MEMORANDUM FOR: (b)(6);(b)(7)(C)
Director
Border Patrol and Air and Marine
Program Management Office

FROM: (b)(6);(b)(7)(C)
Real Estate and Environmental Branch Chief
Real Estate, Environmental, and Leasing Division
Border Patrol and Air and Marine
Program Management Office

SUBJECT: Construction and Evaluation of Border Wall Prototypes, U.S. Border Patrol, San Diego Sector, California

Purpose:

On August 2, 2017 the Secretary of the Department of Homeland Security (DHS) issued a waiver pursuant to Section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) (the Waiver). Among the projects covered by the Waiver is the construction and evaluation of border wall prototypes (Project) in San Diego County, California. This memorandum provides a description of Project activities, summarizes the results of recent natural and cultural resource surveys performed within areas to be affected by the Project, and analyzes the potential effects of the Project on the resources present within the Project Area (hereinafter defined). Furthermore, the memorandum provides best management practices (BMPs) to be implemented during the Project to minimize or avoid potential Project impacts.

Background and History:

The United States Border Patrol (USBP) San Diego Sector (SDC) in southern California is one of the busiest USBP sectors in the Nation. Although the construction of border infrastructure and other operational improvements over the last two decades has improved border security in the sector, SDC remains an area of high illegal entry.

On August 2, 2017, the Secretary of DHS, pursuant to his authority under Section 102(c) of IIRIRA of 1996, issued the Waiver, which sets aside certain laws, regulations, and other legal requirements in order to ensure the expeditious construction of barriers and roads in the vicinity of the international land border of the United States in SDC, including the Project. Although the Secretary's waiver means that U.S. Customs and Border Protection (CBP) no longer has any specific legal obligations under the laws that are included in the waiver, CBP remains committed

to the protection of valuable natural and cultural resources through responsible environmental stewardship.

Project Description:

CBP will construct and evaluate border wall prototypes in an approximately 120' by 1,000' corridor on the U.S./Mexico border in the alignment of the secondary border fence between the Otay Mesa Land Port of Entry (LPOE) and the western base of Otay Mountain in San Diego County, California (the Construction Corridor). The Construction Corridor is situated within an area that currently serves as a border enforcement zone with primary and secondary border fences, border roads, border lighting, and surveillance technology. CBP will build eight different border wall prototypes side by side in the Construction Corridor. The construction design, materials, methods, and equipment will vary by prototype. In general, construction activities will consist of excavating for the prototype foundations, forming concrete, and assembling and installing the 30' by 30' prototypes. A mockup of each prototype will be further evaluated at the USBP SDC Support Facility on Pogo Row.

Access to the prototype construction area will be along the secondary border road from the west and via two north-south roads near the LPOE; these access roads will be repaired or improved to support the movement of heavy trucks and equipment to the prototype construction area. Access road repair and improvement will consist of clearing vegetation, filling potholes, leveling and grading, and stabilizing the road with aggregate or other stabilized road surface course. A gate will be installed on the existing secondary fence to allow the movement of construction traffic from the entrance road through the fence and onto the border road. Construction laydown and staging will be done immediately south of the prototype construction area. The laydown and staging area will include concrete washout stations, sanitary stations, and equipment refueling stations. A remote video surveillance system (RVSS) will also be installed in the laydown and staging area.

The Construction Corridor, access roads, laydown and staging areas and RVSS placement area is referred to collectively as the Project Area. The total Project Area is estimated at approximately 52 acres, of which approximately 8 acres will be temporary disturbance and approximately 2 acres will be new permanent disturbance.

Existing Environment:

The Project Area is located in San Diego County, California. It is situated along the U.S./Mexico border between the western base of Otay Mountain and the Otay Mesa Land Port of Entry (LPOE) within Section 36 of Township 18 South, Range 1 West, and Sections 31 and 32, Township 18 South, Range 1 East (map reference: Otay Mesa, California, USGS 7.5' topographic quadrangles). Additional evaluation of prototype mockups will occur at the USBP SDC Support Facility on Pogo Row. See Figure 1 for a Project location map.

