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July 23, 2019 DIN-05

Mr. Paul Hokeness
DePratti Inc.
13948 Calle Bueno Ganar
Jamul, CA 91935

Subject: Biological Resources Letter Report for the AT&T TJ River South (CAL02225) Telecommunications Project

Dear Mr. Hokeness:

At the request of DePratti, Inc. and on behalf of the City of San Diego (City), HELIX Environmental Planning, Inc. has completed this biological resources summary letter for the AT&T TJ River South (CAL02225) Telecommunications Project (project), which is proposed in the City of San Diego, San Diego County, California. The project would generally consist of the construction of an unmanned wireless communications facility.

The purpose of this report is to document the existing biological conditions within an approximately 1.3-acre survey area encompassing the 0.01-acre project impact area, herein referred to as the project site or site, and provide an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal policies. This report provides the biological resources technical documentation necessary for review under the California Environmental Quality Act (CEQA) by the City and other responsible agencies for the project.

Figures and other supporting information are provided as enclosures attached to this letter report.

INTRODUCTION

Project Location

The project site is generally located north of the United States/Mexico border, southwest of Interstate 5, and east of the Pacific Ocean in City of San Diego (Figure 1). Specifically, the project site is located immediately east of Hollister Street at 2805 Hollister Street, within Assessor Parcel Number (APN) 664-010-1300 (Figure 2). The site is depicted within Section 3, Township 19 South, Range 2 West, San Bernardino Meridian, California U.S. of the U.S. Geological Survey 7.5-minute Imperial Beach topographic quadrangle (Figure 3).

The proposed project occurs approximately 105 feet south of areas mapped as Multi-Habitat Planning Area (MHPA) for the City's Multiple Species Conservation Plan (MSCP). The survey area does not occur within MHPA or USFWS Critical Habitat; however, least Bell's vireo (*Vireo bellii pusillus*) USFWS Critical Habitat occurs approximately 134 feet north of the nearest project component. The project does occur within the Coastal Zone.

Project Description

The project proposes to construct an unmanned wireless communications facility, including panel antennas mounted on the side of a 30-foot tall faux-water tank, an equipment enclosure on a concrete pad, an AT&T meter pedestal on a concrete slab, and approximately 100 feet of trenching. Proposed underground utility trenching will occur entirely within non-native vegetation, disturbed habitat, and developed lands. Trenching will connect the equipment shelter, AT&T meter, and panel antennas to the existing utility point of connection located in the southwestern portion of the survey area (Figure 4). No native habitat or vegetation will be impacted as a result of the project.

METHODS

Literature Review

Prior to conducting a biological field survey in 2019, HELIX conducted a search of the California Natural Diversity Database (CNDDB) for information regarding sensitive species known to occur 1,000 feet of the survey area, as well as a review of U.S. Fish and Wildlife (USFWS) (USFWS 2019), and SanBIOS sensitive species databases (SanGIS 2017). A search of the San Diego Plant Atlas (San Diego Natural History Museum [SDNHM] 2014) was also conducted.

General Biological Survey

A general biological survey of the survey area was conducted by HELIX biologist Katie Bellon on May 7, 2019. Vegetation was mapped on a 1"=50' scale aerial of the site. A minimum mapping unit size of 0.1 acre was used when mapping upland habitat. The survey area was surveyed on foot and with the aid of binoculars. Plant and animal species observed or otherwise detected were recorded in field notebooks (Attachments A and B). Habitat suitability and potential for occurrence was assessed for special-status species known to the region (Attachments C and D). Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with photographs. Representative site photos are located in Attachment E.

Basic Wetland Delineation

Prior to beginning fieldwork, aerial photographs (1" =50' scale) and National Wetlands Inventory maps were reviewed to assist in determining the presence or absence of potential jurisdictional areas in the project site. HELIX performed the basic jurisdictional delineation on May 7, 2019, concurrent with the general biological survey. The delineation was conducted to identify and map any water and wetland resources potentially subject to U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act (CWA; 33 USC 1344), Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act,

and streambed and riparian habitat potentially subject to California Department of Fish and Wildlife (CDFW) jurisdiction pursuant to Sections 1600 *et seq.* of the California Fish and Game Code (CFG Code). The delineation was also conducted to determine the presence or absence of City Environmentally Sensitive Lands (ESL) wetlands. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation were evaluated.

Waters of the U.S./Waters of the State

Potential USACE/Regional Water Quality Control Board (RWQCB)-jurisdictional waters of the U.S./State were delineated in accordance with the Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008). Sampling points were located within representative uplands and wetlands, and mapping of drainage features was performed in the field based on the ordinary high water mark (OHWM) and surface indications of hydrology. Areas were determined to be potential wetland waters of the U.S. if there was a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Areas were determined to be non-wetland waters of the U.S. if there was evidence of regular surface flow within an OHWM, but the vegetation and/or soils criterion were not met. No waters of the U.S./waters of the State were present within the survey area.

Streambed and Riparian Habitat

Potential CDFW-jurisdictional streambed and riparian habitat were determined based on the presence of riparian vegetation or regular surface flow. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation" (Title 14, Section 1.72). Potential CDFW jurisdictional unvegetated-streambed encompasses the top-of-slope to top-of-slope width for the ephemeral streams within the survey area. No streambed and riparian habitat were present within the survey area.

City Environmentally Sensitive Lands Wetlands

Potential ESL wetlands were determined based on the predominance of hydrophytic plant species. In addition, areas lacking naturally occurring wetland vegetation communities are still considered wetlands if hydric soil or wetland hydrology is present and past human activities have occurred to remove the historic vegetation. Areas lacking wetland vegetation communities, hydric soils and wetland hydrology due to non-permitted filling of previously existing wetlands will be considered a wetland under the ESL and regulated accordingly; however, seasonal drainage patterns that are sufficient enough to etch the landscape would not satisfy the City's wetland definition unless wetland dependent vegetation is either present in the drainage or lacking due to past human activities. Naturally occurring wetland vegetation communities include saltmarsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodland, riparian scrub, and vernal pools. No City ESL wetlands were present within the survey area.

Survey Limitations

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the lists of species identified are not necessarily comprehensive accounts of all species that utilize the survey area as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Those species that are of special status and have potential to occur in the survey area, however, are still addressed in this report (Attachments C and D).

Nomenclature

Nomenclature used in this report generally comes from Holland (1986) and Oberbauer (2008) for vegetation; Baldwin et al. (2014) for plants; Collins and Taggart (2006) for reptiles and amphibians; American Ornithologists' Union (2017) for birds; and Bradley et al. (2014) for mammals. Plant species status is from the California Native Plant Society (CNPS; 2018), CDFW (2019a), and City (2012). Animal species status is from CDFW (2019b and 2018) and City (2012).

RESULTS

Regional Context

The survey area is generally located within the Southern Coast Humid Temperate ecoregion of San Diego County (SDNHM 2014). Mean annual precipitation is approximately eight to 20 inches, and the mean annual temperature is approximately 57 to 64 degrees Fahrenheit. The frost-free period is 200 to 350 days (Natural Resource Conservation Service [NRCS] 2017).

Small livestock farms, horse ranches, and rural development typifies the biological character of the immediately project vicinity; however, the Tijuana River Valley Regional Park (TRVRP) completely surrounds the project site. TRVRP is known to support several sensitive plants and animals. The project site occurs within the MSCP and Coastal Zone, but adjacent to MHPA (Figure 2 and 3).

General Land Uses

The survey area is primarily composed of non-native vegetation, disturbed habitat, and developed land, including an existing horse pasture, small livestock farm, and Hollister Street. The surrounding land is generally composed of a few small farms and ranches surrounded by the TRVRP (Figure 3).

Disturbance

The survey area has been heavily disturbed in the past by human activities, which have resulted in those areas now supporting disturbed and developed lands, including a horse pasture, and non-native vegetation. Hollister Street bisects the survey area and will provide general access to the project site. Existing dirt roads within the ranch property will be used for vehicle and tractor access (Figure 7). Developed land is located across the majority of the western portion of the survey area with disturbed habitat dominating the eastern portion of the survey area. Non-native vegetation bisects the study area between developed and disturbed habitat.

Topography and Soils

Elevations in the survey area range from approximately 30 to 40 feet above mean sea level (amsl). The survey area generally consists of a flat area with small graded slopes.

Two soil types have been mapped in the survey area (Figure 5): Chino silt loam, saline, 0 to 2 percent slopes and Visalia sandy loam, 0 to 2 percent slopes. The soils listed within the survey area are not listed as hydric (NRCS 2017).

Vegetation Communities/Habitat Types

Three vegetation communities/habitat types occur in the survey area, as presented in Table 1 and shown on Figure 6. The numeric codes in parentheses following each community/habitat type name are taken from the Holland (Holland 1986) and Oberbauer (2008) classification systems.

Table 1
Vegetation Communities/Habitat Types

Vegetation Communities/Habitat Types	Survey Area (acres)[1]
Non-Native Vegetation/Ornamental (10000)	0.2
Disturbed Habitat (11300)	0.5
Developed (12000)	0.7
TOTAL	**1.3**

[1] The survey area extends 100 feet from the proposed project. Totals reflect rounding.

Non-Native Vegetation/Ornamental

Non-native vegetation or ornamental is a category describing stands of naturalized or ornamental trees and shrubs, many of which are also used in landscaping. Within the survey area non-native vegetation consists primarily of crown daisy (*Glebionis coronaria*) and non-native grasses (*Bromus* spp. and *Avena* sp.) in the center of the survey area immediately west of the project site. In addition, two Goodding's black willow (*Salix gooddingii*) occur at the northern end of the non-native vegetation; however, these willows comprise less than 0.01 acre and are not functioning as a riparian habitat. The willows occur at the base of a small slope below the proposed project site and immediately east of Hollister Street.

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation, land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present human or animal usage that removes any capability of providing viable habitat. Dominants in this community include sparse non-native vegetation such as crown daisy and black mustard (*Brassica nigra*). Disturbed habitat within the study area primarily consists of a cut slope and a horse pasture within and immediately east of the project site.

Developed

Developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation. Developed land in the survey area consists Hollister Street and the farm in the western portion of the study area.

Flora

HELIX identified a total of 20 plant species in the survey area, of which 16 (80 percent) are non-native species (Attachment A).

Fauna

A total of 14 animal species were observed or otherwise detected in the survey area during the biological surveys, including one invertebrate, 12 bird, and one mammal species (Attachment B).

Sensitive Vegetation Communities/Habitat Types

Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the State CEQA Guidelines. The City defines sensitive habitat as ESL in their Land Development Code Biology Guidelines (2012). In the context of the City's MSCP Subarea Plan (1997), Tier IIIB types and habitat for rare, endangered, threatened, or narrow endemic species are considered sensitive requiring compensatory mitigation for significant impacts.

Sensitive vegetation communities/habitat types do not occur on site. Pursuant to the City's Biological Guidelines, impacts to Tier IV non-native vegetation, disturbed habitat, and developed lands are not considered significant and do not require mitigation (City 2012).

Special Status Species

Special Status Plant Species

Special status plant species have been afforded special status and/or recognition by the USFWS, CDFW, and/or the City and may also be included in the CNPS' Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exist naturally in small populations.

A total of 42 special status plant species known to the region were analyzed for their potential to occur within the project site (Attachment C). No special status plant species, including MSCP narrow endemic species, were observed within the project site during the May 2019 general biological survey. No special

status plant species, including MSCP narrow endemic species, are likely to occur due to overall lack of suitable conditions and the fact that none were observed during the May 2019 general biological survey.

Special Status Animal Species

Special status animal species include those that have been afforded special status and/or recognition by the USFWS, CDFW, and/or the City. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

A total of 30 special status animal species known to the region were analyzed for their potential to occur within the project site (Attachment D).

No special status animal species were detected in the project site during the May 2019 general biological survey. No special status animal species are likely to occur on site due to overall lack of suitable conditions and the fact that none were observed during the May 2019 general biological survey.

Nesting Birds

The native and non-native trees and shrubs within the non-native vegetation and developed land within the survey area provide suitable nesting habitat for bird species protected under the federal Migratory Bird Treaty Act (MBTA) and CFG Code.

Raptor Foraging

A red-tailed hawk (Buteo jamaicensis) was observed west of the survey area and a red-shouldered hawk (*Buteo lineatus*) was observed north of the survey area during the 2019 biological survey. The survey area is less than five acres in size and does not by itself constitute raptor foraging habitat. Raptors with potential to forage over the general area include the above-mentioned species; however, they would not be expected to use the survey area as a primary foraging area due to higher quality habitat and foraging area to the north of the study area. The habitat within the survey area does not provide high quality raptor foraging habitat due to the high level of disturbance and proximity to development.

Jurisdictional Waters and Wetlands

The survey area is characterized entirely as uplands that lack evidence of potential jurisdictional waters and wetlands. No potential wetland conditions were observed in the survey area and no drainage features occur in the survey area. No riparian habitat occurs in the survey area; therefore, there are no resources subject to the regulatory jurisdiction of the USACE, RWQCB, and CDFW within the study area.

City Environmentally Sensitive Lands Wetlands

There are no areas within the project site that meet the criteria to be considered City ESL wetlands. No hydrophytic vegetation, hydric soil, or wetland hydrology occur within the project site.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are made up of a fragmented archipelago arrangement of habitat over a linear distance.

The project site does not occur within any known corridors or linkages. No portions of the project site function as linkage or corridor habitat. The proposed project would be located immediately north and east of existing commercial development.

APPLICABLE REGULATIONS

This section provides a summary of applicable regulations to the proposed project.

Federal Government

Federal Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitats so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat. The survey area is not located within critical habitat; however, critical habitat for the least Bell's vireo is located approximately 120 feet north of the project site.

Sections 7 and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. In this case, take can be authorized via a letter of biological opinion issued by the USFWS for non-marine related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species' use of a site and impacts to

USACE jurisdictional areas. A Section 10 is used when a project requires no federal permits and does not have federal funding.

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 to August 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

State of California

California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Endangered Species Act

The CESA established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For state-only listed species, Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for state listed threatened and endangered species if specific criteria are met.

Native Plant Protection Act

Sections 1900–1913 of the CFG Code (Native Plant Protection Act; NPPA) direct the CDFW to carry out the State Legislature's intent to "…preserve, protect, and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

California Fish and Game Code

Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that

construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

City of San Diego

Environmentally Sensitive Lands

Impacts to biological resources in the City must comply with the City's ESL Regulations. The purpose of the regulations is to "protect, preserve, and, where damaged restore, the environmentally sensitive lands of San Diego and the viability of the species supported by those lands." Environmentally sensitive lands are defined to include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs, and 100-year floodplains.

The ESL regulations also restrict development within the MHPA, including impact avoidance areas around raptor nesting locations (specifically, Cooper's hawk, northern harrier [*Circus cyaneus*], golden eagle [*Aquila chrysaetos*], and burrowing owl [*Athene cunicularia*]) and known locations of southern pond turtle (*Clemmys marmorata pallida*), and also requires seasonal restrictions on grading where development may impact the following bird species: western snowy plover (*Charadrius alexandrinus nivosus*), southwestern willow flycatcher (*Empidonax traillii extimus*), least tern (*Sternula antillarum browni*), San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), least Bell's vireo, tricolored blackbird (*Agelaius tricolor*), and coastal California gnatcatcher.

Multiple Species Conservation Program

In July 1997, the USFWS, CDFW, and City adopted the Implementing Agreement for the MSCP. This program allows the incidental take of threatened and endangered species as well as regionally-sensitive species that are conserved by it (covered species). The MSCP designates regional preserves that are intended to be mostly void of development activities, while allowing development of other areas subject to the requirements of the program. Impacts to biological resources are regulated by the City's ESL regulations.

The City's MSCP Subarea Plan (1997) has been prepared to meet the requirements of the California Natural Communities Conservation Planning Act of 1992. This Subarea Plan describes how the City's portion of the MSCP Preserve, the MHPA, will be implemented.

ANALYSIS OF PROJECT EFFECTS AND PROPOSED MITIGATION MEASURES

Issue 1 – Special Status Species

Would the project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the Multiple Species Conservation Plan (MSCP) or other local or regional plans, policies or regulations, or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?

Issue 1 Impact Analysis

Project development has been specifically targeted entirely within existing non-native vegetation, disturbed habitat, and developed lands.

Five Federally and State Listed plant species and another 38 California Rare Plant Rank (CNPR) plant species are known to occur within three miles of the proposed project site; however, none of these species has a potential to be directly or indirectly impacted by construction activities. No special status species are expected to be directly or indirectly impacted by the project as the project is proposed entirely within non-native vegetation, disturbed habitat, and developed lands.

As stated above, project development would be restricted to non-native vegetation, disturbed habitat, and developed lands, which does not have the potential to support special status animal species; therefore, no direct impacts to special status animals would occur. Of the 42 Federally or State Listed animal species known to occur within three miles of the proposed project site, the coastal California gnatcatcher (*Polioptila californica californica*; Federally Threatened) and least Bell's vireo (*Vireo bellii pusillus*; Federally and State Endangered) have a high potential to be indirectly impacted by construction activities and are known to occur within the adjacent MHPA. Eighteen additional special status animal species, including CDFW and MSCP protected species, are known to occur within three miles of the proposed project. Of these, Cooper's hawk (*Accipiter cooperii*; State Watch List; MSCP Covered Species) and northern harrier (*Circus hudsonius*; State Species of Special Concern; MSCP Covered Species) have a high potential to be indirectly impacted by construction activities and are known to occur within the adjacent MHPA.

If avoidance measures are not in place, the project could result in significant indirect impacts to bird species, including several sensitive bird species, such as coastal California gnatcatcher and least Bell's vireo, tree-nesting raptors, such as Cooper's hawk and northern harrier, and other nesting birds, in the event they are found to be nesting on or within 500 feet of project construction. Because of the small project footprint and location of the project, no direct impacts are expected to occur to bird species.

The project would not require impacts to vegetation or structures that could support nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code. Regardless, as a regulatory requirement, the project must comply with the regulations and guidelines of the MBTA and CFG Code. As such, the project must ensure no direct or indirect impacts to nesting birds and tree-nesting raptors. The project incorporates the following mitigation measure to ensure that no indirect impacts occur to nesting birds and tree-nesting raptors during project construction:

BIO-1 Project clearing, grubbing, and grading shall not occur within the avian breeding season (February 15 – September 15) and shall be limited to the non-breeding season (September 16 – February 14) to ensure no direct and indirect impacts to nesting birds and raptors, including sensitive species identified above. Should clearing, grubbing, and/or grading be necessary within the avian breeding season, the project would be required to comply with the regulations and guidelines of the MBTA and CFG Code, including completion of a pre-construction survey conducted by a qualified biologist to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, then clearing, grubbing, and grading shall be allowed to proceed. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and

construction activities shall avoid active nests until nesting behavior has ceased, nests have failed, or young have fledged.

Direct impacts to the coastal California gnatcatcher and least Bell's vireo are not expected due to the fact that no direct impacts will occur to suitable habitat for either of these species; however, these species have the potential to nest off site, within 500 feet of project construction and areas designated as MHPA.

The project is required to comply with the avoidance and minimization guidelines of the MSCP for certain covered species, such as coastal California gnatcatcher and least Bell's vireo. If avoidance measures are not in place, then project construction could result in potential significant noise-related indirect impacts on the coastal California gnatcatcher, least Bell's vireo, and/or nesting raptors, if breeding individuals become displaced from their nests and fail to breed. The project incorporates the mitigation measure below to ensure that potential indirect impacts on the coastal California gnatcatcher are avoided.

BIO-2 Prior to the issuance of any grading permit, the City shall verify that the MHPA boundaries and the following project requirements regarding the coastal California gnatcatcher are shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur within the off-site lands that would be subject to construction noise levels exceeding 60 dB(A) hourly average between March 1 and August 15, the breeding season of the coastal California gnatcatcher, until the following requirements have been met to the satisfaction of the City:

A. A qualified biologist (possessing a valid FESA Section 10(a)(1)(A) Recovery Permit) shall survey appropriate habitat (coastal sage scrub) areas within the off-site lands that would be subject to construction noise levels exceeding 60 dB(A) hourly average for the presence of the coastal California gnatcatcher. If no appropriate habitat is present, then the surveys will not be required. If appropriate habitat is present, surveys for the coastal California gnatcatcher shall be conducted pursuant to the protocol survey guidelines established by the USFWS within the breeding season prior to the commencement of any construction. If gnatcatchers are present within the off-site lands, then the following conditions must be met:

I. Between March 1 and August 15, no clearing, grubbing, or grading of occupied gnatcatcher habitat shall be permitted within the off-site lands. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; and

II. Between March 1 and August 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB hourly average at the edge of occupied gnatcatcher habitat within the off-site lands. An analysis showing that noise generated by construction activities would not exceed 60 dB hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City

Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or

III. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB hourly average at the edge of habitat (within the off-site lands) occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area within the off-site lands to ensure that noise levels do not exceed 60 dB hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16).

*Construction noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat within the off-site lands are maintained below 60 dB hourly average or to the ambient noise level if it already exceeds 60 dB hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels within occupied off-site habitat to below 60 dB hourly average or to the ambient noise level if it already exceeds 60 dB hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. If coastal California gnatcatchers are not detected within the off-site lands during the protocol survey, the qualified biologist shall submit substantial evidence to the City Manager and applicable wildlife agencies that demonstrates whether or not Mitigation Measures are necessary between March 1 and August 15 as follows:

I. If this evidence indicates the potential is high for coastal California gnatcatcher to be present based on historical records or site conditions, then Condition A.III shall be adhered to as specified above.

II. If this evidence concludes that no impacts to this species are anticipated, no Mitigation Measures would be necessary.

The project incorporates the mitigation measure below to ensure that potential indirect impacts on the least Bell's vireo are avoided.

BIO-3 Prior to the issuance of any grading permit, the City shall verify that the following project requirements regarding the least Bell's vireo are shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur within 500 feet of appropriate habitat between March 15 and September 15, the breeding season of the least Bell's vireo, until the following requirements have been met to the satisfaction of the City:

A. Since least Bell's vireo are known to occur near the site, then the following conditions must be met to the satisfaction of the Assistant Deputy Director Environmental Designee if construction activities must occur during the least Bell's vireo breeding season:

   I. Between March 15 and September 15, no clearing, grubbing, or grading of occupied least Bell's vireo habitat will be permitted. Areas restricted from such activities will be staked or fenced under the supervision of a qualified biologist; and

   II. Between March 15 and September 15, no construction activities will occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB hourly average at the edge of occupied least Bell's vireo habitat. An analysis showing that noise generated by construction activities would not exceed 60 dB hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City Manager at least two weeks prior to the commencement of construction activities. Prior to commencement of construction activities during the breeding season, areas restricted from such activities will be staked or fenced under supervision of a qualified biologist; or

   III. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g. berms, wall) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dBA hourly average at the edge of habitat occupied by the least Bell's vireo. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat to ensure that noise levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities will cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).

*Construction noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat within the off-site lands are maintained below 60 dB hourly average or to the ambient noise level if it already exceeds 60 dB hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels within occupied off-site habitat to below 60 dB hourly average or to the ambient noise level if it already exceeds 60 dB hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

Potential operation noise from equipment, such as on-site generators and HVAC units, would be attenuated by the equipment shelter, and would not exceed 60 dBA within the MHPA (HELIX 2019). The noise impact analysis prepared for this project calculated that noise from equipment would be approximately 49.1 dBA within the MHPA (HELIX 2019); therefore, project operation noise from equipment would not significantly impact the coastal California gnatcatcher or least Bell's vireo, including the long-term survival of either species.

Issue 1 Mitigation Measures

Implementation of mitigation measures **BIO-1** through **BIO-3** would ensure project consistency with the protection of any species identified as a candidate, sensitive, or special status species in the MSCP, other local or regional plans, policies or regulations such as the MHPA, CDFW, and USFWS.

Conclusions

Project implementation could result in significant indirect impacts to nesting birds and raptors, including sensitive species (e.g., coastal California gnatcatcher and least Bell's vireo), that have the potential to nest within 500 feet of the site and off-site areas designated as MHPA. Potential significant impacts could result from indirect disturbance and noise. Implementation of mitigation measures **BIO-1** through **BIO-3** would reduce impacts to less than significant.

Issue 2 – Riparian Habitat and Sensitive Natural Communities

Would the project have a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

Issue 2 Impact Analysis

The project has been designed to avoid direct impacts to Tier habitats and sensitive natural communities. Non-native vegetation within the study area contains two Goodding's black willows. The willows are located at the bottom of a small slope below the proposed project site and east of Hollister Street. These willows comprise less than 0.01 acre and are not functioning as a riparian habitat. Furthermore, the willows will not be impacted during project implementation. The project components and trenching routes for telco and power have been restricted to non-native vegetation, disturbed habitat, and developed lands. The proposed enclosed equipment area is also situated entirely within non-native vegetation, disturbed habitat, and developed lands; therefore, no direct impacts to sensitive habitat would occur.

Issue 2 Mitigation Measures

No mitigation is required.

Conclusion

The project would not result in an impact to Tier habitats or sensitive vegetation communities. No mitigation is required.

Issue 3 – Jurisdictional Wetlands and Waterways

Would the project have a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?

Issue 3 Impact Analysis

Based on the general biological survey, National Wetland Inventory (USFWS 2018), and aerial imagery (Google Earth 2018), no wetlands occur within or adjacent to the project site; therefore, the project would not result in any impacts to federally-, state-, or City-protected wetlands; however, the project site does occur within a Federal Emergency Management Agency 100-year floodplain.

Issue 3 Mitigation Measures

No mitigation is required.

Conclusion

The project would not result in impacts to federally-, state-, or City-protected wetlands, and no mitigation is required.

Issue 4 – Wildlife Movement and Nursery Sites

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?

Issue 4 Impact Analysis

Due to the small size, the project would not impede the movement of any native, resident, or migratory fish or wildlife species or with established native, resident, or migratory wildlife corridors. In addition, the project would not interfere with linkages identified in the MSCP Plan or use of native wildlife nursery sites. The project is bordered by urban development to the south, east, and west; however, undeveloped, MHPA lands are to the north of the project. Wildlife has the potential to travel adjacent to project components; however, the project does not have the potential to impede movement. Impacts are considered less than significant.

Issue 4 Mitigation Measures

No mitigation is required.

Conclusion

Project implementation would not result in significant impacts on wildlife movement and nursery sites. No mitigation is required.

Issue 5 – Adopted Plans

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?

Issue 5 Impact Analysis

As stated above, the project could result in potential significant impacts to special status species. Impacts would occur outside, but approximately 105 feet south of the MHPA; however, the impacts will be entirely restricted to non-native vegetation, disturbed habitat, and developed lands. Implementation of mitigation measures **BIO-1** through **BIO-3** would prevent potential indirect impacts and ensure project consistency with the adopted City MSCP Subarea Plan (1997). The survey area is not located within critical habitat; however, critical habitat for least Bell's vireo is located approximately 134 feet north of the project site. No adverse modification or other impact on critical habitat would occur. No other adopted Habitat Conservation Plan, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the project.

Issue 5 Mitigation Measures

Implementation of mitigation measures **BIO-1** through **BIO-3** would ensure project consistency with the MSCP. No additional mitigation is required.

Conclusion

Project implementation could result in significant indirect impacts to special status species protected under the MSCP. Potential significant impacts could result from indirect disturbance and noise. Implementation of **BIO-1** through **BIO-3** would ensure the project is consistent with the adopted City MSCP Subarea Plan (1997) and reduce impacts to less than significant.

Issue 6 – Land Use Adjacency

Would the project introduce land use within an area adjacent to the MHPA that would result in adverse edge effects?

Issue 6 Impact Analysis

The project would not introduce land use within an area adjacent to the MHPA that would result in adverse edge effects. The total impact area of the project is less than 0.1 acre and the project has been designed to be restricted to non-native vegetation, disturbed habitat, and developed lands. The equipment will be enclosed within a shelter to shield adjacent habitat from noise. No lighting is proposed that would adversely affect adjacent habitat. No landscaping is proposed that would introduce non-native invasive species to the area. The project has been specifically designed within non-native vegetation, disturbed habitat, and developed lands, and no sensitive Tier I-III habitats occur within or immediate adjacent to the project site. The project site would not be open to the public and would have minimal construction and operational impacts.

