

Draft Environmental Assessment for Runway 8-26 Reconstruction

Volume 2: Appendices

Rafael Hernandez Airport, Puerto Rico

July 2020

This page intentionally left blank.

APPENDIX A
Runway Length Tables

This page intentionally left blank.

Table 2-4 Key Aircraft Performance Characteristics for Runway Length Requirements Analysis

| Airline | Aircraft Type/Weight | Manufacturer | Engines | MTOW (lbs) | Max Zero Fuel Weight (lbs) | Operating Empty Weight (lbs) | Max Payload (lbs) | Usable Fuel (lbs) (no auxiliary tanks) ¹ | Destination | | |
|--------------------|------------------------------------|--------------------|--------------|------------|----------------------------|------------------------------|-------------------|---|--------------------------------------|-------------------|---------------|
| | | | | | | | | | City | Airport ID (IATA) | Distance (nm) |
| United Airlines | B-737/900 ER | Boeing | CFM56-27 | 164,000 | | 98,495 | 39,308 | 46,063 | Newark, NJ (EWR) | EWR | 1377 |
| | B-737/900 ER w/winglets | Boeing | CFM56-28 | 187,700 | | 98,495 | 50,805 | 46,063 | | EWR | 1377 |
| | B-737/800 w/winglets | Boeing | CFM56-7-B26 | 174,200 | | 91,300 | 47,000 | 46,063 | | EWR | 1377 |
| Jet Blue Airways | A-320 169,000 lbs | Airbus | IAE V2527-A5 | 169,756 | 133,380 | 93,380 | 40,000 | 37,303 | New York, NY (JFK) | JFK | 1369 |
| | EMB 190 114,200 lbs | Embraer | GE CF-34-10E | 114,199 | 90,169 | 61,509 | 28,660 | 28,660 | | JFK | 1369 |
| | A-321-200 | Airbus | IAE-V2533-AE | 196,211 | 162,701 | 112,201 | 50,500 | 33,510 | | JFK | 1369 |
| Spirit Airlines | A-319-100 166,425 lbs ² | Airbus | IAE-V2524-A5 | 166,449 | 125,663 | 87,663 | 38,000 | 40,786 | Fort Laudardale, FL (FLL) | FLL | 854 |
| | A-320-232 | Airbus | IAE-V2527-A5 | 169,756 | 133,380 | 93,380 | 40,000 | 37,258 | | FLL | 854 |
| | A321-231 | Airbus | IAE-V2533-A7 | 196,211 | 162,701 | 112,201 | 50,500 | 33,510 | | FLL | 854 |
| | A320 NEO | Airbus | PW 1127G | 169,756 | 138,450 | 97,950 | 40,500 | 32,188 | | FLL | 854 |
| Federal Express | DC-10/10 440,000 lbs | Mc Donnell/Douglas | CF-6 | 440,000 | 335,000 | 215,444 | 119,556 | 145,810 | Indianapolis, IN (IND) | IND | 1613 |
| | MD-11 (freighter) | Mc Donnell/Douglas | CF-6 | 602,500 | 451,300 | 248,567 | 202,733 | 258,721 | Memphis, TN (MEM) | MEM | 1569 |
| | B-767-300F | Boeing | CF-6-80C2B4 | 413,000 | | 188,000 | 121,000 | 161,740 | | MEM | 1569 |
| | B-767-300F | Boeing | CF-6-80C2B75 | 413,000 | | 188,000 | 121,000 | 161,740 | | MEM | 1569 |
| Lufthansa Cargo | MD-11/ 630,515 ³ | Mc Donnell/Douglas | CF-6-80C2 | 602,500 | 451,300 | 248,567 | 202,733 | 258,721 | Frankfurt, Germany (FRA) | FRA | 4016 |
| Martin Air Holland | MD-11/ 630,515 ³ | Mc Donnell/Douglas | CF-6-80C3 | 602,500 | 451,300 | 248,567 | 202,733 | 258,721 | Amsterdam, Netherlands (AMS) | AMS | 3874 |
| Cargo Lux | B-747/400F 875,000 lbs | Boeing | CF6-80C2B1 | 875,000 | | 363,954 | 271,046 | 382,336 | Maastricht Aachen, Netherlands (MST) | MST | 3909 |
| | B-747/800F | Boeing | Genx 2B67 | 987,000 | | 434,600 | 292,400 | 400,218 | Luxenburg (LUX) | LUX | 3925 |

Source: Boeing Airplane Characteristics for Airport Planning http://www.boeing.com/commercial/airports/plan_manuals.page
Embraer Airport Planning Manual http://www.embraercommercialaviation.com/AMPS/APM_190.pdf
Airbus Aircraft Characteristics <http://www.airbus.com/support/maintenance-engineering/technical-data/aircraft-characteristics/>
Trip Distance - Great Circle Mapper <http://www.gcmap.com/>

Note 1: Boeing and MD-11 fuel requirements calculated from provided charts. Airbus, DC-10 and Embraer fuel requirement was estimated as the ratio of trip distance to total range applied to maximum fuel load.

Note 2: Performance charts in APM for A319 indicate same runway takeoff lengths for ISA and ISA+590 conditions.

Note 3: 630k MTOW provided for Lufthansa and Martin MD-11 correspond with "Passenger ER" model in manufacturer APM. Assume these are actually "freighter" models per the carrier website. 602k MTOW used.

Table 2-5 Runway Length Requirements Results Analysis

| Airline | Aircraft Type/Weight | F.A.R. Takeoff Runway Length (Feet) - Dry | | | | Load Factor | | | | | | F.A.R. Landing Length (w/highest flap setting & adjusted 440' for runway gradient) | | | Reported Airline Runway Length Requirement (Feet) ³ |
|--------------------|------------------------------------|---|--------|-----------------|-----------------|-------------|-------|-------|--------|--------|--------|--|----------|----------|---|
| | | 70% LF | 80% LF | 90% LF | 100% LF | 7000 | 9000' | 9500' | 10000' | 10500' | 11000' | MLW (lbs) | Dry (ft) | Wet (ft) | |
| United Airlines | B-737/900 ER | 6,500 | 6,950 | 7,400 | 7,950 | 88% | 100% | 100% | 100% | 100% | 100% | 157,300 | 6,040 | 6,840 | 9,300 |
| | B-737/900 ER w/winglets | 7,450 | 8,050 | 9,050 | 10,500 | 68% | 90% | 96% | 98% | 100% | 100% | 157,300 | 6,040 | 6,840 | |
| | B-737/800 w/winglets | 6,350 | 6,950 | 7,600 | 8,000 | 89% | 100% | 100% | 100% | 100% | 100% | 146,300 | 6,240 | 7,140 | 9,300 |
| Jet Blue Airways | A-320 169,000 lbs | 4,300 | 4,550 | 4,950 | 5,250 | 100% | 100% | 100% | 100% | 100% | 100% | 142,198 | 5,240 | 6,026 | 5,200 |
| | EMB 190 114,200 lbs | 4,450 | 4,900 | 5,350 | 5,650 | 100% | 100% | 100% | 100% | 100% | 100% | 97,003 | 4,540 | 5,221 | 5,200 |
| | A-321-200 | 4,850 | 5,150 | 5,400 | 5,750 | 100% | 100% | 100% | 100% | 100% | 100% | 171,520 | 6,140 | 7,061 | 5,200 |
| Spirit Airlines | A-319-100 166,425 lbs ¹ | 4,000 | 4,000 | 4,200 | 4,400 | 100% | 100% | 100% | 100% | 100% | 100% | 134,482 | 4,940 | 5,681 | |
| | A-320-232 | 4,100 | 4,350 | 4,550 | 4,700 | 100% | 100% | 100% | 100% | 100% | 100% | 142,198 | 5,240 | 6,026 | |
| | A321-231 | 4,550 | 4,850 | 4,950 | 5,450 | 100% | 100% | 100% | 100% | 100% | 100% | 171,520 | 6,140 | 7,061 | |
| | A320 NEO | 4,150 | 4,500 | 4,700 | 4,950 | 100% | 100% | 100% | 100% | 100% | 100% | 146,166 | 5,340 | 6,141 | |
| Federal Express | DC-10/10 440,000 lbs | 6,000 | 6,400 | 6,800 | 7,400 | 94% | 100% | 100% | 100% | 100% | 100% | 363,500 | 6,240 | 7,176 | 8,500 |
| | MD-11 (freighter) | 7,300 | 7,500 | 8,100 | 8,500 | min=7200' | 100% | 100% | 100% | 100% | 100% | 471,500 | 7,940 | 9,040 | 8,500 |
| | B-767-300F | 5,900 | 6,450 | 7,200 | 7,800 | 88% | 100% | 100% | 100% | 100% | 100% | 326,000 | 6,890 | 6,140 | 8,500 |
| | B-767-300F | 5,500 | 5,800 | 6,400 | 6,800 | 100% | 100% | 100% | 100% | 100% | 100% | 326,000 | 6,890 | 6,140 | 8,500 |
| Lufthansa Cargo | MD-11/ 630,515 ² | 9,800 | 10,800 | Load Restricted | Load Restricted | min=7200' | 64% | 69% | 76% | 79% | 82% | 471,500 | 7,940 | 9,040 | 11,000 |
| Martin Air Holland | MD-11/ 630,515 ² | 9,300 | 10,500 | 11,600 | Load Restricted | min=7200' | 67% | 74% | 79% | 81% | 84% | 471,500 | 7,940 | 9,040 | |
| Cargo Lux | B-747/400F 875,000 lbs | 9,000 | 10,000 | 11,150 | 11,750 | 49% | 70% | 77% | 80% | 85% | 89% | 666,000 | 7,240 | 8,240 | 10,500 |
| | B-747/800F | 8,550 | 9,450 | 10,250 | 11,200 | 51% | 76% | 83% | 87% | 94% | 98% | 763,000 | 7,840 | 8,940 | 10,500 |

Source: Boeing Airplane Characteristics for Airport Planning http://www.boeing.com/commercial/airports/plan_manuals.page

Embraer Airport Planning Manual http://www.embraercommercialaviation.com/AMPS/APM_190.pdf

Airbus Aircraft Characteristics <http://www.airbus.com/support/maintenance-engineering/technical-data/aircraft-characteristics/>

Trip Distance - Great Circle Mapper <http://www.gcmap.com/>

Note 1: Performance charts in APM for A319 indicate same runway takeoff lengths for ISA and ISA+590 conditions.

Note 2: 630k MTOW provided for Lufthansa and Martin MD-11 correspond with "Passenger ER" model in manufacturer APM. Assume these are actually "freighter" models per the carrier website. 602k MTOW used.

Note 3: Information provided by aircraft operator

APPENDIX B
Biological Resources

This page intentionally left blank.

FLORA AND FAUNA SURVEY
FOR
RAFAEL HERNÁNDEZ AIRPORT
RECONSTRUCTION
AGUADILLA, PUERTO RICO

JUNE-2018

Prepared for:

URS Caribe, LLP
954 Ponce de León Ave. Suite 304,
San Juan, Puerto Rico 00907

Prepared by:



PO Box 8972
San Juan PR 00910-0972
(787) 748-5435-voice
(787) 748-5390-fax

Participants:
Alejandro Cubiñá, M.S.

This page intentionally left blank.

Location and Proposed Work

The Rafael Hernández International Airport (BQN), formerly known as the Borinquen Army Airfield, is located in the northwestern tip of Puerto Rico within the town of Aguadilla. Main access from the east is thru road 110, and Borinquen Avenue from the west. The airport covers an area of approximately 1,600 acres. The airport currently handles civilian passenger and cargo operations. In addition, a unit of the U.S. Coast Guard (U.S.C.G. Air Station Borinquen) and the U.S. Customs and Border Protection are stationed in the airport and adjacent areas.

Runway 8-26 is 11,700 feet long by 200 feet wide with 50-foot shoulders, and is serviced by two partial parallel taxiways. The Puerto Rico Ports Authority (PRPA) has proposed improvements to the runway in order to improve operations in the airport. Most of the work proposed will be south of the existing runway as shown in the five alternatives included in Appendix 1.

Climate

The study site is located within the subtropical moist forest life zone (Ewel & Whitmore 1973), characterized by a mean annual rainfall of 1100 mm to 2200 mm and a mean temperature ranging from 18 to 24° c. The subtropical moist forest life zone is the dominant life zone in the island, covering more than 58 % of the total land area.

Soils

According to the National Resource Conservation Service there are two mapping units in the study area (Appendix 2). These are NOTCOM AND BeB. NOTCOM comprises 99.7 % of the proposed new runway. Land south of the airport boundary is dominated by the Bejucos component thus, it is very likely that the mapped NOTCOM areas extend northward into the study area. Below is a description of the mapping units:

BeB – Bejucos sandy loam, 2 to 5 percent slopes (The Bejucos component is on interior valleys on coastal plains. The parent material consists of coarse material over fine texture sediments. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high.)

NOTCOM – No digital data available (The NOTCOM is an area not mapped. This designation is used to identify spatial areas that have not been surveyed.)

Methodology

Field work was conducted during the day on May 17, 2018 by Alejandro Cubiñá accompanied by Ivelisse Lorenzo from the PRPA. Prior to commencing field work, recent aerial photography, and available data bases for natural resources and protected species were reviewed. The proposed alternative runways were totally covered by foot, with the exception of the brushy-woody patch located in the southeastern end of the airport which was sampled on its periphery.

All plant species occurring within the surveyed areas were recorded. If any plant could not be identified in the field, a single specimen was collected for later identification at the

University of Puerto Rico Herbarium in Río Piedras. Nomenclature for flora follows Axelrod (2011).

The vertebrate fauna was determined by visual (with the aid of binoculars) and acoustic means. Rock and fallen branches were frequently turned to detect cryptic species. Any skeletal remains were identified. Nomenclature for the herpetofauna follows Schwartz and Henderson (1991) and Raffaele *et al.* (1998) for the avifauna.

The existing vegetative cover was characterized with special attention to wetlands and drainages. Any existing drainages and wetlands were delineated in the field. In addition, the vegetative communities on site were evaluated for the suitability of viable habitat for protected species. Finally, on June 11, 2018 Alejandro Cubiñá consulted with the Department of Natural and Environmental Resources' (DNER) Natural Heritage office in order to review their threatened and endangered species distribution maps.

Results

Flora – A total of 59 plant species were recorded during the field effort (see Table 1).

No state or federally threatened and endangered species of plants were recorded. In addition, none of the flora found in the project area is listed as an “elemento crítico” by the DNER. The “elemento crítico” plant list is not included in the DNER’s rules and regulations for threatened and endangered species. The list includes 596 plant species. However, it must be noted that the Puerto Rico palmetto (*Sabal causiarum*) is present within the airport and surrounding areas. *S. causiarum* is listed as an “elemento crítico”

Three distinct plant communities occur in the property. These are:

1 – Grass fields – The dominant cover type consists of various grass and weedy species. Representative species include hurricane grass (*Bothriocloa pertusa*), white moneywort (*Alysicarpus vaginalis*), and Guinea grass (*Megathyrus maximus*). These areas are regularly mowed either by PRPA or cut for hay by an outside party. Within the pastures, the white lead tree (*Leucaena leucocephala*), a shrub or small tree, has become established. However, new shoots are mowed every time these areas are mowed or harvested.

2 – Secondary forest patch – A small patch of secondary forest measuring about 2.5 acres is found towards the eastern end of the airport. This patch is dominated by shrubby vegetation and small trees. The terrain is slightly elevated and is characteristic of the limestone haystack hills found throughout northern Puerto Rico. The dominant tree species are gumbo limbo (*Bursera simaruba*), wattapama (*Poitea florida*), and yellow balsam (*Croton flavens*). Tree height doesn't exceed 25 feet.

3 – Building surroundings – This cover type is found outside the southern perimeter fence. It is characterized by vegetation growing in close proximity to the structures found outside the operations area. This area is mowed sporadically and contains scattered trees and patches of the white lead tree. Some of the tree species observed in this association are the rubber tree (*Ficus elastica*), coconut palms (*Cocos nucifera*), and tropical almond (*Terminalia catappa*).

Fauna – Fourteen birds, 5 reptiles, and 4 amphibian, were recorded in the study area (see Table 2). No state or federally threatened and endangered species of animals were recorded.

Drainages and Wetlands –According to the Wetland Inventory Map there is a potential riverine wetland area in the easternmost part of the project area (Appendix 3). Another potential wetland area is mapped on the other side of the airport over the taxiway in front of a hangar (Appendix 3). This is obviously a misrepresentation since the area is paved. During the field work six drainages were observed along the proposed site. These drainages are manmade ditches for storm water discharge. None of these drainages coincides with the riverine unit present in the NWI map.

The drainages are shallow, covered with herbaceous vegetation and some shrubs, and drain towards the north. From there, water is diverted outside the airport by an underground storm water drainage system. In a few areas some old culverts and broken concrete are present within the drainage path. Besides the drainages, no other potential wetland areas occur within the proposed alternatives.

All six ditches are shown in Appendix 4. No standing water was observed in any of the ditches. Given that the plant species growing within the drainages are not plants that

typically occur in wetlands and that the ditches do not drain wetlands, it is unlikely that these storm water management structures would be considered “waters of the U.S.”

Habitat for Protected Species – According to DNER’s Natural Heritage program data bank, there are no sightings or records of protected species of plants or animals in the study site. Protected species, like sea turtles nest along some of the beaches in Aguadilla, according to the DNER database. Furthermore, the U.S. Fish and Wildlife Service doesn’t have any critical habitat designated within the airport and vicinity. Finally, the Environmental Sensitivity Index Map included in Appendix 6 does not show valuable resources in the project area.

As mentioned earlier, pastures dominate the landscape at the proposed site. This vegetative cover does not attract that many native species, especially when these areas are mowed regularly. With a few exceptions, most threatened and endangered plant and animal species on the island occur or depend on wooded habitats. The forest patch found in the eastern end of the airport and the abandoned buildings south of the project site could offer suitable habitat for the Puerto Rican boa (*Chilabothrus inornatus*). However, during a yearlong wildlife survey for the preparation of the Wildlife Hazard Assessment for the airport, not a single individual of the protected boa was sighted. Moreover, interviews with airport personnel did not indicate the presence of the species.

Literature cited

- Axelrod, F.S. A Systematic Vademecum to the Vascular Plants of Puerto Rico. BRIT Press.
- Acevedo-Rodríguez, P. 2003. Bejucos y Plantas Trepadoras de Puerto Rico e Islas Virgenes. Washington DC: Smithsonian Institution. 491 p.
- Ewel, J.S. and J. L. Whitmore. 1973 Ecological life zones of Puerto Rico and the U.S. Virgin Islands. USDA – Forest Serv. Res. Paper ITF-18. 72 p.
- Liogier, H.A. 1985. Descriptive Flora of Puerto Rico and Adjacent Islands, Vol 1. Río Piedras, PR: Editorial de la Universidad de Puerto Rico. 357 p.
- Liogier, H.A. 1988. Descriptive Flora of Puerto Rico and Adjacent Islands, Vol 2. Río Piedras, PR: Editorial de la Universidad de Puerto Rico. 481 p.
- Liogier, H.A. 1991. Descriptive Flora of Puerto Rico and Adjacent Islands, Vol 3. Río Piedras, PR: Editorial de la Universidad de Puerto Rico. 461 p.
- Liogier, H.A. 1995. Descriptive Flora of Puerto Rico and Adjacent Islands, Vol 4. Río Piedras, PR: Editorial de la Universidad de Puerto Rico. 617 p.
- Liogier, H.A. 1997. Descriptive Flora of Puerto Rico and Adjacent Islands, Vol 5. Río Piedras, PR: Editorial de la Universidad de Puerto Rico. 436 p.
- Liogier, H.A., and L.F. Martorell. 2000. Flora of Puerto Rico and Adjacent Islands: A Systematic Synopsis. San Juan, PR: Editorial de la Universidad de Puerto Rico. 382 p.
- Más, E.G. y García-Molinari, O. 2006. Guía Ilustrada de Yervas Comunes en Puerto Rico 2da edición. Mayagüez, PR: Universidad de Puerto Rico. 300 p.
- Rafael Hernández International Airport Wildlife Hazard Assessment. 2013. Fehér Environmental Consulting, Inc.
- Raffaele, H.A. 1989. Una Guía a las Aves de Puerto Rico y las Islas Virgenes. Princeton NJ: Princeton University Press. 274 p.
- Raffaele, H., Wiley, J., Garrido, O., Keith, A., Raffaele, J. 1998. A Guide to the Birds of the West Indies. Princeton, NJ: Princeton University Press. 511 p.
- Rivero, J.A. 1998. Los anfibios y reptiles de Puerto Rico. San Juan, P R: Editorial Universitaria. 510 p.

Literature cited (continued)

Schwartz, A., and R.W. Henderson. 1991. Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History, Gainesville, Fl: University Florida Press. 720 p.

United States Fish and Wildlife Service. 2012. Critical Habitat Designations for Puerto Rico and the U.S. Virgin Islands. 28 p.

