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Environmental Assessment

Plank Road Interpretive
and Access Improvement Project

Imperial County, California

U.S. Department of the Interior
Bureau of Land Management
El Centro Field Office
1661 South 4th Street
El Centro, CA 92243

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Table of Contents

Chapter 1 Introduction	3
Introduction.....	3
Purpose and Need	4
Conformance.....	4
Chapter 2 Proposed Action and Alternatives	5
Description of the No Action Alternative.....	5
Description of the Proposed Action.....	5
Chapter 3 Affected Environment and Environmental Effects	7
<i>Resources</i>	7
ACECs:	7
Recreation:	7
Air Quality:	8
Vegetation:	8
Invasive Species:.....	9
Wildlife:	10
Cultural Resources:.....	10
Chapter 4 Consultation and Coordination.....	12
Individuals, Organizations, or Agencies.....	12
Summary of Public Participation.....	12
List of Preparers	12

Chapter 1 Introduction

Introduction

The Imperial Sand Dunes Recreation Area (ISDRA) represents one of the most popular off-highway vehicle (OHV) areas in the western United States and it is a well-known landmark to the thousands who visit each year. The 159,000-acre ISDRA contains the largest mass of sand dunes in California and is the most intensively used OHV recreation area in the Bureau of Land Management (BLM) California Desert District. Remnants of the Plank Road – an engineering marvel of its time that opened travel across the sandhills, is located within the ISDRA. The Plank Road is considered by some to have been the catalyst for recreation in the Imperial Sand Dunes.

A celebration of the Plank Road's Centennial anniversary is planned for February 2015. In order to facilitate access for the public and agencies, the BLM El Centro Field Office proposes to extend the current parking area 22 feet to the north to provide additional parking spots which meet the American's with Disabilities Act and the Architectural Barriers Act (ADA/ABA) accessibility standards, increase accessibility to interpretive waysides and exhibits, resurface the existing access road, and construct a safer off-ramp from Gray's Well Road to the access road. The proposal also includes aesthetic site improvements with the installation of a truncated sign identifying the location. The proposed project will occur in the OHV Open area, as designated in the California Desert Conservation Area Plan (1980, as amended), and is in a heavily disturbed recreation area.

Site Location (Maps 1 & 2):

Plank Road
T16S, R20E, Sec32, SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$

The ground disturbing actions associated with this project would occur on BLM managed lands in the vicinity of the west end of the Plank Road and Gray's Well Road at the western edge of the ISDRA. The affected area for the project is approximately 0.22 acres.

History

The Plank Road was designed by San Diego businessmen and Imperial County Supervisors in response to loss of commerce to their rival city, Los Angeles. The sand dunes were the only major impediment to westward vehicle travel from Phoenix, with the Southern Pacific Railroad moving traffic north to Los Angeles. After arduous planning and debating, followed by a road race to prove the feasibility of vehicles crossing the dunes, the first spike was driven into what is now known as the original Plank Road on February 14, 1915. Hardy travelers began using the road before construction was completed, finishing out their trip on old brush roads constructed for earlier road races. Construction of the first Plank Road was declared officially complete on April 4, 1915, allowing travelers to drive their cars over the sand dunes in an average of five hours. The first Plank Road spanned seven miles and consisted of two 25-inch-wide wheel paths with spiked to crossbars underneath. Travel was not easy and required great concentration by

drivers. Within months, the first plank road began to show its wear, and by February 1916 plans for the second plank road were underway.

The second Plank Road abandoned the wheel-path for eight foot wide wooden crossties, with double wide turnouts every 1,000 feet. Pre-constructed in the Ogilby area, these 12-foot sections of road weighed 1,500 pounds each and were joined together using bolts and iron straps. Due to shifting sands and construction delays, construction of the second plank road was complete in the autumn of 1917. Historic photographs show the second Plank Road was placed almost parallel to the first, suggesting that travelers continued to use the first road while its replacement was under construction. The second Plank Road consisted of six miles of crossties, with a one-mile (un-planked) oiled section known as the “open valley” in the middle of the route (where the rest area is today).

The Plank Road was abandoned when paved Highway 80 opened on August 12, 1926. Little physical evidence of the Plank Road remains today; however, what is left is protected and has been designated by the BLM as an Area of Critical Environmental Concern (ACEC). The Plank Road was also designated by the State of California as a California Historic Landmark (#845) on January 21, 1971 for its role in early American transportation and western migration. The Plank Road (also known as the Old Plank Road) may also be eligible for listing in the National Register of Historic Places.

Purpose and Need

The purpose of this action is to improve the Plank Road visitor area for the public. The need for this action is to provide a safe and accessible visitor area to the public by improving the conditions of the parking and access roads and create accessible facilities and exhibits for the visiting public.

Conformance

The proposed action and alternatives are in conformance with the following approved land use plans, as required by 43 CFR 1610.5:

- Final Environmental Impact Statement for the Imperial Sand Dunes Recreation Area Management Plan and Proposed Amendment to the California Desert Conservation Area Plan and Record of Decision, June 2013.
- Northern and Eastern Colorado Desert Coordinated Management Plan and the Western Colorado Desert Route of Travel Plan, July 2002.
- Plank Road Area of Critical Environmental Concern Management Plan, 1985.

Chapter 2 Proposed Action and Alternatives

Description of the No Action Alternative

The No Action alternative leaves the access road deteriorating and visitors unprotected through an unsafe egress. Interpretive waysides and exhibits, along with informational signs will remain out of reach to visitors who are unable to navigate the soft sand. ADA/ABA parking will not be available and therefore the BLM is out of compliance with federal standards. Day user conflicts with overnight campers will continue to be an issue.

Description of the Proposed Action

The current access road to the western terminus of the Plank Road (from Gray's Well Road) is poorly designed and compromises visitor safety due to a nearly 180° turn from Gray's Well Road to the access road. Similarly, vehicles exiting from Plank Road access road onto Gray's Well Road are not afforded a clear view to check for oncoming traffic. The proposed action to install a new off ramp at a 90° angle to Gray's Well Road will eliminate this safety issue.

The current parking area ends in a small dead end near the Plank Road Monument and immediately adjacent to popular RV camping spots. Often, campers spill onto the paved surface, blocking day use parking and access to the historic Plank Road. A proposal to increase the size of the parking area 22' immediately to the north with a hard pack gravel surface will allow day users an opportunity to visit the site without fear of getting stuck in the soft sand. Two parking sites which meet the ADA/ABA accessibility standards will be installed, increasing access to the site.

Existing interpretive waysides and informational signs currently in place around the Plank Road and within the protective fence are outdated and severely worn – with several of them almost completely buried. The BLM proposes to remove these old signs and waysides entirely, and replace or relocate them in the area of the expanded parking area. Again, this will increase overall visitor access. A duplicate of the Plank Road exhibit (two wheel paths) will be constructed and placed in the new parking area – allowing visitors an opportunity to both view a replica of the old road as well as try their hand at driving on it. The parking area and exhibits/waysides will be protected from cross traffic with a series of large boulders. A BLM truncated sign will be installed directly east of the new off-ramp to identify the location.

The existing access road shows excessive wear in the asphalt; the proposed action to resurface this road from the newly constructed off-ramp to the parking area will facilitate visitor access.

The improvement of the area would require the use of heavy equipment. The agency intends to use its partnership with the United Desert Gateway to provide/contract the following: graders, water tanker trucks, dump trucks, rollers, dozers, loaders, and other administrative vehicles to complete the project. The main project site is within the immediate area of the existing access road, and (potentially) approx. 190' (maximum) north of it. However, larger work trucks would need approximately 100 feet adjacent to the project to turn around and exit the area.

