will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. Because the majority of the biological study area is already subject to disturbance by vehicles and pedestrians, activities that will be prohibited from occurring within the buffer zone around a nest will be determined on a case-by-case basis. In general, activities prohibited within such a buffer while a nest is active will be limited to new construction-related activities (i.e., activities that were not ongoing when the nest was constructed) involving significantly greater noise, human presence, or vibrations than were present prior to nest initiation.			
	Screening. As described for salt marsh harvest mice and salt marsh wandering shrews above, additional fencing with a green screen will be installed along the limits of the biological study area between			

limits of the biological study area between

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	work areas and natural habitats within the Palo Alto Baylands Nature Preserve's Flood Control Basin (Flood Control Basin). This fencing will screen project activities from view of the Baylands and minimize potential visual disturbance of nesting birds as a result of the project.			
	• Nest Deterrence. If necessary to avoid impacts to active nests (i.e., nests containing eggs or young), nest starts may be removed on a regular basis (e.g., every second or third day), starting in late January or early February, or measures such as exclusion netting or slippery panels may be placed over nesting sites on the existing bridges to prevent active nests from becoming established. Any netting installed for nest deterrence must be installed appropriately by an experienced deterrence technician, under the supervision of a qualified biologist, and must be inspected and maintained regularly to avoid the entrapment or entanglement of birds.			
Impact BIO-3: The project could result in potential impacts as a result of bird strikes with the bridge structure; as well as disorientation, predation, and habitat impacts from increased lighting.	 MM BIO-3.1: The following measures will be implemented to avoid impacts on bird populations due to potential collisions and project lighting: The overcrossing will be designed to minimize the potential for bird strikes; it will not include highly reflective surfaces, suspension cables, transparent surfaces, or features such as small wires or netting that could injure birds. No power lines will be suspended above 	Project Engineer/Applicant/Construction Contractor	Prior to Construction (Shown on Building Plans); During Operation	Planning and Community Environment Department

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	the bridge deck. Night lighting on the bridge will be minimized; only lighting needed for safety purposes will be installed. Lighting will be directed at the bridge deck or downward, not outwards toward natural areas, and lights will be shielded to minimize spillover of light into natural areas.			
	CULTURAL AND TRIBAL RESOURCES			
Impact CUL-1: Unknown subsurface archaeological or paleontological resources could be present on the site in underlying native soils and could be disturbed during project construction.	MM CUL-1.1: In the event any significant cultural materials (including fossils) are encountered during construction grading or excavation, construction within a radius of 50 feet of the find would be halted, the Director of Public Works shall be notified, and a qualified archaeologist shall examine the find and make appropriate recommendations regarding the significance of the find and the appropriate treatment of the resource. Recommendations could include collection, recordation and analysis of any significant cultural materials. A report of findings documenting any data recovered during monitoring shall be submitted to the Director of Planning.	Applicant/Contractor	During construction	Planning and Community Environment Department
	MM CUL-1.2: Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission (NAHC) who shall attempt to	Applicant/Contractor	During construction	Planning and Community Environment Department
		City of Palo Alto • Mitigation Mor		

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this state law, then the land owner shall reinter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. If the Director of Planning finds that the archaeological find is not a significant resource, work would resume only after the submittal of a preliminary archaeological report and after provisions for reburial and ongoing monitoring are accepted.			
Impact CUL-2: Unknown tribal cultural resources could be uncovered or disturbed during construction activities associate with the project.	MM CUL-2.1: In the event that a tribal cultural resource is found during construction, the NAHC will be contacted for information regarding the appropriate tribe and/or persons to notify. Once the appropriate tribal representatives are notified, consultation will take place consistent with Assembly Bill 52 requirements. Mitigation measures that may be considered to avoid significant impacts (if there is no agreement on appropriate mitigation in discussions with the tribal representatives) may include:	Applicant/Contractor	During construction	Planning and Community Environment Department
	 Avoidance and preservation of the resources in place, including: Planning and construction to avoid the resources and protect the 			
	cultural and natural context; - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria;			
•	 Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of 			