<http://plants.usda.gov/>

<http://www.itis.usa.gov/>

<http://www.soils.usda.gov/>

Table 1. Flora**Scientific name****Shrubs and Trees**

Albizia lebbbeck (L.) Benth.
Albizia procera (Roxb.) Benth.
Bourreria virgata (Sw.) G. Don
Bursera simaruba (L.) Sarg.
Cestrum diurnum L.
Citharexylum fruticosum (L.)
Clusia rosea Jacq.
Cocos nucifera L.
Colubrina arborescens (Mill.) Sarg.
Comocladia glabra Spreng.
Cordia collococca L.
Croton flavens L.
Erythroxylum brevipes DC.
Ficus elastica Roxb ex Hornem.
Lantana involucrata L.
Leucaena leucocephala (Lam.) de Wit
Pithecellobium dulce (Roxb.) Benth.
Poitea florida (Vahl) Lavin
Randia aculeata L.
Roystonea borinquena O.F. Cook
Spathodea campanulata Beauv.
Terminalia catappa L.

Common name (E)

Woman's tongue
Tall albizia
Bodywood
Gumbo limbo

Florida fiddlewood
Scotch attorney
Coconut palm
Greenheart

Red manjack
Yellow balsam
Brisselet
Indiand rubberplant
Wild lantana
White lead tree
Monkeypod
Wattapama
Christmas tree
Royal palm
African tulip tree
Tropical almond

Common name (Sp.)

Lengua viperina
Albicia
Roble de guayo
Almácigo
Dama de día
Péndula
Cupey
Palma de coco
Abeyuelo
Carrasco
Cerezo
Adormidera
Jibá
Árbol de goma
Cariaquillo Santa María
Tamarindillo
Guamá americano
Retama
Tintillo
Palma real
Tulipán africano
Almendro

Family

FAB.-MIMOSOIDEAE
FAB.-MIMOSOIDEAE
BORAGINACEAE
BURSERACEAE
SOLANACEAE
VERBENACEAE
CLUSIACEAE
ARECACEAE
RHAMNACEAE
ANACARDIACEAE
BORAGINACEAE
EUPHORBIACEAE
ERYTHROXYLACEAE
MORACEAE
VERBENACEAE
FAB.-MIMOSOIDEAE
FAB.-MIMOSOIDEAE
FAB.-FABOIDEAE
RUBIACEAE
ARECACEAE
BIGNONIACEAE
COMBRETACEAE

Table 1. Flora (continued)

| <u>Scientific name</u> | <u>Common name (E)</u> | <u>Common name (Sp.)</u> | <u>Family</u> |
|--|-------------------------------|---------------------------------|----------------------|
| Herbaceous Plants | | | |
| <i>Alysicarpus vaginalis</i> (L.) DC. | White moneywort | Hierba de contrabando | FAB.-FABOIDEAE |
| <i>Abylgaardia ovata</i> (Burm. f.) | | | CYPERACEAE |
| <i>Bidens alba</i> (L.) DC. | | Margarita | CASTERACEAE |
| <i>Bothriochloa pertusa</i> (L.) Camus | Hurricane grass | Hierba huracán | POACEAE |
| <i>Commelina</i> sp. | | | COMMELINACEAE |
| <i>Cyanthillium cinereum</i> (L.) H. Rob. | Little ironweed | Rabo de buey | COMPOSITAE |
| <i>Cynodon nlemfuensis</i> Vanderyst | | Hierba de Estrella | POACEAE |
| <i>Cyperus odoratus</i> L. | | | CYPERACEAE |
| <i>Desmodium adscendens</i> (Sw) DC | | Zarabacoa galana | FAB.-PAPILIONOIDEAE |
| <i>Digitaria ciliaris</i> (Retz.) Koeler | Southern crabgrass | Pata de gallina | POACEAE |
| <i>Eupatorium odoratum</i> L. | Bitter bush | Santa María | COMPOSITAE |
| <i>Euphorbia hirta</i> L. | Pillpod sandmat | Lechecillo | EUPHORBIACEAE |
| <i>Euphorbia hypericifolia</i> | Graceful sandmat | Hierba niña | EUPHORBIACEAE |
| <i>Fimbristylis</i> sp. | | | CYPERACEAE |
| <i>Hymenocallis caribae</i> (L.) Herb. | White lily, spider lily | Lirio blanco | AMARYLLICACEAE |
| <i>Macroptilium lathyroides</i> (L.) Urban | Wild bush bean | Habichuela parada | LEG.-PAPILIONOIDEAE |
| <i>Megathyrsus maximus</i> (Jacq.) B. Simon & S.W.L. Jacobs | | Hierba de Guinea | POACEAE |
| <i>Paspalum notatum</i> Flügé | Bahia grass | Hierba bahía | POACEAE |
| <i>Phyla nodiflora</i> (L.) Greene | | Hierba de sapo | VERBENACEAE |
| <i>Sacoila lanceolata</i> (Aubl.) Garay | Orchid | Orquídea | ORCHIDACEAE |
| <i>Saccharum officinarum</i> L. | Sugar cane | Caña de azucar | POACEAE |
| <i>Setaria geniculata</i> (Lam.) Beauv. | Yellow foxtail | Arrocillo | POACEAE |
| <i>Sida</i> sp. | | | MALVACEAE |
| <i>Sphaegneticola trilobata</i> (L.) Pruski in Acevedo-Rodríguez | | Margarita del pasto | ASTERACEAE |
| <i>Spermacoce ocymifolia</i> Willd. Ex Roem. & Schult. | | Poaya | RUBIACEAE |
| <i>Spermacoce verticillata</i> L. | | Botón blanco | RUBIACEAE |
| <i>Spigelia anthelmia</i> L. | | Lombricera | LOGANIACEAE |
| <i>Sporobolus jacquemontii</i> Kunth | | Matojo de burro | POACEAE |

Table 1. Flora (continued)

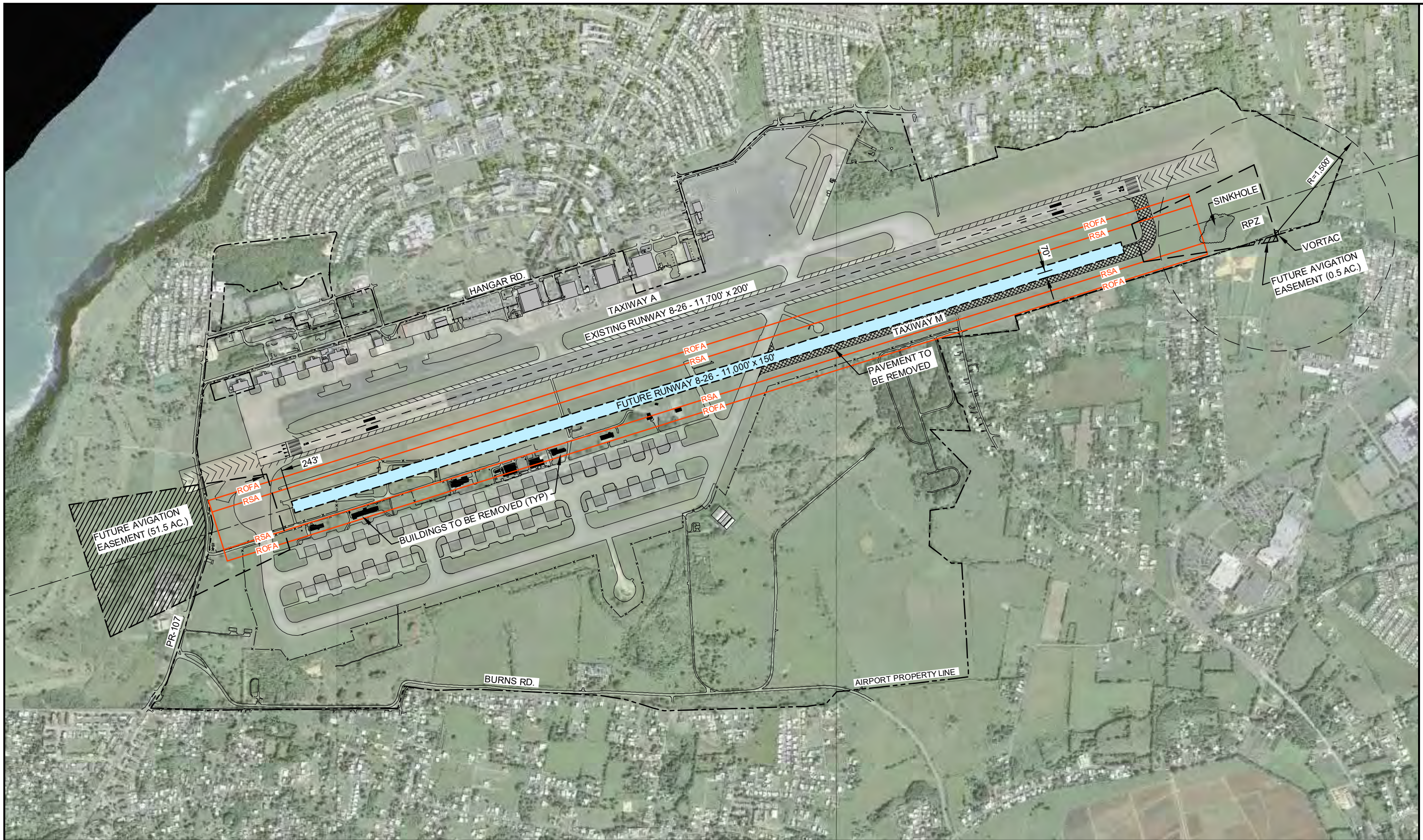
| <u>Scientific name</u> | <u>Common name (E)</u> | <u>Common name (Sp.)</u> | <u>Family</u> |
|---|-------------------------------|---------------------------------|----------------------|
| Herbaceous plants | | | |
| <i>Stenotaphrum secundatum</i> (Walt.) O. Kuntze | St. Augustine grass | Gramma dulce | POACEAE |
| <i>Tridax procumbens</i> L. | | Pancha | COMPOSITAE |
| Vines | | | |
| <i>Centrosema</i> sp. | | | |
| <i>Cissus verticillata</i> (L) Nicolson & C.E. Jarvis | Seasonvine | Bejuco de caro | VITACEAE |
| <i>Ipomoea tiliacea</i> (Willd.) Choisy ex DC. | | Bejuco de puerco | CONVOLVULACEAE |
| <i>Merremia dissecta</i> (Jacq.) Hallier f. | | Noyó | CONVOLVULACEAE |
| <i>Merremia quinquefolia</i> (L) Hallier f. | | Batatilla blanca | CONVOLVULACEAE |
| <i>Mikania</i> sp. | | | COMPOSITAE |
| <i>Stigmaphyllon floribundum</i> (DC.) C.E. Anderson | | Bejuco de toro | MALPIGHIACEAE |

Table 2. Fauna

| <u>Scientific name</u> | <u>Common name (Eng.)</u> | <u>Common name (Sp.)</u> | <u>Family</u> |
|--------------------------------------|----------------------------------|---------------------------------|----------------------|
| Birds | | | |
| <i>Ardea alba</i> | Great Egret | Garza real | ARDEIDAE |
| <i>Bubulcus ibis</i> | Cattle Egret | Garza ganadera | ARDEIDAE |
| <i>Buteo jamaicensis</i> | Red-tailed hawk | Guaragao | ACCIPITIDAE |
| <i>Charadrius vociferus</i> | Killdeer | Playero sabanero | CHARADRIIDAE |
| <i>Coereba flaveola</i> | Bananaquit | Reinita común | EMBERIZIDAE |
| <i>Columba livia</i> | Rock Dove | Paloma casera | COLUMBIDAE |
| <i>Columba passerina</i> | Comon ground-Dove | Rolita | COLUMBIDAE |
| <i>Crotophaga ani</i> | Smooth-billed Ani | Judío | CUCULIDAE |
| <i>Mimus polyglottos</i> | Northern Mockingbird | Ruiseñor | MIMIDAE |
| <i>Quiscalus niger</i> | Greater Antillean Grackle | Chango | EMBERIZIDAE |
| <i>Passer domesticus</i> | House Sparrow | Gorrión ingles | PASSERIDAE |
| <i>Tyrannus dominicensis</i> | Gray kingbird | Pitirre | TYRANNIDAE |
| <i>Zenaida asiatica</i> | White-winged Dove | Tortola aliblanca | COLUMBIDAE |
| <i>Zenaida aurita</i> | Zenaida Dove | Tortola cardosantera | COLUMBIDAE |
| Reptiles | | | |
| <i>Anolis cristatellus</i> | Common anole | Lagartijo común | POLYCHROTIDAE |
| <i>Anolis pulchellus</i> | Puerto Rican bush anole | Lagartijo jardinero | POLYCHROTIDAE |
| <i>Ameiva exsul</i> | Common P.R. ameiva | Siguana común | TEIIDAE |
| <i>Iguana iguana</i> | Green iguana | Gallina de palo | IGUANIDAE |
| <i>Sphaerodactylus macrolepis</i> | Common ground gecko | Salamanquita común | GEKKONIDAE |
| Ampibians | | | |
| <i>Bufo marinus</i> | Cane toad | Sapo marino | BUFONIDAE |
| <i>Eleutherodactylus antillensis</i> | Antillean coqui | Coquí churí | LEPTODACTYLIDAE |
| <i>Eleutherodactylus brittoni</i> | Grass coqui | Coquí de las hierbas | LEPTODACTYLIDAE |
| <i>Eleutherodactylus coqui</i> | Common coqui | Coquí común | LEPTODACTYLIDAE |

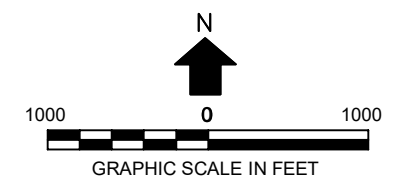
Appendix 1 – Proposed Alternatives.

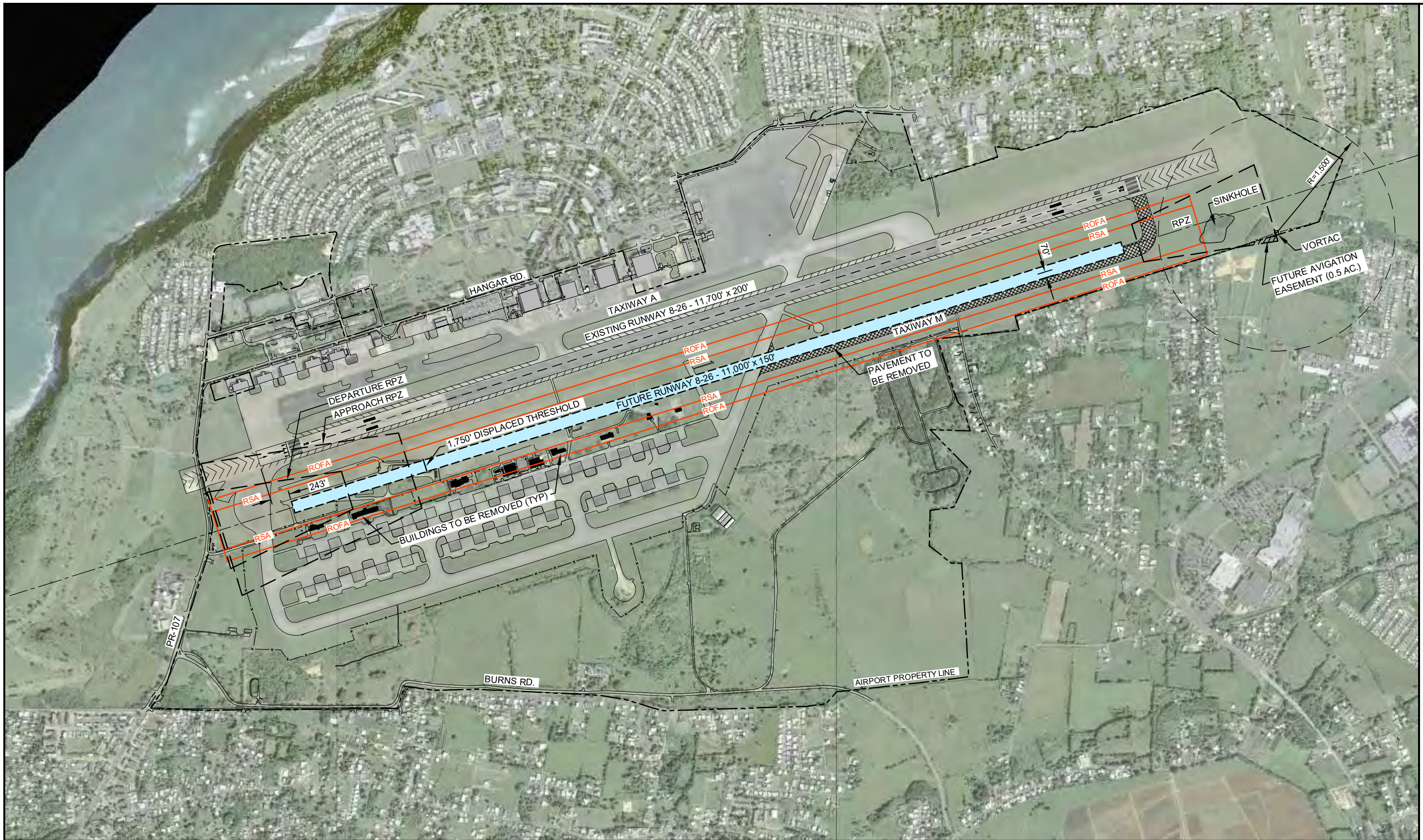
This page intentionally left blank.



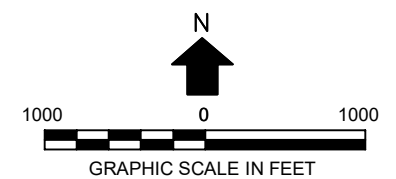
ALTERNATIVE 1A

FIGURE
 2.1-1



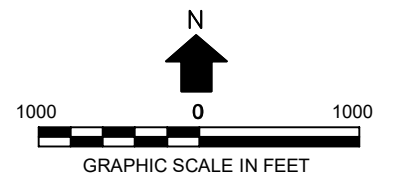
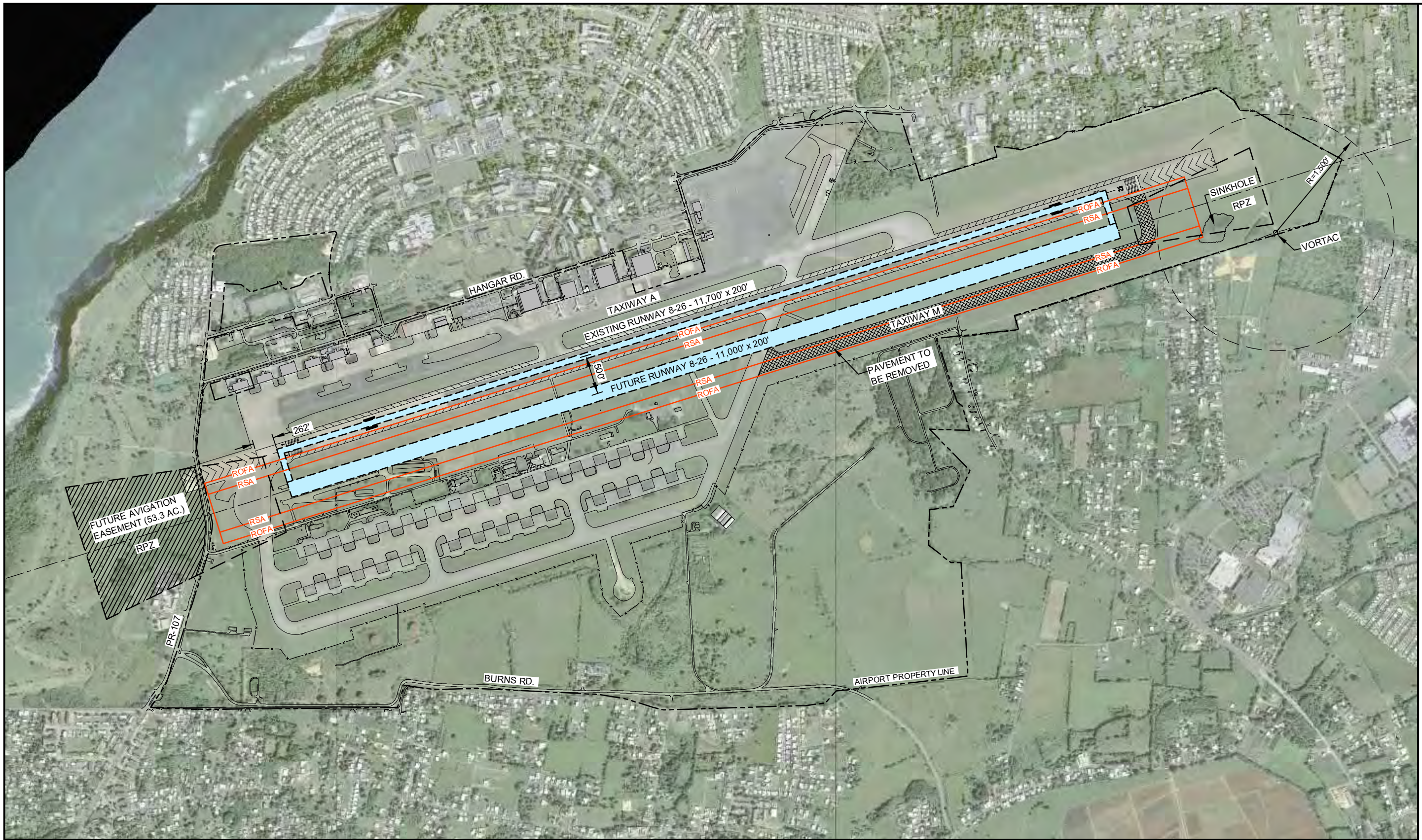


| DECLARED DISTANCES | | | | |
|--------------------|---------|---------|---------|---------|
| RUNWAY | TORA | TODA | ASDA | LDA |
| 8 | 11,000' | 11,000' | 11,000' | 9,250' |
| 26 | 10,085' | 11,000' | 11,000' | 11,000' |