The Project Area, including the Construction Corridor, is located on Federal government property. The Construction Corridor, laydown and staging areas, and RVSS placement area are managed by CBP for purposes of border security. The access road to be used as an entrance to the Construction Corridor is a two track road located on Federal government property managed

by the General Services Administration (GSA). The access road to be used as an exit from the prototype construction area is a graded dirt road located on an easement held by CBP. The laydown, staging, and RVSS placement area is heavily disturbed and currently serves as a border enforcement zone with primary and secondary border fences, all-weather road, and border lighting and surveillance technology. The USBP SDC Support Facility is a fully developed facility located on Federal government property managed by CBP.

Field surveys for natural and cultural resources were conducted on August 23, 2017 by Gulf South Research Corporation (GSRC) on behalf of CBP. The surveys covered the entire Project Area but not the mockup evaluation location, which is completely paved and devoid of vegetation. The survey area included the prototype construction area, all potential access roads, and the laydown, staging, and RVSS placement area. See Figure 2 for a Project Area overview map.

The Construction Corridor is heavily disturbed and bound by disturbed nonnative grassland to the north and the U.S./Mexico Border to the south. A majority of this portion of the Project Area is devoid of vegetation. A small strip of heavily disturbed and frequently mowed non-native forb grassland runs along the southern edge of the Project Area adjacent to the border. The entrance road is bound by industrial buildings to the north and east, and by heavy-truck transport infrastructure to the west and south. This area shows evidence of heavy prior disturbances in the form of grading and frequent mowing. The vegetation community is non-native grassland with mixed forbs dominated by brome grass (*Bromus* spp.), Russian thistle (*Salsola* sp.), prickly lettuce (*Lactuca serriola*), and Australian saltbush (*Atriplex semibaccata*). The exit road is an unpaved heavily disturbed area running south of Via de La Amistad to the secondary border fence. This area is bound by industrial buildings to the west, disturbed non-native grassland to the east, and the border enforcement zone to the south. The vegetation community in the immediate vicinity can best be described as non-native grassland with mixed forbs and shrubs. This portion of the Project Area is completely disturbed and is nearly devoid of vegetation. The laydown, staging, and RVSS placement area is heavily disturbed from frequent mowing of vegetation and vehicular traffic. The vegetation community in the immediate vicinity can best be described as non-native grassland with mixed non-native forbs dominated by brome grass, Russian thistle, prickly lettuce, and Australian saltbush.

The burrowing owl (*Athene cunicularia;* [BUOW]) is a small owl distributed throughout western North America that has been designated as a Species of Special Concern in the State of California and is protected under the Migratory Bird Treaty Act. Common habitat includes open areas containing mammal burrows within sparsely vegetated arid and semi-arid environments. BUOWs require small mammal burrows for rearing and fledging young and for refuge. BUOWs generally stay close to their burrows during the day and forage further from the nest or refuge burrow between dusk and dawn. The current breeding range of BUOW includes much of the state of California, including most of San Diego County along the border with Mexico.

During the survey, multiple BUOWs and 37 active BUOW burrows were observed in the laydown, staging, and RVSS placement area. GSRC biologists reported 19 BUOWs, 12 of which were observed at burrow sites. Additionally, several small mammal burrows were observed within the entrance road portion of the Project Area, primarily along the western edge of the GSA managed property. However, there was no evidence of occupation or use of these

burrows by BUOW and no BUOWs were observed in this portion of the survey area. There was no evidence of any active bird breeding or nesting behaviors observed in the Construction Corridor or the exit road portions of the Project Area.

The Project Area is located within one mile of designated Critical Habitat for the coastal California gnatcatcher (*Polioptila californica*; [CAGN]). The CAGN is Federally listed as threatened. The CAGN is the northernmost species of California gnatcatcher. It is a small, non-migratory songbird occurring along the Pacific coasts of southern California and northern Baja California, Mexico. The CAGN is associated with coastal scrub plant communities, including coastal sage scrub and coastal succulent scrub. There was no evidence of suitable habitat or occupation of the Project Area by CAGN.