If approved, the project would utilize natural material. Spoils from the project site would be deposited no farther than 100 feet away from the new road edge and used to shore up road edges. Spoils would be evenly distributed to blend in with the natural environment, and would not pose a significant safety risk to OHV recreationalists in the area.

After and during all phases of development, the agency will need to perform maintenance of the parking lot. Maintenance could include rebuilding damaged road sections, moving windblown sand, watering, and compacting. Levels of maintenance will be dependent upon the level of development on the road. Generally, less development will require more maintenance. Conversely, higher levels of development will require less maintenance.

Signs would also be installed along the road shoulder. They would indicate a speed limit to increase safety, as well as a regulatory sign (stop sign). Signs would consist of single fiberglass posts or metal "C"-channel posts and are either pounded into the ground by hand or hydraulic hammer.

This alternative proposes to grade and asphalt a new off-ramp from Gray's Well road and extend the parking area 22' to the north of existing access road using DG Class 2 materials with eventual asphalt resurface. The existing access road will be resurfaced 315' from its existing eastern terminus west toward the new off ramp, and approx. 200' east toward Plank Road fencing (cul-de-sac). Relocate the "mock-ups" toward the parking area to increase access, and install protective barrier (boulder) around them. Install two (2) new interpretive waysides along parking area northeast edge. Install an identifying truncated sign with monument base. Remove all existing waysides and signage (weather beaten, buried and obsolete) around the Plank Road. Specific tasks included in the proposed action are attached as appendix A. See design drawings for asphalt paving in appendix B.

Additional Design Features for Resource Protection:

- All necessary air quality permits and plans will be obtained prior to project mobilization. Fugitive dust will be controlled with appropriate control measures.
- A biological monitor will be on site during construction activities.
- To prevent the introduction/dissemination of invasive plant species into/out of the project area all vehicles and equipment will be cleaned and inspected prior to entering or leaving the project area.

Chapter 3 Affected Environment and Environmental Effects

Resources

The resources found that may be affected by this proposal and are discussed further in this chapter are ACECs, Recreation, Air Quality, Vegetation, Wildlife, Invasive Species, and Cultural Resources. The following resources were considered, but found to not be relevant to this action and will not be discussed further: Wilderness and Wilderness Study Areas, Wild and Scenic Rivers, Lands with Wilderness Characteristics, and Visual Resources.

ACECs:

Affected Environment

The proposed project area lies within the Plank Road ACEC adjacent to Gray's Well Road. ACECs in the El Centro Field Office were established to provide additional protection for cultural, paleontological, scenic and biological resources. Specifically, the Plank Road ACEC Management Plan focuses on providing protection for the remaining segments of the Plank Road and maximizing educational and interpretive opportunities as well as promote visitor understanding of the history of the area.

Environmental Effects of the No Action Alternative

The No Action alternative leaves the access road to the ACEC deteriorating and visitors unprotected through an unsafe egress. Interpretive waysides and exhibits, along with informational signs will remain out of reach to visitors who are unable to navigate the soft sand. No Action to this site will further degrade the site and will not protect it for future generations to see.

Environmental Effects of the Proposed Action

The proposed action will avoid the consolidated and fenced segments of the Plank Road and therefore will not physically affect the resource. The proposed action would have a beneficial impact upon the values present within the ACEC by providing additional access and interpretation to visitors.

Cumulative Impact Analysis

The scale and duration of the project are below a threshold to resolve a cumulative impact both locally or regionally.

Recreation:

Affected Environment

Gray's Well Road provides access to the Plank Road ACEC parking area and several nearby camping areas. The camping areas have vault toilets and trash facilities. Camping is allowed everywhere south of Interstate 8 and within the ISDRA, however two-wheel drive vehicle access is limited due to the sandy terrain and the area adjacent to Grays Well Road is the only area suitable for camping south of the Interstate. A metal protective barrier and fading interpretive signs currently surround the remnants of the Plank Road just to the east of the parking area.

Environmental Effects of the No Action Alternative

The no action alternative leaves the access road deteriorating and visitors unprotected through an unsafe egress. Interpretive waysides and exhibits, along with informational signs will remain out of reach to visitors who are unable to navigate the soft sand. ADA/ABA requirements will not be met. Outreach and educational opportunities will be lost. The BLM will not meet the California Strategic Framework Mission of celebrating our cultural heritage and providing high quality recreational opportunities for the public.

Environmental Effects of the Proposed Action

The proposed action would result in a legally accessible parking area for the visiting public. New safety signs and informational kiosks will provide a quality experience for visitors. Education and outreach will build an appreciation for the historical resources. The new parking area will reduce vehicles becoming stuck in the area and continually digging into the soil. The new controlled parking area will reduce impacts to natural and cultural resources by condensing parking into a smaller controlled area.

Cumulative Impact Analysis

The scale and duration of the project are below a threshold to resolve a cumulative impact both locally or regionally.

Air Quality:

Affected Environment

The project is located in Imperial County and is under the jurisdiction of the Imperial County Air Pollution Control District. Applicable regulations for this project that apply are Regulation II-Permits and Regulation VIII-Fugitive Dust Rules.

Environmental Effects of the No Action Alternative

There will be no impacts to air quality.

Environmental Effects of the Proposed Action

All necessary permits/plans will be obtained prior to project mobilization. Fugitive dust will be controlled with appropriate control measures. Fugitive dust generated from the project during construction will be kept below the county 20% opacity standard. Therefore, no adverse impacts to air quality are anticipated.

Cumulative Impact Analysis

The scale and duration of the project are below a threshold to resolve a cumulative impact both locally or regionally.

Vegetation:

Affected Environment

Five special status species occur in or near the project area. Peirson's milk-vetch (*Astragalus magdalenae* var. *peirsonii*) is listed as Threatened under the Endangered Species Act.

Algodones Dunes Sunflower (*Helianthus niveus* ssp. *tephrodes*) is listed as State Endangered and a BLM sensitive species. Wiggin's Croton (*Croton wigginsii*) is listed as State Rare and is a BLM sensitive species. Giant Spanish Needle (*Palafoxia arida* var. *arida*) and Sand food (*Pholisma sonora*) are BLM Sensitive Species.

Environmental Effects of the No Action Alternative

There will be no impacts to special status species.

Environmental Effects of the Proposed Action

Removal of the old signage may result in impacts to several BLM sensitive species. Wiggin's Croton, Algodones Dunes Sunflower, Giant Spanish Needle and Sand food all occur in the closure surrounding the plank road mock up. Impacts to the above species will be minimized by having a biological monitor present during removal of the signs. It is estimated that no more than a few plants will be impacted.

Peirson's milk-vetch was not detected in the project site and will not be impacted. If Peirson's milk-vetch is detected during construction it will be avoided or a section 7 consultation will be conducted.

Cumulative Impact Analysis

The possible impact of a few plants will have an undetectable impact to BLM special status plant populations.

Invasive Species:

Affected Environment

No state or federal listed noxious weeds were detected during plant surveys. Two invasive plant species Sahara Mustard (*Brassica tournefortii*) and Russian Thistle (*Salsola tragus*) were detected in the project area.

Environmental Effects of the No Action Alternative

There will be no impact to invasive plant species.

Environmental Effects of the Proposed Action

To prevent the introduction of new invasive weed plant species into the project all vehicles and equipment will be cleaned and inspected prior to entering the project area. To prevent the two known invasive plant species Sahara mustard (*Brassica tournefortii*) and Russian thistle (*Salsola tragus*) from leaving the project site all vehicles and equipment that go off road will be cleaned and inspected prior to leaving the project area. No new infestations of invasive plant species are anticipated. Existing infestations will remain at current levels.