Coastal California gnatcatcher and least Bell's vireo have the potential to nest off site within 500 feet of project construction and within MHPA; however, the nearest known occurrence of coastal California gnatcatcher is 630 feet to the north, while the nearest known occurrence of least Bell's vireo is 340 to the west. A small, livestock farm occurs between the nearest known least Bell's vireo occurrence and the proposed project site. Avoidance is required, as explained below. The project footprint is extremely small and is adjacent to urban development. The noise impact analysis prepared for this project calculated that noise from equipment would be approximately 49.1 dBA within the MHPA; therefore, project operation noise from equipment would not significantly impact the coastal California gnatcatcher or least Bell's vireo, including the long-term survival of either species (HELIX 2019). Nevertheless, potential noise-related indirect impacts during construction would be considered significant if sensitive species become displaced from their nests and fail to breed. If construction would take place during the breeding season for sensitive species, including the coastal California gnatcatcher (March 1 to August 15) and least Bell's vireo (March 15 to September 15), then the standard City noise mitigation would be required. Implementation of **BIO-2** and **BIO-3** would ensure that no indirect impacts occur to the coastal California gnatcatcher or least Bell's vireo during project construction.

The analysis below demonstrates project consistency with the MHPA Land Use Adjacency Guidelines (LUAG). The LUAG shall be carried forward as conditions of approval for the project. The MHPA is located approximately 105 feet to the north of the proposed project site. The discussion below addresses the MHPA adjacency guidelines.

MHPA Adjacency Guidelines

Land uses planned or existing adjacent to the MHPA include intensive agriculture and recreation. Land uses adjacent to the MHPA will be managed to ensure minimal impacts to the MHPA. Consideration will be given to good planning principles in relation to adjacent land uses as described below. The following are adjacency guidelines that will be addressed, on a project-by-project basis, during either the planning (new development) or management (new and existing development) stages to minimize impacts and maintain the function of the MHPA (City 1997). The MHPA Land Use Adjacency Guidelines would be further enforced as conditions of project approval.

Drainage

The impervious substrate within the project site would increase by less than 0.1 acre because of the enclosed equipment area and will have negligible effects on drainage. No drainage shall be directed into adjacent MHPA.

Toxins

The proposed project does not involve agriculture or creation of recreational areas such as playing fields or any other uses that would introduce toxins. No toxins shall be used during project construction and operation.

Lighting

During construction, site lighting shall be kept to the minimum required for safety and would be shielded to direct light downward and away from MHPA areas to the general north and west. Any

lighting during project operation shall not exceed that which already occurs at the site, shall be directed downward and away from the MHPA and, if necessary, adequately shielded to protect the MHPA and sensitive species from night lighting.

Noise

Potential operation noise from equipment would be attenuated by the equipment shelter. The noise impact analysis prepared for this project calculated that noise from equipment would be approximately 49.1 dBA within the MHPA (HELIX 2019). Construction noise from the proposed project is expected to be relatively minimal but could create a significant indirect impact on nearby MHPA habitat, including the off-site Diegan coastal sage scrub, mulefat scrub, and southern willow scrub should construction occur within the nesting season for birds, tree nesting raptors, and sensitive species such as coastal California gnatcatchers and least Bell's vireo.

Barriers to Incursion

The project proposes no barriers to incursion and will be contained within an enclosed equipment area. The equipment shelter would also provide barriers that provide protection for potential wildlife mortality or injury. No barriers to incursion shall be allowed during project construction.

Invasive Species

Landscaping for the project shall restrict the use of invasive species. Best management practices during construction shall include measures to avoid introduction of invasive plants into the construction site by equipment.

Brush Management

The project does not propose or require brush management as an unmanned telecommunications facility with no inhabitable structures proposed. The project site consists of a barren, dirt lot.

Grading/Land Development

The project does not propose construction of manufactured slopes; however, minor grading for the proposed equipment shelter and water tank with antennas may be required.

Issue 6 Mitigation Measures

Implementation of mitigation measures **BIO-1** through **BIO-3** would ensure project consistency the Land Use Adjacency Guidelines. No additional mitigation is required.

Conclusion

Project implementation would not result in significant impacts related to MHPA adjacency that would result in adverse edge effect. Construction and development would occur entirely within non-native vegetation, disturbed habitat, and developed lands and no changes to existing land use designations would occur. In accordance with the Land Use Adjacency Guidelines, implementation of construction Best Management Practices and mitigation measures **BIO-1** through **BIO-3**would ensure impacts related

to noise and inadvertent encroachment into adjacent MHPA during construction are maintained at less than significant levels. No additional mitigation is required.

Issue 7 – Local Policies or Ordinances

Would the project conflict with any local policies or ordinances protecting biological resources?

Issue 7 Impact Analysis

As described above, the project has been specifically sited and designed to minimize impacts to biological resources addressed in the City's MSCP Subarea Plan (1997) and Land Development Code (2012). The mitigation measures **BIO-1** through **BIO-3**would ensure project consistency with the MSCP and that impacts to species and ESL are avoided in accordance with Land Development Code requirements.

Issue 7 Mitigation Measures

Implementation of the project design features specified within Issue 1 would ensure project consistency with the MSCP (1997) and Land Development Code (2012) pertaining to biological resources. No additional mitigation is required.

Conclusion

If the required avoidance measures are not in place, the project could result in significant impacts to species and ESL addressed in the City's MSCP Subarea Plan (1997) and Land Development Code (2012); however, implementation of the project design features specified within Issue 1 would reduce impacts to less than significant. No additional mitigation is required.

Issue 8 – Invasive Species

Would the project result in an introduction of invasive species of plants into a natural open space area?

Issue 8 Impact Analysis

The project could result in the introduction of invasive species of plants into a natural open space area, which could be a significant impact. Introduction of invasive plant species could occur via contaminated construction equipment. The project incorporates the following mitigation measure to ensure that the introduction of invasive plant species into natural open space areas is prevented:

BIO-4 All equipment shall be clean and free of debris and mud prior to entering the project site. Hydroseeding of temporary impacted areas as a Best Management Practice shall occur with only native plant species consistent with the surrounding native habitat.

Issue 8 Mitigation Measures

Implementation of mitigation measure **BIO-4** would ensure invasive plant species are not introduced into natural open space areas.

Conclusion

If the required avoidance measures are not in place, the project could result in significant impacts with the introduction of invasive plant species; however, with the implementation of mitigation measure **BIO-4**, impacts would be less than significant.

CLOSING

Implementation of mitigation measures **BIO-1** through **BIO-4** would ensure project consistency with the protection of any species identified as a candidate, sensitive, or special status species in the MSCP, other local or regional plans, policies or regulations, adopted City MSCP Subarea Plan, MHPA Land Use Adjacency Guidelines, local policies and ordinances in accordance with Land Development Code requirements, and introduction of invasive species into natural open space areas.

We appreciate the opportunity to provide you with this report. I certify that the information in this report and enclosures are correct and accurately represent my work. Please do not hesitate to contact me or Katie Bellon at (619) 462-1515 if you have any questions or require further assistance.

Sincerely,

Katie Bellon
Biologist

Enclosures:

Figure 1	Regional Location
Figure 2	USGS Topography
Figure 3	Aerial Vicinity
Figure 4	Project Site Plan
Figure 5	Soils
Figure 6	Vegetation and Sensitive Resources
Figure 7	Vegetation and Sensitive Resources Impacts
Attachment A	Plant Species Observed
Attachment B	Animal Species Observed or Detected
Attachment C	Sensitive Plant Species with Potential to Occur
Attachment D	Sensitive Animal Species with Potential to Occur
Attachment E	Representative Site Photos

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*Primary report author

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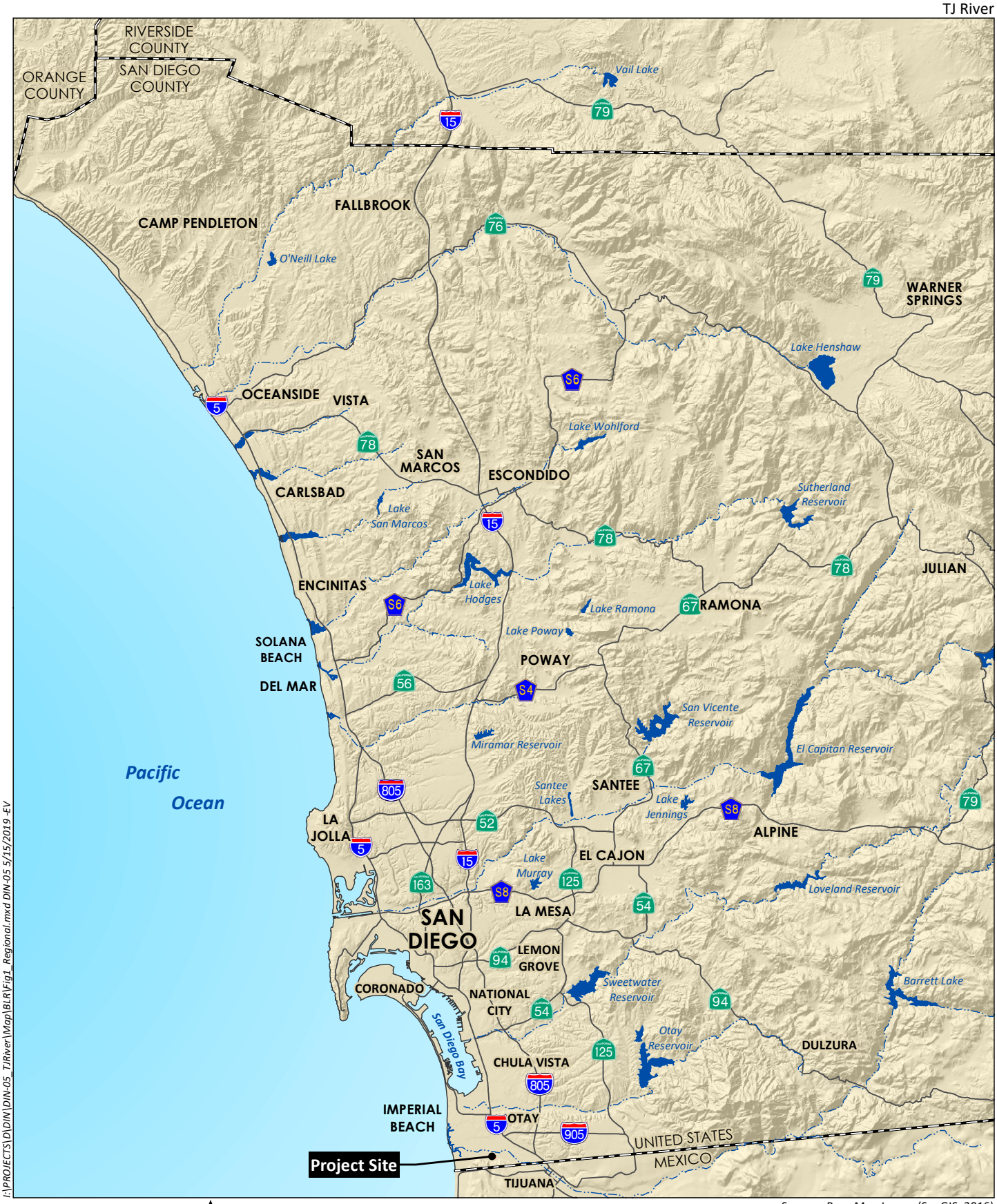

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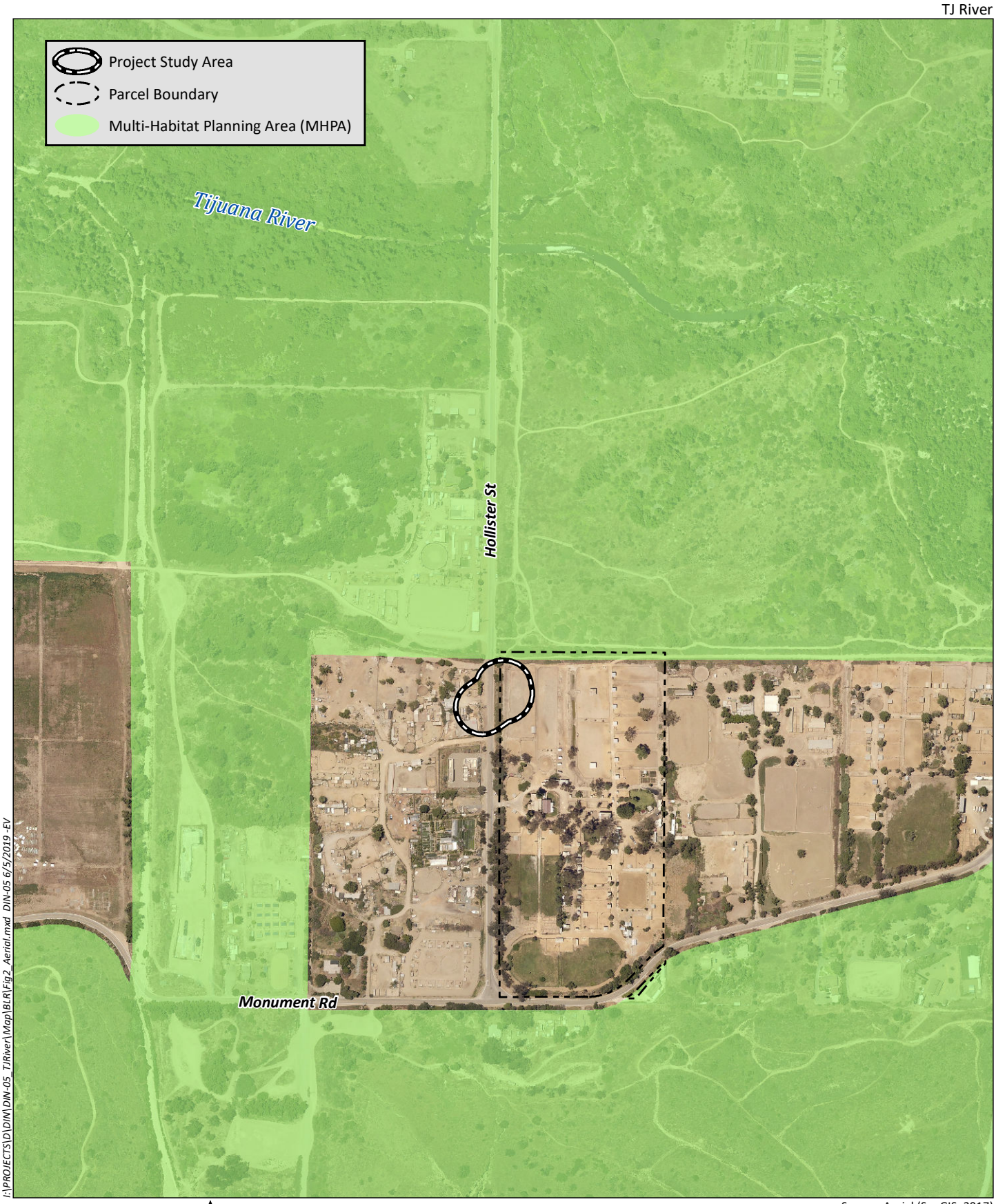
Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



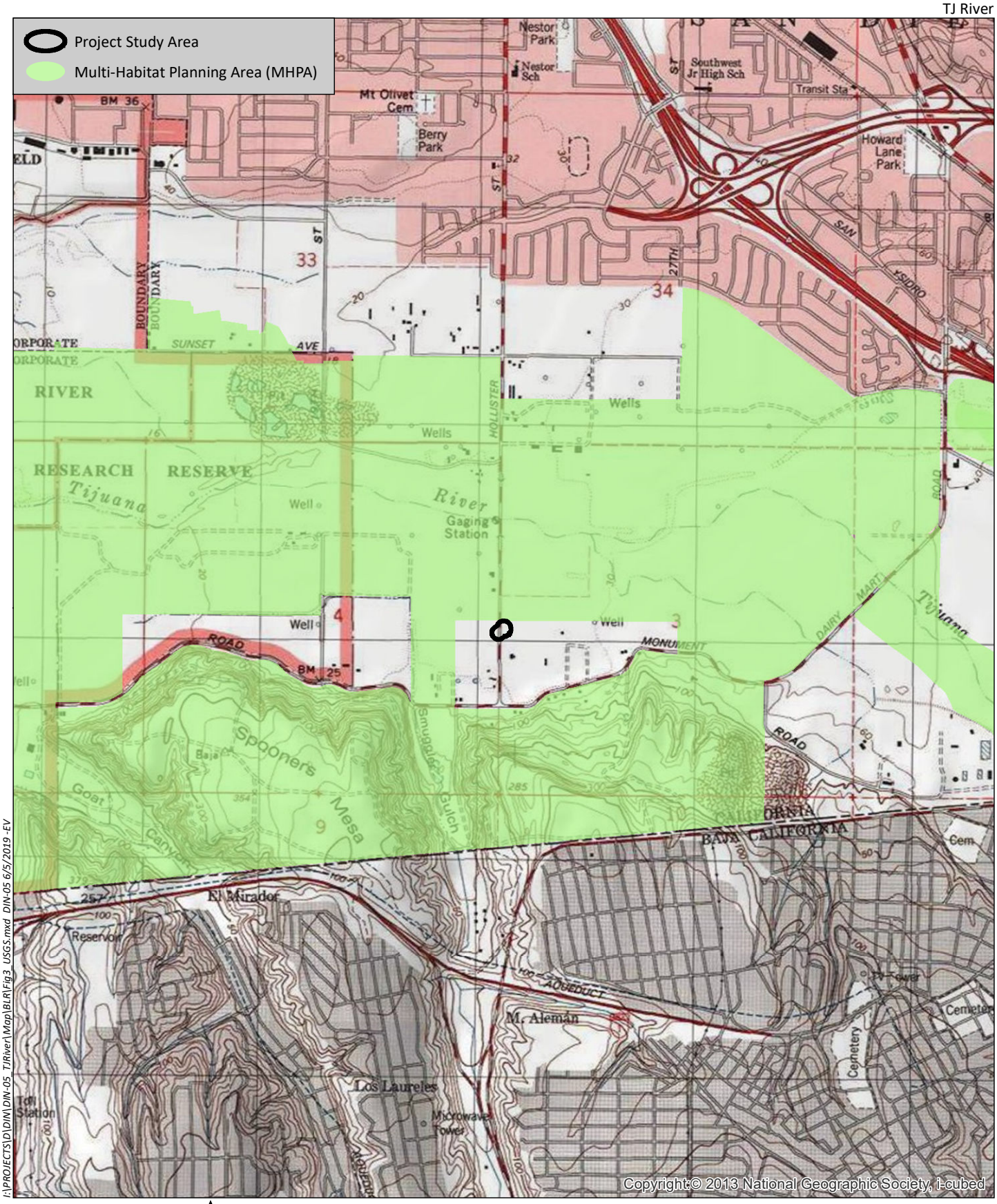
Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Project Vicinity (Aerial Photograph)

Figure 2

TJ River



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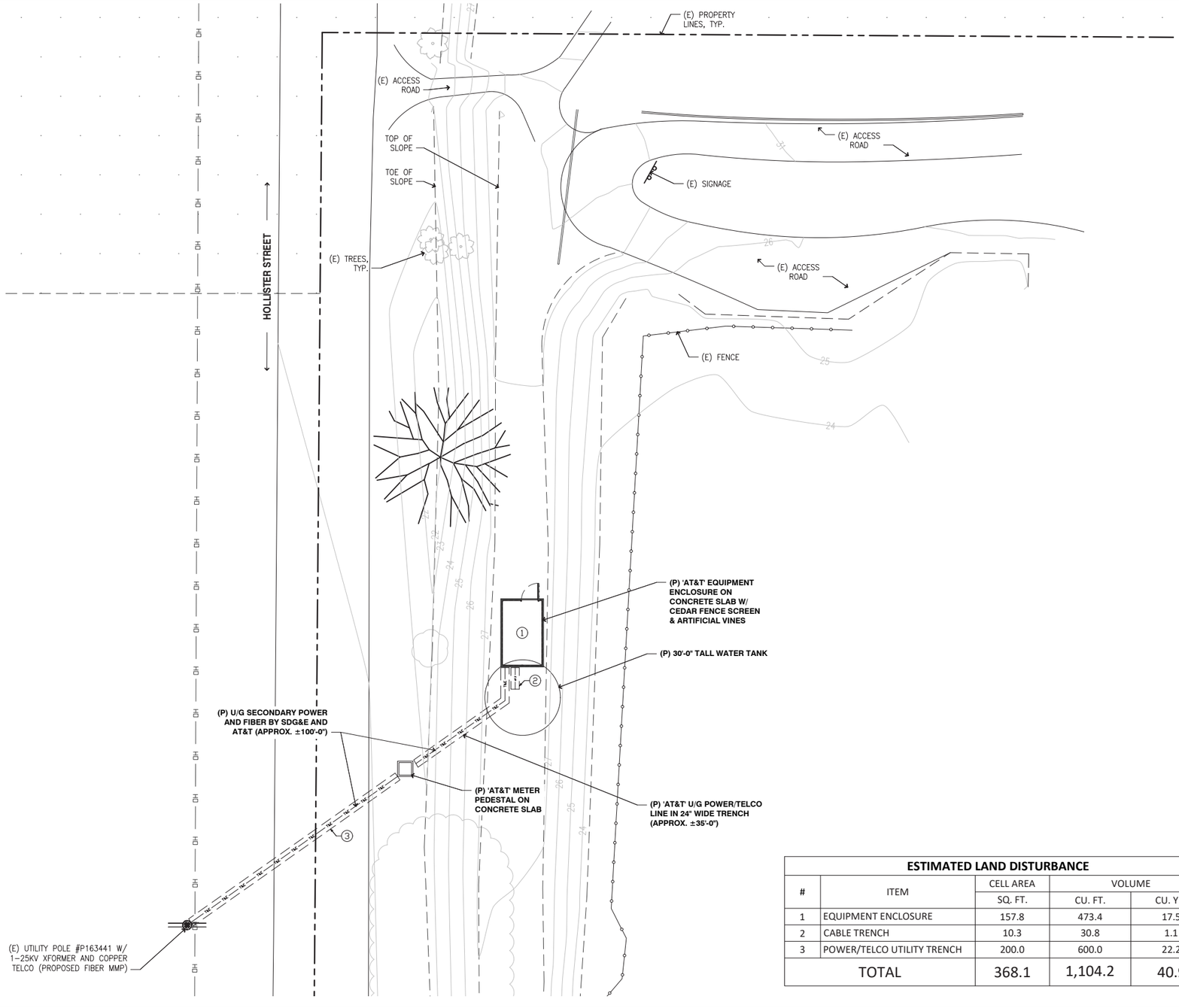
HELIX Environmental Planning

Project Vicinity (USGS Topography)

Figure 3



ESTIMATED LAND DISTURBANCE

#	ITEM	CELL AREA	VOLUME	
		SQ. FT.	CU. FT.	CU. YD.
1	EQUIPMENT ENCLOSURE	157.8	473.4	17.5
2	CABLE TRENCH	10.3	30.8	1.1
3	POWER/TELCO UTILITY TRENCH	200.0	600.0	22.2
TOTAL		368.1	1,104.2	40.9

NORTH

Source: Telecom Management Group, 2019

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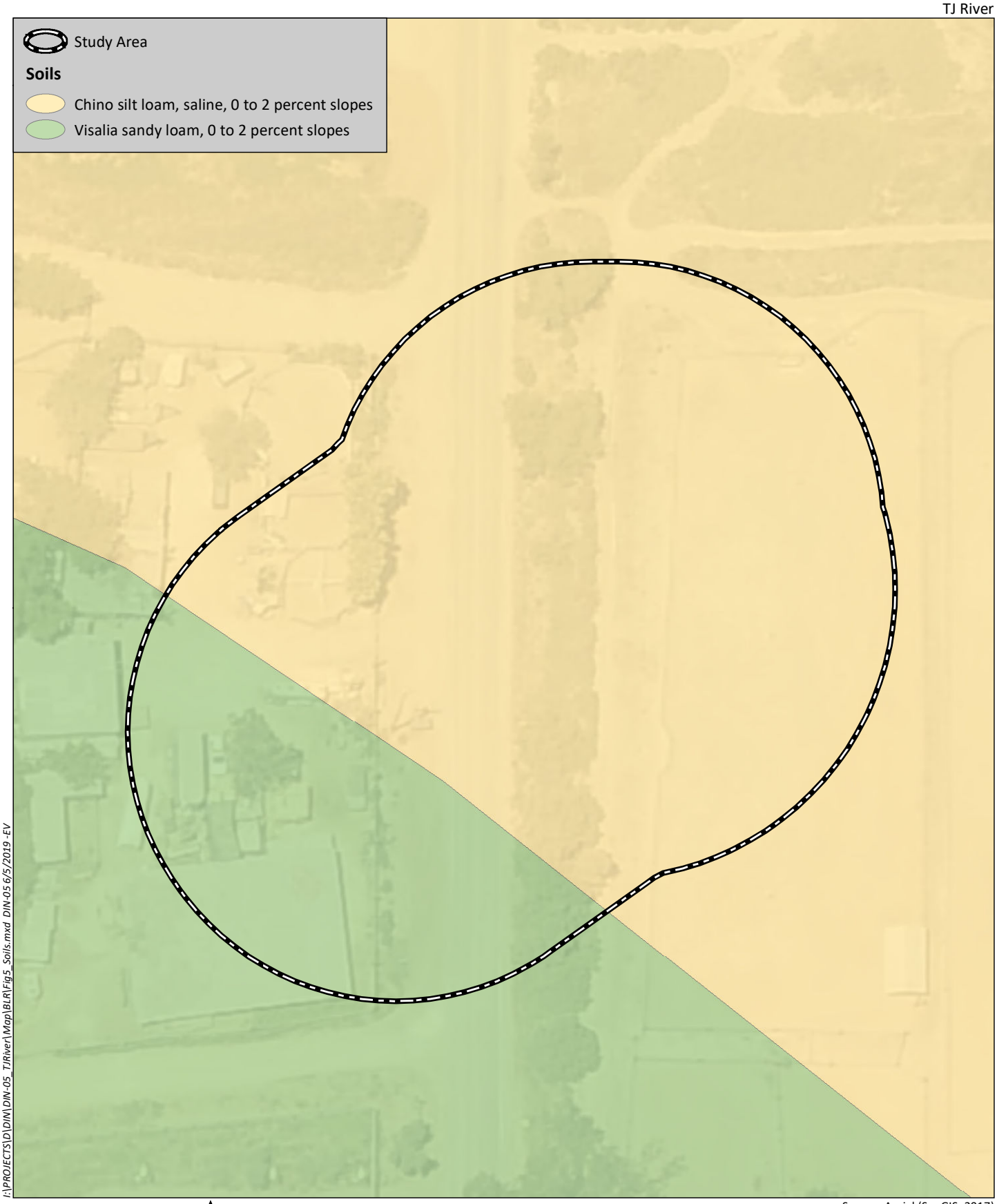
HELIX Environmental Planning

Project Site Plan

Figure 4



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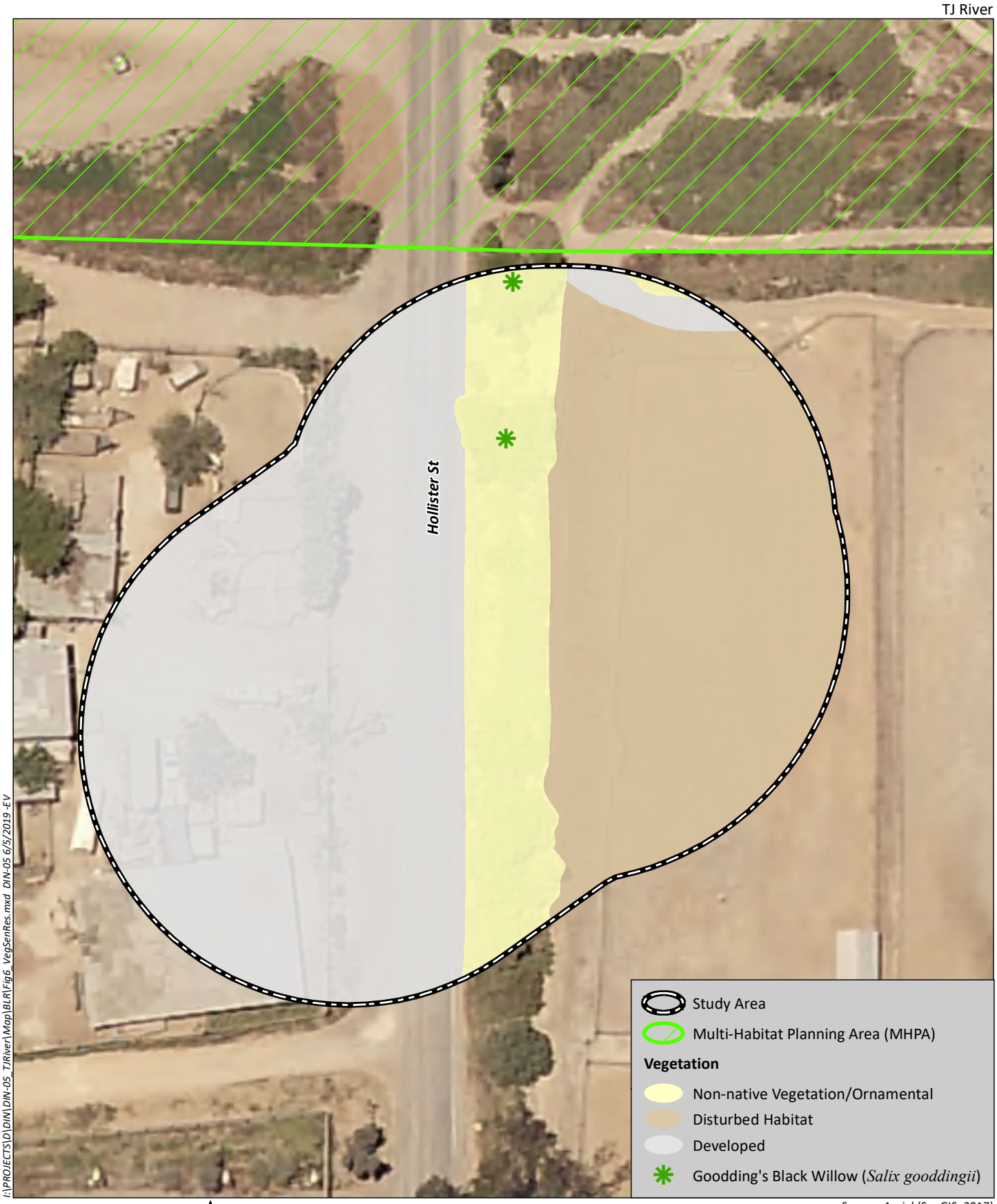
Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Soils