The eastern portion of the Project Area extends into designated Critical Habitat for the Quino checkerspot butterfly (*Euphydryas editha quino*; [QCB]). The QCB is Federally listed as endangered. The QCB is found in several plant communities, from scrub on coastal bluffs, coastal sage, chaparral, and oak woodlands to desert pinyon-juniper woodlands. However, it is only found in openings within these plant communities having a sufficient cover of larval food plants and annual forbs that provide nectar for adults. There was no evidence of suitable habitat or occupation of the Project Area by QCB.

The Project Area extends into designated Critical Habitat for San Diego Fairy Shrimp (*Branchinecta sandiegonensis*; [SDFS]). The SDFS is a small aquatic crustacean that is generally restricted to vernal pools in southern California and northwestern Baja California. The SDFS is Federally listed as endangered. There was no evidence of suitable habitat or occupation of the Project Area by SDFS.

Critical habitat for Riverside Fairy Shrimp (*Streptocephalus woottoni*; [RSFS]) occurs within 1.0 mile of the Project Area. The RSFS is a small aquatic crustacean that is generally restricted to vernal pools greater than 12 inches in depth in Riverside, Orange, and San Diego Counties in California. The RSFS is Federally listed as endangered. There was no evidence of suitable habitat or occupation of the Project Area by RSFS.

Vernal pools are a type of temporary wetland that consist of depressions in areas where a hard underground layer prevents rainwater from draining downward into the subsoils. Rainwater typically fills the pools in winter and spring and gradually evaporates from late spring to summer. Vernal pools are some of the most ecologically important and distinct habitats in California, supporting a diversity of flora and fauna, including species found only in these habitats such as SDFS and RFS. As wetlands, vernal pools are protected by state and Federal laws. Vernal pools are known to occur north of the Project Area. However, no vernal pools, wetlands, or other surface waters were observed within the Project Area. A shallow ditch within the border enforcement zone to the east of the entrance road and outside of the Project Area was observed to display vegetation and hydrology consistent with wetlands and is a potential wetland habitat.

No other rare, threatened, or endangered species were observed within the survey area and other than the BUOWs, no other nesting or breeding bird behavior was observed.

No archaeological sites or historic properties were identified during the pedestrian archaeological survey. Several manmade features were observed within the Project Area, such as a drainage channel and storm drain. The drainage channel is believed to be modern in nature and origin (i.e., within the last 10 to 20 years). A fragment of a ceramic roof tile was also noted within the GSA-managed property near the entrance road, but appears to be displaced, along with refuse, and is likely modern. In addition, two possible pieces of lithic debitage were also noted within the laydown, staging, and RVSS placement area. However, both items are located between the primary fence and the all-weather road to the north, and within an area that has been subject to significant earth-moving activities (e.g., blading, grading, leveling). It is likely that the items were created through pressure of heavy equipment (e.g., bulldozer or grader) traveling over the ground surface.

The Project Area is located within San Diego County, California within the San Diego Air Pollution Control District. San Diego County is a Federal and State nonattainment area for 8-hour ozone and a State nonattainment area for 1-hour ozone and particulate matter (PM10 and PM2.5). San Diego County is in attainment or unclassified status for all other criteria air pollutants.

Environmental Analysis:

Based on the results of the field surveys and knowledge of the Project Area, CBP identified sensitive species, surface water, cultural and historical resources, and air quality as the environmental resource categories with the greatest potential to be impacted by the Project. A review was conducted to ensure that the impacts from the Project will not adversely affect these resources. Other environmental impacts are not expected to result from the Project.

(a) Sensitive Species

In August 2017, biologists conducted a pedestrian survey of the Project Area to identify sensitive species, candidate species, and/or critical habitat present; consider project revisions to avoid or minimize effects; and provide options for reasonable mitigation of unavoidable effects.