Cumulative Impact Analysis

It is anticipated that there will be no impact to invasive species and therefore no cumulative effect.

Wildlife:

Affected Environment

Two BLM sensitive lizard species occur in the project area: Flat-tailed horned lizard and Colorado Desert fringe-toed lizard.

Environmental Effects of the No Action

There will be no impact to BLM sensitive lizards.

Environmental Effects of the Proposed Action

There may be direct impacts to individual lizards during construction. Both species rely on burying themselves in sand or suitable habitat making them difficult to detect. While hiding, they become more vulnerable to construction related injuries. A biological monitor will be on site during construction activities to perform clearance surveys.

Cumulative Impact Analysis

The small scale and short duration of the project will not have a measurable impact to Flat-tailed horned lizard or Colorado Desert fringe-toed lizard. Impacts to individual lizards will have no effect to the local population levels for either species.

Cultural Resources:

Affected Environment

The area of potential effect (APE) for the undertaking is located adjacent to the Plank Road Monument, and about 130 feet from the fenced area of the Plank Road, a cultural resource that may be eligible for the National Register of Historic Places. The APE is heavily disturbed from years of vehicular travel, both on the existing paved roads as well as the desert area between the paved roads. Cultural resources recorded in the Plank Road area include historic refuse scatters (including isolated remnants of the Plank Road), and isolated prehistoric artifacts such as ground stone objects and lithic tool refuse. The area in general is important to several Native American tribes in the region, including the Cocopah Indian Tribe and the Fort Yuma Quechan Indian Tribe.

BLM El Centro Field Office Archaeologist, Christine McCollum, conducted an intensive Class III survey of the APE on July 11, 2014 to identify the presence of any historic properties (i.e., resources listed in or eligible for listing in the National Register of Historic Places) that would be affected by the undertaking. No historic properties were identified within the APE.

Environmental Effects of the No Action Alternative

Under the No Action Alternative, there would be no improvements within the APE and vehicular travel and other uses of the area would continue to occur over and between the existing paved roads. Continued use of the APE under the No Action Alternative would not result in any direct impacts to historic properties as no historic properties are located within the APE.

Environmental Effects of the Proposed Action

Implementation of the Proposed Action would result in improvements to the existing paved road and parking area. Construction activities would result in temporary indirect impacts to the Plank Road, a historic property. These indirect impacts would be a result of visual and auditory interferences detracting from the visitor experience at the Plank Road Monument and fenced Plank Road. There would be no direct effects to historic properties as a result of the Proposed Action.

Cumulative Impact Analysis

The geographic scope of analysis for cumulative effects for cultural resources for this undertaking is the Imperial Sand Dunes Recreation Area (ISDRA).

Under the No Action Alternative, there would be no improvements within the APE and vehicular travel and other uses of the area would continue to occur over and between the existing paved roads. Continued use of the APE under the No Action Alternative would not result in any direct impacts to historic properties as no historic properties are located within the APE; therefore, there would be no cumulative loss of cultural resources within the geographic scope.

Reasonably foreseeable undertakings within the ISDRA are primarily administrative in nature and include upgrades or improvements to existing facilities such as toilets and parking areas. Implementation of the Proposed Action would not contribute to an incremental loss of cultural resources when combined with other reasonably foreseeable actions within the geographic scope; therefore, the combined impact of this undertaking with other undertakings would be negligible.

Mitigation Measures

In the event cultural resources are discovered during any activities associated with this undertaking, work in the immediate area of the discovery (50 feet surrounding the discovery) will be stopped and the BLM Archaeologist will be immediately contacted. The BLM Archaeologist will provide official notification when work may resume.

Chapter 4 Consultation and Coordination

Individuals, Organizations, or Agencies

Border Patrol El Centro Sector and Border Patrol Yuma Sector

Summary of Public Participation

This Environmental Assessment will be available for public review for a 15 day period on the BLM El Centro Field Office website.

List of Preparers

Bureau of Land Management El Centro Field Office Staff:

Neil Hamada, Supervisory Outdoor Recreation Planner

Joya Szalwinski, Interpretive Park Ranger

Michelle Puckett, Outdoor Recreation Planner

Dallas Meeks, Outdoor Recreation Planner

Veronica Vogan, Realty Specialist

John Johnson, Environmental Protection Specialist (Wilderness Coordinator)

Christine McCollum, Archaeologist

Andrew Trouette, Biologist/Botanist

Nicollee Gaddis, Planning and Environmental Coordinator

Carrie Simmons, Resources Branch Supervisor

Tasks Included in the Proposed Action:

1. Grade and asphalt a new off-ramp from Gray's Well Road to existing access road to improve visitor safety.
2. Grade and asphalt the parking and visitor area beyond existing Plank Road stone monument eastward toward the fenced Plank Road. This will be referred to as the cul-de-sac.
3. Excavate soft sand and refill with class II road base material.
4. Lay a geo-textile fabric over natural material then import, distribute, water, level, and compact a minimum of nine inches of road base material over the geo-textile material.
5. Resurface approx. 315' of existing access road with asphalt.
6. Extend approx. 122' of the width of the current access road 22 feet to the north to increase parking area, which includes laying a geo-textile fabric over natural material then import, distribute, water, level, and compact a minimum of nine inches of road base material over the geo-textile material.
7. Install interpretive waysides along the northeast edge of the parking area. The waysides would require one cement foundation each, 12" in diameter and 2 feet deep. The kiosk would require two cement foundations, 18" in diameter, and three feet deep. The kiosk/wayside would have information about the history of plank road.
8. Relocate the road "mock-ups" from the enclosed (fenced) Plank Road area to the improved parking area to increase accessibility.
9. Install an identifying truncated sign adjacent to Gray's Well Road on a monument base directly east of the new off-ramp.
10. Install boulders as a blockade around relocated "mock-ups" and waysides to protect them from cross traffic damage from OHV traffic.
11. Install additional protective boulders around the entire area.
12. Install a "STOP" sign along the new off ramp.
13. Install two ADA/ABA accessible parking sites.