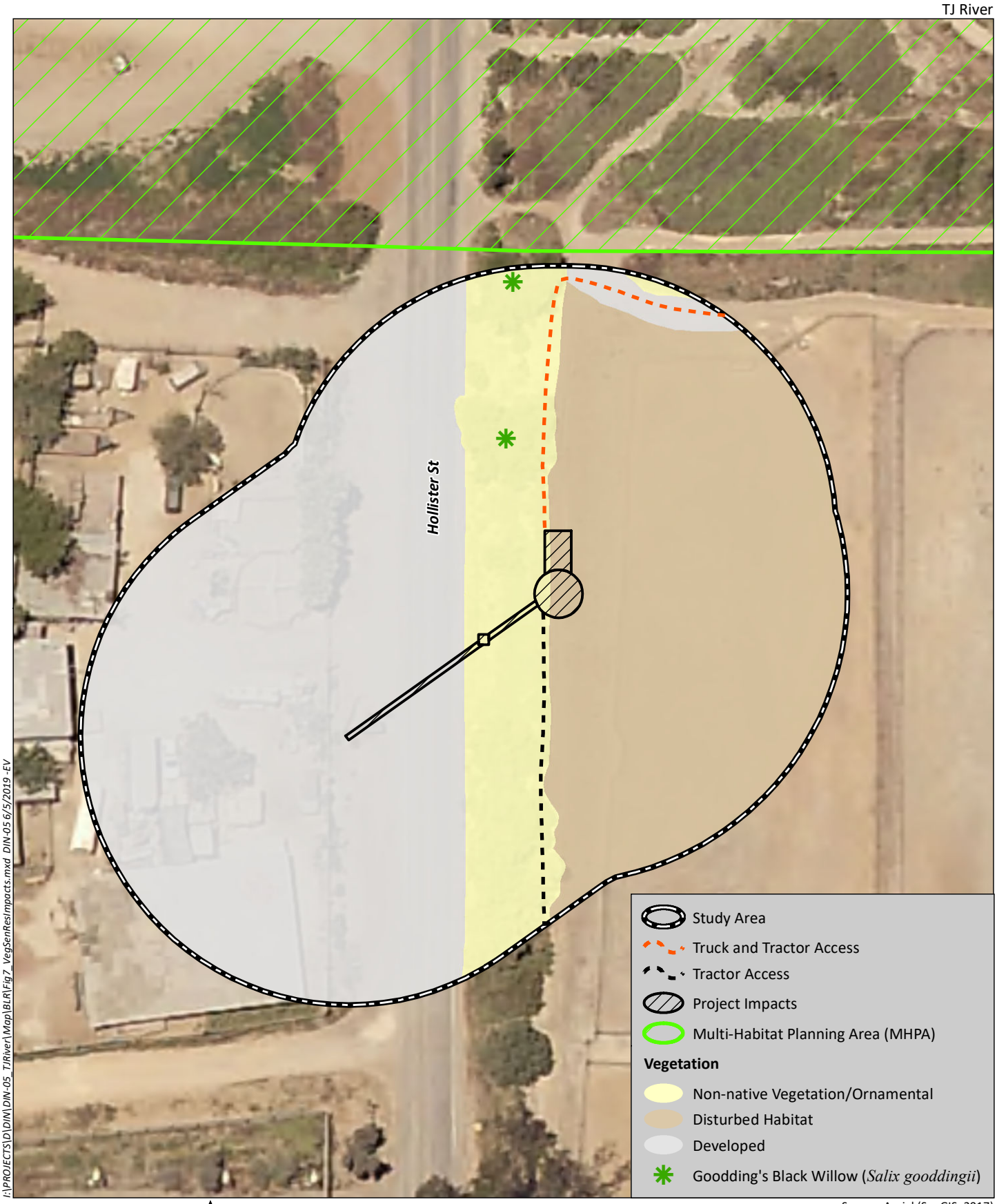
Figure 5



HELIX Environmental Planning

Vegetation and Sensitive Resources

Figure 6



HELIX Environmental Planning

Vegetation and Sensitive Resources\Impacts

Figure 7

Attachment A
Plant Species Observed

Family	Scientific Name*	Common Name	Habitat**
Agavaceae	*Agave* sp.*	ornamental agave	DEV
Aizoaceae	*Carpobrotus edulis**	ice plant	NNV
	*Mesembryanthemum crystallinum**	crystalline ice plant	NNV
Arecaceae	*Washingtonia robusta**	Mexican fan palm	DEV
Asteraceae	*Baccharis salicifolia*	mulefat	NNV
	*Glebionis coronaria**	crown daisy	DH, NNV
Brassicaceae	*B*rassica nigra*	black mustard	DH, NNV
	*Raphanus sativus**	wild radish	NNV
Chenopodiaceae	*Atriplex lentiformis*	big saltbush	NNV
Euphorbiaceae	*Ricinus communis**	castor bean	NNV
Myrtaceae	*Eucalyptus* sp.*	eucalyptus	NNV
Poaceae	*Bromus diandrus**	rip-gut brome	DH, NNV
	*Bromus madritensis**	foxtail chess	NNV
	Distichlis spicata	salt grass	NNV
	*Festuca perennis**	Italian rye grass	NNV
	*Hordeum murinum**	foxtail barley	NNV
Polygonaceae	*Rumex crispus**	curly dock	NNV
Salicaceae	*Salix gooddingii*	Goodding's black willow	NNV
Solanaceae	*Nicotiana glauca**	tree tobacco	DEV
Tamaricaceae	*Tamarix* sp.*	tamarisk	NNV

*Non-native Species

** DEV=developed; DH=disturbed habitat; NNV=non-native vegetation

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Attachment B
Animal Species Detected or Observed

Taxon		Scientific Name	Common Name
Order	**Family**		
INVERTEBRATES			
Coleoptera	Coccinellidae	--	ladybug
VERTEBRATES			
Birds			
Accipitriformes	Accipitridae	*Buteo jamaicensis*	red-tailed hawk
		Buteo lineatus	red-shouldered hawk
Caprimulgiformes	Trochilidae	*Calypte anna*	Anna's hummingbird
Columbiformes	Columbidae	*Streptopelia decaocto*	Eurasian collared dove
		Zenaida macroura	mourning dove
Passeriformes	Corvidae	*Corvus brachyrhynchos*	American crow
	Fringillidae	*Haemorhous mexicanus*	house finch
		Spinus psaltria	lesser goldfinch
	Hirundinidae	*Petrochelidon pyrrhonota*	cliff swallow
	Mimidae	*Toxostoma redivivum*	California thrasher
	Passerellidae	*Melospiza melodia*	song sparrow
		Passer domesticus	house sparrow
Mammals			
Lagomorpha	Leporidae	*Sylvilagus audubonii*	desert cottontail

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Attachment C
Sensitive Plant Species Potential to Occur

Species Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	--/-- CRPR 1B.1	Perennial herb. Found along the southern coast of San Diego County within coastal sage scrub. Flowering period: June – September. Elevation: 15 – 2,362 feet (5 – 720 meters).	**Not Likely to Occur.** Suitable coastal sage scrub habitat does not occur within the study area.
Fremontodendron mexicanum	Mexican flannelbush	FE/SR CRPR 1B.1	Shrub. Occurs within chaparral, foothill woodland and closed-cone pine forest communities. Flowering period: March – June. Elevation: 33 – 2,349 feet (10 – 716 meters).	**Not Likely to Occur.** This species is a conspicuous shrub and would have been observed if present.

[1]Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; R = Rare

[2]CNPS = California Native Plant Society Rare Plant Rank: 1A – presumed extirpated in California and either rare or extinct elsewhere; 1B – rare, threatened, or endangered in California and elsewhere; 2A – presumed extirpated in California, but more common elsewhere; 2B – rare, threatened, or endangered in California, but more common elsewhere; 3 – more information needed; 4 – watch list for species of limited distribution. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

[3]MSCP Covered Species: Covered Species under City of San Diego MSCP Subarea Plan; NE = Narrow Endemic Species under City MSCP Subarea Plan.

Not Likely to Occur – There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) of the Project Site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the Site.

Low Potential to Occur – There is a historical record of the species in the vicinity of the Project Site and potentially suitable habitat on Site, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The Site is above or below the recognized elevation limits for this species.

Moderate Potential to Occur – The diagnostic habitats associated with the species occur on or in the immediate vicinity of the Project Site, but there is not a recorded occurrence of the species within the immediate vicinity (within 3 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur – There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the Project Site (within 3 miles).

Present – The species was observed on the Project Site at the time of the survey or during a previous biological survey.

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Attachment D
Sensitive Animal Species Potential to Occur

Species Name	Common Name	Status	Habitat Associations	Potential to Occur
Birds				
Polioptila californica californica	Coastal California Gnatcatcher	FT/SSC MSCP Covered	An obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California. Occurs within low, coastal sage scrub in arid washes, on mesas, and slopes. Not all areas classified as coastal sage scrub are occupied.	**Not Likely to Occur.** The study area does not contain suitable coastal sage scrub habitat. The project site is located within entirely disturbed and non-native habitat and does not provide foraging or nesting habitat.
Vireo bellii pusillus	least Bell's vireo	FE/SE MSCP NE MSCP Covered	In California, breeds along the coast and western edge of the Mojave Desert from Santa Barbara County south to San Diego County, and east to Inyo County, San Bernardino, and Riverside Counties. Breeding habitat consists of early to mid-successional riparian habitat, often where flowing water is present, but also found in dry watercourses within the desert. A structurally diverse canopy and dense shrub cover is required for nesting and foraging. Dominant species within breeding habitat includes cottonwood and willows with mule fat, oaks, and sycamore, and mesquite (*Prosopis glandulosa*) and arrowweed (*Pluchea sericea*) within desert habitats. The species can be tolerant of the presence of non-native species such as tamarisk.	**Not Likely to Occur.** The project site is characterized by disturbed habitat and non-native vegetation and does not contain suitable foraging or nesting habitat to support this species.

Attachment D (cont.)

Sensitive Animal Species Potential to Occur

Species Name	Common Name	Status	Habitat Associations	Potential to Occur

[1]Listing codes are as follows: FE = Federally Endangered; FT = Federally Threatened; FC= Federal Candidate species; BCC = Birds of Conservation Concern; SE = State of California Endangered; ST = State of California Threatened; SCE = State of California Candidate Endangered; FP = State of California Fully Protected; WL = State of California Wait-Listed; SSC = State of California Species of Special Concern.

[2]MSCP Covered Species: Covered Species under City of San Diego MSCP Subarea Plan; NE = Narrow Endemic Species under City MSCP Subarea Plan.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) of the Project Site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the Site.

Low Potential to Occur - There is a historical record of the species in the vicinity of the Project Site and potentially suitable habitat on Site, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The Site is above or below the recognized elevation limits for this species.

Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the Project Site, but there is not a recorded occurrence of the species within the immediate vicinity (within 3 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the Project Site (within 3 miles).

Present - The species was observed on the Project Site at the time of the survey or during a previous biological survey.

View of the proposed equipment enclosure and faux water tank (looking south).

View of the proposed trenching (looking northeast).

G:\PROJECTS\D\DIN-ALL\DIN-05_Reports\Attachments\Attachment E - Representative Photos

TORO INTERNATIONAL

GEOTECHNICAL ENGINEERING

GEOTECHNICAL INVESTIGATION
for
AT&T FAUX WATER TANK AND EQUIPMENT ENCLOSURE
TJ RIVER SOUTH – CAL02225
2805 HOLLISTER STREET
SAN DIEGO, CALIFORNIA

Prepared For:

DE PRATTI, INC.
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SAN DIEGO, CA 92126

Prepared By:

TORO INTERNATIONAL
1 LEAGUE # 61614
IRVINE, CA 92602
(949) 559-1582

June 24, 2019

TORO INTERNATIONAL

GEOTECHNICAL ENGINEERING

June 24, 2019

TI Project No. 13-107.22A

De Pratti, Inc.
7990 New Salem Street
San Diego, CA 92126

Subject: Geotechnical Investigation for Proposed AT&T Faux Water Tank and Equipment Enclosure, TJ River South Site, CAL02225, 2805 Hollister Street, San Diego, California

Toro International (TI) has completed geotechnical investigation for the proposed AT&T Faux Water Tank and Equipment Enclosure, TJ River South Site, CAL02225, located at 2805 Hollister Street, San Diego, California. This report presents our findings, conclusions and recommendations for construction of the proposed AT&T Faux Water Tank and Equipment Enclosure.

It is our opinion from a geotechnical viewpoint that the subject site is suitable for construction of the proposed AT&T Faux Water Tank and Equipment Enclosure provided our geotechnical recommendations presented in this report are implemented.

If you have any questions, please let us know. We appreciate this opportunity to be of service.

Sincerely,
TORO INTERNATIONAL

Hantoro Walujono, GE 2164
Principal

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1.0 INTRODUCTION

1.1 General

This report presents the results of geotechnical investigation performed by Toro International (TI) for proposed AT&T Faux Water Tank and Equipment Enclosure at TJ River South Site, CAL02225, located at 2805 Hollister Street, San Diego, California. A Site Location Map is presented in Figure 1 showing the approximate location of the project site.

The purpose of the geotechnical investigation is to provide geotechnical recommendations for construction of the AT&T Faux Water Tank and Equipment Enclosure and its associated site preparation.

Our geotechnical investigation was conducted based on plans issued for Zoning Drawing Site Relocation 100% Zoning Drawing (Sheets T-1 and Z-1 through Z-5) prepared by Telecom Management Group and dated June 4, 2019.

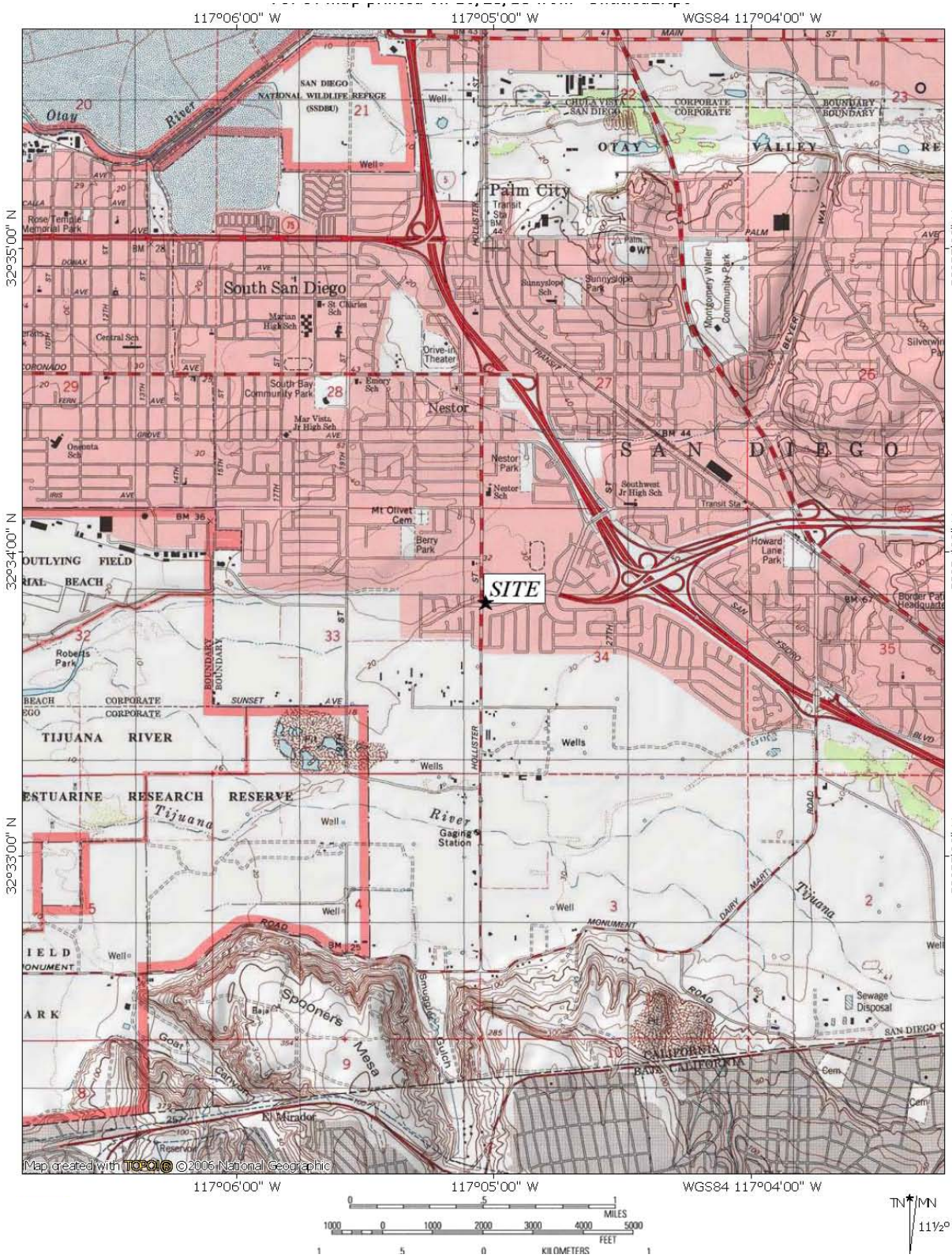
1.2 Proposed Development

Our understanding of the proposed construction is based on the above-mentioned plans. The height of the proposed faux water tank will be about 30 feet above the ground surface. The proposed faux water tank will support a total of twelve antennas with three sectors.

The area of the proposed equipment enclosure will be about 165 sqft. The equipment slab-on-grade will be reinforced and stiffened at its edges. The thickness of the slab will be 6 inches. The estimated load from the equipment will be about 40 kips.

1.3 Site Description

The proposed site for the AT&T facility will be located within a horse breeding complex, Sun Coast Farms, located at 2805 Hollister Street, San Diego, California. The proposed site is situated on the northwest corner of the property. The proposed site for the proposed facility is within the crest of an earth embankment area of about of 4 to 5 feet high. The proposed site is bounded by the 4-to-5-foot-high descending embankment slopes to the west and east and by portions of the dirt area to the north and south. Rocks for rip-rap of the earth embankment are present in the vicinity of the site. The proposed site as well as the overall site is a relatively flat area.



TORO INTERNATIONAL

Geotechnical Engineering

SITE LOCATION MAP

TJ RIVER SOUTH

PROJECT NO. 13-107.22A	FIGURE 1

1.4 Scope of Work

The scope of work for this geotechnical investigation consisted of the following:

- Review of published reports and geologic maps pertinent to the site
- Field exploration, consisting of drilling and logging two borings to a maximum depth of 31.5 feet
- Laboratory testing of selected soil samples considered representative of the subsurface conditions to evaluate the pertinent engineering and physical characteristics of the representative soils
- Evaluation of the general site geology which could affect the proposed development
- Evaluation of ground shaking potential resulting from seismic events occurring on significant faults in the area
- Engineering analyses of the collected data to develop geotechnical recommendations for foundation design of the faux water tank, equipment enclosure, seismic analyses and site preparation for the proposed concrete slab-on-grade
- Preparation of this report presenting our findings, conclusions, and recommendations.

2.0 FIELD EXPLORATION AND LABORATORY TESTING

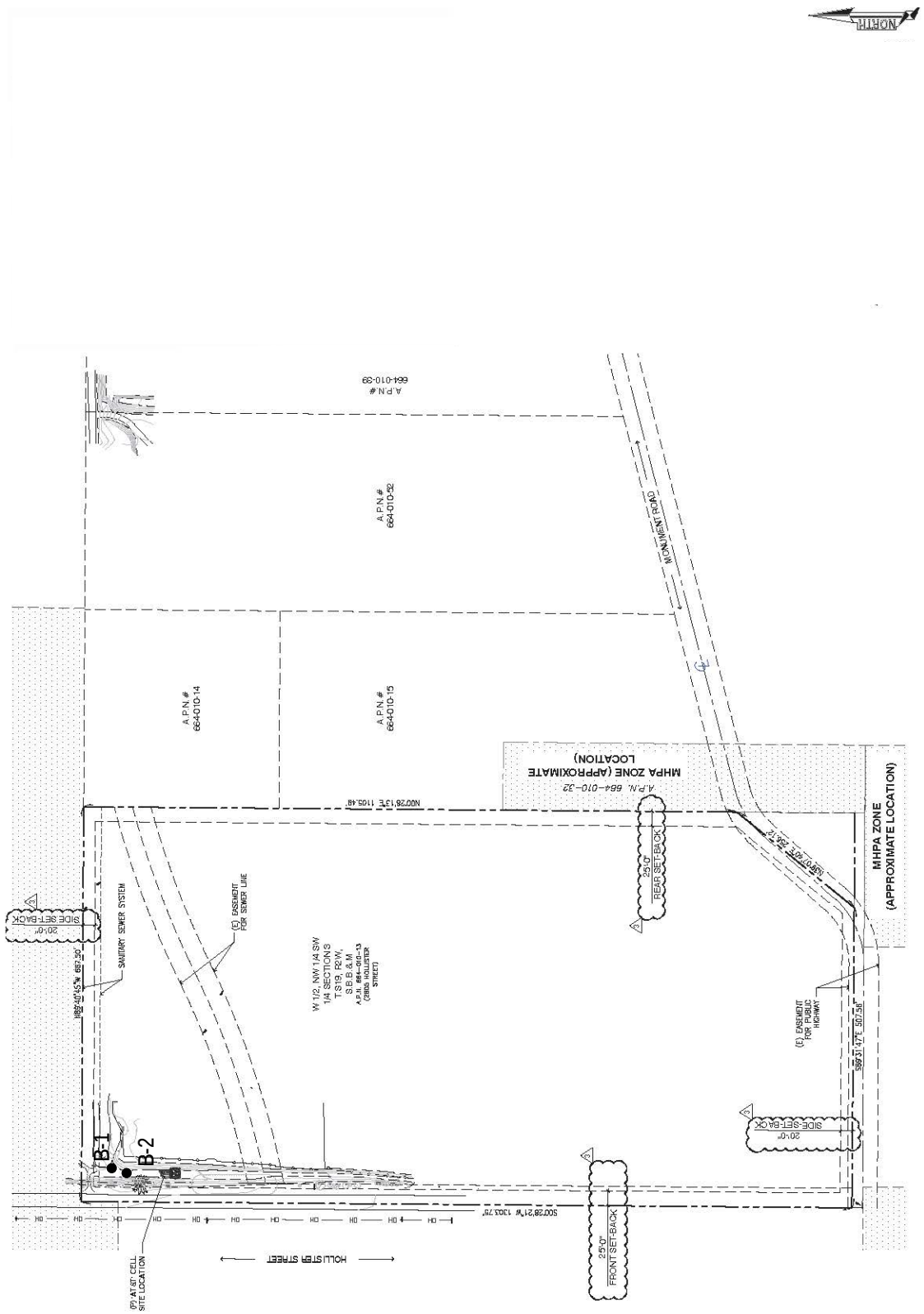
2.1 Field Exploration

The subsurface conditions were explored by drilling two borings. The maximum depth of the boring is about 31.5 feet below the existing ground surface. The approximate locations of the borings are shown on the Boring Location Map in Figure 2. Details of the field exploration, including the logs of the borings, are presented in Appendix A.

2.2 Laboratory Testing

Soil samples considered representative of the subsurface conditions were tested to obtain or derive relevant physical and engineering soil properties. Laboratory testing included moisture content and in-situ density, direct shear and sieve analyses.

Moisture content and in-situ density test results are shown in the Borings Log in Appendix A. The remaining laboratory test results are presented in Appendix B. Descriptions of the test methods are also included in Appendix B.



LEGEND

● B-2: Approximate Location of Boring No. B-2

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Geotechnical Engineering

BORING LOCATION MAP

TJ RIVER SOUTH

PROJECT NO. 13-107.22A | **FIGURE 2**

3.0 SITE CONDITIONS

3.1 Geology

The subject site is located approximately 38 feet above mean sea level. The site is located within the Alluvial Materials (Strand, 1993). The alluvial materials are Quaternary in age and the thickness is probably over than 100 feet deep. The alluvial materials consist primarily of a mixture of silt and sand.

3.2 Groundwater

Groundwater was encountered during our field exploration at about 13 feet below the ground surface.

3.3 General Subsurface Conditions

In general, the site for the proposed monobroadleaf and equipment shelter are underlain by about 4 to 11 feet thick of fill materials consisting of silty sand to sandy silt with rocks and pieces of concrete. The fill materials are underlain by alluvial materials consisting of silty sand and silty sand to sand. The silty sand, sandy silt and silty sand to sand materials are classified as SM, ML and SM-SP, respectively according to the Unified Soil Classification System (USCS).

The moisture content for the encountered subsurface soils above the groundwater level during drilling at the subject site ranges from 3.3 to 7.4 percent with an average of about 5.4 percent and the encountered subsurface soils below the groundwater level ranges from 15.3 to 19.8 percent with an average of about 17.4 percent. The consistency of the subsurface materials is stiff to very hard for the fine-grained soils and medium dense for the coarse-grained soils. The average equivalent Standard Penetration Test (SPT) blow-counts of the subsurface materials is about 33 blows-per-foot (bpf) for the fill materials and about 17 bpf for the alluvial materials.

4.0 SEISMICITY

4.1 General

Seismicity is a general term relating to the abrupt release of accumulated strain energy in the rock materials of the earth's crust in a given geographical area. The recurrence of accumulation and subsequent release of strain have resulted in faults and systems of faults. The subject site is in seismically active Southern California.

4.2 Ground Motion

California Building Code (CBC). The most widely used technique for earthquake-resistant design applied to low-rise structures is the California Building Code (CBC). The basic formulas used in the CBC require determination of the site class, which represents the site soil properties at the site of interest.

The nearest active fault is the Coronado Bank Fault, which is approximately 18.2 km away (Blake, T. F., 1998). This fault and other nearest 7 faults, which could affect the site and the proposed development, are listed in the following "Summary of Fault Parameters" as shown in Table 1.

TABLE 1. SUMMARY OF FAULT PARAMETERS

Fault Name	Approximate Distance (km)	Source Type (A,B,C)	Maximum Magnitude (Mw)	Slip Rate (mm/yr)	Fault Type (SS,DS,BT)
Coronado Bank	18.2	B	7.4	3.00	SS
Rose Canyon	18.4	B	6.9	1.50	SS
Newport-Inglewood (Offshore)	75.0	B	6.9	1.50	SS
Elsinore-Julian	77.8	A	7.1	5.00	SS
Elsinore-Coyote Mountain	82.1	B	6.8	4.00	SS
Earthquake Valley	83.4	B	6.5	2.00	SS
Elsinore-Temecula	92.5	B	6.8	5.00	SS
San Jacinto-Coyote Creek	110.2	B	6.8	4.00	SS

4.3 Seismic Design

The 2016 CBC seismic zone for use in the seismic design formula is Site Class D. The seismic design parameters are listed in the attached Seismic Design Maps (Appendix C).

4.4 Liquefaction Potential

Liquefiable Soils. The liquefaction analyses were performed by using a commercially available software program developed by CivilTech Software (2012). The program is Liquify Pro, version 5.8n, Liquefaction and Settlement Analyses. Design earthquake magnitude of 6.79 and peak ground acceleration of 0.43g were used. An assumed high groundwater level at 4 feet below ground surface was utilized for the liquefaction analyses purposes. Using this procedure, the subsurface soil materials located between 15 to 35 feet below the ground surface is prone to liquefaction during an earthquake.