During the survey, multiple BUOWs and 37 active BUOW burrows were observed in the laydown, staging, and RVSS placement area. GSRC biologists reported 19 BUOWs, 12 of which were observed at burrow sites. The California Department of Fish and Wildlife recommends a 50-meter buffer around active BUOW burrows during the non-breeding season (September 1 through January 31). A 50-meter buffer around all but the two easternmost observed burrows will be enforced by CBP for Project activities. The two easternmost observed burrows will be directly affected by site grading and are within 50 meters of the area to be affected by the RVSS placement. CBP will install one-way exclusionary doors on these two easternmost BUOW burrows to be affected as the result of RVSS placement and wait until the burrows are vacated before collapsing them to ensure no direct mortality to BUOW individuals occurs. Because BUOW burrows and suitable habitat are relatively common throughout San Diego County along the border with Mexico, overall impacts to BUOW from a loss of two burrows are considered minor.

The Project Area is located within designated Critical Habitat for QCB and SDFS and in the vicinity of designated Critical Habitat for CAGN and RSFS. However, no evidence of suitable habitat or occupation of the Project Area was observed. Due to the absence of suitable habitat for these species within the Project Area, the Project will have no impact on CAGN, QCB, SDFS, or RSFS or their designated Critical Habitat. Furthermore, the Project will have no impact on any other state or Federal sensitive or protected species.

(b) Cultural and Historical Resources

In August 2017, an archaeologist conducted a pedestrian survey of the Project Area to identify cultural and historical resources; consider project revisions to avoid or minimize effects; and provide options for reasonable mitigation of unavoidable effects. No archaeological sites or historic properties were identified during the pedestrian archaeological survey. Due to the absence of cultural resources sites in the Project Area, the Project is not likely to have any impact on cultural and historical resources.

(c) Air Quality

San Diego County is within a Federal and State nonattainment area for 8-hour ozone and a State nonattainment area for 1-hour ozone, PM10, and PM2.5. A conformity determination would be required for each pollutant where the total of direct and indirect emissions in a non-attainment or maintenance area caused by the Federal action will equal or exceed specified emissions rates.

Temporary and minor increases in air pollution will occur from the use of construction equipment (combustion emissions) and the disturbance of soils (fugitive dust) during construction. Several sources of air pollutants will contribute to the overall air impacts of the Project, including: combustion engines of construction equipment; construction workers commuting to and from work; supply trucks delivering materials to the construction site; and fugitive dust from job-site ground disturbances. Fugitive dust emissions for the Project were calculated based on assumptions about equipment to be used, size of the Project Area, and construction duration. The total air quality emissions from the construction activities were estimated and compared to the de minimis thresholds of the General Conformity Rule.

Total Air Emissions (tons/year) from the Project versus the de minimis Threshold Levels for San Diego County

Pollutant	*Total (tons/year)*	*de minimis Thresholds (tons/year)*
CO	<3	100
Volatile Organic Compounds (VOC)	<1	50
Nitrous Oxides (NOx)	<2	100
PM-10	<2	100
PM-2.5	<2	100
SO2	<1	100
CO2 and CO2 equivalents	<1,200	27,557

The construction and evaluation activities associated with the Project do not exceed Federal de minimis thresholds for air pollution emissions. As there are no violations of air quality standards

and no conflicts with the state implementation plans, the Project will not have a major impact on air quality.

(d) Surface Water

The Project will not result in impacts on any vernal pools, wetlands, or other surface waters, as no vernal pools, wetlands, or other surface waters are located within the Project Area. A shallow ditch within the border enforcement zone to the east of the entrance road and outside of the Project Area displayed vegetation and hydrology consistent with wetlands and is a potential wetland. However, all impacts from the Project will be contained within the Project Area through the implementation of a Storm Water Pollution Prevention Plan (SWPPP), and no impacts to the potential wetland will occur. The SWPPP measures will be monitored during construction. The Project will not have a major impact on surface water quality.

Best Management Practices:

GENERAL

CBP will clearly demarcate project construction area perimeters. No disturbance outside that perimeter will be authorized without prior coordination and approval.

Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.