IMPROVEMENT PLANS FOR BLM PARKING LOT IN AN UNINCORPORATED AREA OF THE IMPERIAL VALLEY GRAYS WELL ROAD

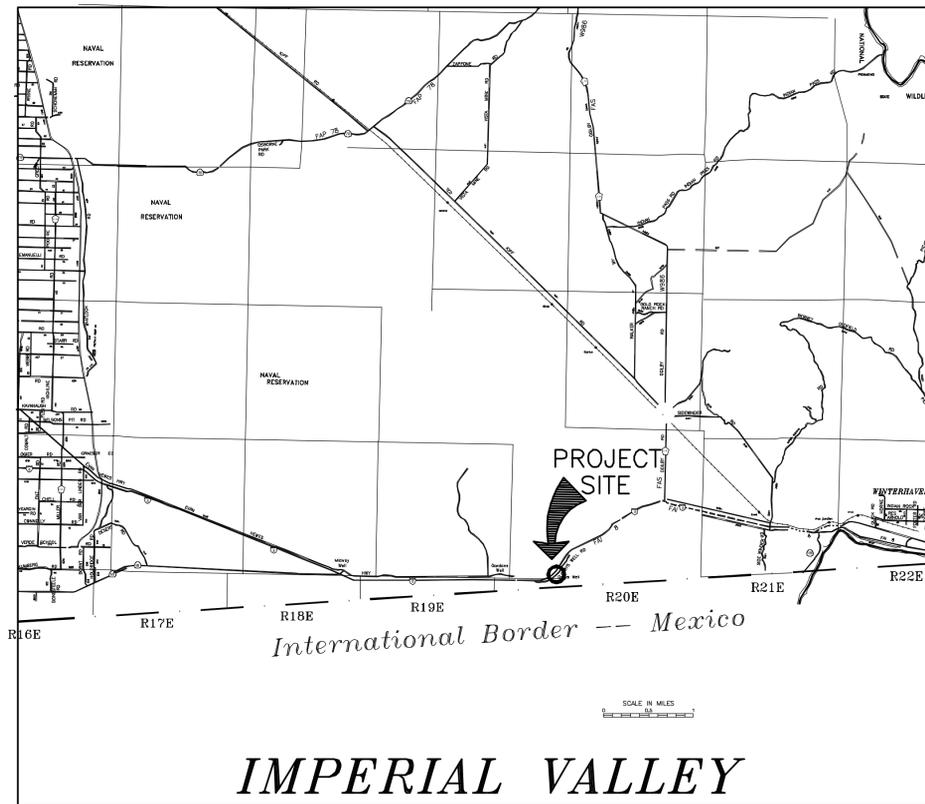
STREET IMPROVEMENT GENERAL NOTES

- COUNTY ENCROACHMENT PERMIT CONDITIONS AND PROVISIONS SHALL TAKE PRECEDENCE OVER THE APPROVED PLANS AND SPECIFICATIONS FOR ANY CONFLICTS.
- THE STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH IMPERIAL COUNTY STANDARDS (OR CALTRANS IF IN STATE ROW) AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR (OR CALTRANS).
- APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
- ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO CONSTRUCTION OF BERM, CURB, CROSS GUTTER AND PAVING.
- THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN HEREON AND ANY OTHER THAT IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
- UTILITIES COORDINATION
 - NO LESS THAN 3 WORKING DAYS PRIOR TO ANY EXCAVATION OR TRENCHING, EACH CONTRACTOR DOING SUCH WORK SHALL CONTACT THE FOLLOWING AGENCIES SO THAT EXISTING UNDERGROUND UTILITIES MAY BE LOCATED. THE AGENCY MAY REQUIRE AN INSPECTOR TO BE PRESENT.
 - COUNTY OF IMPERIAL (PUBLIC WORKS) (760) 482-4482
 - IMPERIAL IRRIGATION DISTRICT (POWER) (760) 482-3408
 - IMPERIAL IRRIGATION DISTRICT (WATER) (760) 339-9260
 - AT&T (760) 337-3325 OR (760) 337-3358
 - THE GAS CO. (760) 335-6100 OR (760) 335-6100
 - TIME WARNER CABLE (760) 335-4822
- EXISTING UNDERGROUND UTILITIES

BEFORE EXCAVATING FOR THIS CONTRACT, VERIFY LOCATION OF UNDERGROUND UTILITIES, THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES PLANS BEEN OBTAINED FROM AVAILABLE RECORDS ONLY AND MAY NOT REFLECT ALL EXISTING UTILITIES. LOCATION OF ALL EXISTING UTILITIES SHALL BE CONFIRMED BY FIELD MEASUREMENTS BY CONTRACTOR PRIOR TO CONSTRUCTION OF WORK.

CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ACCURATE VERIFICATION AS TO SIZE, LOCATION AND DEPTH OF EXISTING UNDERGROUND SERVICES SHALL BE THE CONTRACTORS RESPONSIBILITY.

THE CONTRACTOR SHALL NOTIFY THE SOUTHERN CALIFORNIA GAS COMPANY, PACIFIC BELL, TELEPHONE COMPANY, IMPERIAL IRRIGATION DISTRICT AND ANY OTHER AFFECTED UTILITY AGENCIES PRIOR TO STARTING HIS WORK NEAR SUCH UTILITY FACILITIES AND SHALL COORDINATE HIS WORK WITH UTILITY REPRESENTATIVES. FOR LOCATION OF UNDERGROUND UTILITIES AND APPURTENANCES, CONTACT "UNDERGROUND SERVICE ALERT" AT 811 (formerly 1-800-422-4133).
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTACT THE UTILITY AGENCIES, ADVISE THEM OF THE PROPOSED IMPROVEMENTS AND BEAR THE COST OF RELOCATIONS, IF NEEDED.
- CONSTRUCT A PUBLIC STREET LIGHT SYSTEM CONFORMING TO APPROPRIATE STANDARDS AND STREET LIGHT SPECIFICATIONS. POWER SOURCES AND RUNS SHALL BE SHOWN ON THE "AS-BUILT" IMPROVEMENT DRAWINGS. ALL POWER SOURCES SHALL BE LOCATED WITHIN THE DEDICATED RIGHT-OF-WAY OR EASEMENT.
- NO PAVING SHALL BE DONE UNTIL EXISTING POWER POLES ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
- PRIVATE ROAD IMPROVEMENTS SHOWN HEREON ARE FOR INFORMATION ONLY. COUNTY OFFICIALS SIGNATURE HEREON DOES NOT CONSTITUTE APPROVAL OR RESPONSIBILITY OF ANY KIND FOR THE DESIGN OR CONSTRUCTION OF THESE PRIVATE IMPROVEMENTS.
- ALL SIGNS TO BE ALUMINUM WITH 3M HIGH INTENSITY TYPE REFLECTIVE FACE OR EQUIVALENT.
- CONTRACTOR WILL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY STRIPING, PAVEMENT MARKERS, OR LEGENDS OBLITERATED BY THE CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR SHALL DO ALL NEW STRIPING AND SANDBLASTING OF REDUNDANT STRIPING.
- THE CONSTRUCTION OF ONE PCC STANDARD DRIVEWAY PER LOT, LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER OF WORK. PCC SURFACING OF DRIVEWAY TO EXTEND FROM CURB TO PROPERTY LINE UNLESS OTHERWISE SHOWN.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AN ENCROACHMENT PERMIT FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS FOR ANY EXCAVATION OR CONSTRUCTION WITHIN COUNTY ROAD RIGHT-OF-WAY. FOR INSPECTIONS, 48 HOUR MINIMUM NOTICE IS REQUIRED. (760) 482-4462. ADDITIONALLY, UNDERGROUND SERVICE ALERT (USA) MUST BE CALLED TWO WORKING DAYS BEFORE THE CONTRACTOR MAY EXCAVATE. THEIR CONTACT NUMBER 811 (formerly 800) 422-4133. ALL WORK AND MATERIALS ARE SUBJECT TO THE INSPECTION AND APPROVAL FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS OR THEIR REPRESENTATIVE.
- NO REVISIONS OF ANY KIND SHALL BE MADE TO THESE PLANS WITHOUT THE PRIOR WRITTEN APPROVAL OF BOTH THE COUNTY ENGINEER (OR HIS REPRESENTATIVE) AND THE ENGINEER OF RECORD. A REPRODUCIBLE AS-BUILT PLAN SET WILL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT AS A CONDITION OF SUBSTANTIAL CONSTRUCTION COMPLETION AND PRIOR TO ACCEPTANCE.
- ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS, THE IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND ENCROACHMENT PERMIT CONDITIONS, ANY REFERENCED STANDARDS AND SPECIFICATIONS AND THE SPECIFICATIONS & THE REQUIREMENTS OF THE AGENCIES REFERRED TO HEREIN. ALL WORK SHOWN OR INDICATED BY THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARDS, POLICIES AND REGULATIONS OF IMPERIAL COUNTY; WHERE, OR IF, CONFLICTS OCCUR, THEN THE IMPERIAL COUNTY REQUIREMENTS SHALL GOVERN.
- UNLESS SPECIFICALLY INDICATED OTHERWISE METHODS EMPLOYED AND MATERIAL USED IN THE CONSTRUCTION OF ALL OFFSITE IMPROVEMENTS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED MAY 2006". ALL WORK IS SUBJECT TO INSPECTION AND APPROVAL AS REQUIRED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF SAFETY AND TO ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS AND STANDARDS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A GENERAL CONSTRUCTION ACTIVITY STORM WATER PERMIT FROM THE STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY, CONTACT "STATE WATER RESOURCES CONTROL BOARD, DIVISION OF WATER QUALITY, ATTENTION: STORM WATER PERMIT UNIT, P.O. BOX 1977, SACRAMENTO, CALIFORNIA, 95812".
- CONSTRUCTION PROJECTS DISTURBING MORE THAN ONE ACRE MUST OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. OWNER/DEVELOPERS ARE REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD, PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MONITORING PLAN FOR THE SITE.
- AS DETERMINED BY THE COUNTY PUBLIC WORKS DIRECTOR/ROAD COMMISSIONER, THE DEVELOPER IS RESPONSIBLE AS A MINIMUM, FOR ROAD IMPROVEMENTS TO CENTERLINE, AND MAY BE REQUIRED TO RECONSTRUCT EXISTING PAVEMENT, INCLUDING BASE, AND MATCHING OVERLAY REQUIRED TO MEET THE STRUCTURAL STANDARDS FOR THE CURRENT ASSIGNED TRAFFIC INDEX.
- EXISTING STORM DRAIN PIPES/CULVERTS WHETHER TO BE CONNECTED TO, EXTENDED, ADJUSTED, DRAINED TO, OR JUST IN PROJECT VICINITY SHALL BE REPAIRED AND/OR CLEANED TO MAKE THEM FUNCTIONAL AND ACCEPTABLE AS DIRECTED BY THE PUBLIC WORKS DIRECTOR.
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT WORK AREA TRAFFIC CONTROL HANDBOOK OR AS DIRECTED BY THE IMPERIAL COUNTY TRAFFIC ENGINEER.
- ANY EXISTING SURVEY MONUMENTS OR COUNTY RECOGNIZED BENCHMARKS SHALL BE PROTECTED BY THE CONTRACTOR. SHOULD ANY SUCH MONUMENTS OR BENCHMARKS BE REMOVED, DAMAGED, OBLITERATED OR ALTERED BY THE CONTRACTORS OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER RESETTING OF THE SAME AS PER THE SUBDIVISION MAP ACT, THE PROFESSIONAL LAND SURVEYORS ACT AND TO THE SATISFACTION OF THE COUNTY SURVEYOR/DIRECTOR OF PUBLIC WORKS. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING, A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.
- DUST SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH ALL IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT (APCD) FUGITIVE DUST CONTROL RULES AND REGULATIONS AND SHALL COMPLY WITH THEIR PERMITTING REQUIREMENTS, IF APPLICABLE.
- THE NOTES LISTED ABOVE ARE A MINIMUM LIST. THIS DOES NOT RELIEVE THE ENGINEER FROM COMPLYING ADDITIONAL NOTES THAT MAY BE REQUIRED FOR THE PROJECT.