Earthquake Induced Settlement. Based on Tokimatsu and Seed procedure (1987), the potential settlement due to the liquefiable soils is about 3 inches. Because of the variation of depth, thickness and strength of the potential liquefiable soils, a potential differential settlement of 1.5 inch should be considered in the design of the proposed equipment enclosure.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 General

Based on the results of our geotechnical investigation, it is our opinion from a geotechnical viewpoint that the subject site is suitable for development of the proposed faux water tank and equipment enclosure provided our geotechnical recommendations presented in this report are implemented.

The remainder of this report presents our recommendations in detail. These recommendations are based on empirical and analytical methods typical of the standard of practice in Southern California. Other professionals in the design team may have different concerns depending on their own discipline and experience. Therefore, our recommendations should be considered as minimum and should be superseded by more restrictive recommendations of other members of the design team or the governing agencies, if applicable.

5.2 Overexcavations/Removals

The upper 24 to 36 inches of the subsurface soil materials under the proposed location of the equipment enclosure may consist of organics and/or be disturbed. Therefore, we recommend that the upper 36 inches of the subsurface materials be removed and replaced with compacted fills. Onsite soils may be reused provided all deleterious materials are removed. The extent of the removal should be within the proposed concrete slab footprint and 3 feet beyond it, if possible. The removal bottom and compacted fill should be prepared in accordance with the recommendations stated in Section 5.3 below.

5.3 Grading and Earthwork

General. All earthwork and grading for site development should be accomplished in accordance with the Standard Guidelines for Grading Projects, Appendix Chapter 33 of the CBC, and requirements of the regulatory agency. All special site preparation recommendations presented in the following paragraphs will supersede those in the Standard Guidelines for Grading Projects.

Site Preparation. Vegetation, organic soil, roots and other unsuitable material should be removed from the building areas. Prior to the placement of fill, the existing ground should be scarified to a depth of 6 inches, and recompacted.

Prior to pouring concrete, the subgrade soil for the concrete slab area should be wetted to a slightly higher than the optimum moisture to a depth of 6 inches from the surface.

Fill Compaction. All fill and backfill to be placed in association with site development should be accomplished at slightly over optimum moisture conditions. The minimum relative compaction recommended for fill is 90 percent relative compaction based on maximum dry density performed in accordance with ASTM D-1557.

Fill should be compacted by mechanical means in uniform horizontal loose lifts not exceeding 8 inches in thickness.

Fill Material. The on-site soils can be used for compacted fill. However, during grading operations, soil types other than those analyzed in the geotechnical reports may be encountered by the contractor. The geotechnical consultant should be notified to evaluate the suitability of those soils for use as fill and as finished grade soils.

Imported fill materials should be approved by the Geotechnical Engineer prior to importing. Soils exhibiting any expansion potential should not be used as import materials.

Both imported and on-site soils to be used as fill materials should be free of debris, organic and cobbles over 3 inches in maximum dimension.

Site Drainage. Foundation and slab performance depends greatly on how well runoff waters drain from the site. This is true both during construction and over the entire life of the structure. The ground surface around structures should be graded so that water flows rapidly away from the structures without ponding.

Utility Trenches. Bedding materials should consist of sand having Sand Equivalent not less than 30, which may then be jetted. Existing soils may be utilized for trench backfill provided they are free of organic materials and rocks over 3 inches in dimension.

The backfill should be uniformly compacted to at least 90% relative compaction based on maximum density performed in accordance with ASTM D-1557.

5.4 Foundation Design Parameters

Faux Water Tank. The proposed faux water tank may be founded on caisson(s) that embedded in the ground for a minimum of 40 feet due to liquefiable soil stratum located between 15 to 35 feet below the ground surface. However, the final caisson depth should be confirmed by the geotechnical engineer during drilling/excavation of the hole.

Drilling for construction of the caisson will encounter groundwater and caving. Therefore some measures to alleviate problems with groundwater and caving during caisson construction should be expected. Specialty contractors should prepare the measures to deal with the groundwater and potential caving during caisson construction. If dewatering method is chosen, extreme care should be employed in order to prevent any settlement of the nearby existing structures due to the groundwater drawdown.

The recommended design allowable bearing capacity for the caisson is 4,500 psf at about 40 feet below the ground surface. The design lateral equivalent fluid passive soil pressures is 265 pcf with a maximum value of 3,975 psf; however, the liquefiable strata located between 15 to 35 feet below the existing ground surface should be omitted in the design because of the insignificant residual undrained shear strength and a negative skin friction of 0.35 effective vertical stress should be applied. The design coefficient of friction is 0.30. A one-third increase in the allowable bearing capacity and lateral passive soil pressures may be used when considering wind, seismic or other short-term loadings.

Alternatively, the proposed faux water tank may be founded on a mat foundation provided the minimum depth of foundation is 5 feet. In addition, a minimum distance of about 15 feet should be maintained between the edge of the foundation and the face of the nearest descending slope. Furthermore, the mat foundation should be designed to withstand a minimum differential settlement of 1½ inch due to potential liquefaction. The recommended design allowable bearing capacity for the mat foundation is 4,000 psf. The design lateral equivalent fluid passive soil pressures is 350 pcf. The design coefficient of friction is 0.30. However, in combining the passive pressures and coefficient of friction for soil resistance, one of them should be reduced by 50 percent. A one-third increase in the allowable bearing capacity and lateral passive soil pressures may be used when considering wind, seismic or other short-term loading.

Equipment Enclosure. The design allowable bearing capacity for the shallow foundation is 1,500 psf provided the minimum depth is 12 inches and the minimum width is 12 inches. In addition, a minimum distance of about 10 feet should be maintained between the edge of the footing and the face of the nearest descending slope. The design lateral equivalent fluid pressure is 300 pcf and the design coefficient of friction is 0.30. However, a 50 percent reduction of either the coefficient of friction or passive pressure should be taken if both passive pressures and coefficient of friction are combined for lateral resistance. A one-third increase in the allowable bearing capacity and lateral passive soil pressures may be used when considering wind, seismic or other short-term loading.

5.5 Cement Type

Based on the type of soils, Type II cement and water-cement ratio of 0.45 or less may be used for concrete in contact with the on-site soils.

5.6 Geotechnical Observation and Testing

It is recommended that geotechnical observations and testing be performed by a representative of Toro International at the following stages:

- During all grading operations, including fill placement and soil removals, if any
- During drilling/excavation of caisson, if any
- Upon completion of footing bottom excavation and prior to pouring of concrete
- Upon completion of subgrade preparation and prior to pouring of concrete for slab
- During backfilling of utility trenches
- When any unusual conditions are encountered

6.0 LIMITATIONS

This report is intended for the use of DePratti and its client AT&T Mobility for the proposed AT&T Mobility Faux Water Tank and Equipment Enclosure at TJ River South Site, CAL02225, located at 2805 Hollister Street, San Diego, California. This report is based on the project as described and the information obtained from the boring and other field investigations at the approximate locations indicated on the plans. The findings are based on the results of the field, laboratory, and office investigations combined with an interpolation and extrapolation of conditions between and beyond the boring location. The results reflect an interpretation of the direct evidence obtained. The recommendations presented in this report are based on the assumption that an appropriate level of field review (observations and tests) will be provided during construction. Toro International should be notified of any pertinent changes in the project plans or if subsurface conditions are found to vary from those described herein. Such changes or variations may require a re-evaluation of the recommendations contained in this report.

The soil samples collected during this investigation are believed representative of the areas sampled. However, soil conditions can vary significantly between and away from the locations sampled. As in most projects, conditions revealed by additional subsurface investigations may be at variance with preliminary findings. If this occurs, the geotechnical engineer must evaluate the changed condition, and adjust the conclusions and recommendations provided herein, as necessary.

The data, opinions, and recommendations of this report are applicable to the specific design element(s) and locations(s) which is (are) the subject of this report. They have no applicability to any other design elements or to any other locations and any and all subsequent users accept any and all liability resulting from any use or reuse of the data, opinions, and recommendations without the prior written consent of Toro International.

Toro International has no responsibility for construction means, methods, techniques, sequences, or procedures, or for safety precautions or programs in connection with the construction, for the acts or omissions of the contractor, or any other person performing any of the construction, or for the failure of any of them to carry out the construction in accordance with the Final Construction Drawings and Specifications.

Services performed by Toro International have been conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended.

7.0 REFERENCES

1. Blake, T. F., 1989,"UBCSEIS", A Computer Program for the Estimation of Uniform Building Code Coefficients Using 3-D Fault Sources", January 1998

2. California Building Code (CBC), 2016

3. Strand, Rudolph G., 1993, "Geologic Map of California; San Diego – El Centro Sheet; Scale 1:250,000

APPENDIX A - Field Exploration

Subsurface conditions were explored by drilling two borings to a maximum depth of approximately 31.5 feet below the existing grade. The drilled boreholes were advanced by an 8-inch-diameter hollow-stem-flight-auger-drilling rig. The drilled boreholes were located in the field by tape measurements from known landmarks. Their locations as shown are therefore within the accuracy of such measurements.

The field explorations were performed under supervision of our engineer who prepared detailed logs of the boring, classified the soil encountered, and obtained soil samples for laboratory testing.

Relatively undisturbed soil samples were obtained by means of driving a 2.5-inch diameter sampler having a hammer weight and drop of 140 pounds and 30 inches, respectively. Standard Penetration Tests (SPT) tests were also carried out at alternating intervals with the drive sampler. The sampling/SPT interval is about 5 feet. Small bulk samples obtained from the SPT tests were collected for further evaluation in the laboratory.

The Boring Logs show the type of sampler, weight and drop of the hammer, number of hammer blows and soil stratigraphy. The soils were classified based on visual observations during the field investigation and results of the laboratory testing. Soil classifications were conducted in accordance with the Unified Soil Classification System.

Note:

The actual subsurface conditions at the exact location may be different from the subsurface conditions shown in the Boring Logs. The purpose of performing the borehole is for evaluating the subsurface materials in order to develop geotechnical parameters for the proposed development. In addition, the type of drill rig, the diameter of the borehole, etc. employed during geotechnical exploration are different from the one used during actual construction. Therefore, for the purposes of drilling for the proposed caisson, contractor should evaluate the site conditions independently and make their own judgment as far as for determining the amount of time to drill, how to drill, type of equipment needed including but not limited to drill rig and type of drill bit, employing groundwater dewatering, usage of casing, mud drilling, etc. and not rely on the information shown in the Boring Logs.

TORO INTERNATIONAL

GEOTECHNICAL ENGINEERING

Site Name	TJ River South	Site Number	CAL02225
Project Number	13-107.22	Site Address	2805 Hollister Street, San Diego
Equipment	Hollow Stem Flight Auger	Drive Weight	140 lbs
Average Drop	30 inches	Elevation (ft)	38 (Assumed)
Hole Diameter	8 inches	Eng/Geologist	HW

Depth, ft	Elev,ft	Graphic Log	Sample No.	Drive Sample	Blows/ft	Dry Den,pcf	Moisture,%	U.S.C.S.	GEOTECHNICAL DESCRIPTION
			B-1						**FILL (?)**
5	33		R-1		>70	102.9	3.3	SM/ML	@ 5': Brown fine silty sand to sandy silt with some fine to coarse pieces of gravel, dry to damp, very hard
10	28		R-2		63	132.8	5.0	SM/ML	@ 10': same as before and with pieces of concrete
									Total Depth: 11.5 feet No Groundwater Encountered
15	23								
20									
25	13								
30	8								

BORING NO. B-1

TORO INTERNATIONAL

GEOTECHNICAL ENGINEERING

Site Name	TJ River South	Site Number	CAL02225
Project Number	13-107.22	Site Address	2805 Hollister Street, San Diego
Equipment	Hollow Stem Flight Auger	Drive Weight	140 lbs
Average Drop	30 inches	Elevation (ft)	38 (Assumed)
Hole Diameter	8 inches	Eng/Geologist	HW

Depth, ft	Elev,ft	Graphic Log	Sample No.	Drive Sample	Blows/ft	Dry Den,pcf	Moisture,%	U.S.C.S.	GEOTECHNICAL DESCRIPTION
			B-1						**FILL (?)**
			R-1		22	83.7	7.4	ML	@ 2': Brown fine sandy to clayey silt, damp, stiff
5	33								**ALLUVIUM (?)**
			R-2		24	-	7.1	SM	@ 5': Grayish brown fine silty sand, damp, medium dense
10	28		S-1		21		4.3	SM-SP	@ 10': Brown with black, orange and white inclusions fine silty sand to sand, damp, medium dense
15	23		S-2		16		19.8	SM-SP	@ 15': Brown with black, orange and white inclusions fine silty sand to sand, wet, medium dense
20	18		S-3		14	-	17.3	SM-SP	@ 20': Gray with black, orange and white inclusions fine to coarse silty sand to sand, wet, medium dense
25	13		S-4		15	-	17.3	SM-SP	@ 25': Gray with black, orange and white inclusions fine to medium silty sand to sand with fine gravel, wet, medium dense
									@ 30': same as before but without gravel
30	8		S-5		20	-	15.3	SM-SP	Total Depth: 31.5 feet; Groundwater was Encountered at 13 feet

BORING NO. B-2

APPENDIX B - LABORATORY TESTING PROCEDURES AND RESULTS

Moisture Content and Dry Density

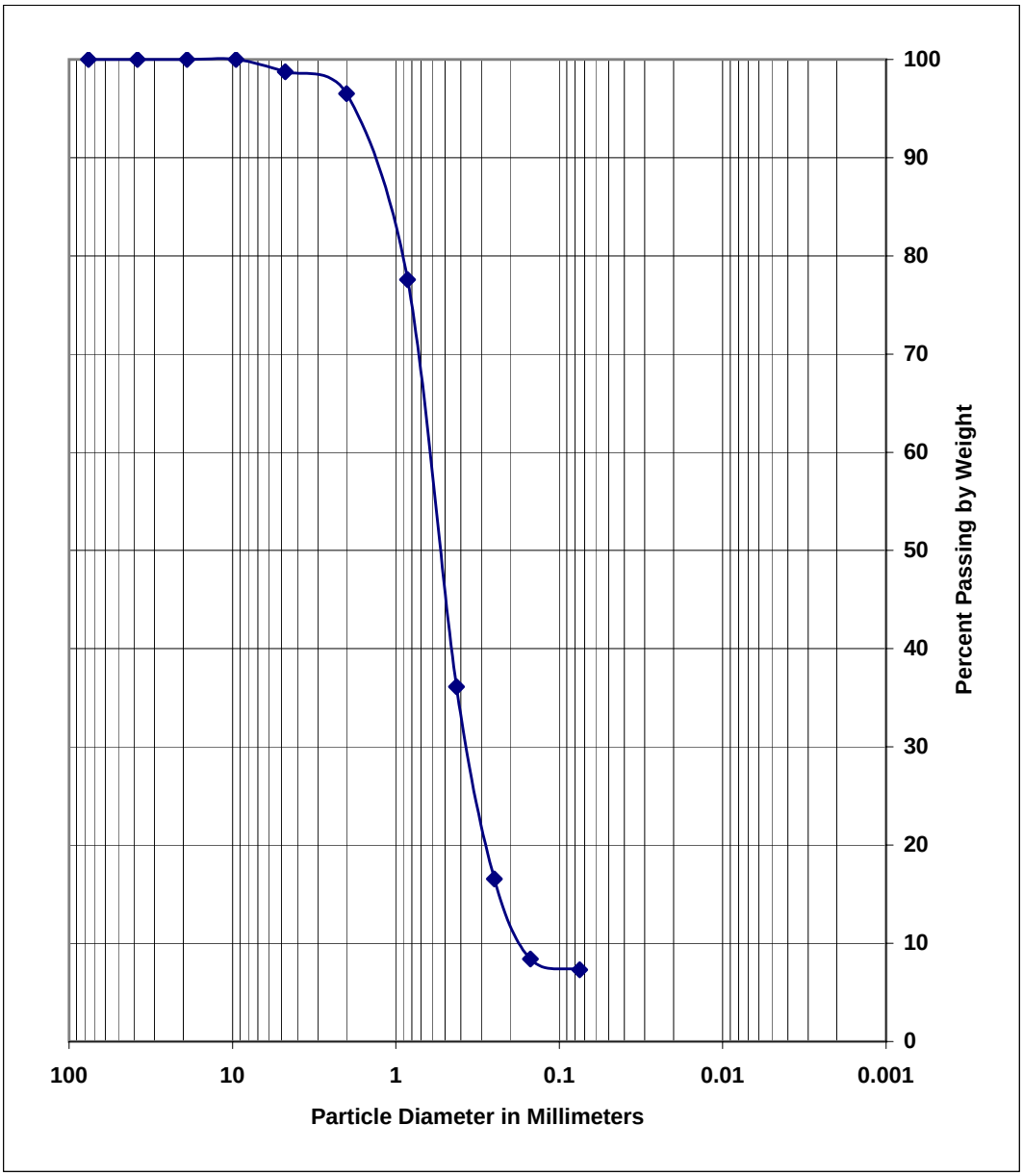
Moisture content was determined for small bulk and relatively undisturbed ring samples. Dry Density was determined for relatively undisturbed ring samples only. The test procedure is in accordance with ASTM 2216-90. The results of moisture content and dry density are presented in the Boring Logs.

Sieve Analyses

Sieve analyses were performed on granular materials in accordance with ASTM D 422. Graphs showing relationship of the various sizes of soil particles versus percentage passing are shown in Figure B-1.

Direct Shear

Direct shear strength tests were performed on a representative sample of the on-site materials. To simulate possible adverse field conditions, the samples were saturated prior to shearing. A saturating device was used which permitted the sample to absorb moisture while preventing volume change. The rate of strain during the direct shear testing was 0.05 in/min. The test results are presented in Figure B-2 for the peak and ultimate conditions.



Boring No.	Sample No.	Sample Depth (ft)	Percent Passing No. 200 Sieve	Soil Type
B-2	S-2	15	7.3	SM-SP

GRAIN SIZE DISTRIBUTION CURVE

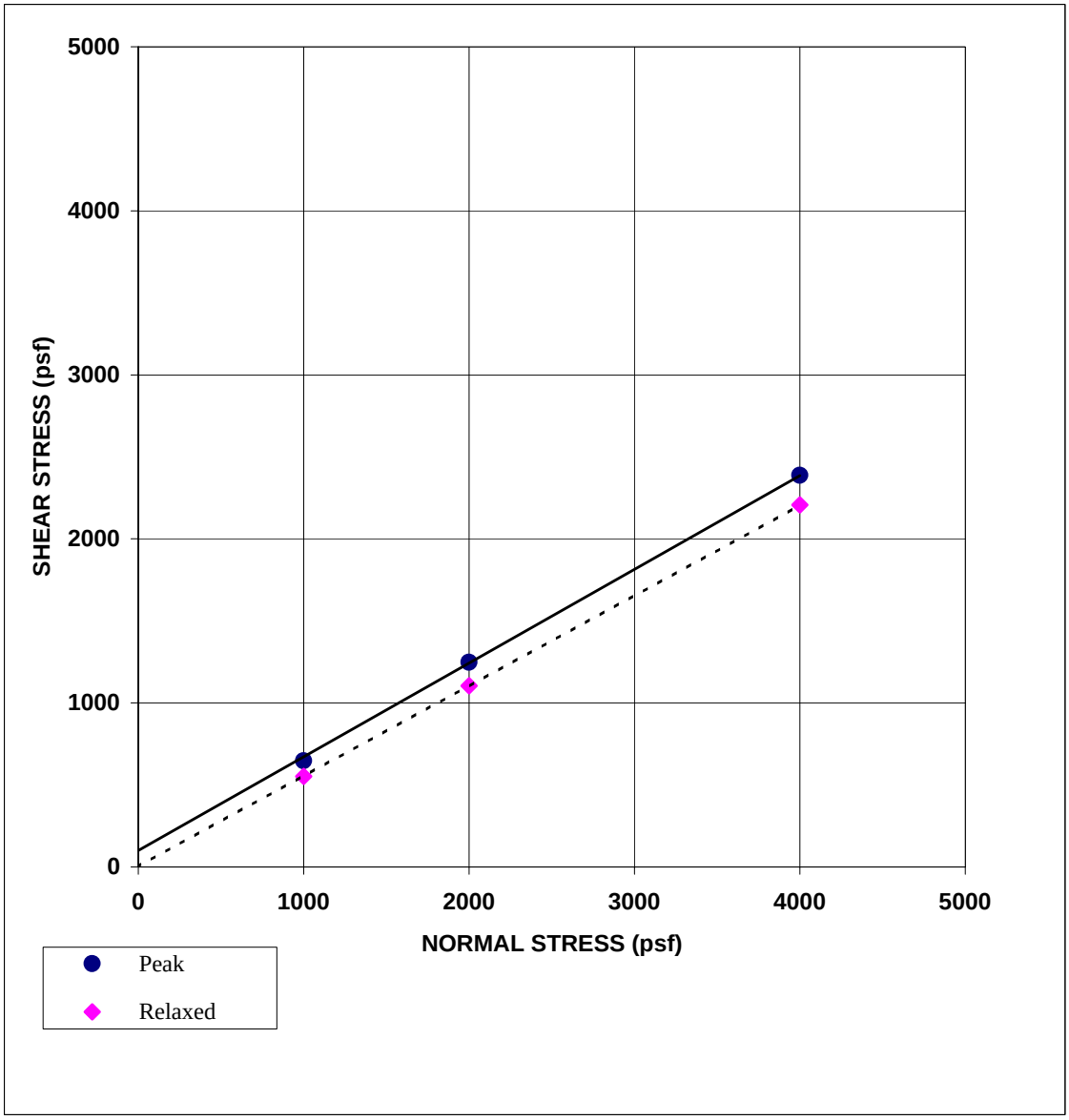
ASTM D422

TORO INTERNATIONAL

Project Name: TJ River South

Project No.: 13-107.22

Figure: B-1



Boring No.	Sample Depth (ft)	Friction Angle (degrees)	Cohesion (psf)	Condition
B-2	2	30	100	Peak
		29	0	Relaxed

DIRECT SHEAR TEST

ASTM D3080

TORO INTERNATIONAL

Project Name: TJ River South

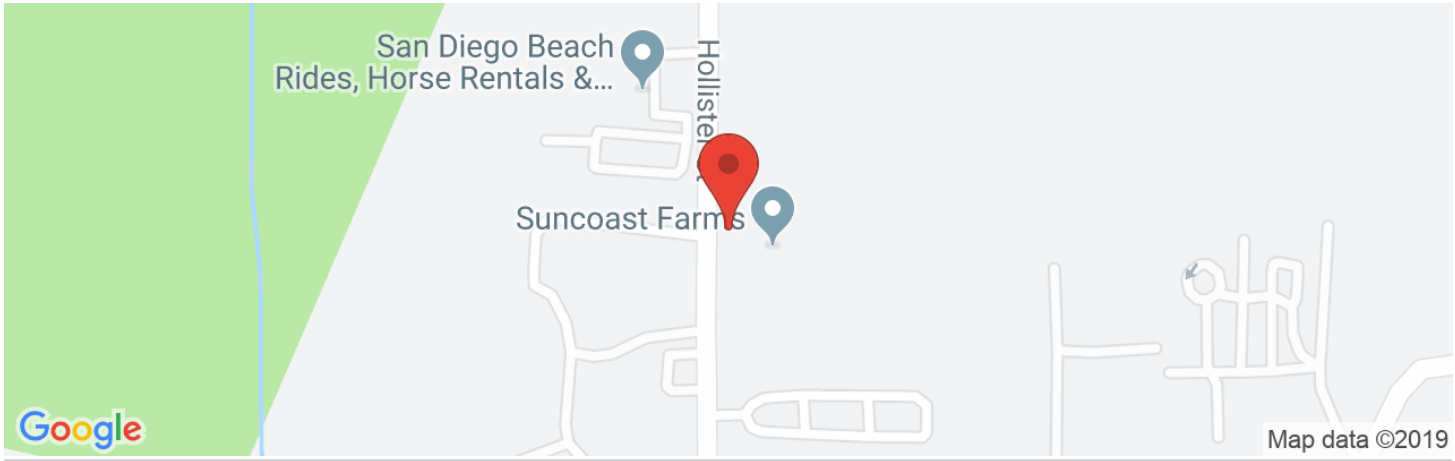
Project No.: 13-107.22

Figure: B-2

APPENDIX C

SEISMIC DESIGN MAP

Latitude, Longitude: 32.54715, -117.0839

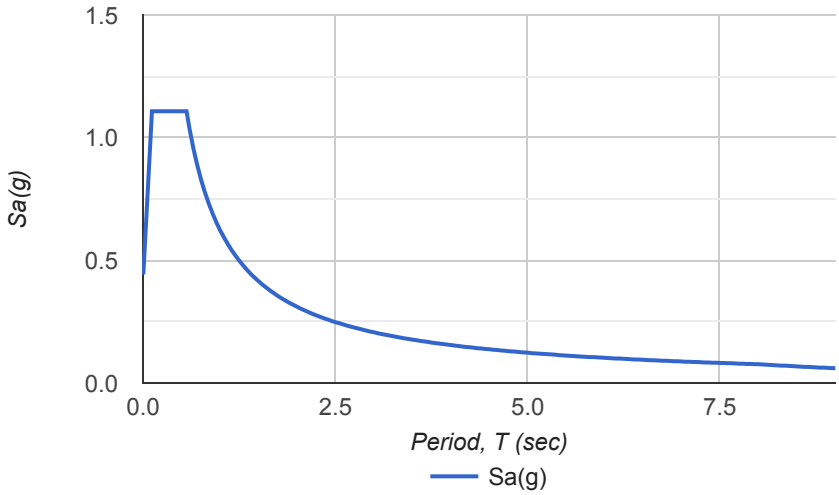


Date	6/24/2019, 10:50:03 AM
Design Code Reference Document	ASCE7-10
Risk Category	II
Site Class	D - Stiff Soil

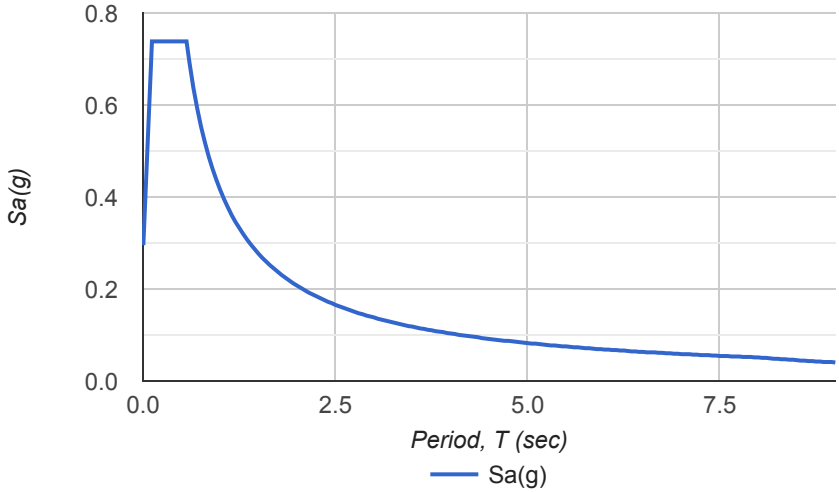
Type	Value	Description
S_S	1.013	MCE_R ground motion. (for 0.2 second period)
S_1	0.38	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.109	Site-modified spectral acceleration value
S_{M1}	0.623	Site-modified spectral acceleration value
S_{DS}	0.739	Numeric seismic design value at 0.2 second SA
S_{D1}	0.416	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1.095	Site amplification factor at 0.2 second
F_v	1.639	Site amplification factor at 1.0 second
PGA	0.43	MCE_G peak ground acceleration
F_{PGA}	1.07	Site amplification factor at PGA
PGA_M	0.46	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.013	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.144	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.662	Factored deterministic acceleration value. (0.2 second)
S1RT	0.38	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.413	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.683	Factored deterministic acceleration value. (1.0 second)
PGAd	0.645	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.886	Mapped value of the risk coefficient at short periods
C_{R1}	0.921	Mapped value of the risk coefficient at a period of 1 s

MCER Response Spectrum



Design Response Spectrum



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HELIX
Environmental Planning

AT&T TJ River South Telecommunications Project

Noise Impact Analysis

May 2019 | DIN-04

Prepared for:

DePratti Incorporated
7990 New Salem Street
San Diego, CA 92126

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

AT&T TJ River South Telecommunications Project

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May 2019 | DIN-04

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EXECUTIVE SUMMARY

This noise impact analysis has been prepared to satisfy the City of San Diego (City) noise requirements for the proposed AT&T TJ River South Telecommunications Project (Project). The Project would construct a new AT&T cellular telecommunications facility, which would include a 30-foot tall faux water tank with antennas and a 15-kilowatt (kW) diesel generator mounted on a concrete pad inside a wood (cedar) walled enclosure.