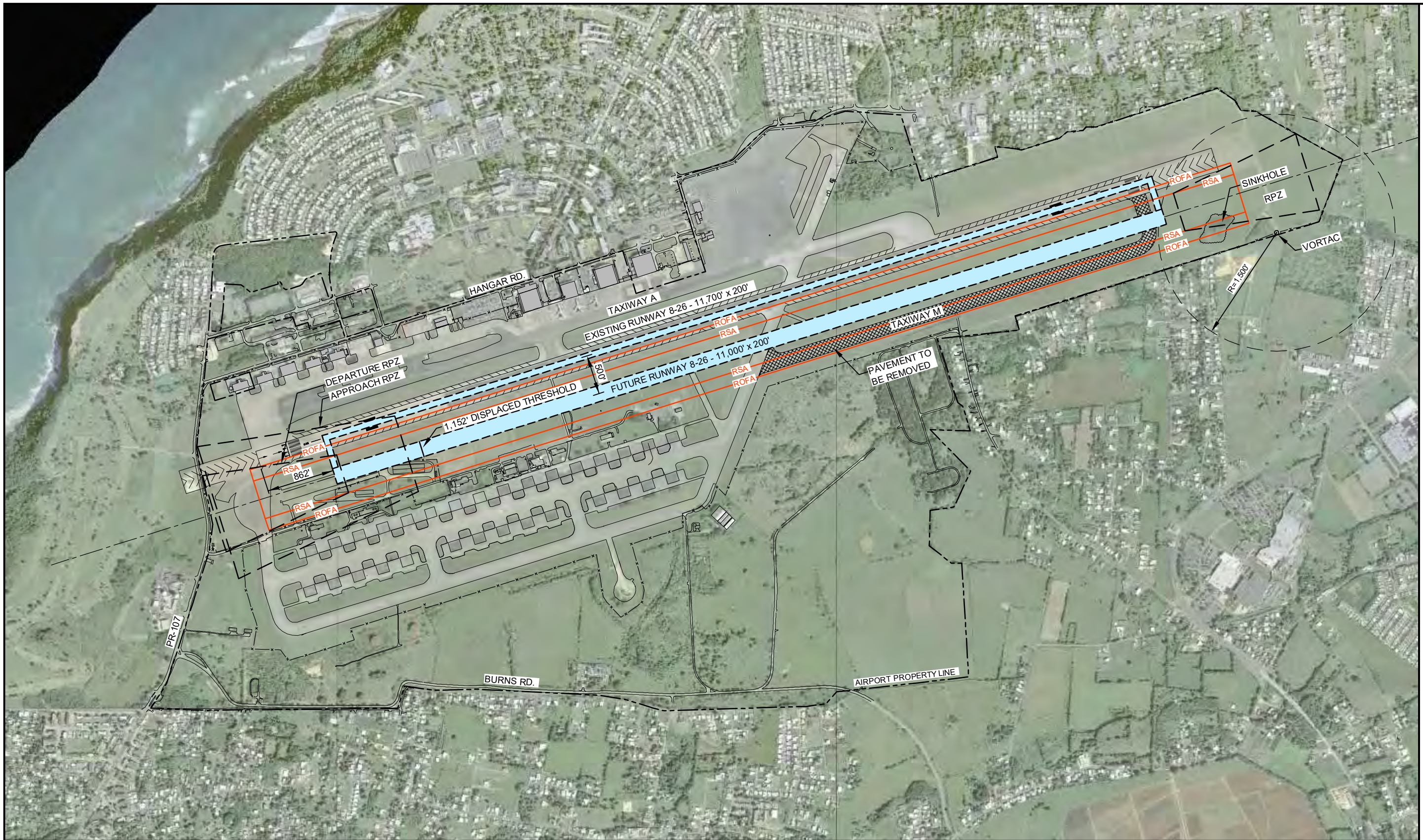
ALTERNATIVE 1B

FIGURE 2.3-1

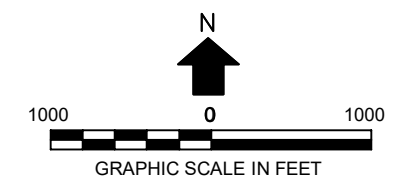


ALTERNATIVE 2A

FIGURE 2.3-2

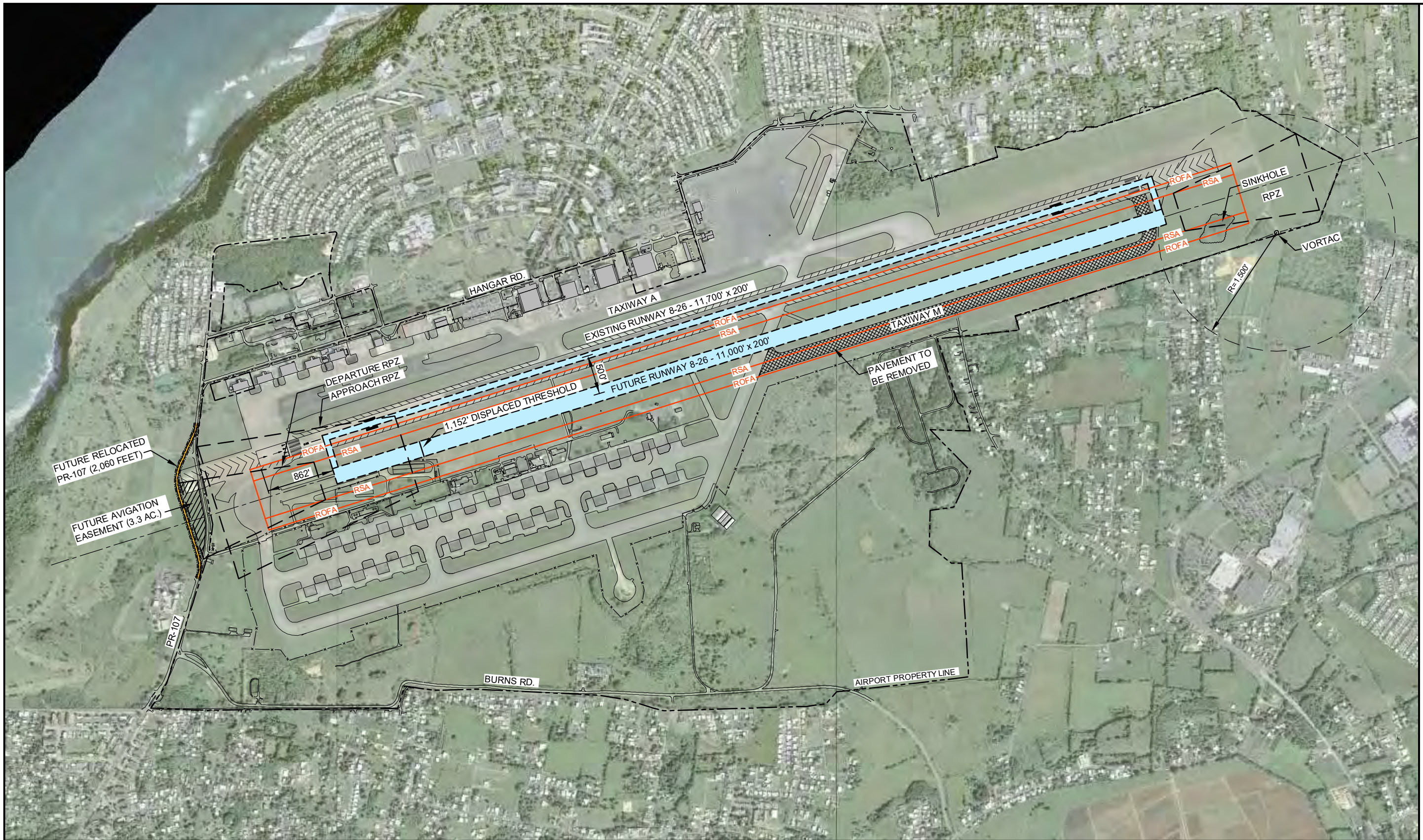


| DECLARED DISTANCES | | | | |
|--------------------|---------|---------|---------|---------|
| RUNWAY | TORA | TODA | ASDA | LDA |
| 8 | 11,000' | 11,000' | 11,000' | 9,848' |
| 26 | 10,697' | 11,000' | 11,000' | 11,000' |

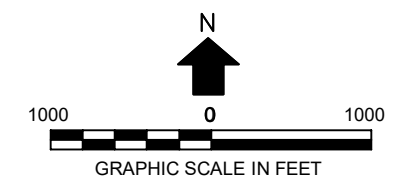


ALTERNATIVE 2B

FIGURE 2.3-3

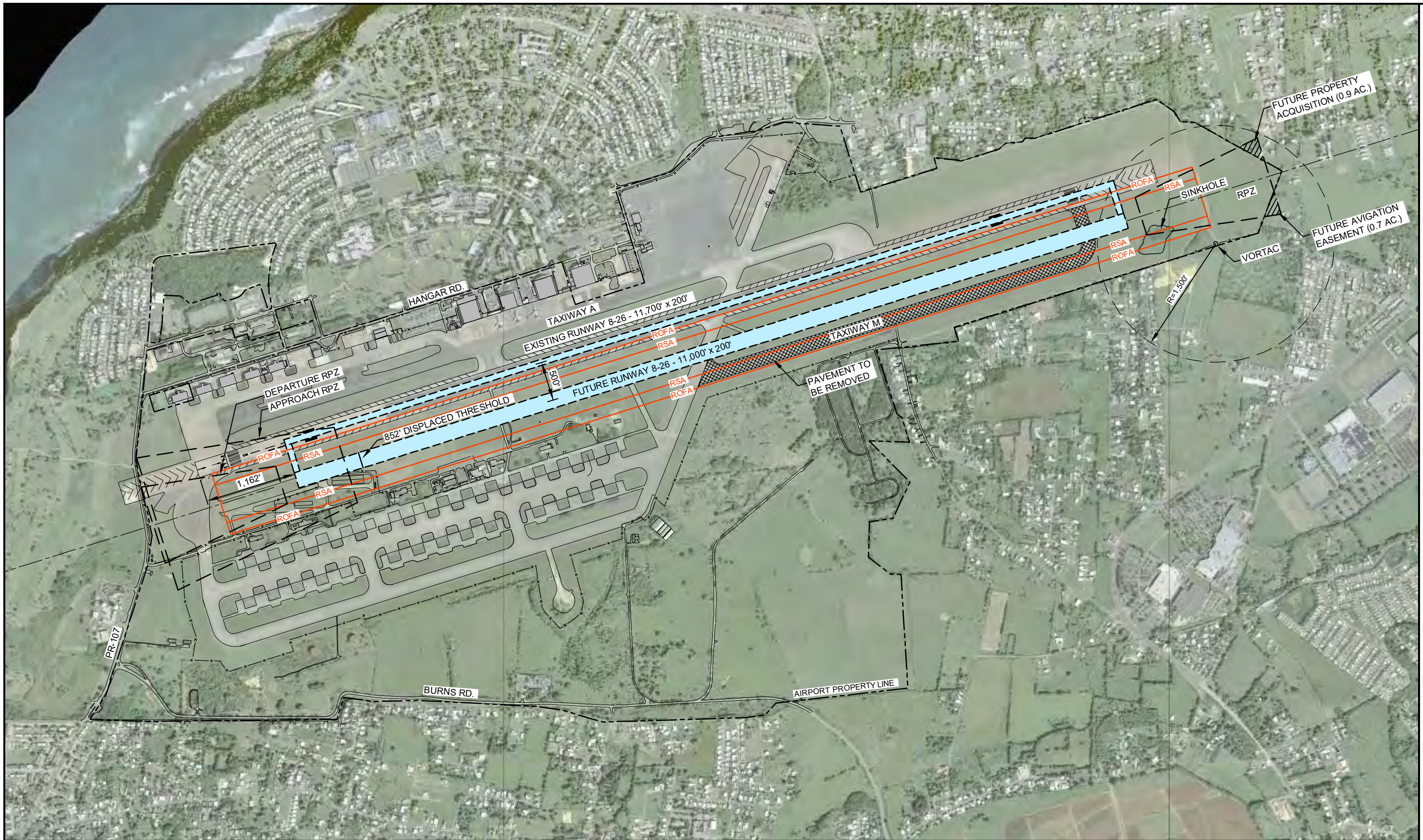


| DECLARED DISTANCES | | | | |
|--------------------|---------|---------|---------|---------|
| RUNWAY | TORA | TODA | ASDA | LDA |
| 8 | 11,000' | 11,000' | 11,000' | 9,848' |
| 26 | 11,000' | 11,000' | 11,000' | 11,000' |

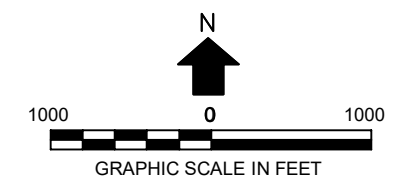


ALTERNATIVE 2C

FIGURE 2.3-4



| DECLARED DISTANCES | | | | |
|--------------------|---------|---------|---------|---------|
| RUNWAY | TORA | TODA | ASDA | LDA |
| 8 | 11,000' | 11,000' | 11,000' | 10,148' |
| 26 | 11,000' | 11,000' | 11,000' | 11,000' |



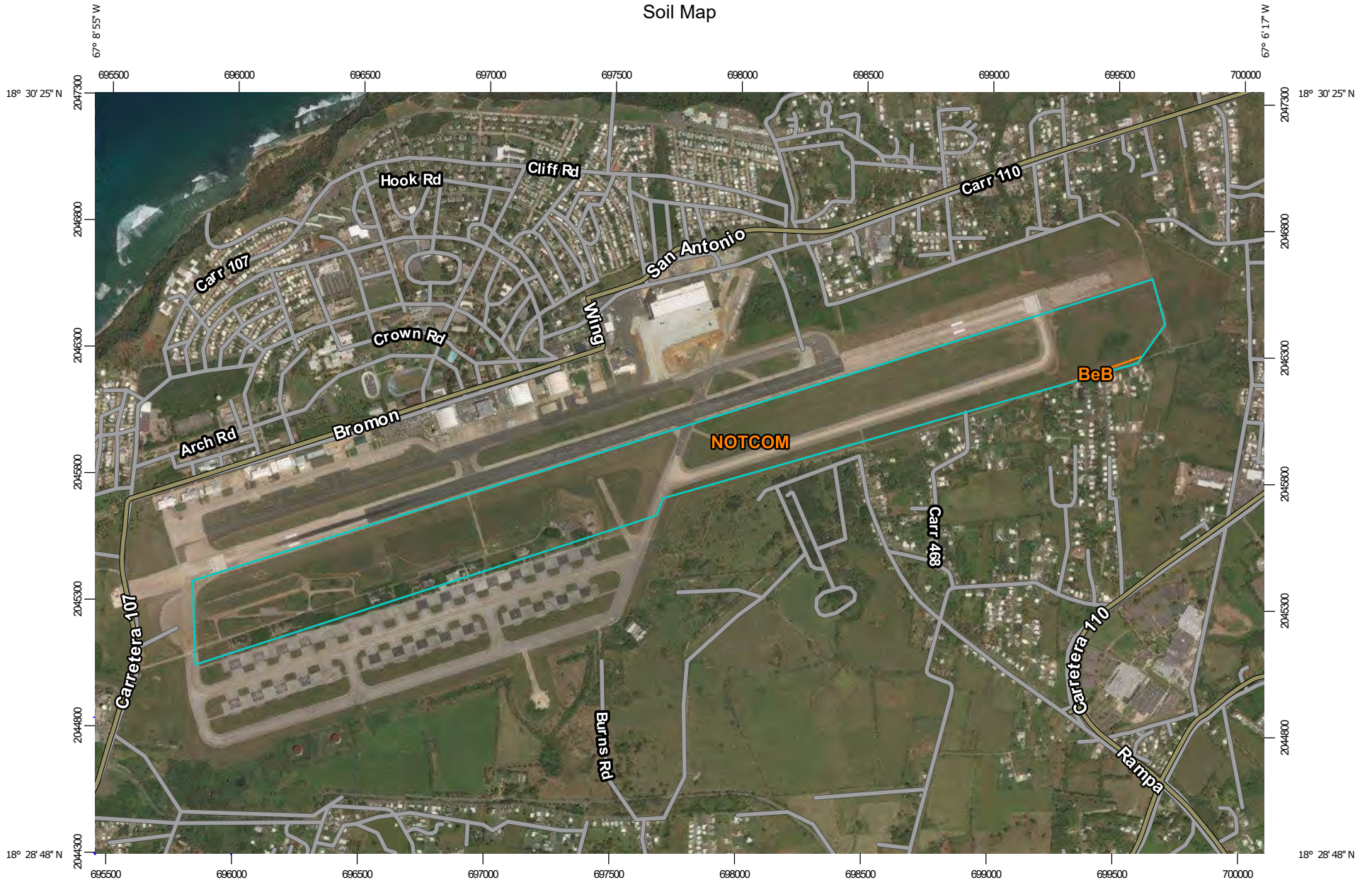
ALTERNATIVE 2D

FIGURE 2.3-5

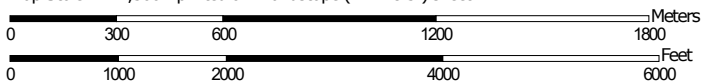
Appendix 2 – Soils.

This page intentionally left blank.

Custom Soil Resource Report Soil Map



Map Scale: 1:21,300 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



This page intentionally left blank.

Appendix 3 – NWI Map.

This page intentionally left blank.



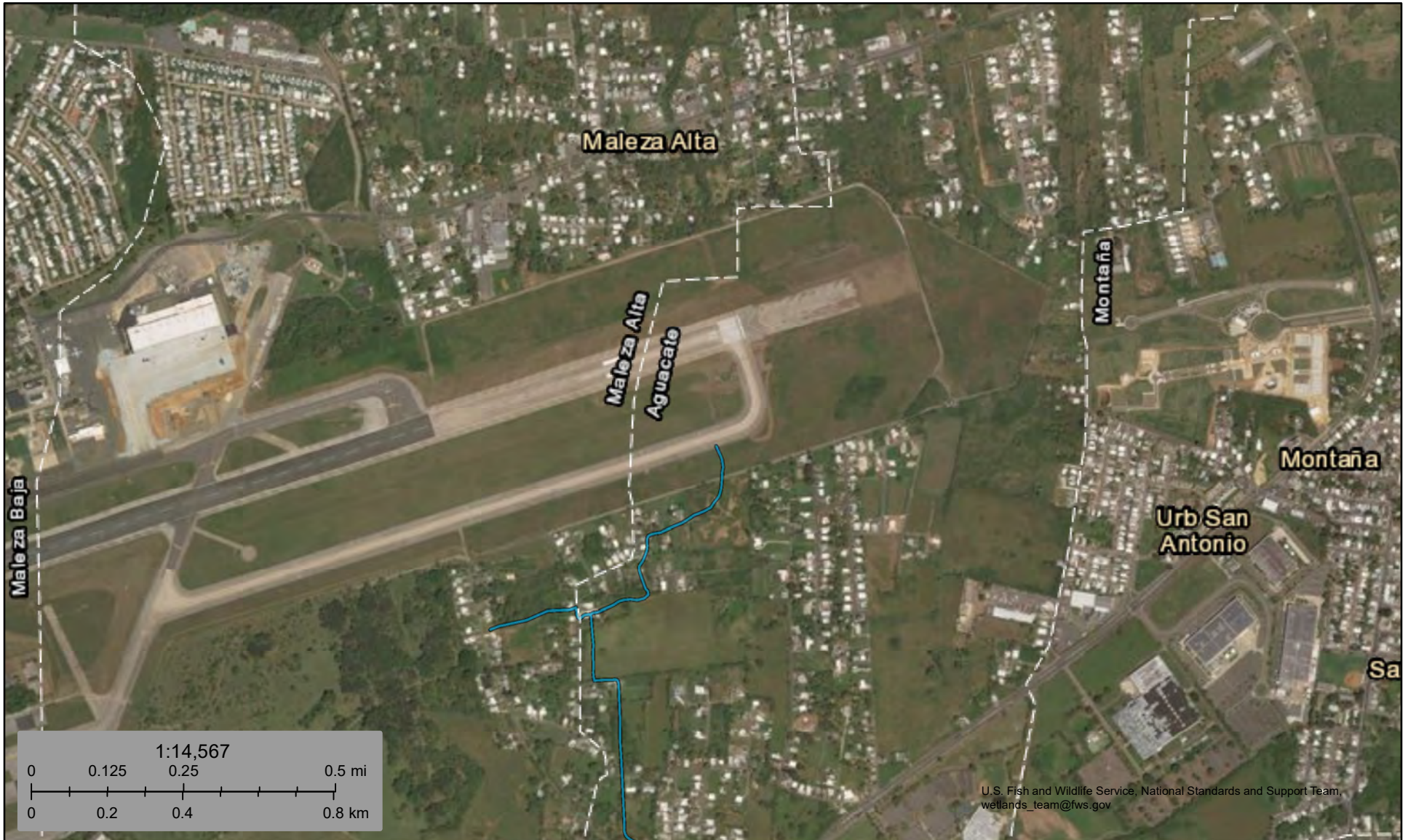
U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

June 11, 2018

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

June 11, 2018

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Appendix 4 – Drainages Map.