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	the resource, including, but not limited to, the following: - Preservation in place; - Protecting the cultural character and integrity of the resource; - Protecting the traditional use of the resource; - Protecting the confidentiality of the resource; - Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.			
	HAZARDS & HAZARDOUS MATERIALS			
Impact HAZ-1: Aerially deposited lead located in soils at the project site could be disturbed during grading and construction activities and potentially impact workers,	MM HAZ-1.1: A construction risk and spoils management plan (CRSMP) shall be prepared for the project prior to the start of any ground-disturbing activities. The CRSMP shall include necessary procedures to ensure that excavated materials are stored, managed, and disposed of in a manner that is protective of human health and the environment in accordance with applicable laws and regulations. The CRSMP shall include the following components:	Applicant/Contractor	Prior to Building Permit Issuance	Planning and Community Environment Department
area residents, or the environment.	 A site-specific health and safety plan (HASP) shall be prepared by a qualified environmental professional in accordance with federal OSHA regulations (29 CFR 1910.120) and State of California Occupational Safety and Health Administration regulations (8 CCR 5192). The HASP shall include required measures to protect construction workers and the general public by including engineering controls, monitoring, and security 			

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	measures to prevent unauthorized entry to the construction area and to reduce hazards outside of the construction area. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations. • The CRMSP shall include step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for: (1) reuse within the project area; (2) stockpiling within the project area; and (3) offsite disposal shall be included. Excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor should be stockpiled separately to minimize the amount of material that may require special handling. The chemical quality of the spoils intended for reuse shall be characterized, and spoils should be reused onsite only if they meet the reuse criteria established in the Department of Toxic Substances Control Variance obtained by Caltrans (Variance No. V09HQSCD006). If some of the spoils do not meet the reuse criteria and/or debris is identified, these materials shall be disposed of in accordance with applicable state and federal waste disposal requirements.			
	The CRMSP shall also include procedures to be implemented if unknown subsurface conditions			
	or contamination are encountered, such as			
	previously unreported tanks, wells, or			
	previously an eported tarks, wells, or			

contaminated soils shall be included in the

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	CRSMP.			
	Noise			
Impact NOI-1: The project could result in exposure of persons in the project area to a substantial temporary or periodic increase in ambient noise levels during construction activities.	 MM NOI-1.1: The following measures will be implemented during construction to lessen the potential for noise impacts: With one exception, noise-generating construction activities will be restricted to the hours of 8:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays. The exception is that, as stated above, there would be up to seven nights of construction including up to three nights to lower prefabricated structures in place over Highway 101, West Bayshore Road, and East Bayshore Road. No construction activities will occur on Sundays or holidays. For any planned construction outside permitted hours, the project contractor will notify property owners within 500 feet of the proposed work at least one week in advance of the construction activities, require the contractor to implement a construction noise monitoring program and, if feasible, provide additional mitigation as necessary (in the form of noise control blankets or other temporary noise barriers, etc.) for affected receptors. Internal combustion engine driven equipment will be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment. Unnecessary idling of internal combustion engines within 100 feet of residences will be strictly prohibited. 	Applicant/Contractor	Prior to construction outside permitted construction work hours	Planning and Community Environment Department

Environmental Impact	Mitigation Measure	Responsible for Implementation	Timing of Compliance	Oversight of Implementation
	 Stationary noise generating equipment will be located as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. 			
	 "Quiet" air compressors and other "quiet" equipment will be utilized where such technology exists. 			
	 Construction equipment will conform to Section 14-8.02, Noise Control, of the latest Caltrans Standard Specifications. 			
	The contractor will prepare a detailed construction plan identifying the schedule for major noise-generating construction activities and distribute this plan to adjacent noise-sensitive receptors. The construction plan will also contain these construction noise reduction measures.			