The proposed Project site has Multiple Species Conservation Program (MSCP) Multi-Habitat Planning Area (MHPA) Open Space to the north of the site. The Project site and nearest adjacent properties are used for stables and general daytime equestrian activities. The Project site is in the Tijuana River Valley and does not have nearby residential structures.

The modeled noise levels at the MHPA would be below the applicable 60-dBA L_{EQ} MSCP limit. Noise levels at the eastern and western Project-site property lines would be below the daytime land use requirement of 50 dBA L_{EQ}.

The 8-foot cedar noise control wall surrounding the generator is identified as a required design feature.

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1.0 INTRODUCTION

This noise impact analysis is submitted to satisfy the following City of San Diego (City) noise requirements for the proposed AT&T TJ River South Telecommunications Project (Project) The report includes the following analysis:

1. Assessment of noise impacts from on-site Project-related noise sources;

2. Determination of whether mitigation is necessary and feasible to reduce property line exterior noise levels to below 50 dBA (A-weighted decibels) for the normal adjacent property daytime equestrian uses and to below 60 dBA or the existing ambient noise levels, in compliance with the City's Multi-Species Conservation Plan (MSCP) requirements at a Multi-Habitat Planning Area (MHPA).

1.1 PROJECT LOCATION

The Project site is located in the Tijuana River Valley at 2805 Hollister Street (Assessor's Parcel Number [APN] 664-010-1300) in the City of San Diego (refer to Figure 1, *Regional Location*, and Figure 2, *Project Vicinity (Aerial Photograph)*.

1.2 PROJECT DESCRIPTION

The Project would construct a new AT&T cellular telecommunications facility. The facility would include a 30-foot tall faux water tank with antennas and a 15-kilowatt (kW) diesel generator mounted on a concrete pad. The generator would be located within a walled enclosure made of wood. Refer to Figure 3, *Project Site Plan*, and Appendix A for additional details.

1.3 NOISE TERMINOLOGY AND METRICS

All noise-level and sound-level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time averaged noise levels of one hour are expressed by the symbol "L_{EQ}" unless a different period is specified. Some of the data also may be presented as octave-band-filtered and/or A octave-band-filtered data, which are a series of sound spectra centered on each stated frequency, with half of the bandwidth above, and half of the bandwidth below, the stated frequency. These data are typically used for machinery noise analysis and barrier-effectiveness calculations.

Noise emission data are often provided based on the industry standard format of sound power (noted by S_{WL}), which is the total acoustic power radiated from a given sound source as related to a reference power level. Sound power differs from sound pressure (if notation is needed, the abbreviation is SPL), which measures the fluctuations in air pressure caused by the presence of sound waves and is generally the format that describes noise levels as heard by the receiver. Sound pressure is the actual noise experienced by a human or registered by a sound level instrument. When sound pressure is used to describe a noise source, it must specify the distance from the noise source to provide complete information. Sound power is a specialized analytical method to provide information without the distance requirement, but it may be used to calculate the sound pressure at any desired distance.

1.4 REGULATORY FRAMEWORK

1.4.1 Sensitive Habitat

The City's MSCP and other state and federal regulations require that noise levels do not exceed an hourly limit of 60 dBA L_{EQ} at the edge of occupied habitat during the avian breeding season. If the existing ambient noise level is above 60 dBA L_{EQ}, the allowable noise level increase over ambient conditions is restricted to 3 dBA or less in occupied habitat during the breeding season.

1.4.2 City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits

The City Municipal Code states that it shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table (Table 1, *Applicable Exterior Noise Limits*), at any location in the City on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person. Additionally, the sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

Table 1
APPLICABLE EXTERIOR NOISE LIMITS

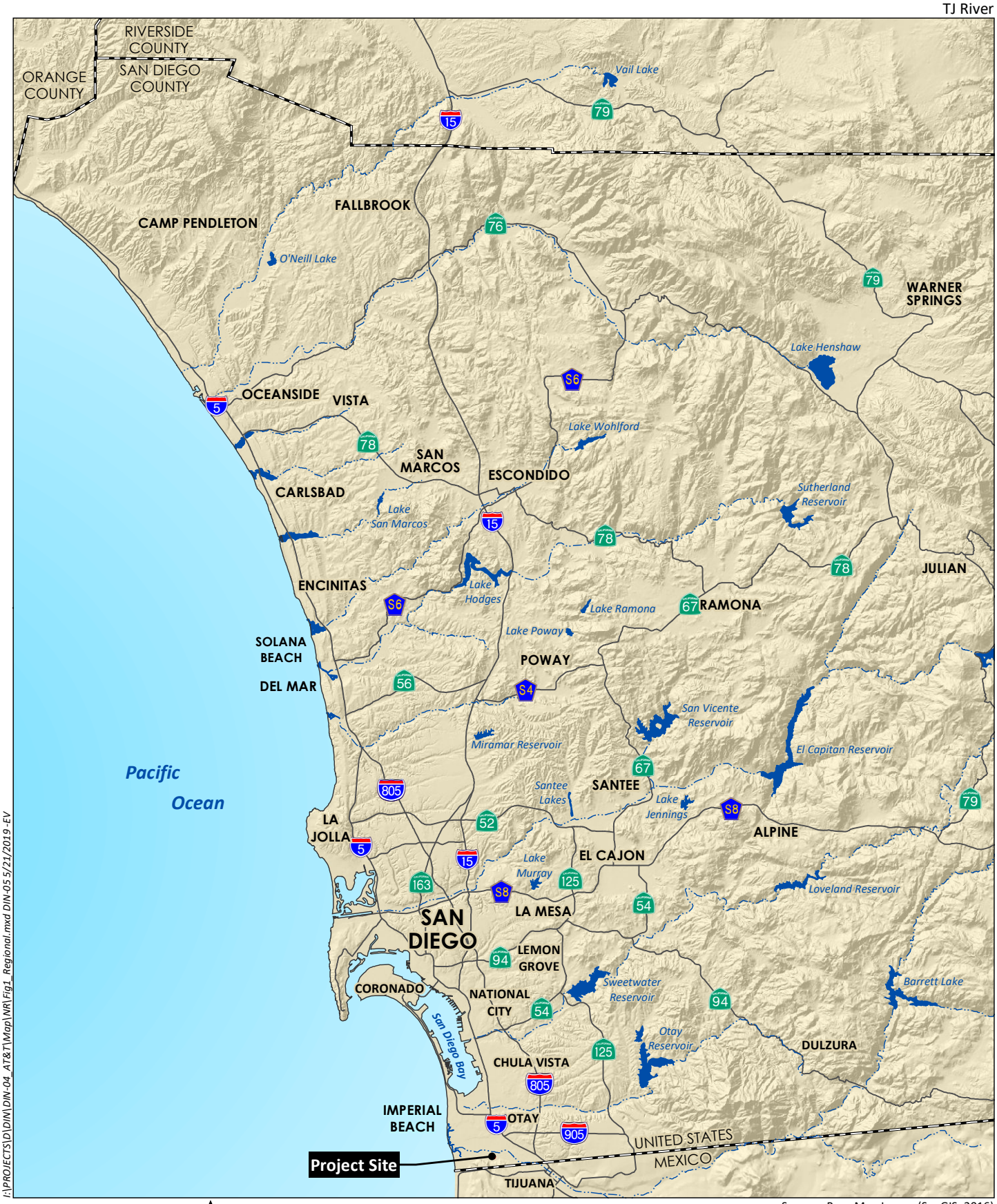
Land Use Zone	Time of Day	One-Hour Average Sound Level (dBA)
1. Single-family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
2. Multi-family Residential (up to a maximum density of 1/2000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
3. All Other Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
4. Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
5. Industrial and Agricultural	Anytime	75

Source: City Noise Ordinance Section 59.5.0401

1.5 ENVIRONMENTAL SETTING

1.5.1 On-Site Land Use

The Project site is zoned AR-1-1 (Agricultural Residential) and supports general daytime equestrian uses. On-site structures include both covered and open stables and a small roofed building, which is not listed by tax accessor records as residential. A small portion of MHPA is located within the northern-most



I:\PROJECTS\DI\DIN\DIN-04_AT&T\Map\WR\Fig1_Regional.mxd DIN-05 5/21/2019 -EV

0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1

I:\PROJECTS\D\DIN\DIN-04_AT&T\Map\WR\Fig2_Aerial.mxd DIN-05 5/21/2019 -EV

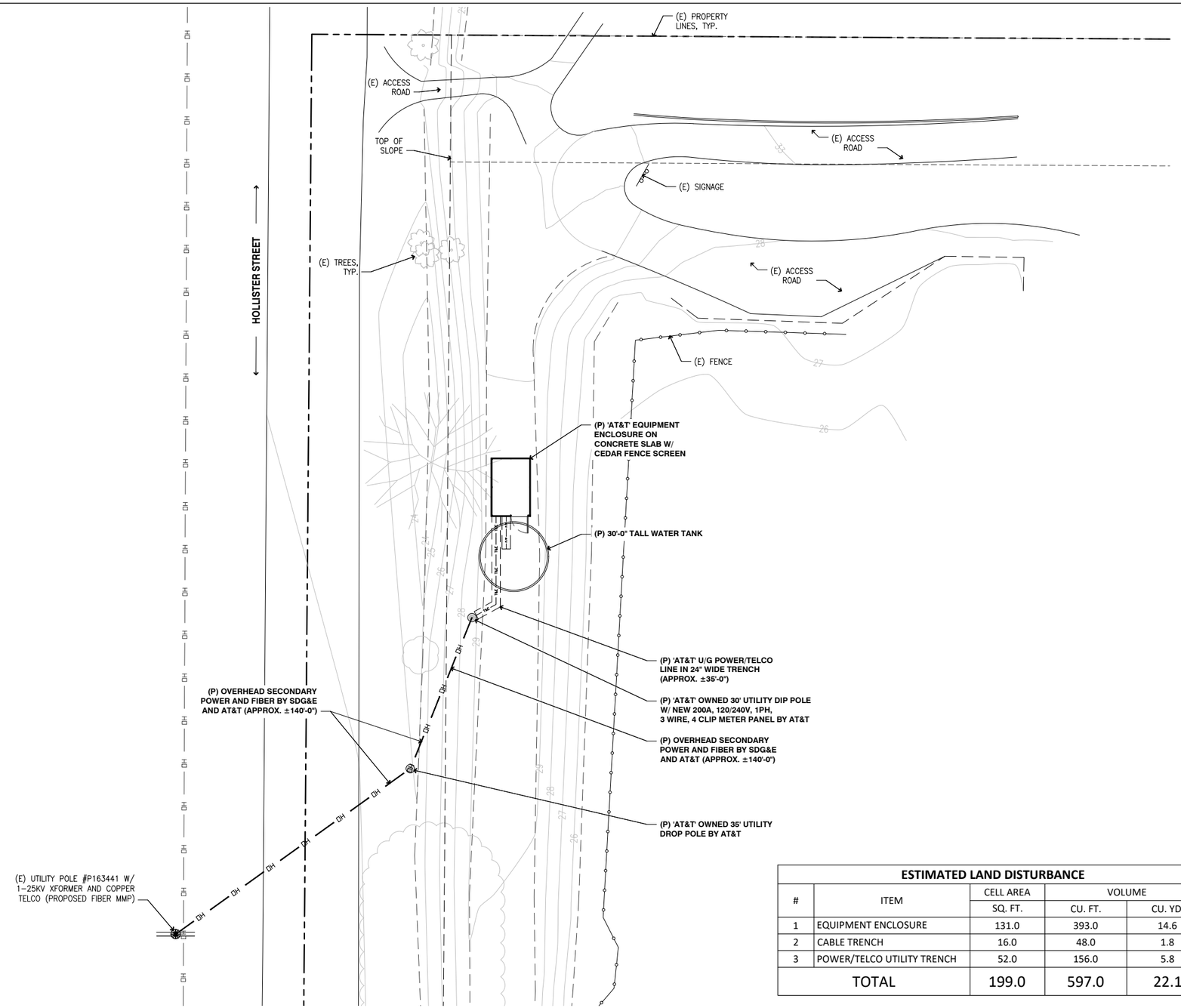
0 500 Feet

Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Project Vicinity (Aerial Photograph)

Figure 2



ESTIMATED LAND DISTURBANCE

#	ITEM	CELL AREA	VOLUME	
		SQ. FT.	CU. FT.	CU. YD.
1	EQUIPMENT ENCLOSURE	131.0	393.0	14.6
2	CABLE TRENCH	16.0	48.0	1.8
3	POWER/TELCO UTILITY TRENCH	52.0	156.0	5.8
TOTAL		199.0	597.0	22.1

NORTH

Source: Telecom Management Group, 2019

I:\PROJECTS\DID\IN\DIN-04_AT&T\Map\NR\Fig3_SitePlan.indd DIN-05 05/15/19 EV

HELIX Environmental Planning

Project Site Plan

Figure 3

portion of the Project site. Topography in the area is generally level with a minor berm area along Hollister Street with no significant topographical shielding to adjacent areas.

1.5.2 Surrounding Land Uses

The Project site is bound by Hollister Street to the west and Monument Road to the south. Open space designated as MHPA is located to the north, non-residential AR-1-1 equestrian uses are located to the west across Hollister Street and to the east, and residential uses are located to the south across Monument Road.

1.5.3 Existing Noise Levels

A site visit was conducted at 3:45 p.m. on Thursday, May 9, 2019. A 15-minute ambient noise measurement was made at the proposed site location, with a measured noise level of 47.3 dBA L_{EQ}. During the ambient noise measurement, there was no measurable breeze, the humidity was moderate, and the temperature was in the mid-60s (degrees Fahrenheit). The primary source of ambient noise was from two cars which passed by the site during the measurement.

1.5.4 Future Noise Environment

The Tijuana River Valley is an area characterized by natural estuaries and regular flooding during heavy rains. Future development is therefore not anticipated and no substantial changes to the area's noise levels from transportation or other stationary sources are expected in the foreseeable future.

2.0 METHODOLOGY AND ASSUMPTIONS

2.1 EQUIPMENT AND PROCEDURES

On-site noise levels were recorded using a sound level meter conforming to the American National Standards Institute (ANSI) specifications for sound level meters (ANSI SI.4-1983, R2006). The meter was field-calibrated immediately prior to the noise measurement to ensure accuracy, with all instruments maintained with National Institute of Standards and Technology traceable calibration, per the manufacturers' standards.

2.2 NOISE MODELING SOFTWARE

Modeling of the non-traffic outdoor noise environment was accomplished using Computer-Aided Noise Abatement (CadnaA) version 2019, which allows the prediction of noise impacts for a wide variety of conditions. Specifically, the CadnaA model assists in the calculation, presentation, assessment, and mitigation of noise exposure, and includes the consideration of effects from variables such as noise source, intervening structures, and topography in estimating sound levels at a particular location.

2.3 MODELED SITE FEATURES

Existing and proposed features at the Project site that were included in the CadnaA noise model are listed in Table 2, *Site Features Included in the CadnaA Exterior Model.* These are considered to be the

only on-site permanent features that would affect noise propagation of the existing and proposed noise sources to the adjacent property lines.

Table 2
SITE FEATURES INCLUDED IN THE CADNAA EXTERIOR MODEL

Feature	Height
Topography	Approximately 28 feet (above mean sea level)
Wood Enclosure	8 feet

2.4 PROPERTY LINE DISTANCES

Table 3, *Partial List of Equipment-to-Receiver Distances*, includes a partial list of distances from the proposed generator location to the modeled receiver locations. These receiver locations are shown on Figure 4, *Receivers and Contours*.

Table 3
PARTIAL LIST OF EQUIPMENT-TO-RECEIVER DISTANCES

Receiver	Receiver Location	Land Use	Distance (Feet)[1]
R1	MHPA (within northern portion of Project site)	MHPA	75
R2	Eastern Property Line	Daytime Equestrian	300
R3	Southern Property Line	Street	1,180
R4	Western Property Line (opposite Side of Hollister Street)	Daytime Equestrian	79

[1] The distance provided is from the center of the proposed generator to the closest property line.

2.5 MODELED NOISE SOURCES

Project-related noise sources would include air-cooled electronics cabinets and a diesel generator.

2.5.1 Air-Cooled Electronics Cabinet

The Project would use 3-bay Delta air-cooled cabinets with an air-to-air heat exchanger for electronics cooling. The manufacturer's published noise level for the cabinet at 55° C (Centigrade) is 75 dBA for each bay (see Appendix B).

2.5.2 Diesel Generator

The Project would include a 15-kilowatt DC diesel generator manufactured by Polar Power Inc. (see Appendix C). The calculated composite noise level in sound power is shown below in Table 4, *Octave Data for 15 kW Diesel Generator*.

HELIX Environmental Planning

Receivers and Contours

Figure 4

Table 4
OCTAVE DATA FOR 15 kW DIESEL GENERATOR

Octave Band Center Frequency (Hz)	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHZ	8KHz	dBA L_{EQ}
Calculated S_{WL}	106.9	80.9	66.2	70.1	68.1	63.8	62.8	56.2	81.4

3.0 OPERATIONAL NOISE IMPACTS

3.1 SIGNIFICANCE THRESHOLDS

As described in Section 1.5, the proposed Project site and adjacent areas to the west and east are zoned Agricultural Residential but are only used for daytime equestrian activities. These areas are not suitable for residential development and do not support nighttime residential uses; therefore, the applicable operational noise level limit is 50 dBA. The property to the south across Monument Road includes a residence and the Project site's southern property line is therefore subject to the 40-dBA nighttime limit. The noise level limit at the MHPA (including the portion within the Project site) is 60 dBA at any time.

3.2 MODELED NOISE LEVELS

The calculated noise levels at the modeled receiver locations with the proposed equipment in operation are shown in Table 5, *Calculated Operational Equipment Noise Levels*. The receiver locations are also shown on Figure 4, along with the expected site noise contours for all existing equipment and the proposed generator.

Table 5
CALCULATED OPERATIONAL EQUIPMENT NOISE LEVELS

Receiver	Receiver Location	Noise Level (dBA L_{EQ})	Applicable Limit (dBA L_{EQ})
R1	MHPA (within northern portion of Project site)	49.1	60
R2	Eastern Property Line	31.9	50
R3	Southern Property Line	26.3	40
R4	Western Property Line (opposite Side of Hollister Street)	48.2	50

As shown in Table 5, noise levels at the eastern and western property lines would be below the applicable 50-dBA L_{EQ} limit for the daytime equestrian uses. Noise levels at the southern property line would be below the 40-dBA L_{EQ} nighttime residential limit and would therefore also comply with the daytime and evening residential limits of 50 dBA L_{EQ} and 45 dBA L_{EQ}, respectively. Modeled noise levels at the MHPA within the northern portion of the Project site would be below the applicable 60 dBA L_{EQ} limit.

3.3 REQUIRED PROJECT DESIGN FEATURES

The 8-foot tall wood noise control wall surrounding the generator is a required design feature to be included as part of the Project.

3.4 MITIGATION

With the required project design features, noise levels would be in compliance with the City's MSCP noise requirements at the adjacent MHPA and the City's Noise Ordinance at the adjacent Agricultural Residential properties. As a result, additional mitigation is not required.

4.0 CONCLUSIONS

This analysis is based on typical equipment for this type of wireless facility. Noise characteristics of mechanical equipment may vary for specific installations. Substitution of equipment with higher noise emission levels may alter the conclusions of this study.

Verification of compliance with City noise regulations can be provided, if desired, by conducting a noise survey consisting of sound level measurements at or close to the nearest receiver locations in each direction, after the Project is built and in operation. This is best accomplished in the late night or very early morning hours while the equipment is in full operation and other ambient noise sources are minimized. If any additional sound attenuation is found to be necessary, it can be specified at that time.

Appendix A

Detail Site Plans

CODE COMPLIANCE

2016 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2015 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3 TITLE 24, C.C.R.
(2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, C.C.R.
(2015 UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24, C.C.R.
(2015 UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24, C.C.R.
2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24, C.C.R.
(2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24, C.C.R.
2016 REFERENCE STANDARDS, PART 12, TITLE 24, C.C.R.
TITLE 19 C.C.R., PUBLIC SAFETY, FIRE MARSHAL REGULATIONS.
2007 ASME A 17.1 (W/ A17.1A / CSA B44A-08 ADDENDA) SAFETY CODE FOR ELEVATOR AND ESCALATORS

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	2016 EDITION
NFPA 14	STANDPIPE SYSTEMS	2013 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 17A	WET CHEMICAL SYSTEMS	2013 EDITION
NFPA 20	STATIONARY PUMPS	2016 EDITION
NFPA 22	WATER TANKS FOR PRIVATE FIRE PROTECTION	2016 EDITION
NFPA 24	PRIVATE FIRE MAINS	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE	2016 EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 92	STANDARD FOR SMOKE CONTROL SYSTEMS	2012 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2006 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHER SYSTEMS	2012 EDITION
ICC300	ICC STANDARDS ON BLEACHERS, FOLDING & TELESCOPING SEATING & GRAND STANDS	2012 EDITION
UL 300	FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF RESTAURANT COOKING AREAS	2005 EDITION
UL 464	AUDIBLE SIGNAL APPLIANCES	2003 EDITION
UL 521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999 EDITION

PROJECT DESCRIPTION

AT&T WIRELESS PROPOSES TO BUILD A WIRELESS COMMUNICATION FACILITY.
THE SCOPE CONSISTS OF THE FOLLOWING:

- CONSTRUCTION OF 30'-0" TALL FAUX WATER TANK
- INSTALLATION OF 19'-2"x13'-8" EQUIPMENT ENCLOSURE ON CONCRETE SLAB W/ CEDAR FENCE SCREEN
- INSTALLATION OF (4) PANEL ANTENNAS PER SECTOR. TOTAL OF (12)
- INSTALLATION OF (24) REMOTE RADIO UNITS (RRU)
- INSTALLATION OF (3) WCS FILTER BY THE ANTENNA AREA
- INSTALLATION OF (4) SURGE PROTECTORS BY THE ANTENNA AREA
- INSTALLATION OF (2) SURGE PROTECTOR AT EQUIPMENT AREA
- INSTALLATION OF (1) 3 BAY CABINET (WUC)
- INSTALLATION OF (1) GPS ANTENNA
- INSTALLATION OF (1) GENERATOR
- INSTALLATION OF (2) FIBER CABLE TRUNKS AND (8) DC POWER CABLE TRUNKS.
- INSTALLATION OF TELCO / FIBER SERVICE
- INSTALLATION OF A NEW 200A ELECTRICAL SERVICE

SITE INFORMATION

PROPERTY OWNER:	MICHAEL M. SPURLING AND EMMA C. SPURLING TEL: (619) 852-3760 EMAIL: EMMASUNCOAST@GMAIL.COM
APPLICANT:	AT&T WIRELESS 5738 PACIFIC CENTER BLVD. SAN DIEGO, CA 92121
APPLICANT REPRESENTATIVE:	PAUL HOKENESS DE PRATTI INC. TEL: (858) 231-8889 EMAIL: PHOKENESS@DEPRATTIINC.COM
ZONING JURISDICTION:	CITY OF SAN DIEGO
ZONING DISTRICT:	AR-1-1 / OF-1-1 (3)
LATITUDE (NAD 83):	32° 32' 49.7" N
LONGITUDE (NAD 83):	117° 05' 02.2" W
PARCEL #:	664-010-13
OCCUPANCY GROUP:	U-UNMANNED
CONSTRUCTION TYPE:	V-B
TOTAL LEASE AREA:	471 SQ. FT.
POWER COMPANY:	SDG&E
TELEPHONE COMPANY:	AT&T

LEGAL DESCRIPTION:

THE WEST HALF OF THE NW QUARTER OF SW QUARTER OF SECTION THREE TOWNSHIP NINETEEN SOUTH, RANGE TWO, WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CA., ACCORDING TO US GOVT. SURVEY APPROVED FEB. 25, 1670, EXCEPTING THEREFROM THE SOUTH ONE ROD THEREOF, AND ALSO EXCEPTING THEREFROM THE FOLLOWING DESCRIBED TRACT OF LANDS

BEGINNING AT A POINT 216.5 FT. NORTH OF SOUTHEAST CORNER OF WEST HALF OF NORTHWEST QUARTER OF SOUTHWEST QUARTER OF SAID SECTION THREE; THENCE SOUTH 200 FT.; THENCE WEST PARALLEL WITH AND 16.5 FEET FROM SOUTH LINE OF SAID NORTHWEST QUARTER OF SOUTHWEST QUARTER OF SAID SECTION THREE 160 FT.; THENCE NORTHEASTERLY IN A STRAIGHT LINE TO THE POINT OF BEGINNING.

PROJECT TEAM

PROJECT MANAGER:
FRANK DEPERALTA
AT&T WIRELESS
7337 TRADE STREET, 3E.035
SAN DIEGO, CA 92121
PHONE: (858) 866-3104
EMAIL: FD1733@ATT.COM

SITE ACQUISITION:
CATHY LIM
DE PRATTI INC.
13948 CALLE BUENO GANAR
JAMUL, CA 91935
PHONE: (858) 688-0955
EMAIL: CLIM@DEPRATTIINC.COM

RF ENGINEER:
CRISTIAN SOTO
AT&T MOBILITY
5738 PACIFIC CENTER BLVD.
SAN DIEGO, CA 92121
PHONE: (858) 361-8970
EMAIL: CS450G@ATT.COM

ENGINEERING:
TELECOM MANAGEMENT GROUP
14955 AVENIDA VENUSTO #8
SAN DIEGO, CA 92128
PHONE: (858) 248-7678
EMAIL: EDGAR.ORTIZ@TELECOMMG.COM

ZONING:
PAUL HOKENESS
DE PRATTI INC.
7990 NEW SALEM STREET
SAN DIEGO, CA 92126
PHONE: (858) 231-8889
EMAIL: PHOKENESS@DEPRATTIINC.COM

CONSTRUCTION:
AT&T WIRELESS
5738 PACIFIC CENTER BLVD.
SAN DIEGO, CA 92121

TJ RIVER SOUTH

SITE NUMBER: CAL02225

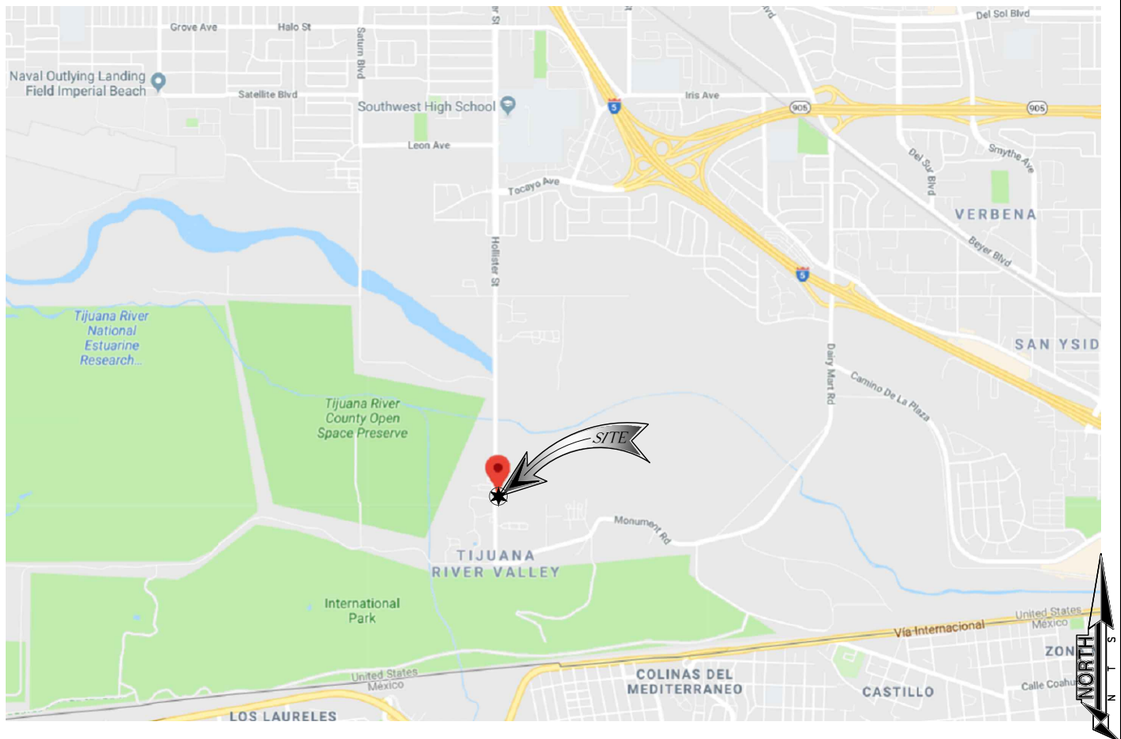
NEW SITE BUILD

FA NUMBER: 14648882

2805 "A" HOLLISTER STREET

SAN DIEGO, CA 92154

VICINITY MAP



DRIVING DIRECTIONS FROM AT&T OFFICE

DIRECTIONS FROM AT&T OFFICE:

HEAD SOUTHWEST ON PACIFIC CENTER BLVD TOWARD MCKELLAR CT. TURN LEFT ONTO LUSK BLVD. TURN RIGHT ONTO MIRA MESA BLVD. CONTINUE ONTO SORRENTO VALLEY RD. SLIGHT RIGHT ONTO THE INTERSTATE 805 S RAMP. CONTINUE ON I-805 S. TAKE I-5 S TO TOCAYO AVE. TAKE EXIT 3 FROM I-5 S. MERGE ONTO I-805 S. KEEP LEFT TO STAY ON I-805 S. USE THE RIGHT 2 LANES TO TAKE EXIT 14 FOR CA-15 S TOWARD CA-94 W/M L KING JR FWY. MERGE ONTO I-15 S. USE THE LEFT 2 LANES TO TAKE EXIT 1C TOWARD NATIONAL CITY/CHULA VISTA. MERGE ONTO I-5 S. USE THE RIGHT LANE TO TAKE EXIT 3 FOR TOCAYO AVE. DRIVE TO HOLLISTER ST. CONTINUE ONTO TOCAYO AVE. TURN LEFT ONTO HOLLISTER ST. DESTINATION WILL BE ON THE LEFT.