This page intentionally left blank.

Drainage Map

Legend

Drainage



Maleza Alta

Maleza Baja

This page intentionally left blank.

Appendix 5 – Field photos

This page intentionally left blank.



Figure 1. Dominant vegetation cover.



Figure 2. Buildings south of perimeter fence.



Figure 3. Forest patch on the right side of photograph.



Figure 4. Drainage.



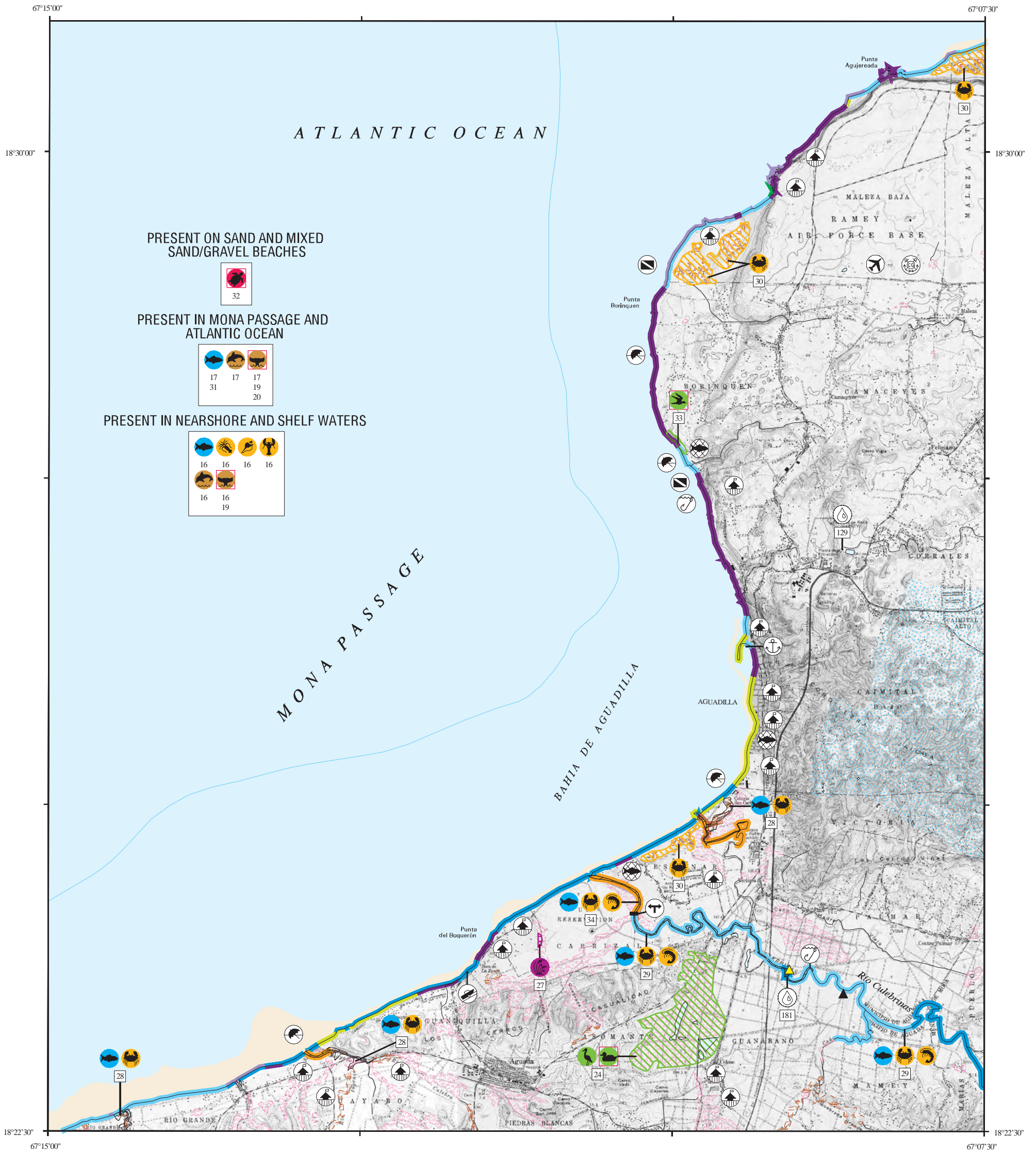
Figure 5. Hay harvester working outside perimeter fence.

This page intentionally left blank.

Appendix 6 – ESI Map

This page intentionally left blank.

ENVIRONMENTAL SENSITIVITY INDEX MAP



PRESENT ON SAND AND MIXED SAND/GRAVEL BEACHES



32

PRESENT IN MONA PASSAGE AND ATLANTIC OCEAN



17

17

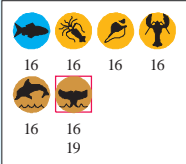
17

31

19

20

PRESENT IN NEARSHORE AND SHELF WATERS



16

16

16

16

16

16

19

MONA PASSAGE

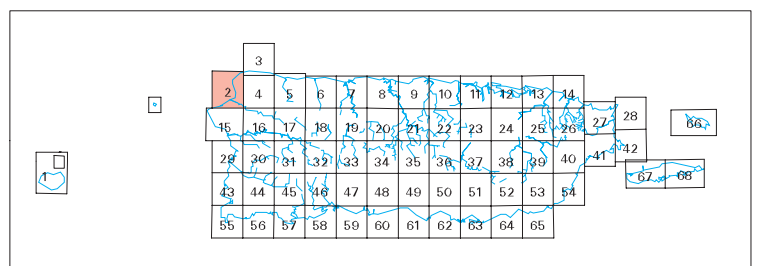
BAHIA DE AGUADILLA

SHORELINE HABITATS (ESI)

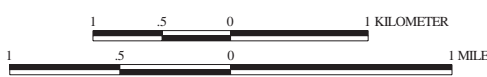
- 1A EXPOSED ROCKY CLIFFS
- 1B EXPOSED, SOLID MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK
- 2B SCARPS AND STEEP SLOPES IN MUDDY SEDIMENTS
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED VEGETATED LOW BANKS
- 10D MANGROVES
- SALT- AND BRACKISH-WATER MARSHES
- FRESHWATER MARSHES
- FRESHWATER SWAMPS
- FRESHWATER SCRUB/SHRUB

STREAM REACHES (RSI)

- 1 QUIET POOL; LOW-SENSITIVE BANKS
- 2 STRAIGHT CHANNEL WITH CURRENTS; LOW-SENSITIVE BANKS (MUD DOMINANT)
- 3 MEANDERING CHANNEL; SAND POINT BARS
- 4 MEANDERING CHANNEL; VEGETATED POINT BARS
- 5 RAPIDS OVER BEDROCK
- 6 MEANDERING CHANNEL; SAND AND GRAVEL POINT BARS
- 7 SPLIT CHANNEL WITH COARSE GRAVEL; SOME RAPIDS
- 8 SMALL FALLS; BOULDERS IN CHANNEL
- 9 LARGE FALLS; BOULDERS IN CHANNEL
- 10 CHANNELS WITH ASSOCIATED VULNERABLE WETLANDS
- KARST



SCALE 1:55000



Not For Navigation
Published: May 2000

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division

AGUADILLA, P.R. (1960) PR-2

PUERTO RICO - ESIMAP 2

BIOLOGICAL RESOURCES:

BIRD:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Nesting |
|------|----------------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| 24 | American coot | | | LOW | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | Caribbean coot | S | T | LOW | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | Common moorhen | | | LOW | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | Masked duck | S | T | LOW | X | X | X | X | X | X | X | X | X | X | X | X | MAY-AUG |
| | Pied-billed grebe | | | LOW | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | Purple gallinule | | | LOW | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | Ruddy duck | S | T | LOW | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | Wading birds | | | LOW | X | X | X | X | X | X | X | X | X | X | X | X | - |
| | West Indian whistling-duck | S | T | LOW | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC |
| 33 | Brown pelican | S/F | E/E | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC |

FISH:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs | Larvae | Juveniles | Adults | |
|------|--------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|--|
| 16 | Pelagic fish | | | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | |
| | Reef fish | | | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | |
| 17 | Pelagic fish | | | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | |
| 28 | Nursery fish | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | - | |
| | Snook | | | | X | X | X | X | X | X | X | X | X | X | X | X | APR-FEB | APR-FEB | JAN-DEC | JAN-DEC | JAN-DEC | |
| | Tarpon | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | MAY-DEC | JAN-DEC | JAN-DEC | |
| 29 | Native stream fish | | | | X | X | X | X | X | X | X | X | X | X | X | X | APR-MAY | APR-MAY | APR-MAY | JAN-DEC | JAN-DEC | |
| | | | | | | | | | | | | | | | | | AUG-NOV | AUG-NOV | AUG-NOV | | | |
| 31 | Blue marlin | | | HIGH | | | | | X | X | X | X | X | X | X | X | MAY-NOV | MAY-NOV | MAY-NOV | - | MAY-NOV | |
| 34 | Native stream fish | | | | | | | X | X | | X | X | X | X | | - | - | APR-MAY | - | - | | |
| | | | | | | | | | | | | | | | | | AUG-NOV | AUG-NOV | AUG-NOV | | | |
| | Nursery fish | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | - | |
| | Snook | | | | X | X | X | X | X | X | X | X | X | X | X | X | APR-FEB | APR-FEB | JAN-DEC | JAN-DEC | JAN-DEC | |
| | Tarpon | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | MAY-DEC | JAN-DEC | JAN-DEC | |

PLANT:

| RAR# | Species | S/F | T/E | Conc | J | F | M | A | M | J | J | A | S | O | N | D |
|------|-------------------|-----|-----|------|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | Pterocarpus swamp | | | | X | X | X | X | X | X | X | X | X | X | X | X |

INVERTEBRATE:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|-------------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|
| 16 | Caribbean spiny lobster | | | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC |
| | Octopus | | | | X | X | X | X | X | X | X | X | X | X | X | X | DEC-MAR | DEC-APR | - | JAN-DEC | JAN-DEC |
| | Queen conch | | | | X | X | X | X | X | X | X | X | X | X | X | X | APR-OCT | APR-OCT | APR-OCT | JAN-DEC | JAN-DEC |
| 28 | Blue land crab | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-AUG | JUL-SEP | JAN-DEC | JAN-DEC |
| 29 | Freshwater crab | | | | X | X | X | X | X | X | X | X | X | X | X | X | APR-MAY | APR-MAY | - | JAN-DEC | JAN-DEC |
| | | | | | | | | | | | | | | | | | AUG-NOV | AUG-NOV | AUG-NOV | | |
| | Native stream shrimp | | | | X | X | X | X | X | X | X | X | X | X | X | X | APR-MAY | APR-MAY | APR-MAY | JAN-DEC | JAN-DEC |
| | | | | | | | | | | | | | | | | | AUG-NOV | AUG-NOV | AUG-NOV | | |
| 30 | Blue land crab | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-AUG | JUL-SEP | JAN-DEC | JAN-DEC |
| 34 | Blue land crab | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-AUG | JUL-SEP | JAN-DEC | JAN-DEC |
| | Native stream shrimp | | | | | | X | X | | X | X | X | X | | - | - | APR-MAY | - | - | | |
| | | | | | | | | | | | | | | | | | AUG-NOV | AUG-NOV | AUG-NOV | | |

MARINE MAMMAL:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Mating | Calving |
|------|----------------|-----|-----|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---------|---------|
| 16 | Dolphins | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - |
| | Whales | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - |
| 17 | Dolphins | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - |
| | Whales | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - |
| 19 | Humpback whale | S/F | E/E | VERY HIGH | X | X | X | X | | | | | X | X | X | X | NOV-MAY | NOV-MAY |
| 20 | Sperm whale | S/F | E/E | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | - | - |

REPTILE:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Nesting | Hatching | Internesting | Juveniles | Adults |
|------|------------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|---------|----------|--------------|-----------|---------|
| 32 | Green sea turtle | S/F | E/T | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC | JAN-DEC | - | JAN-DEC | JAN-DEC |
| | Hawksbill sea turtle | S/F | E/E | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-DEC | JAN-DEC | - | JAN-DEC | JAN-DEC |
| | Leatherback sea turtle | S/F | E/E | | X | X | X | X | X | X | X | X | X | X | X | X | FEB-JUN | APR-SEP | - | APR-SEP | FEB-JUN |

HUMAN USE RESOURCES:

WATER INTAKE:

| HUN# | Name | Owner/Manager | Location | Phone |
|------|----------------------------------|---------------|----------------|--------------|
| 129 | AGUADILLA FILTER PLANT | PRASA | PR 459, KM 0.3 | 787/891-0520 |
| 181 | CULEBRINAS DRINKING WATER INTAKE | | | |

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

APPENDIX C
Agency Coordination

This page intentionally left blank.

APPENDIX C.1
**Early Agency Coordination and Scoping
Comments**

This page intentionally left blank.

FEDERAL AGENCIES

Federal Emergency Management Agency Caribbean Division

Attn: Delyris Aquino-Santiago
P.O. Box 70105
San Juan, PR 00936-8105

National Oceanic and Atmospheric Administration NOAA/Fisheries Southeast Regional Office

Attn: Bill Arnold, Branch Leader
263 13th Avenue South
St. Petersburg, FL 33701

U.S. Army Corps of Engineers Antilles Area Office

Attn: Eng. Sindulfo Castillo, Director, Environmental Permits
Annex Building, Fundacion Angel Ramos
383 Franklin Delano Roosevelt Ave, Suite 202
San Juan, PR 00918

U.S. Department of Transportation Federal Highway Administration Puerto Rico and US Virgin Islands Division Office

Attn: Mr. James Christian
350 Carlos Chardon Ave, Suite 210
San Juan PR 00918-2161

U.S. Environmental Protection Agency Region 2 Caribbean Environmental Protection Division

Attn: Ms. Brenda Reyes – NEPA Coordinator
City View Plaza II - Suite 7000
#48 Rd 165, km 1.2
Guaynabo, PR 00968-8069

U.S. Fish & Wildlife Service Caribbean Ecological Field Office

Attn: Mr. Edwin Muñiz
P.O. Box 491
Boqueron, PR 00622

STATE AGENCIES

Puerto Rico Aqueduct and Sewer Authority

Attn: Mr. Eli Díaz Atienza, Esq.
P.O. Box 7066
San Juan, PR 00916-7066

**Puerto Rico Department of Agriculture
Mayagüez Region**

Attn: Agro. Julio Colón Pérez
P.O. Box 10163
Santurce, PR 00909

Puerto Rico Department of Economic Development and Commerce

Attn: Mr. Manuel Laboy, Esq.
P.O. Box 362350
San Juan, PR 00936-2350

Puerto Rico Department of Health

Attn: Mr. Rafael Rodríguez Mercado MD
P.O. Box 70184
San Juan, PR 00936-0184

**Puerto Rico Department of Natural and Environmental Resources
Aguadilla Regional Office**

Attn: Mr. Antonio Pérez Muñiz
P.O. Box 366147, Puerta de Tierra Station
San Juan, PR 00936

**Puerto Rico Department of Natural and Environmental Resources
Coastal Zone Management Program**

Attn: Mr. Ernesto Díaz
P.O. Box 366147, Puerta de Tierra Station
San Juan, PR 00936

**Puerto Rico Department of Transportation and Public Works
Aguadilla Region**

Attn: Ing. Pedro A. Vázquez Sánchez
P.O. Box 41269, Minillas Station
San Juan, PR 00940-1269

Puerto Rico Electric Power Authority

Attn: Mr. Walter Higgins
P.O. Box 364267
San Juan, PR 00936-4267

**Puerto Rico Environmental Quality Board
Mayagüez Region**

Attn: Mr. José Alvarado
828 Ave. Hostos, Suite 201
Mayagüez, PR 00682-1536

Puerto Rico Permits Management Office (OGPe)

Attn: Eng. Ian Carlos Serna
P.O. Box 41179
San Juan, PR 00940-1179

Puerto Rico State Historic Preservation Office

Attn: Ms. Marines Colon Gonzalez

P.O. Box 9023935

San Juan, PR 00902-3935

Puerto Rico Planning Board

Federal Proposals Review Office

Attn: Ms. Maria Gordillo, Chairwoman

P.O. Box 41119

San Juan, PR 00940-1119

Puerto Rico Tourism Company

Attn: Mr. Carlos Campos Vidal, Esq.

P.O. Box 9023960

San Juan, PR 00902-3960

LOCAL AGENCIES

Municipality of Aguadilla

Attn: Mr. Carlos Méndez Martínez, Mayor

P.O. Box 1008

Aguadilla, PR 00605-1008

This page intentionally left blank.

Memorandum

| | | | |
|---------|---|------|---|
| To | Felicia Reeves (FAA); Romel Pedraza (PRPA) | Page | 1 |
| CC | Aimee McCormick (FAA); Anthony Vazquez (FAA); Ivelisse Lorenzo (PRPA); Milagros Rodriguez (PRPA); Reinaldo Vazquez (PRPA); Victor Morales (AECOM); Joe Rodriguez (AECOM); Adelis Caban (Marlin) | | |
| Subject | Rafael Hernandez Airport Runway 8-26 Environmental Assessment Agency Scoping Comment Summary | | |
| From | Paul Sanford, AECOM | | |
| Date | 22 August 2018 | | |

An early agency scoping meeting was held by FAA and PRPA for the above-referenced EA at BQN on 01 Aug 2018, subsequent to the FAA issuing early scoping notification letters and project information to interested agencies, and soliciting comments by 20 Aug 2018. A variety of federal, state and local agency representatives attended this meeting either telephonically or in person (see **TAB1** for sign-in sheet), where the PRPA and AECOM briefed the attendees on the project, alternatives and EA process.

As a result of this process, comments were received either by email or by written correspondence from the following federal, state and local agencies:

- City of Aguadilla
- Puerto Rico Department of Planning and Environmental Resources
- Puerto Rico Electric Power Authority
- Puerto Rico Planning Board
- Puerto Rico Tourism Company
- U.S. Fish and Wildlife Service

Attached herewith is a summary of agency comments received during the early scoping process (**TAB2**), along with reference copies of the communications received (**TAB3**). AECOM has developed proposed responses to these comments for FAA and PRPA consideration (**TAB2**).

Each received communication was reviewed and evaluated by AECOM for relevant comments to consider during the EA development process. Comments were coded and entered into a comment/response database for inclusion in the EA and administrative record. The database will be updated and amended throughout the EA process with additional public and agency comment information as it is received.

For reference, the comment coding system is described in the following narrative.

Memorandum

Comment Letter Coding

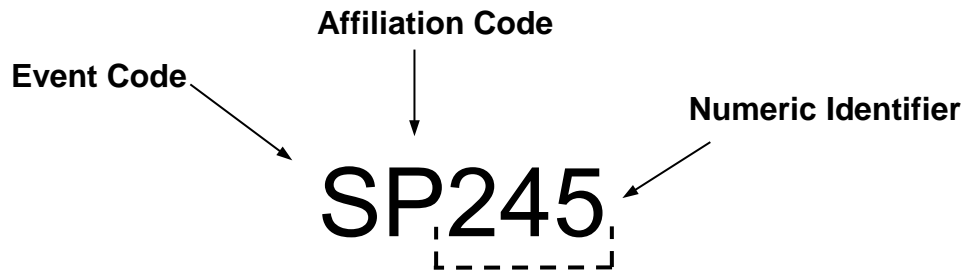
The database index identifies the name of each party that provided comments and assigns a unique Identifier Code to each comment letter. The Identifier Code consists of five alphanumeric characters that represent three fields of information. The first character serves as an “Event Code,” which describes the study phase in which the comment was submitted. There are two primary Event Codes used for the EA:

- S = Comment received during the EA Scoping process
- D = Comments received during the Draft EA public/agency review period

The second character represents the “Affiliation Code” that places the commenting party into one of five categories:

- F = Comment from a Federal agency or Native American Indian tribe
- S = Comment from a State or Regional agency
- L = Comment from a Local agency or an Elected Official
- P = Comment from the general Public
- N = Comment by Petition

The last three characters identify the specific comment letter numerically. For example, Identifier Code “**SP245**” describes the comment letter as being submitted during the **Scoping** process by a member of the **public**, and being the **245**th letter/form received from that category of respondent.



Within each comment letter, Comment Codes are used to identify and organize summarized comments and the responses applicable to that particular submittal. The summarized comments and responses are organized into 28 categories listed below. For example, Comment Code “**1-15**” describes the comment was made in regard to the purpose of and need for the Proposed Project and the particular was the 15th comment recorded under that category.

| <u>Category Number</u> | <u>Description</u> |
|------------------------|----------------------|
| 1 | Purpose and Need |
| 2 | Alternatives |
| 3 | Air Quality |
| 4 | Biological Resources |
| 5 | Climate |

Memorandum

| | |
|----|---|
| 6 | Coastal Resources |
| 7 | DOT Section 4(f) |
| 8 | Farmlands |
| 9 | Hazardous Materials, Pollution Prevention and Solid Waste |
| 10 | Historical, Architectural, Archaeological and Cultural Resources |
| 11 | Land Use |
| 12 | Natural Resources and Energy Supply |
| 13 | Noise and Noise Compatible Land Use |
| 14 | Socioeconomics, Environmental Justice, Children's Health and Safety Risks |
| 15 | Light Emissions and Visual Effects |
| 16 | Wetlands |
| 17 | Floodplains |
| 18 | Surface/Groundwater Resources |
| 19 | Wild and Scenic Rivers |
| 20 | Quality of Life |
| 21 | Safety |
| 22 | Cost Considerations |
| 23 | Other Considerations |
| 24 | Cumulative Impacts |
| 25 | Mitigation Measures |
| 26 | Coordination and Public Involvement |
| 27 | In Support of the Project |
| 28 | In Opposition to the Project |

This page intentionally left blank.