CBP will provide an environmental briefing to all construction crew members working on the Project, informing them of sensitive resources present within the Project Area and BMPs to be implemented.

VEGETATION

CBP will minimize habitat disturbance by restricting vegetation removal to the smallest possible project footprint. Native seeds or plants, which are compatible with the enhancement of habitat for sensitive species, will be used to the greatest extent practicable, to rehabilitate staging areas and other temporarily disturbed areas.

Construction equipment will be cleaned at temporary staging areas, in accordance with BMPs, prior to entering and departing the Project Area to minimize the spread and establishment of non-native invasive plant species.

WILDLIFE RESOURCES

If construction activities are scheduled during nesting season (February 15 through September 1), monitors will perform surveys in advance of construction activity to identify active nests. If the monitor observes a nest with eggs or chicks, he will work with the construction crew to do one of the following: 1) avoid the nest, so long as it does not impact the scope of work for road improvement activities; 2) if appropriate, take it to a rehabilitation center; or 3) if neither 1 nor 2 is practicable, document the loss and include that information in the monitoring report.

CBP will not, for any length of time, permit any pets inside the Project Area or adjacent native habitats. This BMP does not pertain to law enforcement animals.

PROTECTED SPECIES

A 50-meter buffer around observed BUOW burrows will be enforced by CBP for Project activities. Where observing a 50-meter buffer is not compatible with Project needs, CBP will install one-way exclusionary doors on BUOW burrows and wait until the burrows are vacated before collapsing them to ensure no direct mortality to BUOW individuals occurs.

WATER RESOURCES

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and will not resume until conditions are suitable for the movement of equipment and material. No refueling or storage will take place within 100 feet of drainages. CBP will avoid contaminating natural aquatic systems with runoff by limiting all equipment maintenance, staging, laydown, and dispensing of fuel, oil, etc., to designated upland areas.

CBP will avoid contamination of ground and surface waters by storing any water that has been contaminated with construction materials, oils, equipment residue, etc., in closed containers on site until removed for disposal. Storage tanks must have proper air space (to avoid rainfall-induced overtopping), be on-ground containers, and be located in upland areas instead of washes.

In the event that CBP contaminates soil or water resources as a result of the Project, the contaminated soil or water will be remediated.

A SWPPP will be prepared, implemented, and monitored.

CULTURAL RESOURCES

If any archaeological artifacts are found during Project activities, all project activity in the immediate area will immediately cease until an evaluation of the discovery is made to determine appropriate actions to prevent the loss of significant cultural or scientific value.

In the event that human remains or indications that human remains may be present, such as headstones, are observed or encountered, all project activity in the immediate area will immediately cease and the site will be secured. Securing the site requires that the discovery not be disturbed and that others are prevented from disturbing it. The CBP project manager will be immediately notified of the observations or discoveries. A map showing the location will be provided if possible. No photographs of human remains will be taken.

AIR QUALITY

In order to minimize the amount of project-related dust emissions, construction crews will implement the following practices: minimizing land disturbance; ensuring saturation of exposed

areas; and controlling fugitive dust caused by hauling activities and vehicular travel on unpaved road surfaces.

All construction equipment shall be maintained and operated in a manner that produces the least amount of emissions. All construction equipment and vehicles must be maintained in good operating condition, free from leaks.

NOISE

All applicable Occupational Safety and Health Administration regulations and requirements will be followed.

On-site activities will be restricted to daylight hours, to the greatest extent practicable.

All equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires.

HAZARDOUS MATERIALS

To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill will occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill.

CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste, until removed from the construction and maintenance sites. This will assist in keeping the Project Area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

CBP will minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours should be properly stored until disposal.

All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles will be maintained at the construction staging area. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.

Conclusion:

Based on a review of the information provided for the Project, the results of natural and cultural resources surveys, and an analysis of potential effects from the Project, no major impacts to the environment are likely to result from the Project. Therefore, no further environmental investigation or analysis, such as preparing an Environmental Stewardship Plan, is required.