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR SITE MODIFICATIONS.

AT&T RF ENGINEER: _____ DATE: _____

AT&T CONSTRUCTION: _____ DATE: _____

AT&T PROJECT MGR.: _____ DATE: _____

CIVIL VENDOR: _____ DATE: _____

PLANNER: _____ DATE: _____

SITE ACQUISITON: _____ DATE: _____

SITE OWNER: _____ DATE: _____

DRAWING INDEX

SHEET NO:	SHEET TITLE
T1	TITLE SHEET
Z1	BOUNDARY SITE PLAN
Z1.1	ZONING / FEMA OVERLAY
Z2	ENLARGED SITE PLAN
Z2.1	UTILITY SITE PLAN
Z2.2	STORM WATER QUALITY MANAGEMENT PLAN
Z2.3	SWQMP CONSTRUCTION DETAIL
Z3	EQUIPMENT AND ANTENNA PLAN
Z4	SITE ELEVATIONS
Z5	SITE ELEVATIONS
D1	SITE DETAILS

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
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www.cbyd.com

NOTE:
48 HOURS PRIOR TO DIGGING, CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES TO LOCATE ALL UNDERGROUND UTILITIES.

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
3	PC COMMENTS 100% ZD	02-04-19
2	AT&T CHNG 100% ZD	12-20-18
1	100% ZD	09-28-18
0	90% ZD	09-24-18

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SAN DIEGO, CA 92121

DePratti Inc.

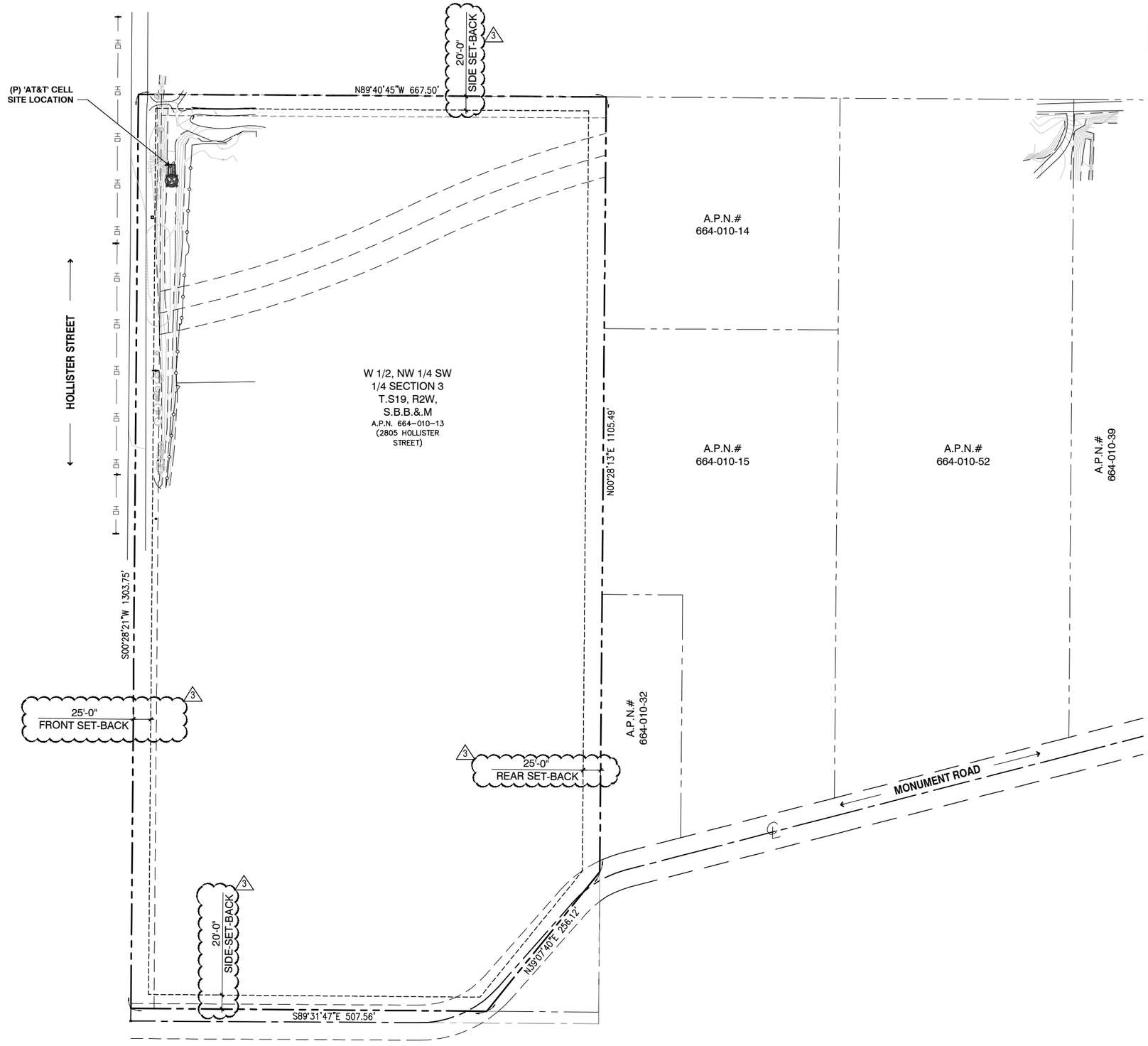
TELECOM MANAGEMENT GROUP
Solutions Done Right

Sheet Title: TITLE SHEET

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

NOT FOR CONSTRUCTION

Project Number:
Drawn by: ERO/RP
Checked by: ERO
Sheet No: T1



LETTER OF AUTHORIZATION

APPLICATION FOR ZONING/USE PERMIT

I, MIKE SPURLING, representative of the Owner of the below-described property, do hereby authorize DePratti Inc., agent to AT&T Mobility, to submit a building or use permit application necessary to insure AT&T's ability to use the property for the purpose of operating and maintaining a wireless communications facility. I understand that such application may be denied, modified or approved with conditions and that such conditions or modifications must be complied with prior to issuance of building permits.

Property Address: 2805 Hollister Street, San Diego, CA 92154

Assessor's Parcel Number: 664-010-13-00

Signature of Property Owner: Spurling 2015 Family Trust

Name: MIKE SPURLING EMMA SPURLING

Title: Trustee

Date: 10-3-18

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
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SAN DIEGO, CA 92121

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Sheet Title: **BOUNDARY SITE PLAN**

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

NOT FOR CONSTRUCTION

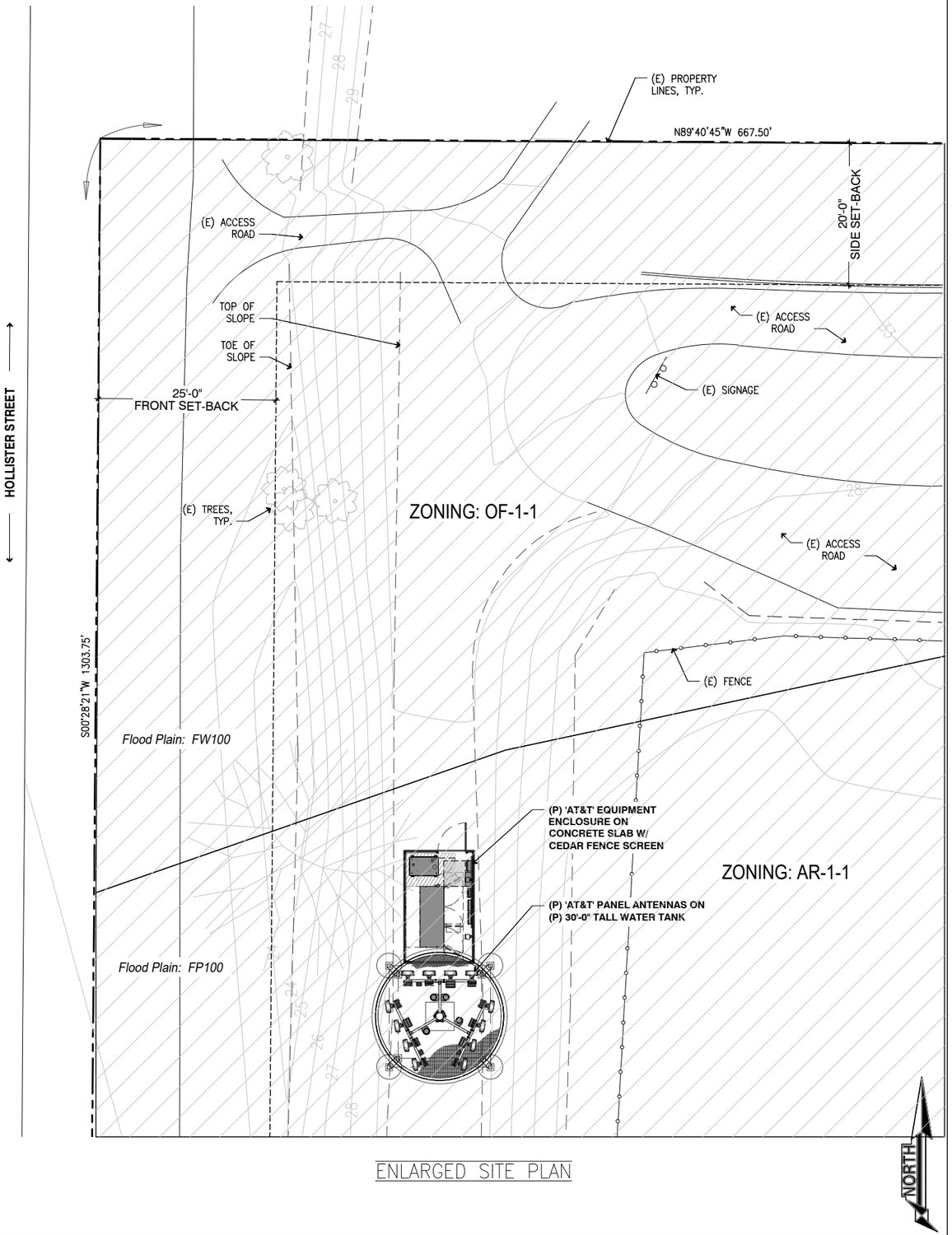
Project Number:

Drawn by: ERO/RP

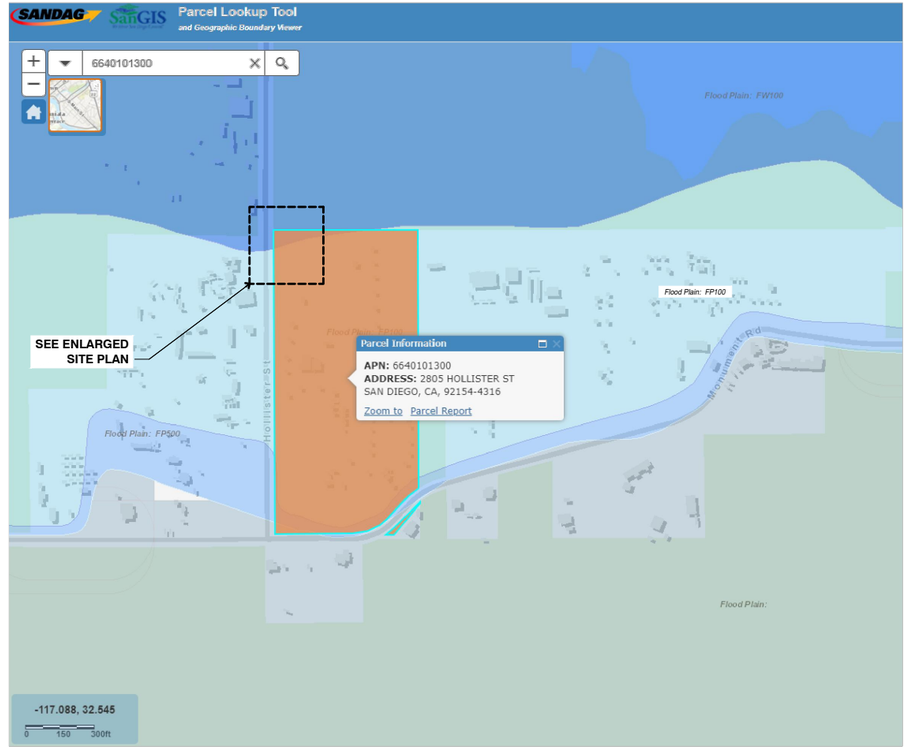
Checked by: ERO

Sheet No: **Z1**

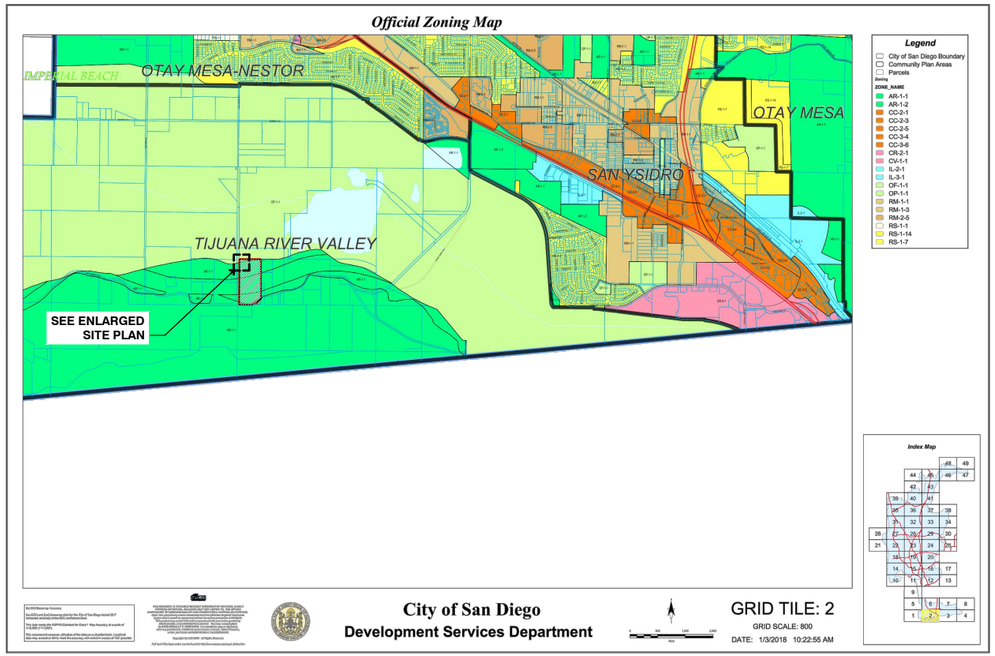
BOUNDARY SITE PLAN | 1" = 70'-0" | 1



ENLARGED SITE PLAN



FEMA MAP



ZONING MAP

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
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SAN DIEGO, CA 92121

DePratti Inc.

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Sheet Title: ZONING / FEMA OVERLAY

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

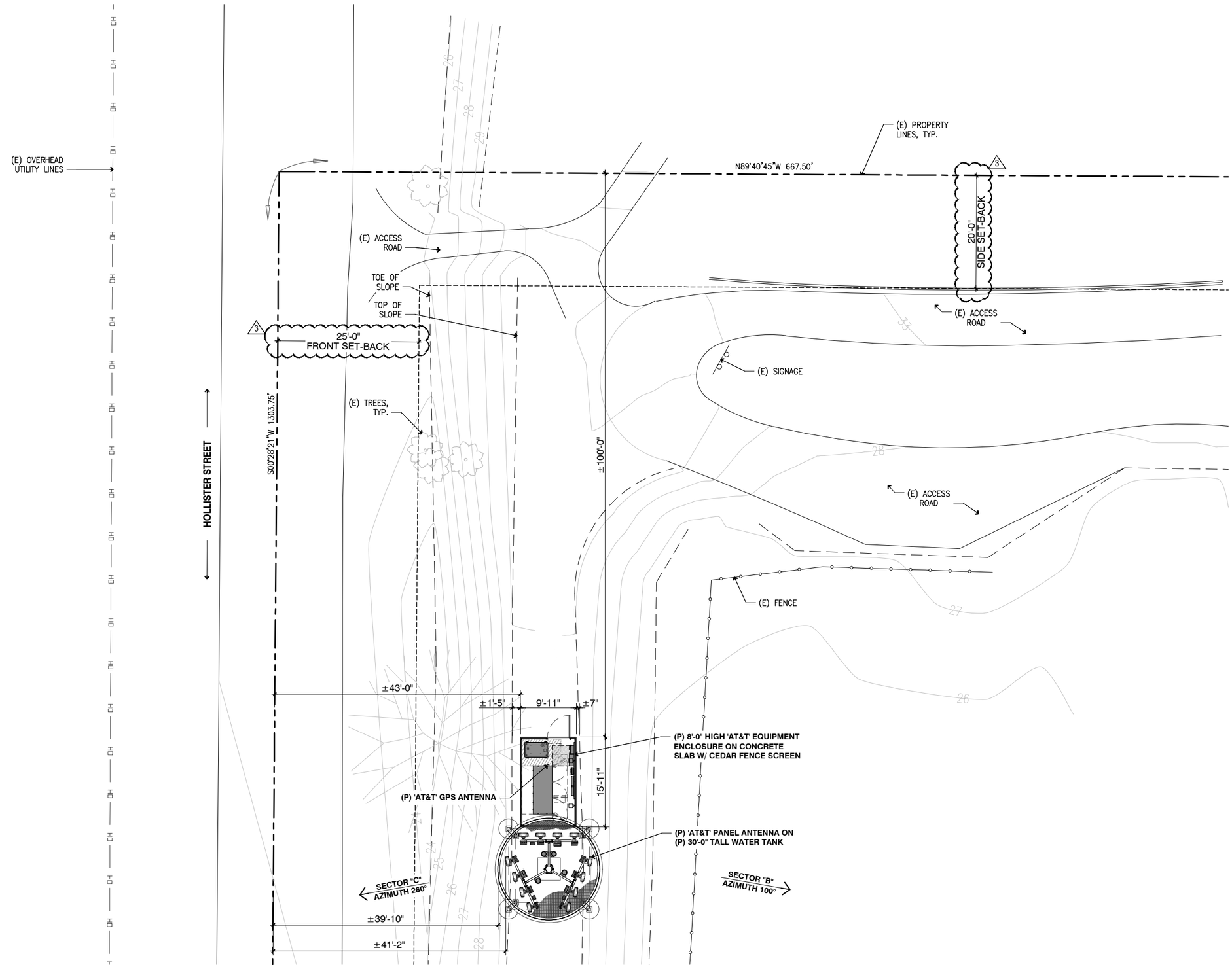
NOT FOR CONSTRUCTION

Project Number:

Drawn by: ERO/RP

Checked by: ERO

Sheet No: Z1.1



Rev.	Description	Date:
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SAN DIEGO, CA 92121

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Sheet Title:
ENLARGED SITE PLAN

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

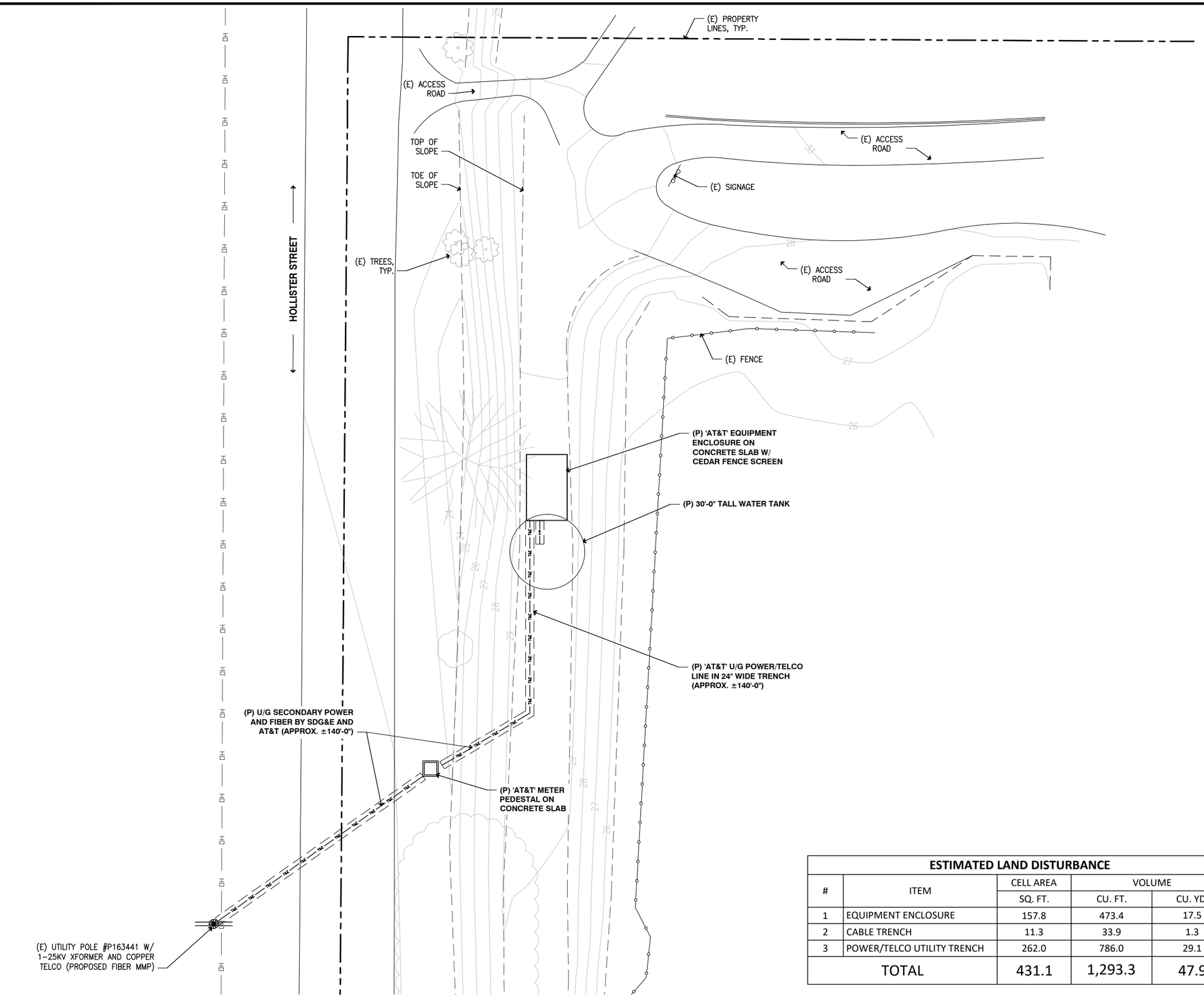
NOT FOR CONSTRUCTION

Project Number:

Drawn by: ERO/RP

Checked by: ERO

Sheet No: **Z2**



ESTIMATED LAND DISTURBANCE

#	ITEM	CELL AREA	VOLUME	
		SQ. FT.	CU. FT.	CU. YD.
1	EQUIPMENT ENCLOSURE	157.8	473.4	17.5
2	CABLE TRENCH	11.3	33.9	1.3
3	POWER/TELCO UTILITY TRENCH	262.0	786.0	29.1
TOTAL		431.1	1,293.3	47.9

NORTH

UTILITY SITE PLAN | 3/32" = 1'-0" | 1

Rev.	Description	Date:
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Sheet Title: UTILITY SITE PLAN

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

NOT FOR CONSTRUCTION

Project Number:
Drawn by: ERO/RP
Checked by: ERO
Sheet No: Z2.1

BMP SYMBOLS & LEGEND:

MATERIALS & WASTE MANAGEMENT CONTROL BMP's

WM-1	MATERIAL DELIVERY & STORAGE
WM-2	MATERIAL USE
WM-3	STOCKPILE MANAGEMENT
WM-4	SPILL PREVENTION AND CONTROL
WM-5	SOLID WASTE MANAGEMENT
WM-8	CONCRETE WASTE MANAGEMENT
WM-9	SANITARY WASTE MANAGEMENT

TEMPORARY RUNOFF CONTROL BMP's

	DIRECTION OF LOT DRAINAGE
SS-7	PHYSICAL STABILIZATION (WINTER) ~EBM~EBM~
SC-7	STREET SWEEPING AND VACUUMING
SC-8	SANDBAG BARRIER
TC-1	STABILIZED CONSTRUCTION ENTRANCE
NS-12	CONCRETE CURING — CC —

POST CONSTRUCTION SITE DESIGN BMP's:

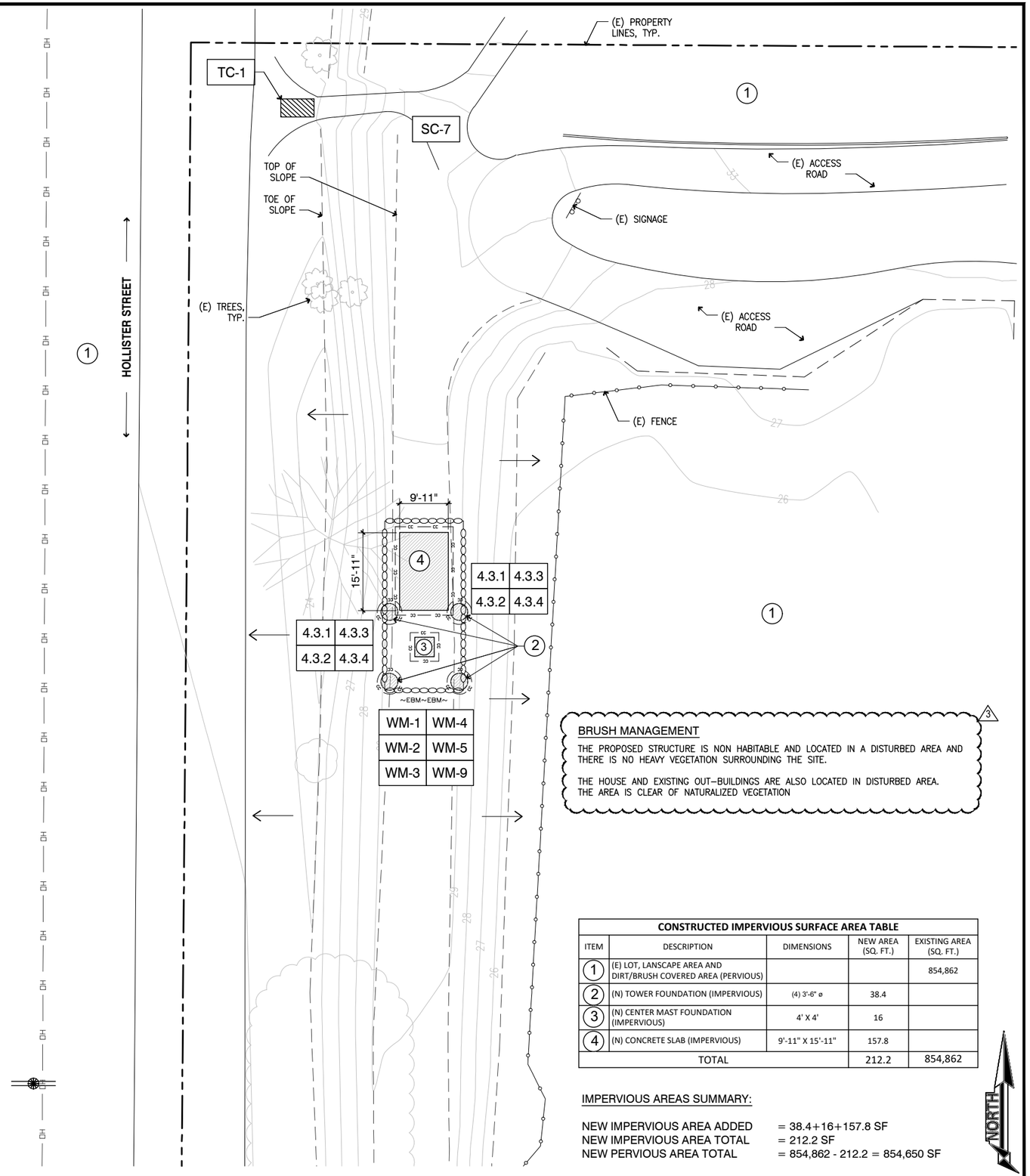
4.3.1	MAINTAIN NATURAL DRAINAGE PATHWAYS AND HYDROLOGIC FEATURES
4.3.2	CONSERVE NATURAL AREAS, SOILS AND VEGETATION
4.3.3	MINIMIZE IMPERVIOUS AREA
4.3.4	MINIMIZE SOIL COMPACTION

STORM WATER QUALITY NOTES - CONSTRUCTION BMPS

THIS PROJECT SHALL COMPLY WITH ALL CURRENT REQUIREMENTS OF THE STATE PERMIT; CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (SDRWQCB), SAN DIEGO MUNICIPAL STORM WATER PERMIT, THE CITY OF SAN DIEGO LAND DEVELOPMENT CODE, AND THE STORM WATER STANDARDS MANUAL.