SHEET INDEX

- TITLE SHEET
- GRADING PLAN

QUANTITIES:

2" AC OVERLAY PER PAVEMENT SECTION 1	5600 SF
3" AC/9" ABC PER PAVEMENT SECTION 2	1400 SF
6" ABC PER PAVEMENT SECTION 3	2700 SF

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF THE WORK OF THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF IMPERIAL IS CONFINED TO REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITY FOR PROJECT DESIGN.

CARLOS CORRALES
DEVELOPMENT DESIGN & ENGINEERING INC.
1085 STATE STREET
EL CENTRO, CALIFORNIA 92243
(760)353-8110



By: CARLOS CORRALES
R.C.E. No. 55,432

DATE: _____
EXPIRATION DATE: 12/31/14

ENGINEERING NOTES:

- NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN COMPLIANCE WITH APPLICABLE CODES AND AGENCY REQUIREMENTS.
- ANY VARIATIONS FROM THESE PLANS SHALL BE PROPOSED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER.
- THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND IF DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION.
- ANY INSPECTION BY THE COUNTY OR THE ENGINEER SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN COMPLIANCE WITH APPLICABLE CODES AND AGENCY REQUIREMENTS.
- CONTRACTOR TO LOCATE ALL EXISTING PROPERTY MONUMENTS PRIOR TO CONSTRUCTION. ANY MONUMENTS DISTURBED DURING THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH COUNTY OF IMPERIAL REQUIREMENTS.
- PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT THE (PUBLIC) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL STORM DRAIN PIPES AND DRAINAGE FACILITIES FROM DAMAGE DURING ALL STAGES OF CONSTRUCTION. THE DEPTH OF COVER ON THE STORM DRAINAGE PIPE IS DESIGNED FOR FINAL GRADE. THEREFORE, EXTRA CARE SUCH AS BERMING OVER EXPOSED, FLAGGING OR BRACING SHOULD BE USED DURING CONSTRUCTION TO MAINTAIN COVER OR PROTECT THE PIPES.
- THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO THE VARYING FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER. PRIOR TO BIDDING THE WORK THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS AND EARTHWORK QUANTITIES, IF ANY. NO CLAIM SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.

GENERAL REQUIREMENTS FOR MATERIALS AND CONSTRUCTION
1.01 STANDARD SPECIFICATIONS - WHEN IN THIS SECTION 1 OF THESE SPECIAL PROVISIONS THE TERM STANDARD SPECIFICATIONS IS USED, IT SHALL BE INTERPRETED TO MEAN THOSE STANDARD SPECIFICATION 2010 EDITION BY THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS), AVAILABLE FROM THE PUBLIC DISTRIBUTION UNIT OF SAID AGENCY, 1900 ROYAL OAKS DRIVE, SACRAMENTO, CA 95819, TELEPHONE (916) 445-3520.