TAB 1
MEETING SIGN IN SHEET

This page intentionally left blank.



ATTENDANCE SHEET
INTERAGENCIAL MEETING RUNWAY 8-26 RECONSTRUCTION
TRAINING ROOM ARFF, BQN AIRPORT
DATE: August 1st, 2018 – TIME: 10:00 A.M.
TRAINING ROOM ARFF, BQN AIRPORT

| NAME | POSITION | COMPANY | PHONE NO. | EMAIL | SIGN |
|---|--------------------------------------|----------------|----------------------|------------------------------------|------|
| 1. Antonio Pérez Muñiz | | | | | |
| 2. Bill Arnold | | | | | |
| 3. Brenda Reyes Jose Soto | Env. Scientist | USEPA | 787-977-5829 | jtras soto.jose@epa.gov | |
| 4. Carla Campos Vidal | | | | | |
| 5. Carlos A. Rubio Cancela | | | | | |
| 6. Carlos Méndez Martínez | PLAN. MANUEL HIDALGO DIRECTOR | AGUADILLA CITY | (787) 891-1005 x2096 | mhidalgo@aguadilla.city | |
| 7. Delyris Aquino-Santiago | | | | | |
| 8. Edwin Muñiz | | | | | |
| 9. Eli Díaz Atienza | | | | | |
| 10. Ernesto Díaz | | | | | |
| 11. Héctor Rodríguez Jaime Green | Director DECA O&P | O&P | 787-614-8399 | jaimegreen@ogpe.pr.gov | |
| 12. Ivelisse Lorenzo Torres | Env. Insp. | PRPA | 724-8715#3231 | ilorenzo@prpa.pr.gov | |
| 13. James Christian | | | | | |
| 14. José Alvarado | | | | | |
| ✓ 15. José A. Riollano Irizarry | Airport Management Director P.R.P.A. | P.R.P.A. | 787-375-6330 | JA.Riollano@prpa-pr.gov | |
| 16. José Rodríguez | Principal Planning | AECOM | 723-3332 | jose.s.rodriguez@aecom | |

ATTENDANCE SHEET

INTERAGENCIAL MEETING RUNWAY 8-26 RECONSTRUCTION

TRAINING ROOM ARFF, BQN AIRPORT

DATE: August 1st, 2018 - TIME: 10:00 A.M.

TRAINING ROOM ARFF, BQN AIRPORT

| NAME | POSITION | COMPANY | PHONE NO. | EMAIL | SIGN |
|-------------------------------|-------------------------------|---------------------|------------------------------|--------------------------------|-------------------------|
| 17. Julio Colón Pérez | | | | | |
| 18. Manuel Laboy | | | | | |
| 19. María Gordillo | | | | | |
| 20. Milagros Rodríguez | Env. Manager | PRPA | (287) 729-8715 ext. 3229 | | mirodriguez@prpa.pr.gov |
| 21. Paul Sanford | consultant | AECOM | 813-775-6843 | paul.sanford@aecom.com | |
| 22. Pedro A. Vázquez | | | | | |
| 23. Rafael Rodríguez | | | | | |
| 24. Reinaldo Vázquez | Planning | PRPA | | | |
| 25. Romel Pedraza Claudio | Engineering Director | PRPA | (877) 229-8715 x3187 | rvazquez@prpa.pr.gov | |
| 26. Sindulfo Castillo | | | by phone | | |
| 27. Víctor Morales | AECOM | PM | 787-516-3476 | victor.morales@aecom.com | |
| 28. Walter Higgins José Ortíz | JOEL RIVERA PRPA-AGUADILLA | PREPA | 787-307-8330 787-307-4506 | joel.rivera@prepa.com | J.R.P. |
| 29. Edgar Sierra | Dps MGR | PRPA | 939-211-5600 | ESIERRA@PRPA-PR.GOV | |
| 30. Felicia Reeves | FAA | FAA | 404-305-6708 | felicia.johnm@faa.gov | |
| 31. Anthony Vazquez | FAA | FAA | 939 489 8750 | Anthony.M.Vazquez@faa.gov | |
| 32. Aimee McCormick | FAA | FAA | 404-305-6709 | aimee.mccormick@faa.gov | |
| 33. Adeli's Caban | Marlin Construction | Marlin | 787.923.7021 | acaban@marlinengineering.com | |
| 34. Pablo Collazo Cortés | Asesor Juntas Prpa | Junta de Planeación | 787-349-1492 | collazo_p@jp.pr.gov | Pablo Collazo Cortés |
| 35. Miguel Santiago | Compañía de Turismo | Dr. Rosal | 787-240-0303 | miguel.santiago@tourism.pr.gov | |
| Lissette Rodríguez | Special Assistant | OGPE | 787-313-4165 | rodriguez-li@ogpe.pr.gov | |
| (X#9) Miguel Sanchez | OGPE Corante | ADA | 652-1260 | miguel.sanchez@ogpe.pr.gov | |

TAB 2
AGENCY COMMENT/RESPONSE MATRIX

This page intentionally left blank.

Comment Response Matrix
RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION ENVIRONMENTAL ASSESSMENT
AGENCY SCOPING COMMENTS SUMMARY
August 2018

| # | Letter Code | Comment Code | Comment | Commenter | Response |
|---|-------------|--------------|--|---|--|
| 1 | SL001 | 2-01 | <p>For the past 20 years the City of Aguadilla has been developed with the same vision outlined in our Master Plan and one of our main goals is the full development of the BQN and the Aguadilla Aerospace and Technology Cluster. To achieve these goals, the City is working on a new economic development strategy that would result in the creation of the first Aerotropolis on the island, the Aerotropolis of Aguadilla.</p> <p>With this vision, our BQN will become the first air cargo gateway of Puerto Rico, the first Maintenance/Repair/Overhaul facility in PR, the second port of entry into PR and the main economic engine for the region.</p> <p>Our idea of development is supported by the following public policy:</p> <ul style="list-style-type: none"> • Plan for Puerto Rico: Socioeconomic Transformation Model • Puerto Rico Ports Authority (PRPA) Regional Airports Strategic Plan • Rafael Hernandez Airport Master Plan • Comprehensive Economic Development Strategy (CEDS) Puerto Rico • Regional Economic Development Strategy for the Porta del Sol Region • Comprehensive and Feasibility Study for the Municipality of Aguadilla • Transformation and Innovation in the Wake of Devastation: An Economic and Disaster Recovery Plan for Puerto Rico <p>Therefore, regarding the project for the reconstruction of Runway 8-26, the City endorses the ALTERNATIVE 1A because is the only alternative that will allow the full development of our plans.</p> | Carlos Méndez Martínez, Mayor, City of Aguadilla | <p>Thank you for your comment. The Purpose of the Proposed Project as outlined in the Draft EA is to 1) provide an air carrier runway of sufficient pavement strength and condition to accommodate existing and future operations at BQN; and 2) maintain adequate runway length for the existing and future aircraft fleet mix using BQN during pavement rehabilitation and construction. The Need for the Proposed Project is tied to deteriorating pavement conditions, runway length requirements, and FAA's mission to ensure safe and efficient use of navigable airspace in the United States and its territories.</p> <p>In accordance with this Purpose and Need, the alternatives analysis for the Draft EA can and does consider factors such as BQN's role in the local economy and the importance of maintaining existing resiliency and support services. The alternatives analysis therefore does consider compatibility of the alternatives considered with planned airport development. Accordingly, the cited public policy, and local preferences based on that policy, is important to reference as underpinning of these considerations. To this end, the referenced public policy objectives will be discussed in the EA as appropriate.</p> <p>However, for clarification, the objective of the Proposed Project is not to induce or enable capacity for BQN operations above and beyond existing and approved forecasted conditions. Plans to expand the airport's air cargo functionality, or introduce MRO capabilities, are related to, but separate from, the EA Purpose and Need. Airfield and facility development requirements to support these separate objectives are not within the purview of the EA, would need to be justified independently of the EA within airport master planning processes, and would be subject to separate NEPA approvals prior to approval or construction.</p> |
| 2 | SL001 | 2-02 | <p>In terms of resiliency, we need to think that the BQN is the main operational airport in the island on a disaster event, because the Luis Munoz Marin International Airport (SJU) gets easily flooded, that's why must of the recovery staff and supplies arrived at the Aguadilla Airport.</p> <p>Given the above, we recommend keeping the temporary runway ready to become a second full runway as the one that exists in the Saipan International Airport of the Northern Mariana Islands.</p> | Carlos Méndez Martínez, Mayor, City of Aguadilla | Thank you for your comment. This comment is consistent with the Purpose and Need of the Proposed Project studied in the EA. The Purpose and Need of the Proposed Project as presented in the Draft EA will acknowledge the importance of maintaining resiliency at BQN, and BQN's role in providing disaster relief support within the territory. |
| 3 | SS001 | 4-01 | After reviewing the information enclosed with your letters, the DNER has determined that since the Proposed Project is to be done over an already developed footprint, no significant impacts on natural and environmental resources under our jurisdiction should be expected. Therefore, the DNER has no objection to the Proposed Project, as described in your letters of July 20, 2018. | Moisés Sánchez-Loperena, Assistant Secretary, Office of the Assistant Secretary of Permits, Endorsements and Specialized Services, Puerto Rico Department of Natural and Environmental Resources | Thank you for your comment. The DNER's position will be documented in the Draft EA coordination summary and supporting materials. |
| 4 | SS001 | 26-01 | Be advised that, once circulated, the FAA must submit the EA to the Puerto Rico Office of Permit Management (OGPe, by its initials in Spanish). This is to be done as part of the process for obtaining a Determination of Environmental Compliance for the project, pursuant to Chapter IV, Rule 114(L) of Regulation No. 8858 of November 23, 2016, the Regulation for the Environmental | Moisés Sánchez-Loperena, Assistant Secretary, Office of the Assistant Secretary of Permits, Endorsements and | Thank you for your comment. The OGPe is included on the agency coordination list for the Draft EA, and will be provided the opportunity to review the Draft EA such that the OGPe can determine whether the documentation complies with Regulation No. 8858, supra., and qualifies for issuance of a |

Comment Response Matrix
RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION ENVIRONMENTAL ASSESSMENT
AGENCY SCOPING COMMENTS SUMMARY
August 2018

| # | Letter Code | Comment Code | Comment | Commenter | Response |
|---|-------------|--------------|--|--|--|
| | | | Review Process, issued by the Environmental Quality Board (EQB). Rule 114(L) states that NEPA-compliant lead agencies submitting an EA or an Environmental Impact Statement (EIS) to federal agencies, do not need to prepare a new environmental document to obtain a Determination of Environmental Compliance from the OGPe, as long as the environmental document complies with the requirements of Regulation No. 8858, supra. | Specialized Services, Puerto Rico Department of Natural and Environmental Resources | Determination of Environmental Compliance. |
| 5 | SS001 | 18-01 | <p>We would also like to note that BQN is located within Karst Zone Special Planning Area (APE-ZC, by its initials in Spanish). The APE-ZC is created by Regulation No. 8486 of June 16, 2014, known as the Plan and Regulation of the Karst Special Planning Area (PRAPEC, by its initials in Spanish), for compliance with the policy stated in Law No. 292 of August 21, 1999, as amended, which governs the protection and conservation of the karst physiography of Puerto Rico. Activities in APE-ZC areas may be authorized under the appropriate conditions, complying with the required permits, endorsements and franchises required by applicable laws and regulations, as long as these activities do not undermine the policy of Law No. 292, supra.</p> <p>The EA for the Proposed Project must then pay special attention to the presence of karst-related features at the Proposed Project site, especially sinkholes. This is very important, as Figures 2 and 3 in your enclosures show what appears to be a sinkhole or other depression near the east end of current Taxiway M (which is shown in both figures as "Pavement to be Removed"). Therefore, the following must be considered:</p> <ul style="list-style-type: none"> As part of the EA process, studies for determining the stability of soils at the area of the Proposed Project must be performed, as well as those studies identifying land areas where the subsoil is likely to fail due to collapses induced by the solution-collapse dynamics typical of karst zones. In the event that these studies identify other suspect karst features that could be affected, including sinkholes and areas of soil subsidence, best management practices (BMP) for stormwater management and erosion control must be implemented as part of the Proposed Project. | Moisés Sánchez-Loperena, Assistant Secretary, Office of the Assistant Secretary of Permits, Endorsements and Specialized Services, Puerto Rico Department of Natural and Environmental Resources | Thank you for your comment. The Draft EA will acknowledge BQN's location in the APE-ZC and any related requirements. A geotechnical study is included as part of the EA process and the study is currently underway. The study results will be used to inform refinements to EA alternatives and to identify any potential environmental impacts (e.g., water resources) and mitigations required for the project. |
| 6 | SS001 | 23-01 | The Proposed Project must comply with Law No. 267 of September 11, 1998, as amended, which enables the Center for the Coordination of Excavations and Demolitions in the Puerto Rico Public Service Commission, and with Regulation No. 7245 of November 9, 2006, enacted under that law. This will apply both to the removal of the pavement of the existing Taxiway M (Figures 2 and 3) and to building removal for the PRPA-sponsored alternative (Figure 2). | Moisés Sánchez-Loperena, Assistant Secretary, Office of the Assistant Secretary of Permits, Endorsements and Specialized Services, Puerto Rico Department of Natural and Environmental Resources | Thank you for your comment. The impact analysis for the Draft EA will reference the need to comply with all applicable federal, state and local regulations regarding construction activities in the vicinities of structures and underground installations. |
| 7 | SS001 | 9-01 | In attention to the airport nature of the BQN facilities, and to address safety concerns that may arise, all construction debris and leftover materials must be removed from the Proposed Project site as soon as possible. Upon completion of construction work in the Proposed Project, all of these debris and materials should have been removed completely. Disposal of construction debris and leftover materials should be done in a certified sanitary landfill system, or other approved solid waste disposal facility. | Moisés Sánchez-Loperena, Assistant Secretary, Office of the Assistant Secretary of Permits, Endorsements and Specialized Services, Puerto Rico Department of Natural and Environmental Resources | Thank you for our comment. The impact analysis for the Draft EA will reference the need to comply with all applicable federal, state and local regulations and programs regarding the generation, handling, transport and disposition of construction and demolition debris associated with the project. |
| 8 | SS001 | 18-02 | In the event that a surface or underground water body, whether perennial or intermittent, is found within the area of the Proposed Project, such finding must be reported immediately to the DNER | Moisés Sánchez-Loperena, Assistant Secretary, Office | Thank you for your comment. A wetland and waters of the United States evaluation, including a jurisdictional determination of wetlands with the U.S. |

Comment Response Matrix
RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION ENVIRONMENTAL ASSESSMENT
AGENCY SCOPING COMMENTS SUMMARY
August 2018

| # | Letter Code | Comment Code | Comment | Commenter | Response |
|----|-------------|--------------|--|--|---|
| | | | and other concerned agencies. Not reporting such findings, as well as mitigation measures that must be implemented to protect those natural resources, could result in this no objection letter being revoked and could form the basis for legal actions by the DNER in the available forums. | of the Assistant Secretary of Permits, Endorsements and Specialized Services, Puerto Rico Department of Natural and Environmental Resources | Army Corps of Engineers if warranted, is included as part of the EA. In accordance with Executive Order 11990, Protection of Wetlands, Section 404 of the Clean Water Act, and any local implementing regulations, any wetland or Waters of the United States impacts will be identified, disclosed, and made available for public and agency comment during the NEPA process. If wetland/waters impacts are identified, appropriate mitigations will be proposed and coordinated with jurisdictional agencies, and included in the FAA's environmental finding for the EA. |
| 9 | SS001 | 23-02 | This endorsement applies only to the statement of facts and data as presented and reviewed in the case. The Secretary of the ONER reserves the right to reevaluate, vary or modify the endorsement at any moment, prior to permit issuance or to the corresponding administrative action by the applicant agency or proponent, when new, specific official information, stating that the applicable law or the environmental conditions of the site have changed substantially, becomes available, or when the original endorsement was issued under false or fraudulent assumptions. Please note that this endorsement does not constitute a permit or an authorization to begin construction work on the Proposed Project. | Moisés Sánchez-Loperena, Assistant Secretary, Office of the Assistant Secretary of Permits, Endorsements and Specialized Services, Puerto Rico Department of Natural and Environmental Resources | Acknowledged. Thank you for your comment. |
| 10 | SS002 | 12-01 | Here is the map with the location of the lines that are within the proposed work site at Rafael Hernández Airport. As shown in the document, there is an underground section of the distribution line at 4,160 V that crosses the entire runway from "Hangar Road" to "Parallel road". We also have another segment of the distribution line that locates all along "Parallel road" including a 38 KV substation in the vicinity of the PR 107 Street. On the underground section of the distribution line that crosses the runway we cannot rule out that said line is free of hazardous substances such as lead. If you have further questions, please don't hesitate to contact us | Joel A. Rivera Prado, P.E., Supervisor Engineer, Aguadilla Technical Operations Office, Puerto Rico Electric Power Authority | Thank you for your comment. Assessment of alternatives, construction impacts, hazardous materials impacts, and impacts to energy supply in the Draft EA will acknowledge and discuss the information provided. |
| 11 | SS003 | 11-01 | The airport has an urban land classification (SU) according to the Land Use Plan of 2015 and a general public use qualification (DT-G), in accordance with the activity carried out on the property. | Maria del C. Gordillo Pérez, PPL, Chairwoman, Puerto Rico Planning Board | Thank you for your comment. On- and off-airport land uses will be identified and disclosed within EA study areas in a manner consistent with the referenced Land Use Plan. Any changes to these land uses will be identified and discussed in the Draft EA document. |
| 12 | SS003 | 6-01 | A portion of the property to the west-southwest is within the limits of the coastal zone; therefore, a Certification of Federal Consistency with the Puerto Rico Coastal Management Program must be requested as part of the construction permit process. | Maria del C. Gordillo Pérez, PPL, Chairwoman, Puerto Rico Planning Board | Thank you for your comment. The need for the referenced certificate will be identified in the Draft EA. This comment affirms that the airport is located in the coastal zone. Accordingly, there is an additional consultation obligation for the FAA to coordinate a Federal Coastal Zone Consistency Determination per Section 307(c)(1)(C) of the Coastal Zone Management Act, which is required to show compliance of the project with the enforceable policies of the Puerto Rico Coastal Zone Management Program. |
| 13 | SS003 | 17-01 | The property is outside the limits of flood zone, natural conservation and other risks. | Maria del C. Gordillo Pérez, PPL, Chairwoman, Puerto Rico Planning Board | Thank you for your comment. The Puerto Rico Planning Board's position will be documented in the Draft EA coordination summary and supporting materials. |
| 14 | SS004 | 1-01 | After reviewing the information and the two proposed options enclosed in your letter, one by Airport Sponsor (PRPA) and the second one by the Federal Aviation Administration (FAA), the PRTC understands and recognizes that improvements are necessary and important; and that they will help airport operations. However, potential environmental impacts and their results must be taken into consideration. | Carlos J. Romo-Aledo, Director, Planning and Development Office, Puerto Rico Tourism Company | Thank you for your comment. The Puerto Rico Tourism Company's position will be documented in the Draft EA coordination summary and supporting materials. |
| 15 | SS004 | 23-03 | The Rafael Hernandez Airport is very important in PRTC's efforts to increase tourism according to Porta del Sol's Tourism Plan for Puerto Rico's Western Region. | Carlos J. Romo-Aledo, Director, Planning and Development Office, Puerto | Thank you for your comment. The impact of BQN on economic vitality and planning will be acknowledged and discussed in the EA Purpose and Need statement. |

Comment Response Matrix
RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION ENVIRONMENTAL ASSESSMENT
AGENCY SCOPING COMMENTS SUMMARY
August 2018

| # | Letter Code | Comment Code | Comment | Commenter | Response |
|----|-------------|--------------|---|---|--|
| | | | | Rico Tourism Company | |
| 16 | SS004 | 26-02 | We would like to receive a copy of the EA when available in order to provide our final comments. | Carlos J. Romo-Aledo, Director, Planning and Development Office, Puerto Rico Tourism Company | Thank you for your comment. The Tourism Company is included on the agency coordination list for the Draft EA, and will be provided the opportunity to review and comment the Draft EA once available. |
| 17 | SF001 | 4-02 | Based on the information provided, project nature and site characteristics, we determined that the project proposed would not result in effects to listed species or designated critical habitat. Therefore, no consultation pursuant Section 7 of the Endangered Species Act, as amended, is required. | Marelisa Rivera, Caribbean ES Field Supervisor, US Fish and Wildlife Service | Thank you for your comment. The environmental consequences portion of the Draft EA will be structured to meet the requirements of a Biological Assessment at 50 CFR 402.12, and will be prepared in accordance with FAA Order 1050.1F, Environmental Impacts, Policies and Procedures. However, per this comment, the FAA as lead federal agency will not initiate Section 7 Endangered Species Act consultation with the Service. |

TAB 3
AGENCY LETTERS RECEIVED

This page intentionally left blank.