Date: 25 Sep 17

Approve: (b)(6);(b)(7)(C)

Disapprove: _____

Modify: _____

Needs More Discussion: _____

FIGURE 1: Project Location Map

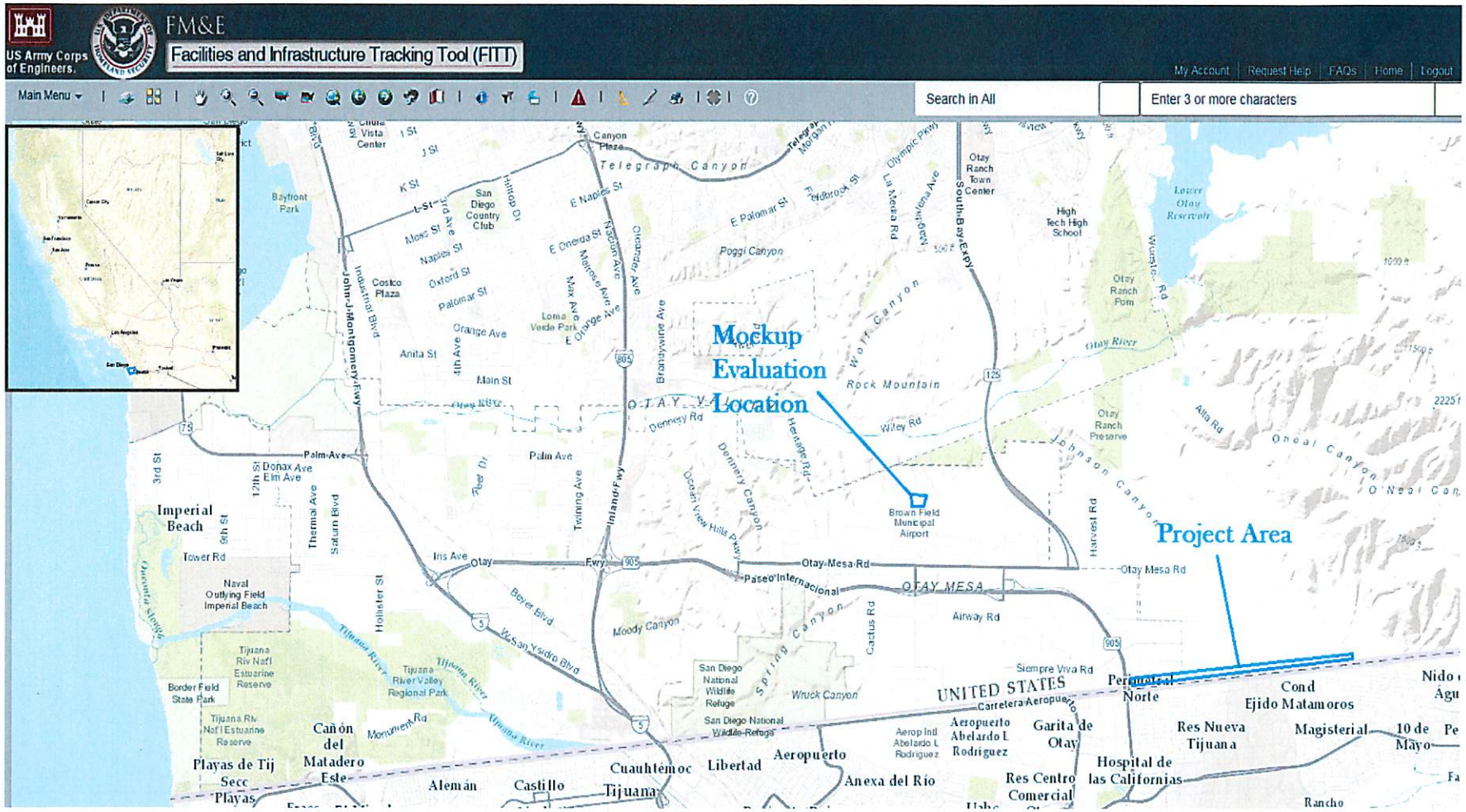
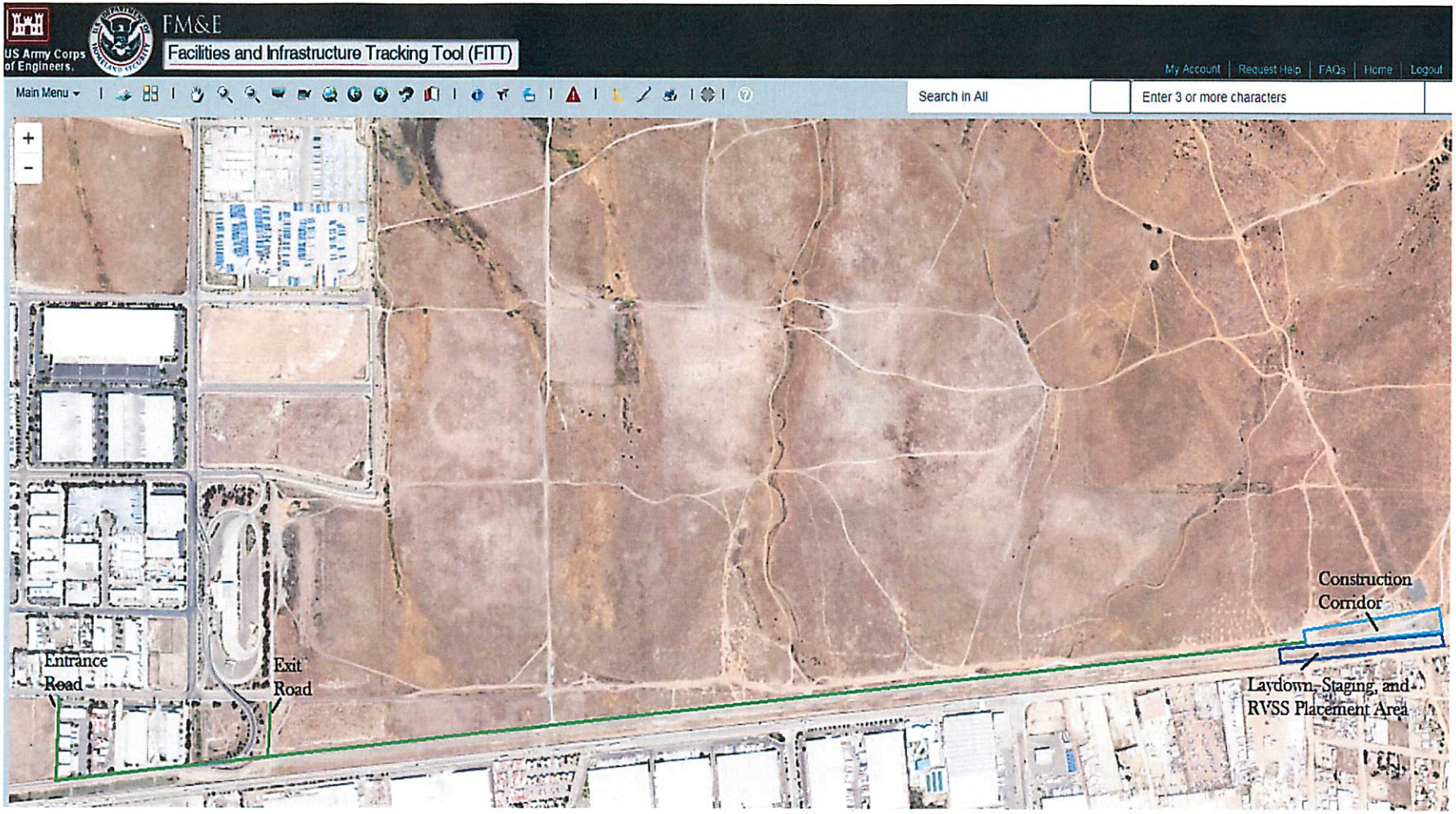
FIGURE 2: Project Area Overview Map