- WORK TO BE DONE - ALL THE IMPROVEMENTS SHOWN OR CALLED FOR IN THESE DRAWINGS SHALL BE CONSTRUCTED BY CONTRACTOR COMPLETE IN EVERY RESPECT AND READY FOR USE. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SUPPLIES, SERVICES, SUPERVISION AND INCIDENTALS THEREOF REQUIRED FOR SAID COMPLETION. WHERE THE PLANS, SPECIFICATIONS OR DETAILS DO NOT PROVIDE ALL OF THE INFORMATION REQUIRED TO COMPLETE THE WORK, THE CONTRACTOR SHALL, NEVERTHELESS, WITHOUT ADDITIONAL COMPENSATION AND SUBJECT TO THE ENGINEER'S APPROVAL, PROVIDE THAT LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THE WORK ACCORDING TO GENERALLY ACCEPTED STANDARDS OF THE TRADE INVOLVED.
- SUBMITTALS AND MIX DESIGNS - CONTRACTOR SHALL SUBMIT TO THE ENGINEER NO LESS THAN 10 DAYS PRIOR TO ORDERING HIS MATERIALS OR EQUIPMENT, 3 SETS OF DESCRIPTIONS OF ALL PRODUCTS THAT HE PROPOSES TO INCORPORATE INTO THE PROJECT. SAID DESCRIPTIONS SHALL INCLUDE SUFFICIENT INFORMATION TO SHOW THAT EACH PRODUCT COMPLIES WITH EVERY PROVISION OF THESE CONTRACT DOCUMENTS WHICH IS APPLICABLE THERETO. SHOULD THERE BE ANY DEVIATION WHATSOEVER, THE CONTRACTOR SHALL POINT THAT DEVIATION OUT IN HIS LETTER OF TRANSMITTAL REQUIRED FOR EACH PRODUCT. SAID LETTER SHALL OTHERWISE INDICATE THAT THE CONTRACTOR HAS REVIEWED THE PRODUCT INFORMATION AND THAT THE PRODUCT CONFORMS FULLY WITH THE CONTRACT DOCUMENTS. PRODUCT INFORMATION INCLUDES, BUT IS NOT LIMITED TO: MANUFACTURER'S SPECIFICATIONS FOR PRODUCT; PRODUCT TESTING RESULTS FROM AN INDEPENDENT TESTING FIRM; SHOP DRAWINGS, DIAGRAMS AND DETAILS; OR, A MIX DESIGN BY A REGISTERED CIVIL ENGINEER. THE ENGINEER WILL DETERMINE THOSE ITEMS FOR WHICH SUBMITTALS WILL BE REQUIRED. SUBMITTALS WILL AT LEAST BE REQUIRED FOR THE FOLLOWING:
 - AGGREGATE BASE (TEST RESULTS);
 - PORTLAND CEMENT CONCRETE (MIX DESIGNS);
 - ASPHALT CONCRETE (MIX DESIGN);
 - PAINT FOR PAVEMENT STRIPES & MARKINGS (SPECIFICATIONS);
- INSPECTION, TESTING AND QUALITY CONTROL - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL MATERIALS AND WORKMANSHIP INCORPORATED INTO THE PROJECT MEET OR EXCEED THE REQUIREMENTS OF THESE DRAWINGS. HE SHALL PROVIDE ALL INSPECTIONS AND PERFORM ALL TESTING REQUIRED FOR THAT ASSURANCE IN ACCORDANCE WITH SECTION 63-3.02 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE, ARRANGE AND PAY FOR ALL TESTING SPECIFICALLY CALLED FOR IN THESE DRAWINGS. MATERIAL OR WORKMANSHIP FOUND NOT IN CONFORMANCE WITH THESE DRAWINGS SHALL BE REMOVED FROM PROJECT. NO MATERIAL OF WORKMANSHIP SHALL BE COVERED OR OTHERWISE CONCEALED UNTIL HAS BEEN INSPECTED AND APPROVED BY THE ENGINEER.
- EARTH IMPORT, BARROW AND DISPOSAL - ALL EARTH REQUIRED TO COMPLETE THE WORK CALLED FOR IN THESE DRAWINGS SHALL BE OBTAINED FROM THE SITE OF WORK. ALL SURPLUS EARTH GENERATED BY SAID WORK SHALL BE DISPOSED OF ON THE SITE OF WORK OUTSIDE OF BUT CONTIGUOUS TO THE CONSTRUCTED IMPROVEMENT AS DIRECTED BY THE ENGINEER. AS BEST HE CAN, THE CONTRACTOR SHALL KEEP SURPLUS EARTH CLOSE TO THAT LOCATION WHERE IT WAS EXCAVATED. ALSO, CONTRACTOR SHALL BARROW EARTH OR BARROWED EARTH BE TRANSPORTED ACROSS HIGHWAY SR-7, MAGGIO ROAD OR MENVILLE ROAD. SURPLUS EARTH FROM THE PROJECT SITE SHALL BE PLACED IN NEAT, ORDERLY WINDROWS APPROXIMATELY 10 FEET WIDE AND 3 FEET HIGH, ADJACENT TO BUT OUTSIDE OF THE ROADWAY EXCAVATION OR EMBANKMENT.
- CONFLICTS - WHERE IN THESE DRAWINGS CONFLICTS OCCUR BETWEEN REQUIREMENTS AND PROVISIONS AND/OR CANNOT BE RESOLVED TO QUALITY OF MATERIALS OR WORKMANSHIP, THE MOST STRINGENT REQUIREMENT OR PROVISION SHALL GOVERN. WHERE STRINGENCY IS NOT INVOLVED, THEN THE ORDER OF PRECEDENCE SHALL BE AS FOLLOWS, WITH THAT DOCUMENT LISTED FIRST BEING OF THE HIGHEST PRIORITY.
 - IMPERIAL COUNTY CODES AND REGULATIONS
 - MANUFACTURER'S WRITTEN RECOMMENDATIONS
 - SPECIAL PROVISIONS
 - PLANS AND TYPICAL DETAILS
 - REFERENCED STANDARD SPECIFICATIONS