August 6, 2018

Mrs. Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave. Room 220
Collage Park, GA 30337

RE: ENVIRONMENTAL ASSESSMENT FOR RECONSTRUCTION OF RUNWAY 8-26 AT RAFAEL HERNANDEZ INTERNATIONAL AIRPORT, (BQN) AGUADILLA, PUERTO RICO

Dear Mrs. Reeves:

Greetings and best wishes from Aguadilla, Puerto Rico, the "Atlantic Garden".

For the past 20 years the City of Aguadilla has been developed with the same vision outlined in our Master Plan and one of our main goals is the full development of the Rafael Hernandez International Airport (BQN) and the Aguadilla Aerospace and Technology Cluster. To achieve these goals, the City is working on a new economic development strategy that would result in the creation of the first Aerotropolis on the island, the Aerotropolis of Aguadilla.

2-01

With this vision, our BQN Airport will become the first air cargo gateway of Puerto Rico, the first Maintenance/Repair/Overhaul facility in PR, the second port of entry into PR and the main economic engine for the region.

Our idea of development is supported by the following public policy:

- Plan for Puerto Rico: Socioeconomic Transformation Model
- Puerto Rico Ports Authority (PRPA) Regional Airports Strategic Plan
- Rafael Hernandez Airport Master Plan
- Comprehensive Economic Development Strategy (CEDS) Puerto Rico
- Regional Economic Development Strategy for the Porta del Sol Region
- Comprehensive and Feasibility Study for the Municipality of Aguadilla
- Transformation and Innovation in the Wake of Devastation: An Economic and Disaster Recovery Plan for Puerto Rico



Therefore, regarding the project for the reconstruction of runway 8-26, **the city endorses the ALTERNATIVE 1A**, because is the only alternative that will allow the full development of our plans.

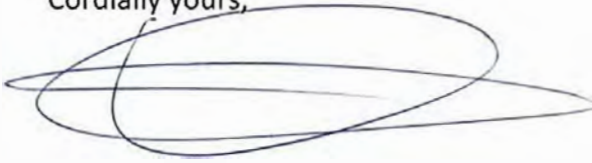
2-01

In terms of resiliency, we need to think that the Rafael Hernandez International Airport (BQN) is the main operational airport in the island on a disaster event, because the Luis Muñoz Marín International Airport (SJU) gets easily flooded, that's why must of the recovery staff and supplies arrived at the Aguadilla Airport.

2-02

Given the above, we recommend keeping the temporary runway ready to become a second full runway as the one that exists in the Saipan International Airport of the Northern Mariana Islands.

Cordially yours,



CARLOS MÉNDEZ MARTÍNEZ
Mayor



(787) 891 1005 x2001

(866) 654 9292



P.O. Box 1008 | Aguadilla, PR 00605-1008



10 Ave. San Carlos Casa Acadia 2do Piso



cmendez@aguadilla.city



www.aguadilla.city



18° 25' 46" 10"N

67° 9' 16" 30"W





GOVERNMENT OF PUERTO RICO

Department of Natural and Environmental Resources

AUG 06 2018



MS FELICIA K REEVES
FEDERAL AVIATION ADMINISTRATION
ATLANTA AIRPORT DISTRICT OFFICE
1701 COLUMBIA AVE RM 220
COLLEGE PARK GA 30337

Dear Ms. Reeves:

**Proposed Environmental Assessment for Reconstruction
of Runway ⁸/₂₆ at the Rafael Hernández Airport (BQN)
Borinquen, Maleza Alta, Maleza Baja and Aguacate Wards, Aguadilla**

O-PA-EEA03-SJ-00731-26072018

mfr
This is in reply to your two letters, both dated on July 20, 2018, seeking input and comments from the Department of Natural and Environmental Resources (DNER) on the above referenced subject. The Puerto Rico Ports Authority (PRPA) is proposing improvements to Runway ⁸/₂₆ at the Rafael Hernández Airport (IATA code: BQN) in Aguadilla (hereafter, the Proposed Project). These improvements are necessary, due to the deteriorating pavement conditions in the runway that preclude safe aircraft operations over time. In accordance with the *National Environmental Policy Act* of 1969 (NEPA) (PL 91-190, 42 USC 4321-4347), and Federal Aviation Administration (FAA) implementing regulations, the PRPA is preparing an Environmental Assessment (EA) to consider and document potential impacts associated with the Proposed Project.

For the purposes of the EA, the following development concepts are being considered for the Proposed Project:

- Alternative 1A (PRPA-sponsored) (shown in Figure 2 enclosed with each letter):
 1. Construct a new temporary runway (11,000' long × 150' wide), 720' south of the existing runway;
 2. Reconstruct the existing runway (11,000' long × 200' wide, with 30' shoulders on each side) in place for permanent use; and
 3. Convert the temporary runway to a full, permanent parallel taxiway (11,000' long × 75' wide, plus shoulders), upon completion of the existing runway reconstruction.
- Alternative 2A (FAA-sponsored) (shown in Figure 3 enclosed with each letter):
 1. Construct a new permanent runway (11,000' long × 200' wide, plus 30' shoulders on each side), 500' south of the existing runway; and



AUG 06 2018

Ms. Felicia K. Reeves
Environmental Assessment for the Reconstruction
of Runway 8/26 at the Rafael Hernández Airport (BQN)
O-PA-EEA03-SJ-00731-26072018
Page 2 of 3

2. Reconstruct in place the existing runway as a permanent, parallel taxiway (11,000' long × 75' wide, plus shoulders).

Additional variations are also being considered to the development concepts described above, seeking to address operational and construction issues inherent to implementing the Proposed Project, such as construction phasing and usable runway length, compliance with FAA airport design and safety standards, land use compatibility, avoidance of sensitive natural or environmental resources, and other considerations. Direct and Indirect Study Areas within the Proposed Project site have been preliminary delineated for potential impact identification and consideration (as shown in Figure 4 of your enclosures). The former encompasses areas of direct ground disturbance associated with the Proposed Project, inclusive of a 100' buffer to account for indirect ground disturbances occurring during construction, while the latter will be used to identify and characterize any potential impacts not related to project construction.

As part of their coordinating efforts, the FAA, on behalf of the PRPA, advises the DNER about the preparation of the EA and requests any relevant information that our Department may have, regarding key issues or concerns that will need to be addressed in the NEPA process for the Proposed Project.

After reviewing the information enclosed with your letters, the DNER has determined that since the Proposed Project is to be done over an already developed footprint, no significant impacts on natural and environmental resources under our jurisdiction should be expected. Therefore, the DNER has no objection to the Proposed Project, as described in your letters of July 20, 2018.

4-01

mft

Be advised that, once circulated, the FAA must submit the EA to the Puerto Rico Office of Permit Management (OGPe, by its initials in Spanish). This is to be done as part of the process for obtaining a Determination of Environmental Compliance for the project, pursuant to Chapter IV, Rule 114(L) of Regulation No. 8858 of November 23, 2016, the *Regulation for the Environmental Review Process*, issued by the Environmental Quality Board (EQB). Rule 114(L) states that NEPA-compliant lead agencies submitting an EA or an Environmental Impact Statement (EIS) to federal agencies, do not need to prepare a new environmental document to obtain a Determination of Environmental Compliance from the OGPe, as long as the environmental document complies with the requirements of Regulation No. 8858, *supra*.

26-01

We would also like to note that BQN is located within Karst Zone Special Planning Area (APE-ZC, by its initials in Spanish). The APE-ZC is created by Regulation No. 8486 of June 16, 2014, known as the *Plan and Regulation of the Karst Special Planning Area* (PRAPEC, by its initials in Spanish), for compliance with the policy stated in Law No. 292 of August 21, 1999, as amended, which governs the protection and conservation of the karst physiography of Puerto Rico. Activities in APE-ZC areas may be authorized under the appropriate conditions, complying with the required permits, endorsements and franchises required by applicable laws and regulations, as long as these activities do not undermine the policy of Law No. 292, *supra*.

18-01

The EA for the Proposed Project must then pay special attention to the presence of karst-related features at the Proposed Project site, especially sinkholes. This is very important, as Figures 2 and 3 in your enclosures show what appears to be a sinkhole or other depression near the east end of current Taxiway M (which is shown in both figures as "Pavement to be Removed"). Therefore, the following must be considered:

- As part of the EA process, studies for determining the stability of soils at the area of the Proposed Project must be performed, as well as those studies identifying land areas where the subsoil is likely to fail due to collapses induced by the solution-collapse dynamics typical of karst zones. In the event that these studies identify other suspect karst features that could be affected, including sinkholes and areas of soil subsidence,

→ Will they require additional funding?
T

AUG 06 2018

Ms. Felicia K. Reeves
Environmental Assessment for the Reconstruction
of Runway 8/26 at the Rafael Hernández Airport (BQN)
O-PA-EEA03-SJ-00731-26072018
Page 3 of 3

best management practices (BMP) for stormwater management and erosion control must be implemented as part of the Proposed Project.

Please note that the Proposed Project must also comply with the following requirements:

- The Proposed Project must comply with Law No. 267 of September 11, 1998, as amended, which enables the Center for the Coordination of Excavations and Demolitions in the Puerto Rico Public Service Commission, and with Regulation No. 7245 of November 9, 2006, enacted under that law. This will apply both to the removal of the pavement of the existing Taxiway M (Figures 2 and 3) and to building removal for the PRPA-sponsored alternative (Figure 2). 23-01
- In attention to the airport nature of the BQN facilities, and to address safety concerns that may arise, all construction debris and leftover materials must be removed from the Proposed Project site as soon as possible. Upon completion of construction work in the Proposed Project, all of these debris and materials should have been removed completely. Disposal of construction debris and leftover materials should be done in a certified sanitary landfill system, or other approved solid waste disposal facility. 9-01
- In the event that a surface or underground water body, whether perennial or intermittent, is found within the area of the Proposed Project, such finding must be reported immediately to the DNER and other concerned agencies. Not reporting such findings, as well as mitigation measures that must be implemented to protect those natural resources, could result in this no objection letter being revoked and could form the basis for legal actions by the DNER in the available forums. 18-02

This endorsement applies only to the statement of facts and data as presented and reviewed in the case. The Secretary of the DNER reserves the right to reevaluate, vary or modify the endorsement at any moment, prior to permit issuance or to the corresponding administrative action by the applicant agency or proponent, when new, specific official information, stating that the applicable law or the environmental conditions of the site have changed substantially, becomes available, or when the original endorsement was issued under false or fraudulent assumptions. Please note that this endorsement does not constitute a permit or an authorization to begin construction work on the Proposed Project. 23-02

The DNER would like to thank you for the opportunity to comment on this matter, and looks forward to collaborate further with the FAA and the PRPA, especially on avoiding, minimizing or mitigating adverse environmental impacts to natural resources under our jurisdiction, once the development concept for the Proposed Project has been finally selected.

Cordially,



Moisés Sánchez Loperena
Assistant Secretary
Office of the Assistant Secretary of Permits,
Endorsements and Specialized Services

MSL/GIFS/LDBB/ldbb

SS002

12-01

Norman, Tia

From: felicia.reeves@faa.gov
Sent: Friday, August 17, 2018 12:56 PM
To: Sanford, Paul
Subject: FW: RECONSTRUCTION OF RUNWAY 8-26 AT AGUADILLA INTERNATIONAL AIRPORT (BQN) - PREPA DISTRIBUTION LINES
Attachments: 18.08.09 RAMEY AIRPORT PREPA DISTRIBUTION LINE.pdf
Categories: BQN

V/R
Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave Room 220
College Park GA 30337
404-305-6708



From: Joel A Rivera Prado
Sent: Friday, August 10, 2018 11:12 AM
To: Reeves, Felicia (FAA)
Cc: CHRISTIAN FELICIANO BONILLA ; victor.morales@aecom.com
Subject: RECONSTRUCTION OF RUNWAY 8-26 AT AGUADILLA INTERNATIONAL AIRPORT (BQN) - PREPA DISTRIBUTION LINES

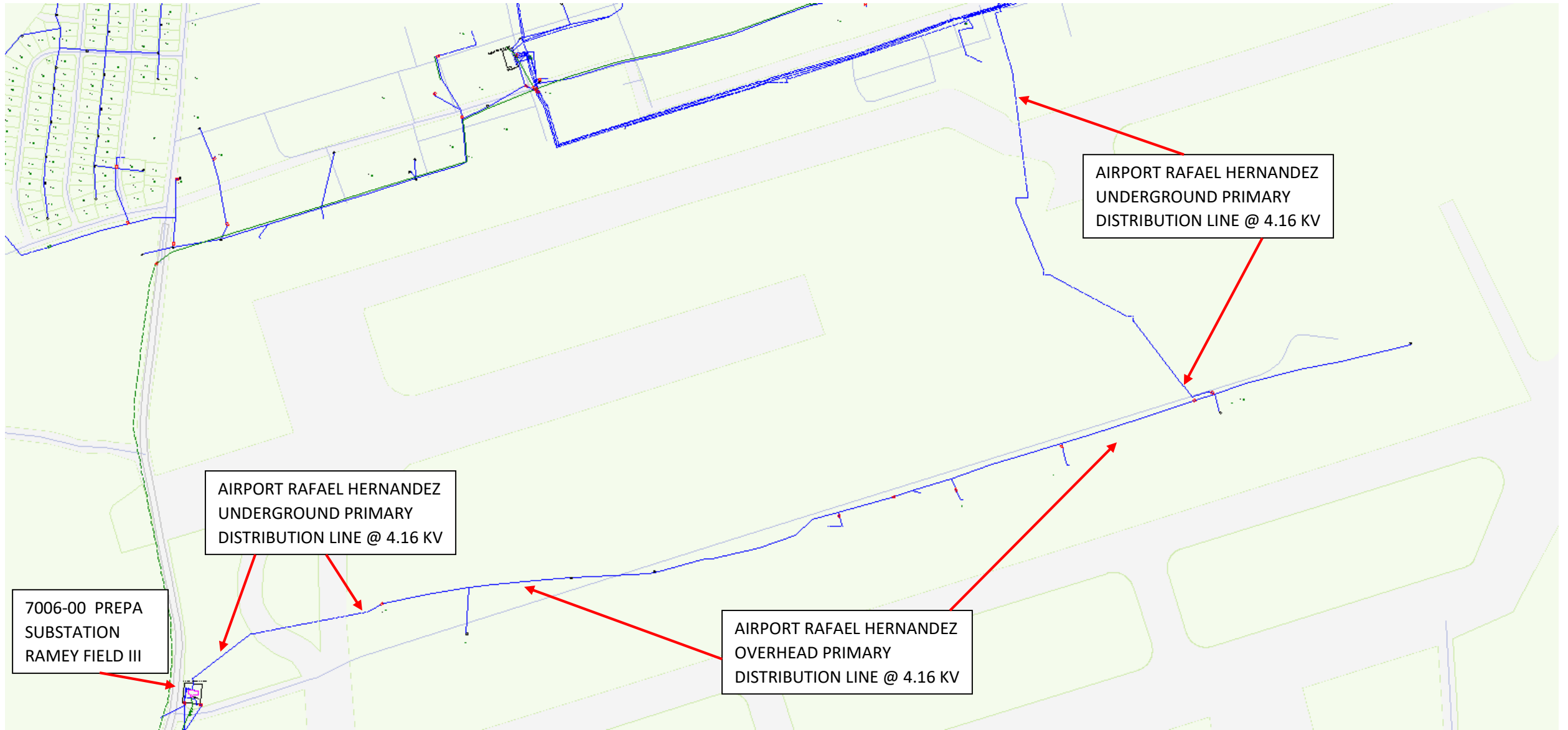
Dear Felicia K. Reeves,

Here is the map with the location of the lines that are within the proposed work site at Rafael Hernández Airport. As shown in the document, there is an underground section of the distribution line at 4,160 V that crosses the entire runway from "Hangar Road" to "Parallel road". We also have another segment of the distribution line that locates all along "Parallel road" including a 38 KV substation in the vicinity of the PR 107 Street. On the underground section of the distribution line that crosses the runway we cannot rule out that said line is free of hazardous substances such as lead.

If you have further questions, please don't hesitate to contact us.

Regards,

Joel A. Rivera Prado, P.E.
Supervisor Engineer
Aguadilla Technical Operations Office
Puerto Rico Electric Power Authority
Tel: (787)521-8331

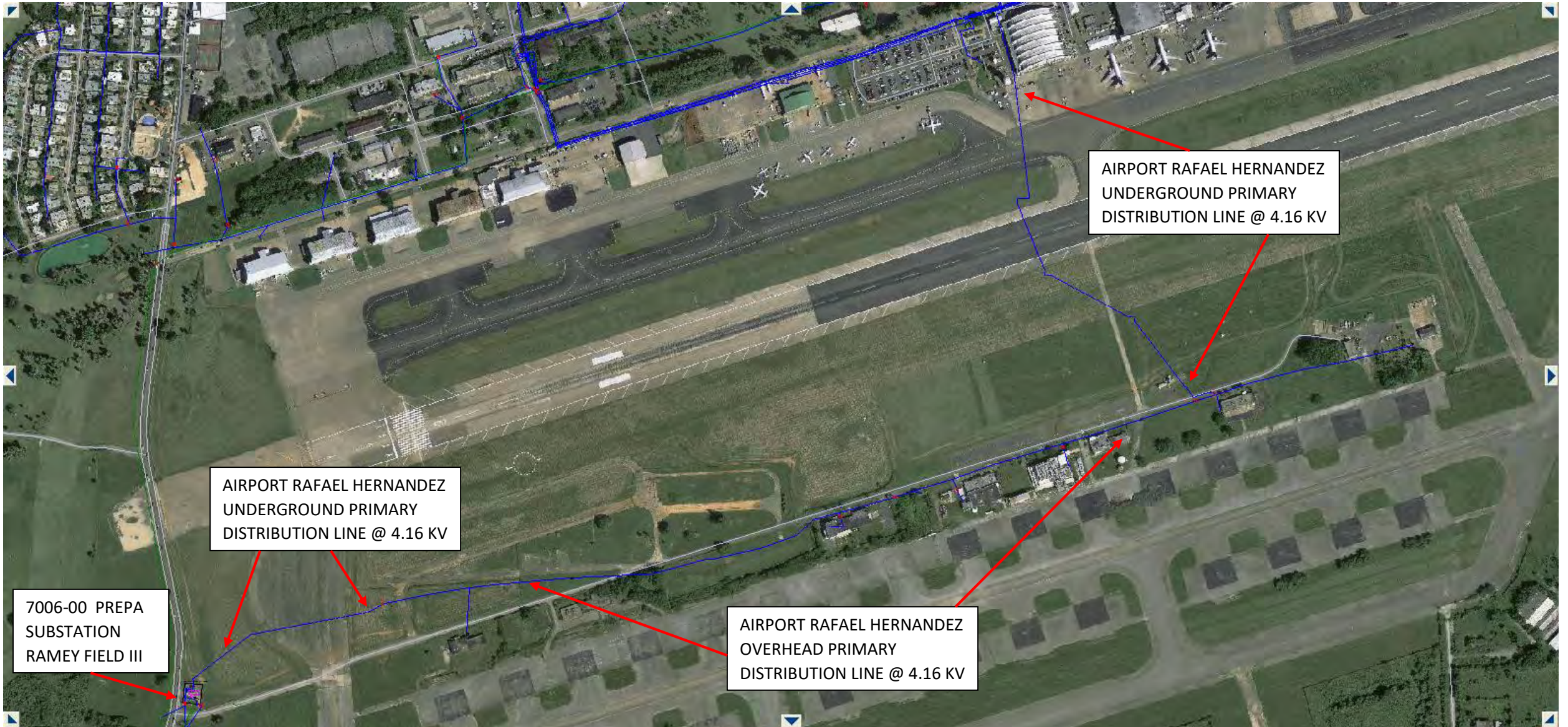


7006-00 PREPA
SUBSTATION
RAMEY FIELD III

AIRPORT RAFAEL HERNANDEZ
UNDERGROUND PRIMARY
DISTRIBUTION LINE @ 4.16 KV

AIRPORT RAFAEL HERNANDEZ
OVERHEAD PRIMARY
DISTRIBUTION LINE @ 4.16 KV

AIRPORT RAFAEL HERNANDEZ
UNDERGROUND PRIMARY
DISTRIBUTION LINE @ 4.16 KV



7006-00 PREPA
SUBSTATION
RAMEY FIELD III

AIRPORT RAFAEL HERNANDEZ
UNDERGROUND PRIMARY
DISTRIBUTION LINE @ 4.16 KV

AIRPORT RAFAEL HERNANDEZ
OVERHEAD PRIMARY
DISTRIBUTION LINE @ 4.16 KV

AIRPORT RAFAEL HERNANDEZ
UNDERGROUND PRIMARY
DISTRIBUTION LINE @ 4.16 KV



SS003

GOVERNMENT OF PUERTO RICO

Puerto Rico Planning Board

August 20, 2018

felicia.reeves@faa.gov

Ms. Felicia K. Reeves

Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave. Room 220
College Park, GA 30337

ENVIROMENTAL ASSESMENT FOR RECONSTRUCTION OF RUNWAY 8-26 AT RAFAEL HERNÁNDEZ AIRPORT (BQN), AGUADILLA, PUERTO RICO

Dear Ms. Reeves:

The Puerto Rico Planning Board received a request for submit comments to the Environmental Assessment (EA) for reconstruction of runway 8-26 at Rafael Hernández Airport in Aguadilla, also, we were represented at the meeting held on August 1, 2018 in airport facilities.