PRIOR TO ANY SOIL DISTURBANCE, TEMPORARY SEDIMENT CONTROLS SHALL BE INSTALLED BY THE CONTRACTOR OR QUALIFIED PERSON(S) AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY OF SAN DIEGO "STORM WATER STANDARDS MANUAL" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND/OR WATER POLLUTION CONTROL PLAN (WPCP) FOR CONSTRUCTION LEVEL BMPS AND, IF APPLICABLE, THE STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR POST-CONSTRUCTION BMPS.
2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL STORM DRAIN INLET PROTECTION. INLET PROTECTION IN THE PUBLIC RIGHT-OF-WAY MUST BE TEMPORARILY REMOVED PRIOR TO A RAIN EVENT TO ENSURE NO FLOODING OCCURS AND REINSTALLED AFTER RAIN IS OVER.
3. ALL CONSTRUCTION BMPS SHALL BE INSTALLED AND PROPERLY MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
4. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING, AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED CONTACT PERSON CAN PROVIDE EROSION AND SEDIMENT CONTROL MEASURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SUB-CONTRACTORS AND SUPPLIERS ARE AWARE OF ALL STORM WATER BMPS AND IMPLEMENT SUCH MEASURES. FAILURE TO COMPLY WITH THE APPROVED SWPPP/WPCP WILL RESULT IN THE ISSUANCE OF CORRECTION NOTICES, CITATIONS, CIVIL PENALTIES, AND/OR STOP WORK NOTICES.
6. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF ALL SILT, DEBRIS, AND MUD ON AFFECTED AND ADJACENT STREET(S) AND WITHIN STORM DRAIN SYSTEM DUE TO CONSTRUCTION VEHICLES/EQUIPMENT AND CONSTRUCTION ACTIVITY AT THE END OF EACH WORK DAY.
7. THE CONTRACTOR SHALL PROTECT NEW AND EXISTING STORM WATER CONVEYANCE SYSTEMS FROM SEDIMENTATION, CONCRETE RINSE, OR OTHER CONSTRUCTION-RELATED DEBRIS AND DISCHARGES WITH THE APPROPRIATE BMPS THAT ARE ACCEPTABLE TO THE CITY RESIDENT ENGINEER AND AS INDICATED IN THE SWPPP/WPCP.
8. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL CLEAR DEBRIS, SILT, AND MUD FROM ALL DITCHES AND SWALES PRIOR TO AND WITHIN 3 BUSINESS DAYS AFTER EACH RAIN EVENT OR PRIOR TO THE NEXT RAIN EVENT, WHICHEVER IS SOONER.
9. IF A NON-STORM WATER DISCHARGE LEAVES THE SITE, THE CONTRACTOR SHALL IMMEDIATELY STOP THE ACTIVITY AND REPAIR THE DAMAGES. THE CONTRACTOR SHALL NOTIFY THE CITY RESIDENT ENGINEER OF THE DISCHARGE, PRIOR TO RESUMING CONSTRUCTION ACTIVITY. ANY AND ALL WASTE MATERIAL, SEDIMENT, AND DEBRIS FROM EACH NON-STORM WATER DISCHARGE SHALL BE REMOVED FROM THE STORM DRAIN CONVEYANCE SYSTEM AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
10. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES, ALL NECESSARY MATERIALS SHALL BE STOCKPILED ONSITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID DEPLOYMENT OF CONSTRUCTION BMPS WHEN RAIN IS IMMINENT.
11. THE CONTRACTOR SHALL RESTORE AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL BMPS TO WORKING ORDER YEAR-ROUND.
12. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DUE TO UNFORESEEN CIRCUMSTANCES TO PREVENT NON-STORM WATER AND SEDIMENT-LADEN DISCHARGES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
14. ALL EROSION AND SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED SWPPP/WPCP SHALL BE INSTALLED AND MAINTAINED. ALL EROSION AND SEDIMENT CONTROLS FOR INTERIM CONDITIONS SHALL BE PROPERLY DOCUMENTED AND INSTALLED TO THE SATISFACTION OF THE CITY RESIDENT ENGINEER.
15. AS NECESSARY, THE CITY RESIDENT ENGINEER SHALL SCHEDULE MEETINGS FOR THE PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED CONTACT PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER, AND THE CITY RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION AND SEDIMENT CONTROL MEASURES AND OTHER BMPS RELATIVE TO ANTICIPATED CONSTRUCTION ACTIVITIES.
16. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL CONDUCT VISUAL INSPECTIONS AND MAINTAIN ALL BMPS DAILY AND AS NEEDED. VISUAL INSPECTIONS AND MAINTENANCE OF ALL BMPS SHALL BE CONDUCTED BEFORE, DURING, AND AFTER VERY RAIN EVENT AND EVERY 24 HOURS DURING ANY PROLONGED RAIN EVENT. THE CONTRACTOR SHALL MAINTAIN AND REPAIR ALL BMPS AS SOON AS POSSIBLE AS SAFETY ALLOWS.
17. CONSTRUCTION ENTRANCE AND EXIT AREA. TEMPORARY CONSTRUCTION ENTRANCE AND EXITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CASQA FACT SHEET TC-1 OR CALTRANS FACT SHEET TC-01 TO PREVENT TRACKING OF SEDIMENT AND OTHER POTENTIAL POLLUTANTS ONTO PAVED SURFACES AND TRAVELED WAYS. WIDTH SHALL BE 10' OR THE MINIMUM NECESSARY TO ACCOMMODATE VEHICLES AND EQUIPMENT WITHOUT BY-PASSING THE ENTRANCE. (A) NON-STORM WATER DISCHARGES SHALL BE EFFECTIVELY MANAGED PER THE SAN DIEGO MUNICIPAL CODE CHAPTER 4, ARTICLE 3, DIVISION 3 "STORM WATER MANAGEMENT AND DISCHARGE CONTROL".



BRUSH MANAGEMENT

THE PROPOSED STRUCTURE IS NON HABITABLE AND LOCATED IN A DISTURBED AREA AND THERE IS NO HEAVY VEGETATION SURROUNDING THE SITE.

THE HOUSE AND EXISTING OUT-BUILDINGS ARE ALSO LOCATED IN DISTURBED AREA. THE AREA IS CLEAR OF NATURALIZED VEGETATION

CONSTRUCTED IMPERVIOUS SURFACE AREA TABLE

ITEM	DESCRIPTION	DIMENSIONS	NEW AREA (SQ. FT.)	EXISTING AREA (SQ. FT.)
1	(E) LOT, LANSCAPE AREA AND DIRT/BRUSH COVERED AREA (PERVIOUS)			854,862
2	(N) TOWER FOUNDATION (IMPERVIOUS)	(4) 3'-6" ø	38.4	
3	(N) CENTER MAST FOUNDATION (IMPERVIOUS)	4' X 4'	16	
4	(N) CONCRETE SLAB (IMPERVIOUS)	9'-11" X 15'-11"	157.8	
TOTAL			212.2	854,862

IMPERVIOUS AREAS SUMMARY:

NEW IMPERVIOUS AREA ADDED = 38.4+16+157.8 SF
NEW IMPERVIOUS AREA TOTAL = 212.2 SF
NEW PERVIOUS AREA TOTAL = 854,862 - 212.2 = 854,650 SF

NORTH

STORM WATER QUALITY MANAGEMENT PLAN | 3/32" = 1'-0" | 1

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
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SAN DIEGO, CA 92121

DePratti Inc.

TELECOM MANAGEMENT GROUP
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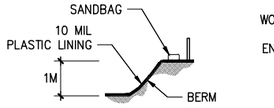
Sheet Title: STORM WATER QUALITY MANAGEMENT

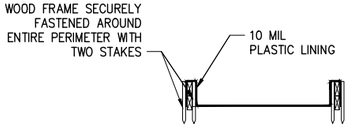
CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

NOT FOR CONSTRUCTION

Project Number:
Drawn by: ERO/RP
Checked by: ERO
Sheet No: Z2.2



SECTION A-A'



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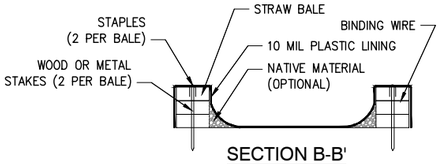

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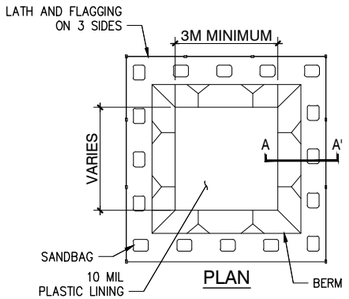
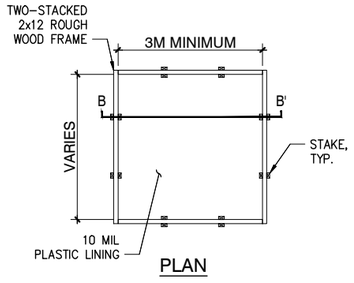


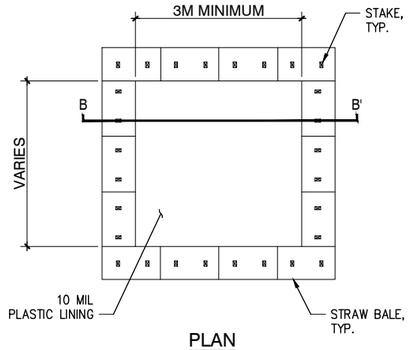
PLAN

TYPE "BELOW GRADE"



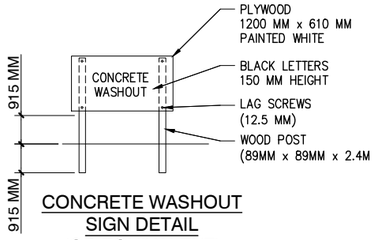
PLAN

TYPE "ABOVE GRADE"
W/ WOOD PLANKS

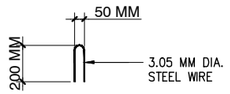


PLAN

TYPE "ABOVE GRADE"
W/ STRAW BALES



CONCRETE WASHOUT
SIGN DETAIL
(OR EQUIVALENT)



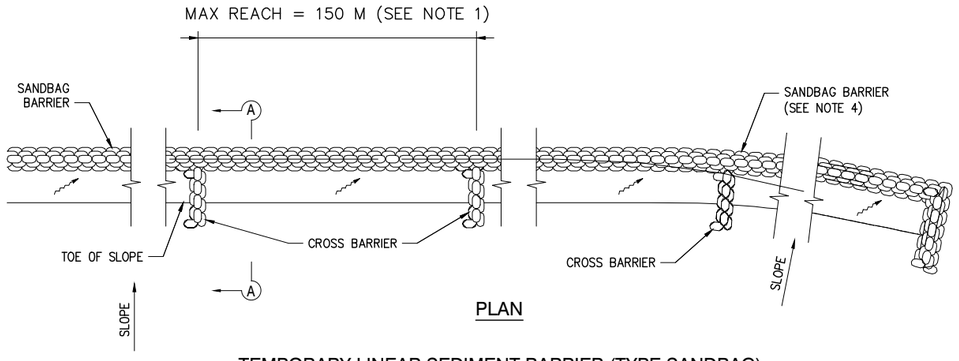
STAPLE DETAIL

NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE PAGE 6) SHALL BE INSTALLED WITHIN 10M OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE FIG. 4-15) SHALL BE INSTALLED WITHIN 10M OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

CALTRANS/FIG4-14.DWG SAC 8-14-02

WM-8 CONCRETE WASTE MANAGEMENT - DETAIL



PLAN

TEMPORARY LINEAR SEDIMENT BARRIER (TYPE SANDBAG)

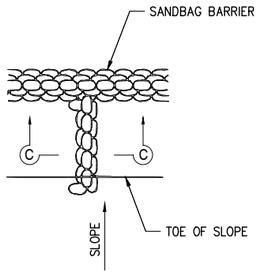
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY LINEAR SEDIMENT BARRIER
(TYPE SANDBAG)

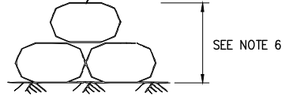
NO SCALE

ALL DIMENSIONS ARE IN
MILLIMETERS UNLESS OTHERWISE SHOWN

NOTES:
1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/2 THE HEIGHT OF THE LINEAR BARRIER. IN NO CASE SHALL THE REACH LENGTH EXCEED 150 M.
2. PLACE SANDBAG TIGHTLY.
3. DIMENSION MAY VARY TO FIT FIELD CONDITION.
4. SANDBAG BARRIER SHHALL BE A MINIMUM OF 3 BAGS HIGH.
5. THE END OF THE BARRIER SHALL BE TURNED UP SLOPE.
6. CROSS BARRIERS SHALL BE A MIN. OF 1/2 AND A MAX OF 2/3 THE HEIGHT OF THE LINEAR BARRIER.
7. SANDBAG ROWS AND LAYERS SHALL BE STAGGERED TO ELIMINATE GAPS.

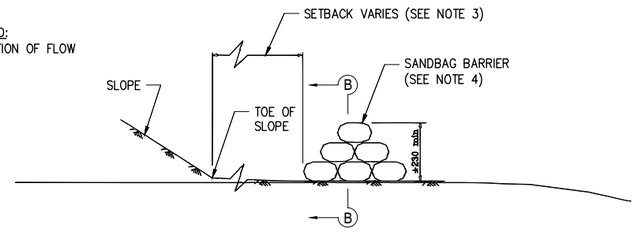


CROSS BARRIER DETAIL

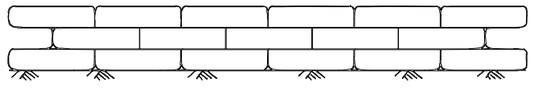


SECTION C-C

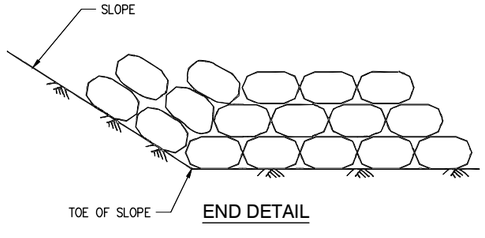
LEGEND:
DIRECTION OF FLOW



SECTION A-A



SECTION B-B



END DETAIL

SC-8 SANDBAG BARRIER - DETAIL

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
3	PC COMMENTS 100% ZD	02-04-19
2	AT&T CHNG 100% ZD	12-20-18
1	100% ZD	09-28-18
0	90% ZD	09-24-18

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TELECOM MANAGEMENT GROUP
Solutions Done Right

Sheet Title:
SWQMP
CONSTRUCTION
DETAIL

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

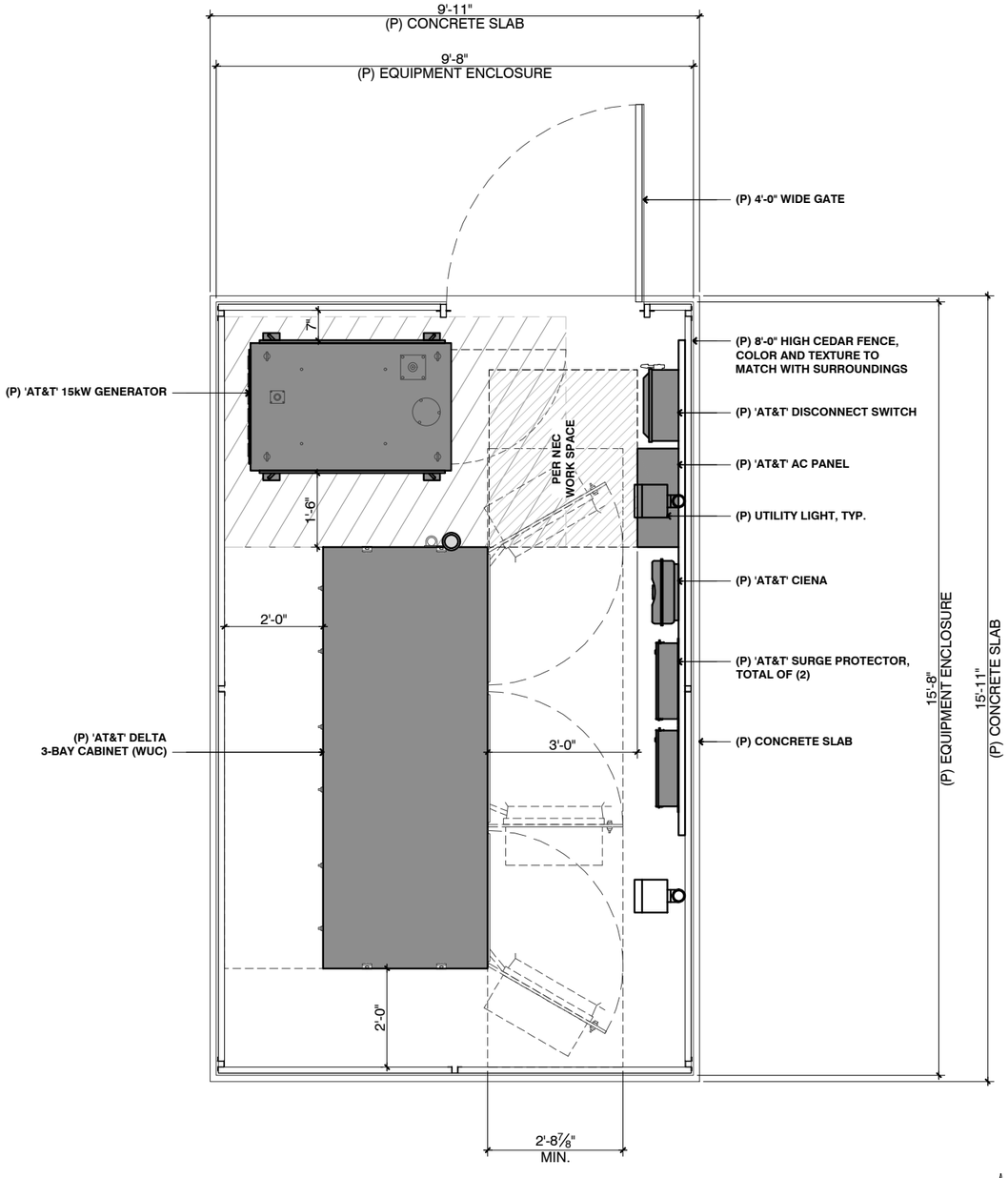
NOT FOR CONSTRUCTION

Project Number:

Drawn by: ERO/RP

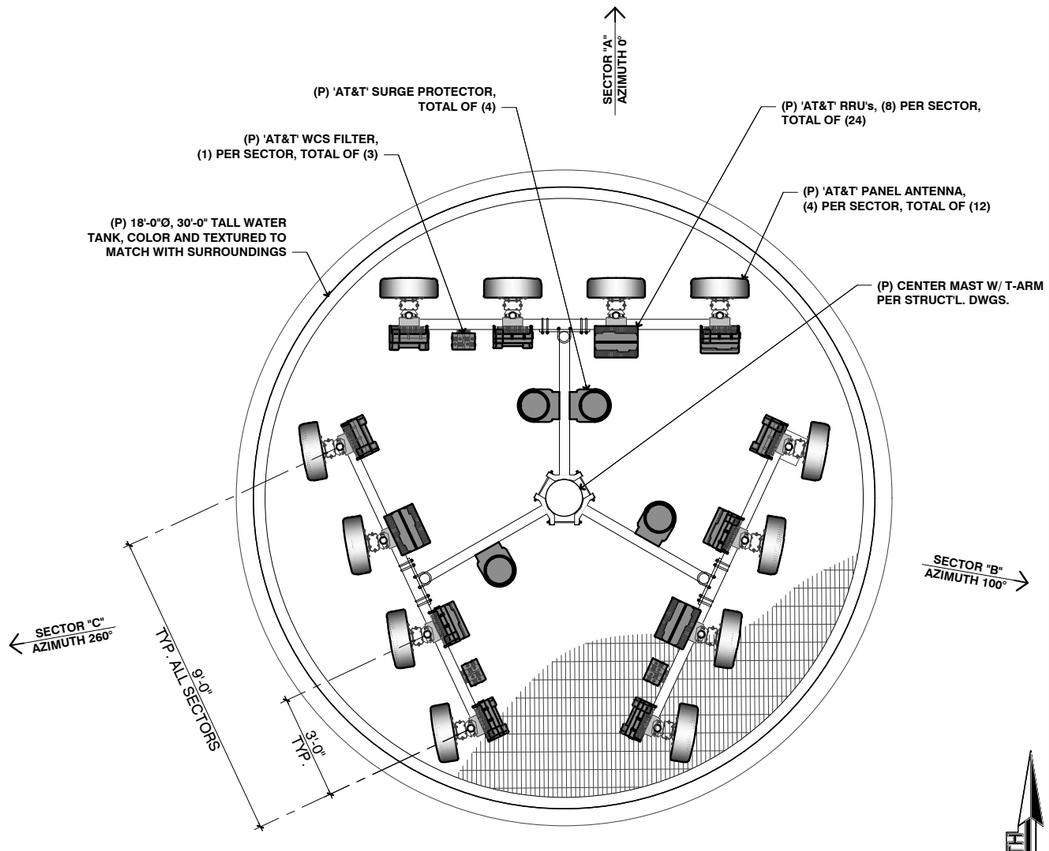
Checked by: ERO

Sheet No:
Z2.3



PROPOSED ANTENNA / RRU SCHEDULE

SECTOR		TECHNOLOGY	ANTENNA				RRU MODEL / QTY.	TMA / FILTER MODEL / QTY.	TRANSMISSION LINES
			MODEL	AZIMUTH	RAD CENTER	TIP HEIGHT			FIBER / POWER (LENGTH FT +/- 5')
ALPHA SECTOR	A1	LTE	80010991K	0°	26'-5"	29'-8"	RRU 4449 (1) / RRU 4415 (1)	-	FIBER ±40'
	A2	LTE	80010991K	0°	26'-5"	29'-8"	RRU 8843 (2)	-	FIBER ±40'
	A3	LTE	80010991K	0°	26'-5"	29'-8"	RRU 4478 (1) / RRU 4415 (1)	WCS-IMFQ-AMT-43 (1)	FIBER ±40'
	A4	LTE	80010991K	0°	26'-5"	29'-8"	RRU 4478 (1) / RRU 4426 (1)	-	FIBER ±40'
BETA SECTOR	B1	LTE	80010991K	100°	26'-5"	29'-8"	RRU 4478 (1) / RRU 4415 (1)	WCS-IMFQ-AMT-43 (1)	FIBER ±40'
	B2	LTE	80010991K	100°	26'-5"	29'-8"	RRU 8843 (2)	-	FIBER ±40'
	B3	LTE	80010991K	100°	26'-5"	29'-8"	RRU 4449 (1) / RRU 4415 (1)	-	FIBER ±40'
	B4	LTE	80010991K	100°	26'-5"	29'-8"	RRU 4478 (1) / RRU 4426 (1)	-	FIBER ±40'
GAMMA SECTOR	C1	LTE	80010991K	260°	26'-5"	29'-8"	RRU 4478 (1) / RRU 4426 (1)	-	FIBER ±40'
	C2	LTE	80010991K	260°	26'-5"	29'-8"	RRU 8843 (2)	-	FIBER ±40'
	C3	LTE	80010991K	260°	26'-5"	29'-8"	RRU 4449 (1) / RRU 4415 (1)	-	FIBER ±40'
	C4	LTE	80010991K	260°	26'-5"	29'-8"	RRU 4478 (1) / RRU 4415 (1)	WCS-IMFQ-AMT-43 (1)	FIBER ±40'



NORTH

EQUIPMENT PLAN | 3/4" = 1'-0" | 1

NORTH

ANTENNA PLAN | 1/2" = 1'-0" | 2

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
3	PC COMMENTS 100% ZD	02-04-19
2	AT&T CHNG 100% ZD	12-20-18
1	100% ZD	09-28-18
0	90% ZD	09-24-18

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Sheet Title:
EQUIPMENT PLAN AND ANTENNA PLAN

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

TELECOM MANAGEMENT GROUP
Solutions Done Right

NOT FOR CONSTRUCTION

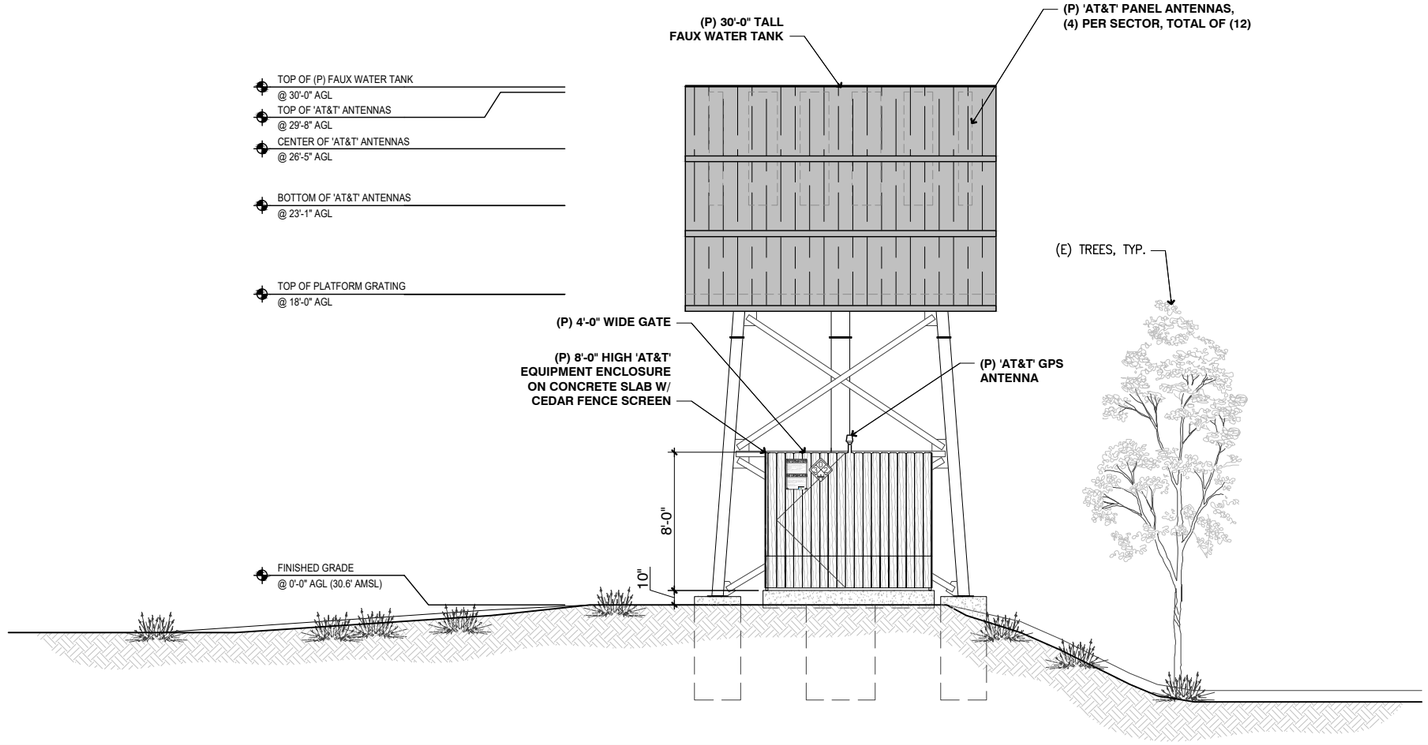
Project Number:

Drawn by: ERO/RP

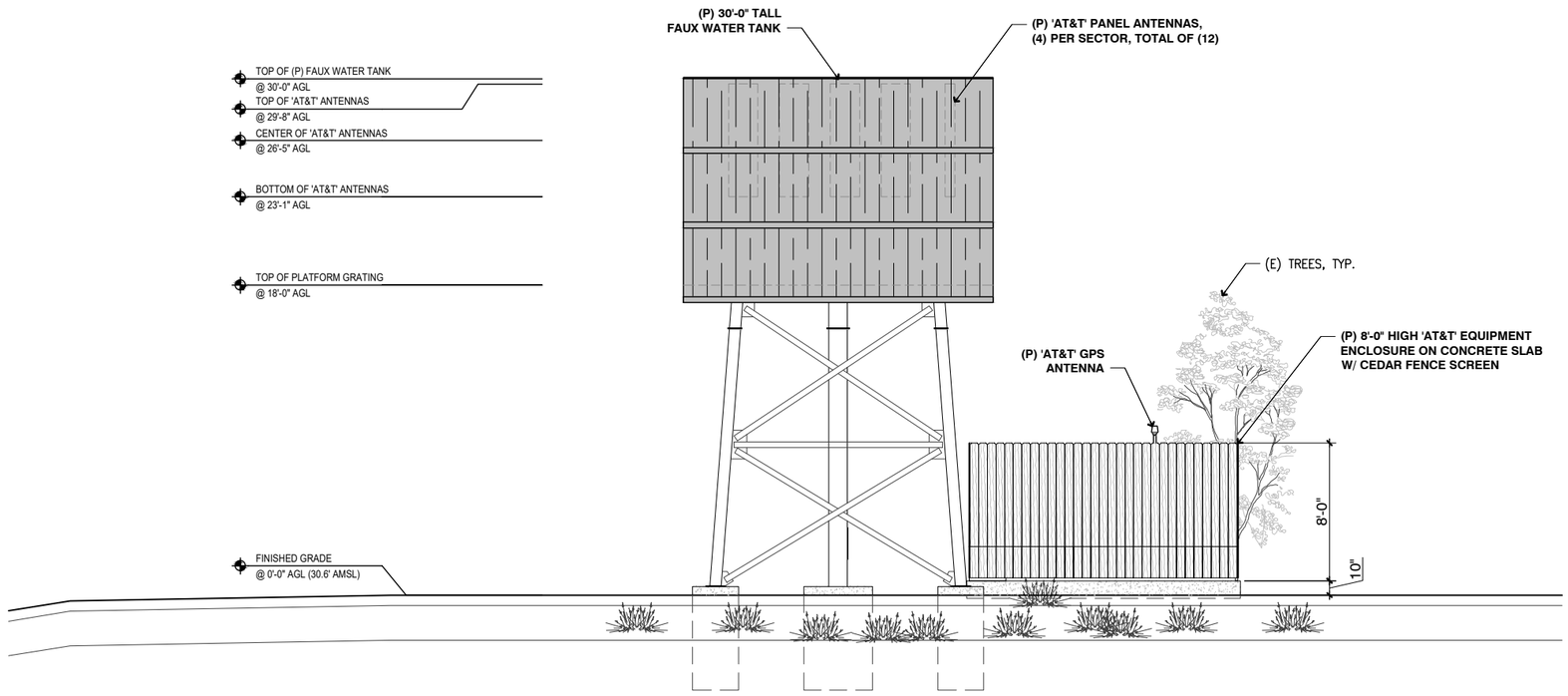
Checked by: ERO

Sheet No: **Z3**

NOTE:
PROPOSED WATER TANK AND EQUIPMENT ENCLOSURE TO BE PAINTED AND TEXTURE TO MATCH W/ SURROUNDINGS.