ROADWAY AND DRAINAGE SYSTEMS SPECIFICATIONS

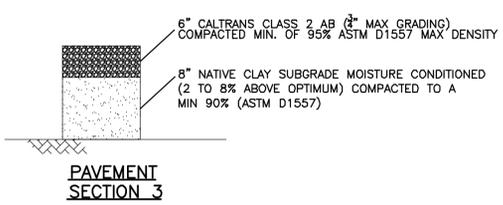
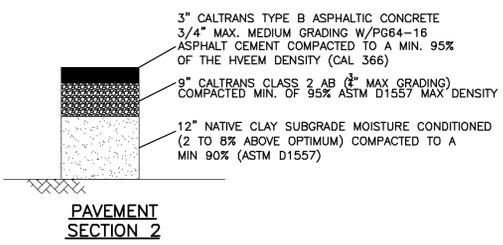
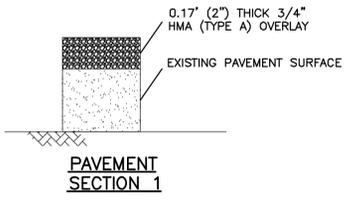
- EARTHWORK AND GRADING - ALL EARTHWORK AND GRADING REQUIRED TO BRING THE PROJECT ROADWAYS, DITCHES AND EMBANKMENTS TO THE LINES AND GRADES SHOWN OR CALLED FOR IN THESE DRAWINGS SHALL CONFORM TO THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS, THOSE OTHER SECTIONS THEREIN REFERENCED AND THESE SPECIAL PROVISIONS.
 - DUST CONTROL: 10-1.01 THRU 10-1.04.
 - CLEARING AND GRUBBING: 16-1.01 THRU 16-1.06.
 - WATERING: 17-1.01 THRU 17-1.04.
 - EARTHWORK: 19-1.01 THRU 19-7.05, WITH THE FOLLOWING EXCEPTIONS. SUBGRADE FOR AGGREGATE BASE SHALL BE COMPACTED TO A RELATIVE COMPACTION OF NO LESS THAN 95 PERCENT; THE RELATIVE COMPACTION OF EMBANKMENT MATERIAL SHALL BE NO LESS THAN 90 PERCENT.
 - FINISHING ROADWAY: 22-1.01 THRU 22-1.03.
 - COMPACTION TESTING: TESTING OF EMBANKMENT CONSTRUCTION FOR DENSITY SHALL BE CONDUCTED TO CREATE A MINIMUM OF ONE TEST PER 1000 SQ. FT. OF SURFACE AREA, AND ONCE TO THE GROUND SURFACE AND ONCE FOR EACH 9 INCHES OF DEPTH AND 3000 SQ. FT. OF SURFACE AREA. FAILING TESTS SHALL BE RETESTED AFTER RECOMPACTION. RETESTING SHALL INCLUDE TWO (2) ADDITIONAL TESTS, ONE EACH LOCATED 50 FT. BOTH WAYS FROM THE FAILING TEST LOCATION, MEASURED IN THE DIRECTION OF EQUIPMENT TRAVEL, UNTIL ALL TESTING SHOWS CONFORMING DENSITIES. WHERE EMBANKMENTS ARE CONSTRUCTED UPON EXISTING GROUND SURFACE, THE EXISTING EARTH SURFACE SHALL BE BLADED TO A DEPTH OF NO LESS THAN 2 INCHES TO REMOVE NATURAL COVER, WETTED AND THEN COMPACTED TO A DEPTH OF NO LESS THAN 12 INCHES TO A DENSITY OF NO LESS THAN 90 PERCENT. WHERE UNSTABLE AREAS ARE INDICATED BY SOIL PUMPING UNDER EQUIPMENT LOADS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE WHETHER OR NOT STABILIZATION WILL BE REQUIRED.
 - EXISTING NATIVE SOILS INCLUDE SOME CLAY THAT WHEN ENCOUNTERED WHICH MAY REQUIRE SPECIAL TREATMENT WHEN OCCURRING WITHIN THE LIMITS OF THE PAVED ROADWAYS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY WHEN SUCH A SOIL IS ENCOUNTERED.
- PAVING BASE AND SURFACING - AGGREGATE BASE AND ASPHALT CONCRETE INCORPORATED INTO THE STREET AND ROADWAY PAVING CALLED FOR IN THESE DRAWINGS SHALL CONFORM TO THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS, THOSE OTHER SECTIONS THEREIN REFERENCED AND THESE SPECIAL PROVISIONS.
 - AGGREGATE BASE: 26-1.01 THRU 26-1.07. AGGREGATE BASE SHALL BE 1-1/2 MAXIMUM, CLASS 2 MATERIAL. NO RECYCLED MATERIALS WILL BE ALLOWED.
 - ASPHALT CONCRETE: 39-1.01 THRU 39-8.02. ASPHALT CONCRETE SHALL BE 3/4" MAXIMUM (MEDIUM), TYPE "B" PLANT MIXED MATERIAL CONTAINING NO LESS THAN 4.9 PERCENT BY WEIGHT OF AR 4000 PAVING ASPHALT BINDER AND SHALL BE COMPACTED IN PLACE TO A DENSITY OF NO LESS THAN 140 POUNDS PER CUBIC FOOT.
 - COMPACTION TESTING: SUBGRADE FOR AGGREGATE BASE, AGGREGATE BASE AND ASPHALT SHALL BE TESTED FOR DENSITY NO LESS OFTEN THAN ONCE FOR EACH 3000 SQ. FT. OF SURFACE AREA. FAILING TESTS SHALL BE RETESTED AFTER RECOMPACTION. RETESTING SHALL INCLUDE TWO ADDITIONAL TESTS, ONE EACH LOCATED 50 FT. BOTH WAYS FROM THE FAILING TEST LOCATION UNTIL ALL TESTING SHOWS CONFORMING DENSITIES.
- TRAFFIC CONTROL FACILITIES - TRAFFIC CONTROL FACILITIES, INCLUDING BUT NOT LIMITED TO SIGNS, STRIPING, MARKING, BARRIERS AND RAILINGS, SHOWN OR CALLED FOR IN THESE DRAWINGS TO BE PERMANENTLY INSTALLED AS A PART OF THE COMPLETED IMPROVEMENTS, SHALL CONFORM TO THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS, THOSE OTHER SECTIONS THEREIN REFERENCED AND THESE SPECIAL PROVISIONS.
 - MARKERS AND DELINEATORS: 82-1.01 THRU 82-1.06. FLEXIBLE POST DELINEATORS SHALL BE EQUAL TO THOSE MANUFACTURED BY SAFE-HIT CORPORATION AS A FLATTENED TOP GUIDE POST WITH 3% OF REFLECTIVE STRIP IN WHITE OR YELLOW AS DIRECTED BY THE ENGINEER.
 - RAILINGS AND BARRIERS: 83-1.01 THRU 83-2.04.
 - TRAFFIC STRIPES AND PAVEMENT MARKINGS: 84-1.01 THRU 84-3.07. TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE PAINTED.
 - PAVEMENT MARKERS: 85-1.01 THRU 85-1.09.
 - ROADSIDE SIGNS: 86-2.01 THRU 86-2.06. STREET NAME SIGN SIZES, COLORS AND DESIGNS SHALL BE AS IS STANDARD WITH THE COUNTY OF IMPERIAL.

Underground Service Alert
Call: TOLL FREE
811

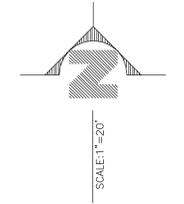
Know what's below.
Call before you dig.

2 WORKING DAYS BEFORE YOU DIG

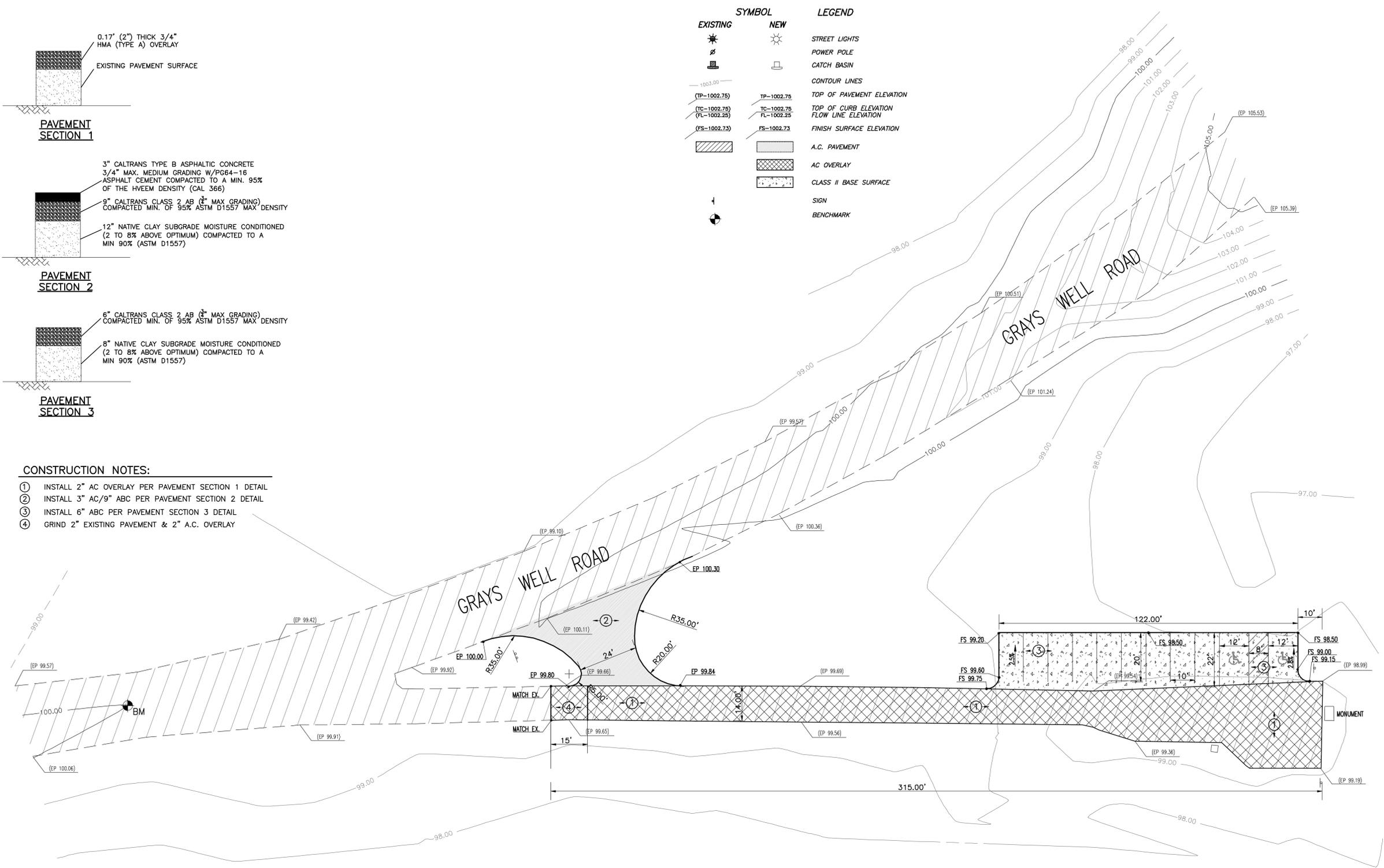
No.	DESCRIPTION	BY	DATE	SEAL	FOR PLAN CHECK AND CONSIDERED PRELIMINARY UNTIL APPROVED BY:	PREPARED UNDER THE DIRECTION OF:	BENCH MARK	Development DESIGN & ENGINEERING	TITLE SHEET	SHEET
							PK NAIL IN INTERSECTION OF GRAYS WELL ROAD & OLD PLANK ROAD. ASSUMED ELEV. = 100.00	planning - civil engineering - land surveying - project management t:760.353.8110 1065 State Street info@dde-inc.net f:760.352.6408 El Centro, CA 92243 www.dde-inc.net	BLM PARKING LOT GRAYS WELL RD. IMPERIAL VALLEY, CA	1 2
					R.C.E. No. _____ DATE _____ EXP. DATE _____	CARLOS CORRALES R.C.E. No. 55432 12-31-14 EXP. DATE			UDG	DATE 07/02/14 JOB NUMBER 14031MST.dwg JOB NUMBER 14031