After evaluating the proposed project our comments to the EA are:

1. The airport has an urban land classification (SU) according to the Land Use Plan of 2015 and a general public use qualification (DT-G), in accordance with the activity carried out on the property. 11-01
2. A portion of the property to the west-southwest is within the limits of the coastal zone; therefore, a Certification of Federal Consistency with the Puerto Rico Coastal Management Program must be requested as part of the construction permit process. 6-01
3. The property is outside the limits of flood zone, natural conservation and other risks. 17-01

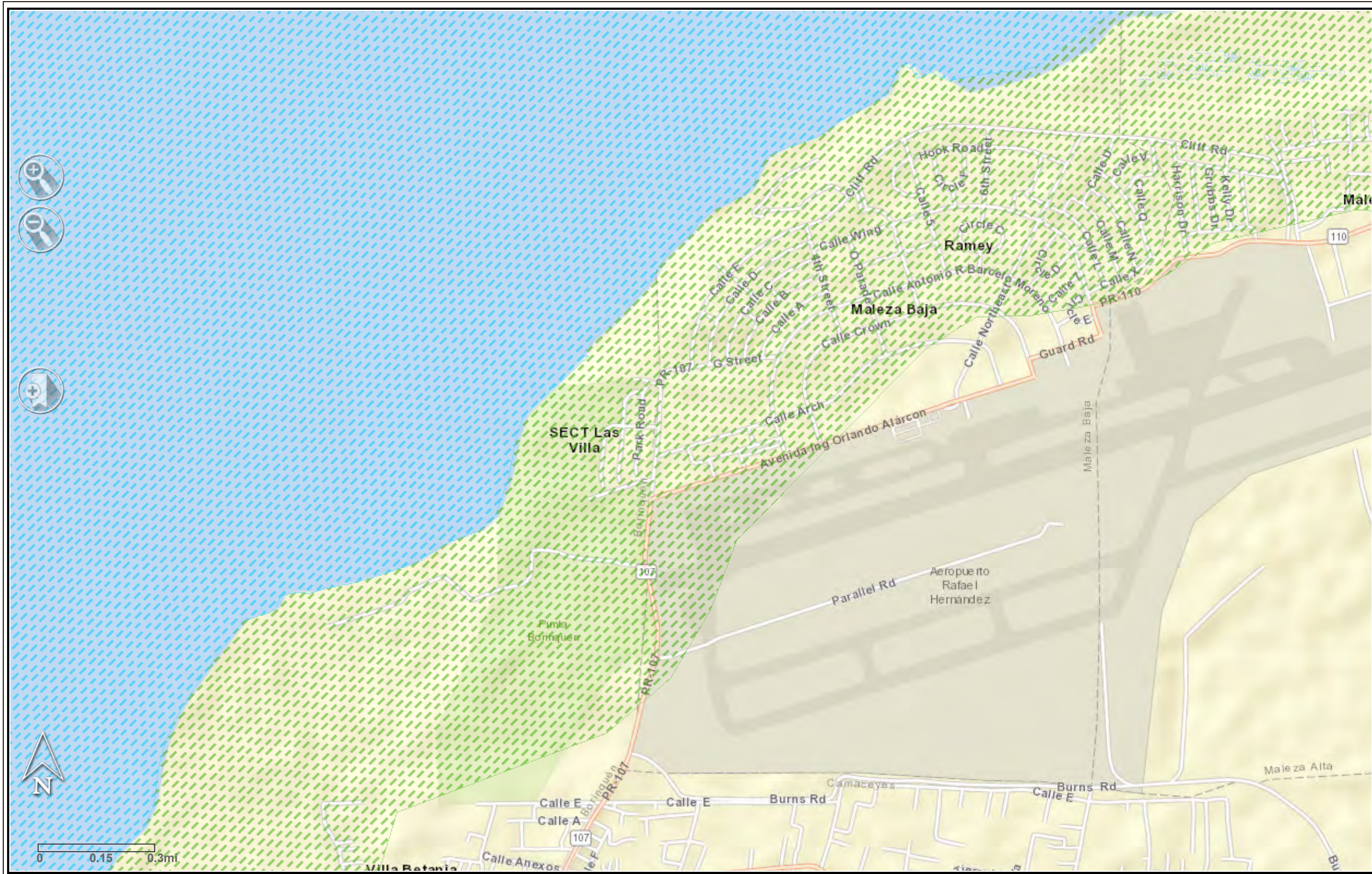
Therefore, the Puerto Rico Planning Board has no additional comments regarding the reconstruction of the runway at the Rafael Hernández Airport in Aguadilla.

Sincerely,


Maria del C. Gordillo Pérez, PPL
Chairwoman



This page intentionally left blank.



[-]
 EA FOR RECONSTRUCTION OF RUNWAY 8-26 RAFAEL HERNANDEZ AIRPORT, AGUADILLA PR



0 0.15 0.3mi

This Page Intentionally Left Blank



GOVERNMENT OF PUERTO RICO

Puerto Rico Tourism Company

E-mail: Felicia.reeves@faa.gov

August 20, 2018

Ms Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337

ENVIRONMENTAL ASSESSMENT FOR RECONSTRUCTION OF RUNWAY 8-26 AT RAFAEL HERNÁNDEZ AIRPORT (BQN) AGUADILLA, PUERTO RICO

Dear Ms Reeves:

This is in reply to your letter of July 20, 2018, received by The Puerto Rico Tourism Company (PRTC) on July 25, 2018, on the above referenced matter. According to your letter, the Puerto Rico Ports Authority (PRPA) is in the process of preparing an Environmental Assessment (EA) for the proposed improvements to Runway 8-26 at the Rafael Hernández Airport, located in the city of Aguadilla.

After reviewing the information and the two proposed options enclosed in your letter, one by Airport Sponsor (PRPA) and the second one by the Federal Aviation Administration (FAA), the PRTC understands and recognizes that improvements are necessary and important; and that they will help airport operations. However, potential environmental impacts and their results must be taken into consideration.

1-01

The Rafael Hernández Airport is very important in PRTC's efforts to increase tourism according to Porta del Sol's Tourism Plan for Puerto Rico's Western Region.

23-03

We would like to receive a copy of the EA when available in order to provide our final comments.

26-02

Cordially,

Carlos J. Romo-Aledo
Director
Planning and Development Office

WC/mrd





U.S. Department
of Transportation
**Federal Aviation
Administration**

SF001

4-02

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

July 20, 2018

RECEIVED

JUL 25 2018

U.S. Fish & Wildlife Service

Mr. Edwin Muñiz
Field Supervisor
U.S. Fish & Wildlife Service
Caribbean Ecological Field Office
P.O. Box 491
Boquerón, PR 00622

RE: Environmental Assessment for Reconstruction of Runway 8-26 at Rafael Hernandez Airport (BQN), Aguadilla, Puerto Rico

Dear Mr. Muñiz:

The Puerto Rico Port Authority (i.e., PRPA or Airport Sponsor) is proposing improvements to Runway 8-26 at Rafael Hernandez Airport (BQN), hereinafter referred to as the Proposed Project. Runway improvements are necessary due to deteriorating pavement conditions that could preclude safe aircraft operations over time. For reference, **Figure 1** depicts the geographic location of the Proposed Project.

In accordance with the National Environmental Policy Act of 1969 (NEPA) and Federal Aviation Administration (FAA) implementing regulations, the PRPA is preparing an Environmental Assessment (EA) to consider and document the potential air quality, noise, traffic-related, social, economic, and environmental impacts associated with the Proposed Project. For the EA, two separate development concepts are being considered for the implementation of the Proposed Project, shown on the enclosed **Figures** and comprised of the development actions described below:

Airport Sponsor's Proposed Project – also referred to as Alternative 1A (**Figure 2**):

- Construct new temporary runway approximately 11,000' long x 150' wide approximately 720' south of existing runway (for temporary use during reconstruction of original runway to avoid airport runway closure to all users)
- Re-construct existing runway in place for permanent use approx. 11,000' in length and 150' wide (with 30' shoulders on each side)

- Convert temporary runway into a full parallel taxiway 11,000' long x 75' wide (plus shoulders) for permanent use

FAA's Proposed Project – also referred to as Alternative 2A (**Figure 3**):

- Construct new permanent runway approximately 11,000' long x 200' wide (plus 30' shoulders on each side) 500' south of existing runway
- Re-construct existing runway as parallel taxiway for permanent use (approx. 11,000' long x 75' wide (plus shoulders) in place

The FAA and PRPA are also considering additional variations to the two Proposed Project Alternatives described above as part of the EA process. These variations seek to address operational and construction issues inherent to the implementing the Proposed Project, such as construction phasing and usable runway length, compliance with FAA airport design and safety standards, land use compatibility, avoidance of sensitive natural or environmental resources, and other considerations.

During the course of the EA, potential impacts related to Proposed Project will be identified and considered, within the Direct and Indirect Study Areas preliminarily depicted on enclosed **Figure 4**. The Direct Study Area is large enough to encompass the areas of direct ground disturbance associated with the Proposed Project, inclusive of a 100-foot buffer to account for any indirect ground disturbance activities that may occur during construction, such as materials and equipment staging. The Direct Study Area will be used to identify and disclose potential construction-related impacts. The Indirect Study Area approximates the extent of the 60 decibel day-night average sound level noise contour (DNL 60 dB) for these Alternatives, and will be used to identify and characterize any potential impacts not directly related to project construction.

As part of our early coordination efforts for the EA, and on behalf of the PRPA, we are attempting to identify preliminary key issues that will need to be addressed in the NEPA process. To accomplish this we would like to receive your comments relative to the proposed improvements as they relate to your specific area of expertise or regulatory jurisdiction, including permitting or mitigation requirements.

Of note, additional project data and information will be developed during preparation of the EA, including locations of potential ancillary project elements such as onsite staging and materials storage areas, construction haul routes, and locations of batch plants, that may prompt you to provide additional comments on issues to be considered in the EA. Consequently, you will be invited to review and provide additional comments on the Draft EA upon publication.

To facilitate early notification of the Proposed Project and receipt of agency comments, an agency scoping meeting is being offered on August 1st, 2018 at 10:00 a.m. at the venue identified below. I encourage you to attend this meeting to discuss any questions or concerns your agency may have on the Proposed Project and/or materials included in this letter.

Aguadilla International Airport (BQN)
 Conference Room – 2nd Floor
 Air Rescue Building
 Hangar St.
 Aguadilla, Puerto Rico

If you are unable to attend this scoping meeting, your written comments are still requested. In order to sufficiently address any preliminary key project issues and maintain the project schedule, any written comments are requested by August 20th, 2018. Please respond to me at the address provided below and feel free to contact me if you have any questions or concerns.

Sincerely,



Felicia K. Reeves
 Noise/Environmental Program Manager
 FAA Southern Region/Atlanta Airports District Office
 1701 Columbia Ave Room 220
 College Park, GA 30337
 404.305.6708
 felicia.reeves@faa.gov

Enclosures (4)

Copy: Romel Pedraza, PRPA
 Paul Sanford, AECOM
 Victor Morales, AECOM



Based on the information provided, project nature and site Characteristics, we determined that the project proposed would not result in effects to listed species or designated critical habitat. Therefore, no consultation pursuant section 7 of the Endangered Species Act, as amended, is required.

Reviewer Danais [Signature] Date: 7/31/2018

[Signature] Date: 8/1/2018
 Caribbean ES Field Supervisor

APPENDIX C.2
USFWS Consultation

This page intentionally left blank.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

July 20, 2018

RECEIVED

JUL 25 2018

U.S. Fish & Wildlife Service

Mr. Edwin Muñiz
Field Supervisor
U.S. Fish & Wildlife Service
Caribbean Ecological Field Office
P.O. Box 491
Boquerón, PR 00622

RE: Environmental Assessment for Reconstruction of Runway 8-26 at Rafael Hernandez Airport (BQN), Aguadilla, Puerto Rico

Dear Mr. Muñiz:

The Puerto Rico Port Authority (i.e., PRPA or Airport Sponsor) is proposing improvements to Runway 8-26 at Rafael Hernandez Airport (BQN), hereinafter referred to as the Proposed Project. Runway improvements are necessary due to deteriorating pavement conditions that could preclude safe aircraft operations over time. For reference, **Figure 1** depicts the geographic location of the Proposed Project.

In accordance with the National Environmental Policy Act of 1969 (NEPA) and Federal Aviation Administration (FAA) implementing regulations, the PRPA is preparing an Environmental Assessment (EA) to consider and document the potential air quality, noise, traffic-related, social, economic, and environmental impacts associated with the Proposed Project. For the EA, two separate development concepts are being considered for the implementation of the Proposed Project, shown on the enclosed **Figures** and comprised of the development actions described below:

Airport Sponsor's Proposed Project – also referred to as Alternative 1A (**Figure 2**):

- Construct new temporary runway approximately 11,000' long x 150' wide approximately 720' south of existing runway (for temporary use during reconstruction of original runway to avoid airport runway closure to all users)
- Re-construct existing runway in place for permanent use approx. 11,000' in length and 150' wide (with 30' shoulders on each side)

- Convert temporary runway into a full parallel taxiway 11,000' long x 75' wide (plus shoulders) for permanent use

FAA's Proposed Project – also referred to as Alternative 2A (**Figure 3**):

- Construct new permanent runway approximately 11,000' long x 200' wide (plus 30' shoulders on each side) 500' south of existing runway
- Re-construct existing runway as parallel taxiway for permanent use (approx. 11,000' long x 75' wide (plus shoulders) in place

The FAA and PRPA are also considering additional variations to the two Proposed Project Alternatives described above as part of the EA process. These variations seek to address operational and construction issues inherent to the implementing the Proposed Project, such as construction phasing and usable runway length, compliance with FAA airport design and safety standards, land use compatibility, avoidance of sensitive natural or environmental resources, and other considerations.

During the course of the EA, potential impacts related to Proposed Project will be identified and considered, within the Direct and Indirect Study Areas preliminarily depicted on enclosed **Figure 4**. The Direct Study Area is large enough to encompass the areas of direct ground disturbance associated with the Proposed Project, inclusive of a 100-foot buffer to account for any indirect ground disturbance activities that may occur during construction, such as materials and equipment staging. The Direct Study Area will be used to identify and disclose potential construction-related impacts. The Indirect Study Area approximates the extent of the 60 decibel day-night average sound level noise contour (DNL 60 dB) for these Alternatives, and will be used to identify and characterize any potential impacts not directly related to project construction.

As part of our early coordination efforts for the EA, and on behalf of the PRPA, we are attempting to identify preliminary key issues that will need to be addressed in the NEPA process. To accomplish this we would like to receive your comments relative to the proposed improvements as they relate to your specific area of expertise or regulatory jurisdiction, including permitting or mitigation requirements.

Of note, additional project data and information will be developed during preparation of the EA, including locations of potential ancillary project elements such as onsite staging and materials storage areas, construction haul routes, and locations of batch plants, that may prompt you to provide additional comments on issues to be considered in the EA. Consequently, you will be invited to review and provide additional comments on the Draft EA upon publication.

To facilitate early notification of the Proposed Project and receipt of agency comments, an agency scoping meeting is being offered on August 1st, 2018 at 10:00 a.m. at the venue identified below. I encourage you to attend this meeting to discuss any questions or concerns your agency may have on the Proposed Project and/or materials included in this letter.

Aguadilla International Airport (BQN)
 Conference Room – 2nd Floor
 Air Rescue Building
 Hangar St.
 Aguadilla, Puerto Rico

If you are unable to attend this scoping meeting, your written comments are still requested. In order to sufficiently address any preliminary key project issues and maintain the project schedule, any written comments are requested by August 20th, 2018. Please respond to me at the address provided below and feel free to contact me if you have any questions or concerns.

Sincerely,



Felicia K. Reeves
 Noise/Environmental Program Manager
 FAA Southern Region/Atlanta Airports District Office
 1701 Columbia Ave Room 220
 College Park, GA 30337
 404.305.6708
 felicia.reeves@faa.gov

Enclosures (4)

Copy: Romel Pedraza, PRPA
 Paul Sanford, AECOM
 Victor Morales, AECOM



Based on the information provided, project nature and site Characteristics, we determined that the project proposed would not result in effects to listed species or designated critical habitat. Therefore, no consultation pursuant section 7 of the Endangered Species Act, as amended, is required.

Reviewer: *Danais Romel* Date: *7/31/2018*
Charles J. Date: *8/1/2018*
 Caribbean ES Field Supervisor

This page intentionally left blank.

APPENDIX C.3
USACE Consultation

This page intentionally left blank.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
ANTILLES OFFICE
FUND. ÁNGEL RAMOS ANNEX BLDG., SUITE 202
383 FRANKLIN DELANO ROOSEVELT AVE.
SAN JUAN, PUERTO RICO 00918

September 14, 2018

Regulatory Division
South Permits Branch
Antilles Permits Section
SAJ-2018-02710 (NPR-DCM)

Ms. Felicia K. Reeves
Noise/Environmental Program Manager
Federal Aviation Administration
Southern Region/Atlanta Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337

Dear Ms. Reeves:

Reference is made to your letter dated July 20, 2018, requesting comments regarding proposed improvements to the Rafael Hernández (BQN) Airport, which is located within the premises of the former Ramey Air Force Base, Roads PR-107 & PR-110, Municipality of Aguadilla, Puerto Rico. Reference is also made to a Jurisdictional Wetland Assessment Report dated June 20, 2018, that was conducted for the referenced project, and which was submitted to our office on August 15, 2018. This case was assigned number SAJ-2018-02710 (NPR-DCM). Please refer to this number in future correspondence concerning this project.

According to the information provided, the proposed project would specifically consist of improvements to the currently deteriorated Runway 6-28 of the above-referenced airport, as to ensure safe aircraft operations. Two potential alternatives are currently being considered for this project. The first alternative entails the construction of a temporary runway 720 ft south of the existing runway, reconstruction of the existing runway, and conversion of the new temporary runway into a permanent full parallel taxiway (upon completion of the reconstruction of the existing runway). The second alternative entails the construction of a new permanent runway 500 ft south of the existing runway, and reconstruction of the existing runway into a permanent parallel taxiway. Any of the above-described alternatives would require discharges of dredge or fill material into waters of the United States.

Based on the information provided, the U.S. Army Corps of Engineers (Corps) has determined that the project as proposed will not require a Department of the Army (DA) permit in accordance with Section 10 of the Rivers and Harbors Act of 1899 as it is not located within the navigable waters of the United States. Furthermore, a permit will not be required in accordance with Section 404 of the Clean Water Act as it will not involve

the discharge of dredged or fill material into waters of the United States. Provided the work is done in accordance with the information and drawings provided, DA authorization will not be required.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination/decision, you may request an administrative appeal under Corps' regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination/decision, you must submit a completed RFA form to the South Atlantic Division Office at the following address:

Mr. Jason Steele
South Atlantic Division
U.S. Army Corps of Engineers
CESAD-CM-CO-R, Room 9M15
60 Forsyth St., SW.
Atlanta, Georgia 30303-8801.

Mr. Steele can be reached by telephone number at 404-562-5137, or by facsimile at 404-562-5138.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the RFA. Should you decide to submit an RFA form, it must be received at the above address by **November 13, 2018**. It is not necessary to submit an RFA form to the Division office, if you do not object to the determination/decision in this letter.

This determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work. Please be advised this determination reflects current policy and regulations and is valid for a period of no longer than 5 years from the date of this letter unless new information warrants a revision of the determination before the expiration date. If after the 5-year period, the Corps has not specifically revalidated this determination, it will automatically expire. Any reliance upon this determination beyond the expiration date may lead to possible violation of current Federal laws and/or regulation.

This letter does not obviate the requirement to obtain any other Federal, State, or local permits that may be necessary for your project. Should you have any questions, please contact Mrs. Deborah J. Cedeño-Maldonado, Project Manager, at the letterhead address, by email at Deborah.J.Cedeno-Maldonado@usace.army.mil, or by telephone at 787-289-7036.

Thank you for your cooperation with our permit program. The Corps Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to take a few minutes to visit <http://per2.nwp.usace.army.mil/survey.html> and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise. Please be aware this web address is case sensitive and should be entered as it appears above.

Sincerely,

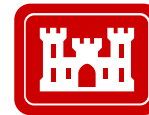
for Sindulfo Castillo
Chief, Antilles Regulatory Section

Enclosures



®

Regulatory Program



®

INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

SECTION I: BACKGROUND INFORMATION

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD): Septemer 14, 2018

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): SAJ-2018-02710-DCM

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:PR

County/parish/borough:

City: Aguadilla

Center coordinates of site (lat/long in degree decimal format): Lat. 18.492122°, Long. -67.134479°.

Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: attached in report/map titled BQN Airport Aguadilla - Review Area.

Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1):

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office (Desk) Determination Only. Date: September 14, 2018.

Office (Desk) and Field Determination. Office/Desk Dates: Field Date(s):

SECTION II: DATA SOURCES

Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate.

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: Maps and information provided by applicant in document titled Final Report Jurisdictional Wetland Assessment - Rafael Hernandez Airport (BQN) Runway Improvements, submitted on August 15, 2018.

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date:

Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon:

Revised Title/Date:

Data sheets prepared by the Corps. Title/Date:

Corps navigable waters study. Title/Date:

CorpsMap ORM map layers. Title/Date:

USGS Hydrologic Atlas. Title/Date:

USGS, NHD, or WBD data/maps. Title/Date:

USGS 8, 10 and/or 12 digit HUC maps. HUC number:

USGS maps. Scale & quad name and date:

USDA NRCS Soil Survey. Citation:

USFWS National Wetlands Inventory maps. Citation: USFWS National Wetland Inventory Wetland Mapper (<https://www.fws.gov/wetlands/Data/Mapper.html>).