(P) NORTH ELEVATION | 1/4" = 1'-0" | 1



(P) EAST ELEVATION | 1/4" = 1'-0" | 2

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
3	PC COMMENTS 100% ZD	02-04-19
2	AT&T CHNG 100% ZD	12-20-18
1	100% ZD	09-28-18
0	90% ZD	09-24-18

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SAN DIEGO, CA 92121

DePratti Inc.

TELECOM MANAGEMENT GROUP
Solutions Beyond Right

Sheet Title: SITE ELEVATIONS

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

NOT FOR CONSTRUCTION

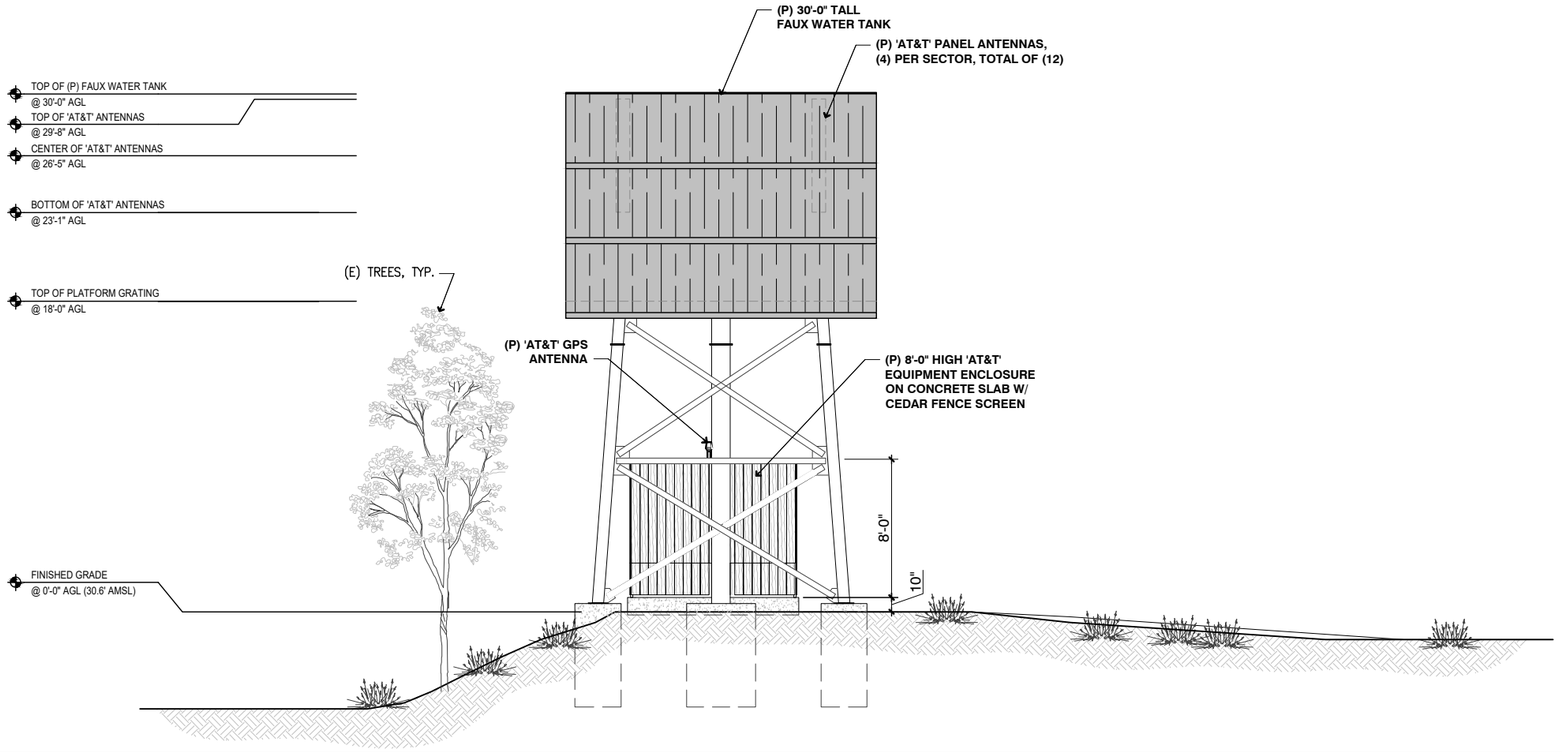
Project Number:

Drawn by: ERO/RP

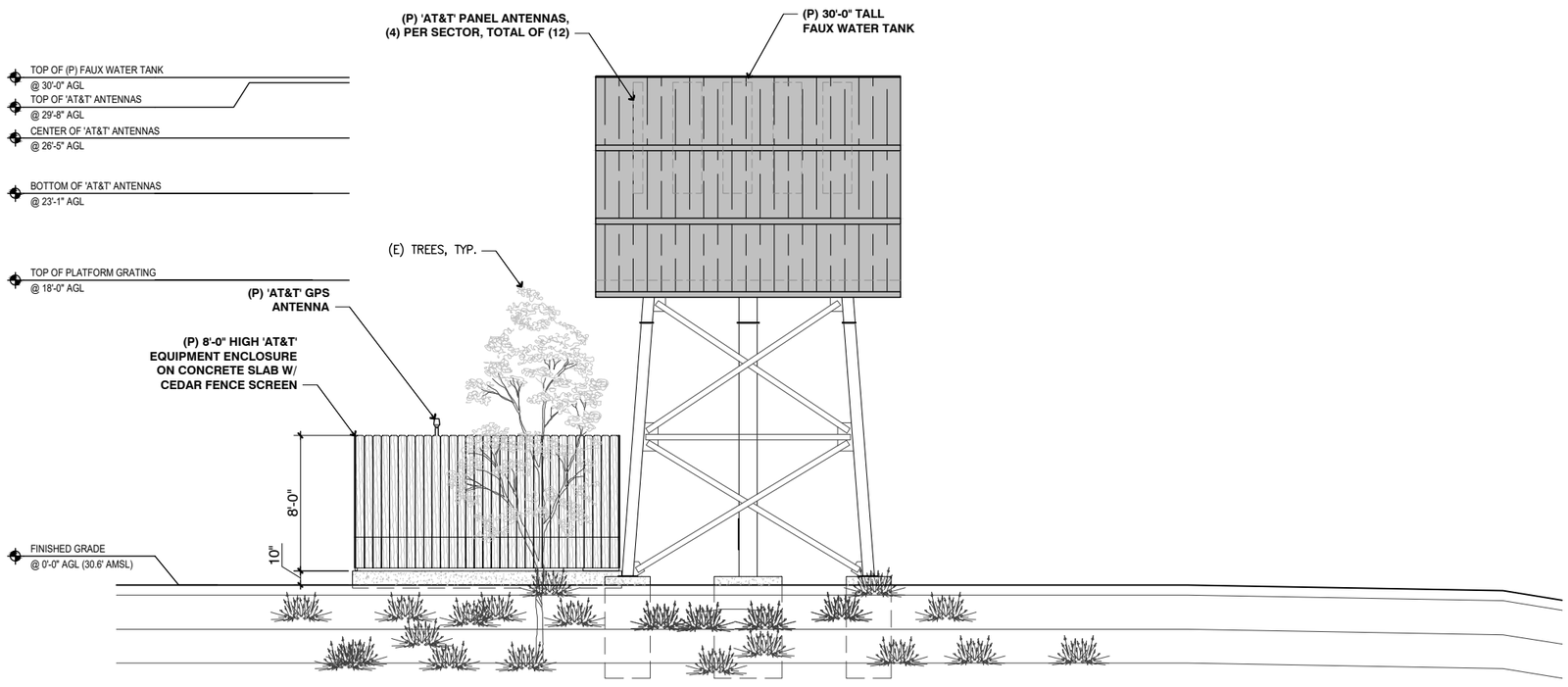
Checked by: ERO

Sheet No: Z4

NOTE:
PROPOSED WATER TANK AND EQUIPMENT ENCLOSURE TO BE PAINTED AND TEXTURE TO MATCH W/ SURROUNDINGS.



(P) SOUTH ELEVATION | 1/4" = 1'-0" | 1



(P) WEST ELEVATION | 1/4" = 1'-0" | 2

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
3	PC COMMENTS 100% ZD	02-04-19
2	AT&T CHNG 100% ZD	12-20-18
1	100% ZD	09-28-18
0	90% ZD	09-24-18

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SAN DIEGO, CA 92121

DePratti Inc.

TELECOM MANAGEMENT GROUP
Solutions Beyond Reach

Sheet Title:
SITE ELEVATIONS

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

NOT FOR CONSTRUCTION

Project Number:

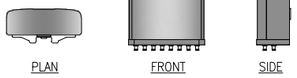
Drawn by: ERO/RP

Checked by: ERO

Sheet No:
Z5

KATHREIN 80010991K

DIMENSIONS, LxWxD: 1999 x 508 x 175mm (78.7" x 20" x 6.9")
WEIGHT (W/OUT CLAMP): 45.8 kg. (100.9 lbs)
CONNECTOR: 12 x 4.3–10 FEMALE

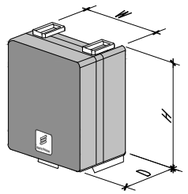


(P) ANTENNA SPECIFICATIONS | NTS | 1

ERICSSON 4478

B14
DIMENSIONS, WxDxH: 13.4"x8.26"x18.1"
WEIGHT: 59.4 lbs (27 Kg)
MAX WIND LOAD: @ 50M/SEC = 260N
BREAKER SIZE: 25A

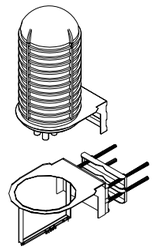
B5
DIMENSIONS, WxDxH: 13.4"x7.7"x16.5"
WEIGHT: 59.9 lbs (27.2 Kg)
MAX WIND LOAD: @ 50M/SEC = 260N
BREAKER SIZE: 25A



(P) RRU SPECIFICATIONS | NTS | 2

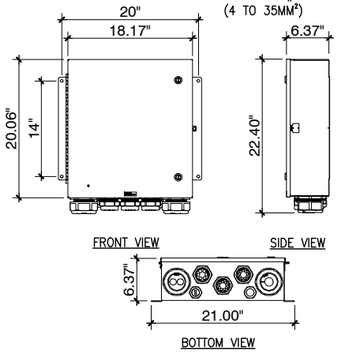
RAYCAP DC6-48-60-18-8F

DIMENSIONS, WxDxH: 280x470X794mm (11"x18.5"X31.25")
NOMINAL OPERATING VOLTAGE: 48 VDC
NOM. DISCHARGE CURRENT: 20 kA 8/20µs
MAX. DISCHARGE CURRENT: 60 kA 8/20µs
MAX. CONTINUOUS OPERATING VOLTAGE: 75 VDC
VOLTAGE PROTECTION RATING: 400 V
WIND LOADING: 150 MPH SUSTAINED (105.7 lbs)
195 MPH GUST (213.6 lbs)
TOTAL WEIGHT: 32.8 lbs



DC12-48-60-0-25E

DIMENSIONS, WxDxH: 18.17"x6.37"x20.06"
WEIGHT: 56.3 lbs
CONN. TERMINAL METHOD: COMPRESSION LUG
CONN. TERMINAL HARDWIRED: COPPER #14 TO 2# AWG (2.5 TO 35MM²)
ALUMINUM #12 TO 2# AWG (4 TO 35MM²)

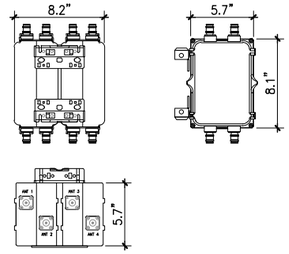


(P) SURGE PROTECTOR SPECIFICATIONS | NTS | 7

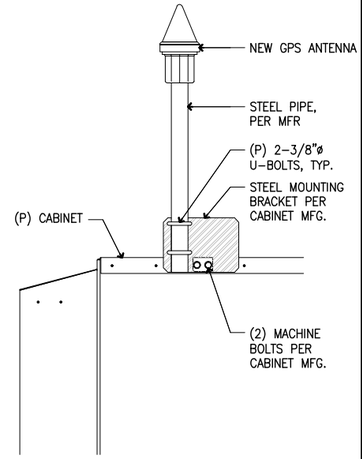
QUAD WCS IMFQ

FOR 2360-2395 MHZ AMT BAND CO-LOCATION

MODEL NUMBER: WCS-IMFQ-AMT-43
PART NUMBER: E15V87P73
DIMENSIONS, HxDxW: 206x144x209 mm (8.1x 5.7 x 8.2 in)
WEIGHT: W/O MOUNTING 8 kg (17.6 lbs)
W/ MOUNTING 9.3 kg (20.4 lbs)
FINISH: GRAY PAINT
CONNECTORS, RF: 4.3–10 FEMALE
GROUND TERMINAL DIAMETER, MM (IN) 5 (0.20)



(P) WCS FILTER SPECIFICATIONS | NTS | 10

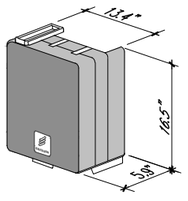


(P) GPS ANTENNA DETAIL | NTS | 11

ERICSSON 4415 BXX

DIMENSIONS, WxDxH: 13.4"x5.9"x16.5"
WEIGHT: 46 lbs (21 Kg)
MAX WIND LOAD: @ 50M/SEC = 260N
BREAKER SIZE: 25A

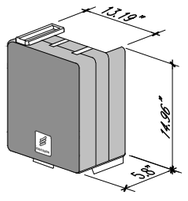
NOTE: VERIFY ACTUAL MODEL SPECS



(P) RRU SPECIFICATIONS | NTS | 3

ERICSSON 4426 B66

DIMENSIONS, WxDxH: 13.19"x5.8"x14.96"
WEIGHT: 48.4 lbs (22 Kg)
MAX WIND LOAD: @ 50M/SEC = 260N
BREAKER SIZE: 25A

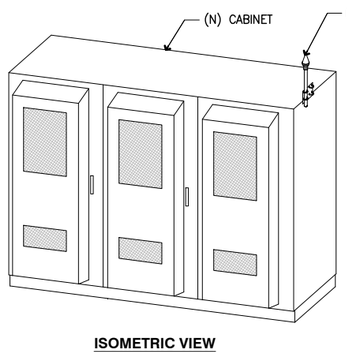


(P) RRU SPECIFICATIONS | NTS | 4

DELTA 3 BAY CABINET WALK UPTO CABINET (WUC)

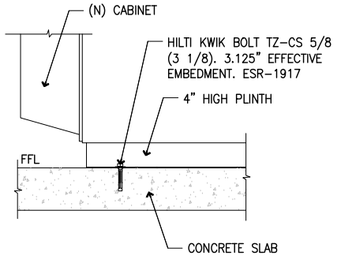
MODEL ESOF030-HCU01

DIMENSIONS (W X H X D) 102"W X 42"D (50"INCLUDING HEX) X 72"H (ADD 4" PLINTH)
PROTECTION CLASS NEMA4
WEIGHT 2270 LBS (BATTERIES, POWER SYSTEM AND LOAD EQUIPMENT EXCLUDED)
MATERIALS: ENCLOSURE ALUMINUM AL5052, INNER FRAMES GALVANIZED STEEL
FINISH POWDER PAINT RAL7032

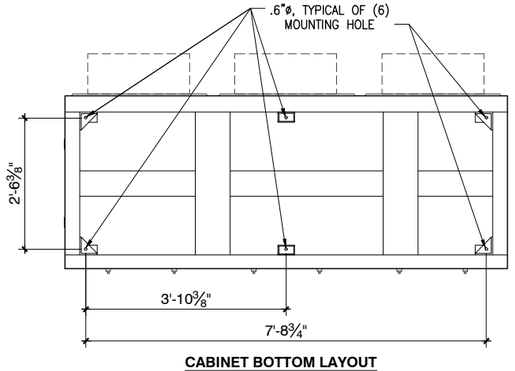


ISOMETRIC VIEW

NOTES:
VERIFY MOUNTING HOLES WITH MANUFACTURE PRIOR TO INSTALLATION



ANCHORAGE



CABINET BOTTOM LAYOUT

(N) 3 BAY CABINET SPECIFICATIONS | NTS | 9

MODEL NUMBER:
8220–15K–D–603 – DIESEL 15kW –48 VDC

DRY WEIGHT (lb/kd) 1248 / 566
DIMENSION (LXWXH) (in/cm) 32 x 50 x 72 / 81.3 x 127 x 183

CONFORMS TO UL STD 2200
CERTIFIED TO CSA STD C22.2 No. 100

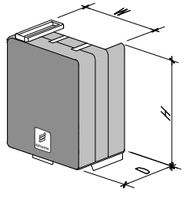
POLAR POWER INC.
Back-up Diesel DC Generator Set

INSTALLATION FOOTPRINT, BOTTOM VIEW

(P) GENERATOR SPECIFICATIONS | NTS | 12

ERICSSON 4449

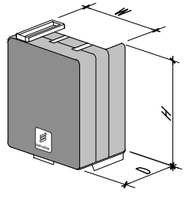
B5, B12
DIMENSIONS, WxDxH: 335x240x455mm 13.19"x9.44"x17.9"
WEIGHT: 71 lbs (32 Kg) EXCL. HARDWARE
MAX WIND LOAD: @ 50M/SEC = 260N
BREAKER SIZE: 2x25A, DC POWER CONSUMPTION=1440W



(P) RRU SPECIFICATIONS | NTS | 5

ERICSSON 8843

B2, B66A
DIMENSIONS, WxDxH: 335x277x380mm 13.2"x10.9"x14.9"
WEIGHT: 72 lbs (32.6 Kg) EXCL. HARDWARE
MAX WIND LOAD: @ 50M/SEC = 260N
BREAKER SIZE: 2x30A, DC POWER CONSUMPTION=1520W



(P) RRU SPECIFICATIONS | NTS | 6

NOT USED | NTS | 13

Rev.	Description	Date:
4	ZD CLIENT CHG 100% ZD	03-11-19
3	PC COMMENTS 100% ZD	02-04-19
2	AT&T CHNG 100% ZD	12-20-18
1	100% ZD	09-28-18
0	90% ZD	09-24-18

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5738 PACIFIC CENTER BLVD
SAN DIEGO, CA 92121

DePratti Inc.

Sheet Title: SITE DETAILS

CAL02225
TJ RIVER SOUTH
2805 "A" HOLLISTER STREET
SAN DIEGO, CA 92154
NEW SITE BUILD

TELECOM MANAGEMENT GROUP
Solutions Done Right

NOT FOR CONSTRUCTION

Project Number:
Drawn by: ERO/RP
Checked by: ERO
Sheet No: D1

Appendix B

3-Bay Cabinet Specifications

ESOF030-HCU01
3-Bay Walk Upto Cabinet (WUC)

Product Features

- Sealed Multi-bay Equipment and Power Compartment
- Sealed Battery Compartment
- Corrosion Resistant Aluminum enclosure
- Thermosiphon HEX cooling
- R6 Thermal Insulation
- Attachment Rails for AC Load Center
- Rear Access Hatches
- Optional Dual GPS Antenna Mount
- Low profile for height restricted applications

DELTA
Smarter. Greener. Together.

Specifications

Model	ESOF030-HCU01 Walk Upto Cabinet (WUC)
1. General	
System cooling capacity	5.0kW Equip Heat Load with Equip Inlet <55C @ 46C ambient 2.6kW Equip Heat Load with Equip Inlet <55C @ 50C ambient
Dimensions (W x H x D)	102W" x 42"D (50" including HEX) x 72"H (add 4" plinth)
Protection class	NEMA4
Door latches	3 point latches (pad lock compatible)
Ground bar	3ea 10-positions
Lifting Mechanism	4 lifting brackets
Equipment Compartment	Bay 1 – 23", 14RU for DC Power System and PDU Bay 2 – 23", 39RU for equipment Bay 3 – 23", 39RU for equipment
Battery Compartment	Shelves for 3 strings batteries, designed for: GNB Marathon M12V180FT Enersys SBS170F or SBS190F
Weight	2270 lbs (Batteries, Power System and Load Equipment excluded)
Materials:	Enclosure Aluminum AL5052, Inner frames Galvanized steel
Finish	Powder Paint RAL7032
Safety	cULus LISTED pending
2. Environment	
Operating temperature	-40°C to +50°C (-40°F to +122°F)
Storage temperature	-40°C to +75°C (-40°F to +158°F)
Acoustics	65 dBA @ 40C equipment inlet, 75 dBA @ 55C equipment inlet
Humidity (relative)	95%, non-condensing (Max.)
3. Thermal management	
Cooling system	Equipment compartment: 3 200W/°K Thermosiphon HEX
Heating system	Equipment compartment: 3 1500W DC heaters Battery compartment: 1 1500W DC heater
4. Equipment	
Arranged for third-party equipment:	AC Load Center (not provided) DC Power System (not provided) Batteries (not provided)
Cable Entry:	
AC Cable	(2) Trade Size 2" ports
Bottom Cable	Arranged for (3) Roxtec EzEntry 24/24 multi-port (not provided) Arranged for (7) Roxtec EzEntry 16/16 multi-port (not provided)
Lower Rear	(8) Trade Size 3" ports
Upper Rear	Arranged for (2) Valmont E575 port kits (not provided)
5. Optional Items	
Optional items	NEQ.20115 – Dual GPS Antenna Mast Kit (Delta 3798100742-S) NEQ.20114 – Wave Guide Top Plate (Valmont E575) NEQ.20113 – Spare Thermosiphon Door (Delta EX-S04 A-S) NEQ.20121 – EMI WUP Cab Plinth-Helical (D1010-0010-0160)
6. Ordering information	
System	NEQ.20111– Cabinet 3-Bay 3-HEX (Delta ESOF030-HCU01)
NOKIA Delta-Walk-Upto-Cabinet(WUC) Fully Configured at WWT (NSN RAN)	NODELTAWUCAB - Delta WUC - FSM4 ABAU Indoor w/ Ancillary 1 ASIA and 1 ABIA - SIAD
Ericsson Delta-Walk-Upto-Cabinet(WUC) Fully Configured at WWT (NSN RAN)	ERNDELTAWUCAB - Delta WUC - Ericsson RAN 5216 - SIAD

*All specifications are subject to change without prior notice.

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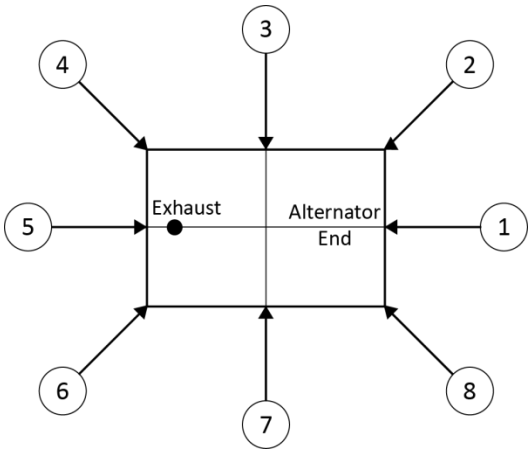
Appendix C

Generator Noise Data

Type of Test	Sound Test	Serial No.	n/a
Test No.	080415	Controller serial No.	n/a
Generator model	8220Y-3TNV88-001 (15kW) Diesel	Observer	PY/JB
Enclosure model	88-25-0603	Date	6 Jun. 2015

Sound Pressure Levels in dB(A)

Position	Overall Level	Frequency Spectrum Levels								
		Center Frequency (Hz)								
		31.5	63	125	250	500	1000	2000	4000	8000
1	64.4	--	45.3	49.5	51.4	50.5	49.8	46.5	44.1	38.2
2	65.1	--	47.2	48.4	49.9	49.1	46.8	46.1	45.4	38.6
3	63.8	--	44.4	48.2	48.0	49.7	47.6	46.0	46.5	38.6
4	63.9	--	44.8	48.1	45.9	50.4	48.7	47.2	46.8	40.0
5	64.7	--	45.0	48.0	48.7	50.9	49.9	46.6	46.9	40.7
6	63.8	--	44.4	47.7	48.5	49.9	49.1	46.7	47.2	40.9
7	64.7	--	44.3	48.2	46.6	49.9	48.5	46.6	46.2	39.2
8	64.5	--	46.0	47.1	46.4	49.6	48.3	46.9	46.2	40.5
Average	64.4	--	45.2	48.1	48.2	50.0	48.6	46.6	46.2	39.6



Notes:

1. Generator operating at full rated load
2. Generator configuration includes quiet exhaust system
3. All measurement positions are 7 m (23 ft.) from center of generator set and 1 m (3.3 ft.) height
4. Test conducted outside on an asphalt surface, temperature 72˚F, humidity 69%, wind 12 mph, barometer 29.65 inHg.
5. Meter used - Phonic PAA2, Serial No. OGA0H80208