SYMBOL		LEGEND	
EXISTING	NEW		
		STREET LIGHTS	
		POWER POLE	
		CATCH BASIN	
		CONTOUR LINES	
		TOP OF PAVEMENT ELEVATION	
		TOP OF CURB ELEVATION	
		FLOW LINE ELEVATION	
		FINISH SURFACE ELEVATION	
		A.C. PAVEMENT	
		AC OVERLAY	
		CLASS II BASE SURFACE	
		SIGN	
		BENCHMARK	



- CONSTRUCTION NOTES:**
- ① INSTALL 2" AC OVERLAY PER PAVEMENT SECTION 1 DETAIL
 - ② INSTALL 3" AC/9" ABC PER PAVEMENT SECTION 2 DETAIL
 - ③ INSTALL 6" ABC PER PAVEMENT SECTION 3 DETAIL
 - ④ GRIND 2" EXISTING PAVEMENT & 2" A.C. OVERLAY



No.	DESCRIPTION	BY	DATE	SEAL	FOR PLAN CHECK AND CONSIDERED PRELIMINARY UNTIL APPROVED BY:	PREPARED UNDER THE DIRECTION OF:	BENCH MARK	Development DESIGN & ENGINEERING	GRADING PLAN	SHEET
									BLM PARKING LOT GRAYS WELL RD.	2
									IMPERIAL VALLEY, CA	2
									UDG	



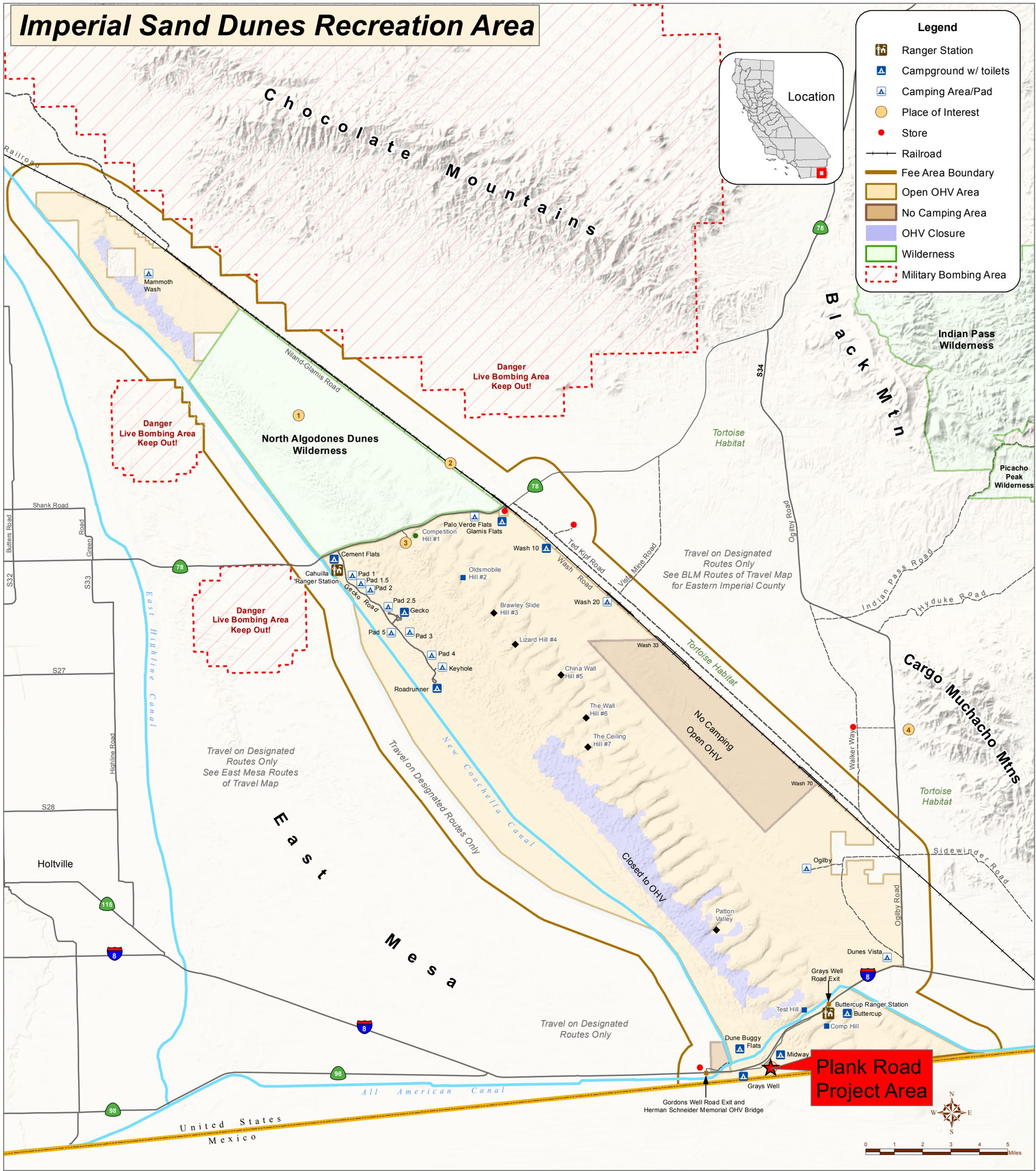
Planning - civil engineering - land surveying - project management
 t:760.353.8110 1065 State Street info@dde-inc.net
 f:760.352.6408 El Centro, CA 92243 www.dde-inc.net

Imperial Sand Dunes Recreation Area

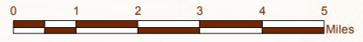


Legend

- Ranger Station
- Campground w/ toilets
- Camping Area/Pad
- Place of Interest
- Store
- Railroad
- Fee Area Boundary
- Open OHV Area
- No Camping Area
- OHV Closure
- Wilderness
- Military Bombing Area



Plank Road Project Area





Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Plank Road Work Area



Legend
Work_Area

Date: 8/4/2014