State/Local wetland inventory maps. Citation:

FEMA/FIRM maps. Citation:

Photographs: Aerial. Citation: Google Earth; March 30, 2016. or Other. Citation:

LiDAR data/maps. Citation:

Previous JDs. File no. and date of JD letter:

Applicable/supporting case law:

- Applicable/supporting scientific literature:
- Other information (please specify):

SECTION III: SUMMARY OF FINDINGS

Complete ORM “Aquatic Resource Upload Sheet” or Export and Print the Aquatic Resource Water Droplet Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required

A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:

- “navigable waters of the U.S.” within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.

- **Complete Table 1 - Required**

NOTE: If the navigable water is not subject to the ebb and flow of the tide or included on the District’s list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.

B. CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: “waters of the U.S.” within CWA jurisdiction (as defined by 33 CFR part 328.3) in the review area. **Check all that apply.**

- (a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))

- **Complete Table 1 - Required**

- This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.

- (a)(2): All interstate waters, including interstate wetlands.

- **Complete Table 2 - Required**

- (a)(3): The territorial seas.

- **Complete Table 3 - Required**

- (a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.

- **Complete Table 4 - Required**

- (a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 5 - Required**

- (a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

- **Complete Table 6 - Required**

- Bordering/Contiguous.
 - Neighboring:

- (c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.

- (c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.

- (c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.

- (a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(7) waters identified in the similarly situated analysis. - Required**

- Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

- (a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(8) waters identified in the similarly situated analysis. - Required**

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

C. NON-WATERS OF THE U.S. FINDINGS:

Check all that apply.

- The review area is comprised entirely of dry land.
- Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(7) waters identified in the similarly situated analysis. - Required**
- Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.
- Potential-(a)(8) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(8) waters identified in the similarly situated analysis. - Required**
- Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.
- Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):
- **Complete Table 10 - Required**
- (b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA.
- (b)(2): Prior converted cropland.
- (b)(3)(i): Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1)-(a)(3).
- (b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease.
- (b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.
- (b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.¹
- (b)(4)(iv): Small ornamental waters created in dry land.¹
- (b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water.
- (b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.¹
- (b)(4)(vii): Puddles.¹
- (b)(5): Groundwater, including groundwater drained through subsurface drainage systems.¹
- (b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.¹
- (b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.
- Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of (a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).
- **Complete Table 11 - Required.**

D. ADDITIONAL COMMENTS TO SUPPORT AJD: Based on the information provided by the applicant and other supplementary data evaluated for this JD (see checked items in Section II of this form), there are no Corps' jurisdictional waters within the review area.

¹ In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

Non-Jurisdictional Waters

Table 1. Non-Waters/Excluded Waters and Features

| Paragraph (b) Excluded Feature/Water Name | Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion. |
|--|---|
| EXCLDB3III | The review area for this JD includes man-made ditches excavated in uplands as part of the construction of the stormwater infrastructure of the BQN Airport. According to the information provided by the applicant, including a jurisdictional wetland assessment report conducted for the project area, and other supplementary information reviewed by the Corps, including aerial photography, these ditches are not connected downstream or upstream to any other aquatic feature, and do not flow, directly or through another water, into a traditional navigable water, interstate water, or territorial sea ((a)(1)-(a)(3) waters). |

APPENDIX C.4

Section 106 NHPA Consultation and Memorandum of Agreement

This page intentionally left blank.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Federal Aviation Administration
Atlanta Airports District Office

1701 Columbia Avenue
Suite 220
College Park, Georgia 30337

June 11, 2015

Ms. Marinés Colón González, M.A.
Historic Property Specialist
Archaeology
State Historic Preservation Office
P.O. Box 9023935
San Juan, Puerto Rico 00902-3935

Re: National Historic Preservation Act, Section 106 Consultation - National Register Eligibility Determination for Eligible Resources at the Aguadilla Rafael Hernandez (BQN) Airport

Dear Ms. Gonzáles:

The Puerto Rico Ports Authority (PRPA) is preparing a planning and justification study to evaluate alternatives for the reconstruction of Runway 8-28 at the Aguadilla Rafael Hernandez (BQN) Airport. The planning study is partially funded by the Federal Aviation Administration. As part of the over-all planning study effort, Kimley Horn, utilizing the archaeological consulting services of AM Group, completed a Cultural Resource Assessment Survey (CRAS) of the area and included a IA-IB-level archaeological survey(encl). The survey was performed in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966 (Public Law 102-575) as amended in 1992, 36 CFR Part 800: Protection of Historic Properties from the Advisory Council on Historic Preservation, the guide to archaeological investigations of the State Historic Preservation Officer and the *Reglamento para la Radicación y Evaluación Arqueológica de Proyectos de Construcción y Desarrollo del Consejo para la Protección del Patrimonio Aequológico Terrestre de Puerto Rico* designated to the Puerto Rican Cultural Institute (ICP, Spanish Acronym).

The objective of the CRAS was to identify National Register (NR) listed, eligible, and potentially eligible properties located in the Runway 8-28 project area. The study scope also included eligibility evaluations, in accordance with the criteria at 36 CFR 60.4, for all potentially eligible properties not previously evaluated.

The archaeological field work found remnants of foundations from structures previously demolished during the construction and demolition of the Rafael Hernández Airport. The research indicates that foundation ruins located east of Taxiway Charlie are likely remnants of the village of San Antonio that was relocated when the Army built or expanded the air base. West of Taxiway Charlie, the foundation ruins are likely those of buildings built by the U.S. military. While the foundation ruins discovered are more than 50 years old, triggering an eligibility review, we conclude they are not eligible for listing in the NR per the information contained in the CRAS and that no further study is required.

The purpose of this letter is to seek your concurrence with our finding that resources identified in the CRAS, as requiring a NR eligibility evaluation, do not meet the necessary criteria for listing and no further study is required.

We recognize the volume of coordination letters processed by your office and as always we appreciate your expeditious review and response by whatever means is easiest and most and efficient for you. You may provide your response to the above address; via facsimile, (404) 305-7155; or via e-mail, dana.perkins@faa.gov.

If you have questions or need additional information, please contact me at the above e-mail address or by phone at (404) 305-6749.

Sincerely,



Dana L. Perkins
Environmental Program Manager

Enclosure:

Alternatives for the Reconstruction of Runway 08/26, Rafael Hernandez Airport Aguadilla PR,
Stage I Archaeological Survey Report

cc (w/o encl):

Mr. Jorge Suarez Pérez-Guerra/Ms. Milagros Rodriguez Castro, PRPA
Ms. Eileen M. Vélez-Vega, PE, Kimley Horn Puerto Rico, LLC
Mr. Arql. Fernando Alvarado Muñoz, AM Group



August 7, 2015

Marinés Colón González, M.A.
Historic Property Specialist
Archaeology
State Historic Preservation Office
P.O. Box 9023935
San Juan, P.R. 00902-3935

RE: Cultural Resource Assessment Survey for the Alternatives Study for the Reconstruction of Runway 8-26 at the Aguadilla Rafael Hernandez (BQN) Airport

Enclosed please find the completed Cultural Resource Assessment Survey (CRAS) for the above-referenced project that is being submitted for review. The following documents are attached:

- One electronic copy of the CRAS Final Report

22
The objective of this survey was to assess potentially significant cultural resources considered to be eligible for listing on the National Register of Historic Places (NRHP) according to the criteria set forth in 36 CFR Section 60.4. The field work was conducted in compliance with the provisions of Section 106 of the National Historic Preservation Act of 1966 (Public Law 102-575) as amended in 1992, 36 CFR Part 800: Protection of Historic Properties from the Advisory Council on Historic Preservation, and with the regulations of the Law 112, better known as the Protection of the Terrestrial Archaeological Heritage Law of Puerto Rico.

The Puerto Rico Ports Authority (PRPA) retained the services of Kimley-Horn Puerto Rico, LLC (KHPR) to evaluate alternatives for the reconstruction of Runway 8/26 at Rafael Hernandez Airport (BQN) in Aguadilla.

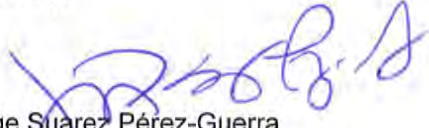
Runway 8-26 is an 11,700 foot runway which is the longest runway in the Caribbean. It is the only runway at the airport. Runway pavements consists of both Asphaltic Concrete and Portland Cement Concrete sections. The main objective of this study is to determine the best phasing alternative for the rehabilitation/reconstruction of the runway that minimizes operational impacts at the airport, provides the most reasonable construction costs and generates the lowest economic impact to the airport and the airlines' operations. The study includes several alternatives for the Runway 8-26 reconstruction including the extension of Taxiway Mike which would be used as a temporary runway during the reconstruction of Runway 8-26.

A Cultural Resource Assessment Survey was conducted for the project and included a phase IA-IB-level archaeological inquiry, taking into consideration the guide to archaeological investigations of the State Historic Preservation Officer and the *"Reglamento para la Radicación y Evaluación Arqueológica de Proyectos de Construcción y Desarrollo del Consejo para la Protección del*

Patrimonio Arqueológico Terrestre de Puerto Rico" designated to the Puerto Rican Cultural Institute (ICP, Spanish acronym).

We are seeking funding for the project from the Federal Aviation Administration (FAA) and will be preparing documentation to show compliance with the National Environmental Policy Act (NEPA). As such, we are requesting your concurrence on the findings in the CRAS. If you have any questions regarding the subject project, please contact Eileen M Vélez-Vega, Kimley-Horn Puerto Rico, LLC at 787-782-5050.

Sincerely,



Jorge Suárez Pérez-Guerra
Assistant Executive Director for
Planning, Engineering, Construction
and Environmental Affairs
Puerto Rico Ports Authority

c: Dana Perkins, FAA Atlanta ADO
Eileen M Vélez-Vega, PE, Kimley-Horn Puerto Rico, LLC
Arql. Fernando Alvarado Muñoz, AM Group



ESTADO LIBRE ASOCIADO DE
PUERTO RICO

Oficina Estatal de Conservación Histórica
State Historic Preservation Office

*Received
12/7/15
emw*

December 1, 2015

Ms. Dana L. Perkins
Environmental Program Manager
Atlanta Airports District Office
Federal Aviation Administration
1701 Columbia Ave.
Suite 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Perkins:

Our Office has received and reviewed a cultural resources assessment survey report (Stage 1) titled "Alternatives for the Reconstruction of Runway 8/26 Rafael Hernández Airport, Aguadilla, PR".

The State Historic Preservation Officer (SHPO) advises and assists federal agencies and other responsible entities in the identification, evaluation and assessment of effects on historic properties (district, site, buildings, structure or object) of projects, activities or programs requiring a Federal permit, license or approval. The authority for these procedures is contained in the National Historic Preservation Act, as amended. In order for the SHPO better assist you in fulfilling your section 106 responsibilities, please provide us with the following documentation:

1. Section 106 delivery control form. Please include total amount of federal funds to be assigned.
2. A detailed written description of the project, including related activities to be carried out in conjunction with the project. If an application was submitted for Federal funding, licenses, or permits, please provide a copy of the application.
3. Project information:
 - a) Area of the project in acres.
 - b) As-found or as-built plans of the building/structure(s) to be affected by the project saved as a PDI² file and included with printed copies, size 11"x17".
 - c) Schematic or preliminary drawings (floor plans, elevations, sections) that show the proposed project design saved as a PDI² file and included with printed

Cuartel de Ballajá (Tercer Piso),
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, P.R. 00901

PO Box 9023935, San Juan, P.R. 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.gobierno.pr



SHPO
OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR

STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

Ms. Perkins
December 1, 2015
Page 2

SHPO: 10 29 15 07 RECONSTRUCTION OF RUNWAY 8 26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

copies, size 11"x17".

4. Determine and document the proposed boundaries of the project's Area of Potential Effect (APE) - geographic area where the project could have a direct or indirect effect on historic properties.
5. Measures taken to provide the public with information about this undertaking and its effects on historic properties, as well as to seek public comment and input.

Regarding the Stage I report and pending a formal definition of the project's APE, we hereby submit some initial comments and recommendations for your consideration. The document should omit that the survey was requested by the Puerto Rico State Historic Preservation Office (page 51) as this is the first submittal to us related to this undertaking. All drawings contained in the document are printed in a very small scale; please reprint and include at a legible scale. After analyzing the results of the archival research, we can infer that there is a high probability of historic structures remains; therefore, the implementation of a 50 meter interval subsurface testing strategy at the West side of the taxiway appears too large.

The Rafael Hernández International Airport [Borinquen (BQN) Airport], is located within the boundaries of the former *Ramey Air Force Base*, a potentially eligible district to the *National Register of Historic Places*. As a result of this survey, several structures remains - allegedly made of concrete and lime - of unknown significance were identified in the surveyed area that perhaps are associated with the San Antonio village (c. late XIX century) and with the military use of the land (c. early XX century - WWII - Cold War context). The Stage I report does not evidence the application of the *National Register of Historic Places* criteria and their associated aspects of integrity in evaluating the historic significance of these properties; therefore, we believe that any determination of eligibility or finding of effect on historic properties regarding this undertaking, at this time, would be premature.

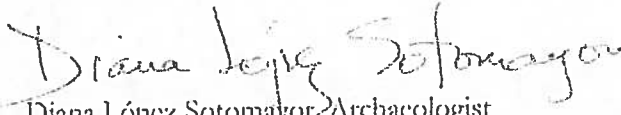
You should evaluate the historic significance of these properties in consultation with our Office as per 36 C.F.R. 800.4 (c)(1). An intensive survey should be carried out consistent with the Secretary of the Interior Standards and Guidelines for Identification and Evaluation; therefore we request an intensive survey work plan for our review and concurrence prior to implementation.

Ms. Perlins
December 1, 2015
Page 3

SHPO: 10 29 15 07 RECONSTRUCTION OF RUNWAY 8 26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

As soon as we receive the requested information, the revised Stage I survey report and the intensive survey work plan, we will continue with our review of this project. If you have any questions, please contact Archaeologist Marinés Colón, Historic Property Specialist, at mcolon@prshpo.pr.gov or (787) 721-3737.

Sincerely,


Diana López Sotomayor, Archaeologist
State Historic Preservation Officer

DI.S/NAPT/BRS/MC

c Mr. Jorge Suárez, Assistant Executive Director for Planning, Engineering, Construction and Environmental Affairs, Puerto Rico Ports Authority
Ms. Eileen M. Vélez-Vega, PE, Kimley Horn Puerto Rico, LLC



ESTADO LIBRE ASOCIADO DE
PUERTO RICO

Oficina Estatal de Conservación Histórica
State Historic Preservation Office

January 8, 2016

Ms. Dana L. Perkins
Environmental Program Manager
Atlanta Airports District Office
Federal Aviation Administration
1701 Columbia Ave.
Suite 220
College Park, Georgia 30337

**SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL
HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO**

Dear Ms. Perkins:

A meeting was requested by the archaeology consultant in order to clarify comments included in our letter dated December 1, 2015 related to the archaeological reconnaissance survey report prepared for the above referenced project. At said meeting, held in our Office on December 14, 2015, the archaeology consultant handed us a set of documents with highlighted and flagged pages without a cover letter.

These documents comprise a 15-page "Scope of Services" prepared by Kimley Horn Puerto Rico, LLC for the Puerto Rico Ports Authority (PRPA), a 32-page "Professional Services Agreement" between PRPA and Kimley Horn, and a 137-page "Evaluation of Alternatives", also prepared by Kimley Horn for PRPA that includes condition and operational assessments, formulation of alternatives and technical considerations, an alternative analysis and selection of preferred alternatives and an environmental and funding analysis with recommendations.

These documents do not address the information requested in our December 1 letter. It is still unclear to us as to what is the undertaking. We need a detailed written description of the project, including related activities to be carried out in conjunction with the project. Also, as commented in our last letter dated December 1, 2015, all drawings presented are printed in an unreadable scale; to review please enlarge and resubmit at a legible scale, saved as a PDF file and included with printed copies size 11"x17".

Also pending is a formal determination and documentation of the project's Area of Potential Effect boundaries by the federal agency. Please fill out and submit include the "Section 106 Delivery Control Form" (enclosed and also available on our web

Cuartel de Ballajá (Tercer Piso),
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, P.R. 00901

PO Box 9023935, San Juan, P.R. 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.gobierno.pr



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR

STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

OECH

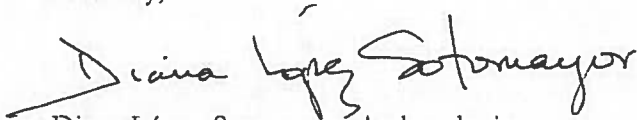
Ms. Perkins
January 8, 2016
Page 2

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

page www.oech.pr.gov).

As soon as we receive the requested information, the revised Stage I survey report and the intensive archaeological survey work plan, we will continue with our review of this project. If you have any questions, please contact Archaeologist Marinés Colón, Historic Property Specialist, at mcolon@prshpo.pr.gov or (787) 721-3737.

Sincerely,



Diana López Sotomayor, Archaeologist
State Historic Preservation Officer

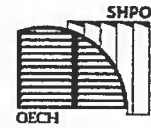
DLS/NAPT/BRS/MC

c Mr. Jorge Suárez, Assistant Executive Director for Planning, Engineering, Construction
and Environmental Affairs, Puerto Rico Ports Authority
Ms. Eileen M. Vélez-Vega, PE, Kimley Horn Puerto Rico, LLC

Enclosure



**Formulario para el control de entrega.
Proyectos de sección 106**



(Delivery control form 106 Section)

| Sección A. Información a ser llenada por el proponente* (Section A. Information to be filled by proponent) | | | |
|--|--|---|--|
| Nombre del Proyecto/ Project's name | | Número de referencia federal/ Reference federal number | |
| | | | |
| Municipio/ Municipality | Barrio/ Ward | Nombre del Proponente/ Proponent's name | |
| | | | |
| Agencia Federal/ Federal Agency | Total de fondos federales solicitados/ Total of federal funds to be requested | Total de acres/ Total amount of acres | |
| | | | |
| Nombre de la persona que entrega/ Name of person who delivers | | Firma/Signature | |
| | | | |
| Sección B. Información a ser llenada por la OECH al momento de la entrega del proyecto (Section B. Information to be filled by SHPO upon delivery) | | | |
| Fecha de entrega en la OECH/ SHPO delivery date | | Nombre y firma de la persona que recibe/ Name and signature of person who received | |
| | | | |

* Para poder cumplir su labor ministerial la OECH requiere que la Sección A de este formulario sea completada en su totalidad. Por tal razón, no se aceptarán proyectos que incumplan este requerimiento.
(To carry out our duties, the SHPO requires that Section A of this form be totally filled-out. For this reason, we will not accept an incomplete form.)



Wednesday, August 15, 2018

Ms. Felicia K. Reeves

Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave. Room 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Reeves:

Our Office received correspondence on July 25, 2018 related to the above referenced project. Said submission includes a cover letter and 4 drawings over a segment of a topographic map (Figure 1) and aerial photographs (Figures 2-4).

According to information submitted, the Puerto Rico Ports Authority will consider two separate development concepts for this undertaking, named Alternative 1A and 2A (with variations), to be evaluated as part of the Environmental Assessment (EA). Your letter proposes an Area of Potential Effects (APE) within which this undertaking may directly or indirectly cause alterations to the character or use of historic properties.

Considering that the proposed undertaking, as presented, only encompasses the reconstruction of Runway 8-26 and no additional vertical features, we believe the APE proposed for the historic architectural resources - that comprises the predicted composite 60 decibel day-night average sound level (DNL 60 dB) noise contour - is appropriate. However, the identification of all buildings and/or structures within the agreed APE should be included in the new cultural resources assessment.

Regarding the Area of Potential Effects where any degree of ground disturbance - including demolition - is foreseen, we hereby request it depicted in a scale drawing over each alternative including the proposed 100 feet buffer. Once submitted and evaluated, we'll determine our concurrence.

As stated in your letter, our comments and recommendations regarding previous identification efforts should be considered in the preparation of a new cultural resources (above-ground and archaeological) assessment report to be



Ms. Felicia K. Reeves
August 15, 2018
Page 2

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ
(BQN) AIRPORT, AGUADILLA, PUERTO RICO

included in the EA.

Please be advised that your agency official may use the process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with section 106 in lieu of the procedures set forth in 36 CFR 800.3 through 800.6, if the SHPO and the Advisory Council on Historic Preservation have been notified in advance that he/she intends to do so and the standards set forth in §800.8 (c) (1) are met.

As soon as we receive the requested information, we will continue with our review of this project. If you have any questions, please contact our Office at (787) 721-3737.

Sincerely,



Carlos A. Rubio Cancela
State Historic Preservation Officer

CARC/GMO/BRS/MDT/MC

c Eng. Romel Pedraza, Assistant Executive Director in Planning, Engineering and Construction, Puerto Rico
Ports Authority

Cuartel de Ballajá (Tercer Piso),
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, P.R. 00901

PO Box 9023935, San Juan, P.R. 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.gobierno.pr





U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

August 13, 2019

Mr. Carlos A. Rubio Cancela
Puerto Rico State Historic Preservation Office
P.O. Box 9023935
San Juan, PR 00902-3935

**RE: Section 106 Consultation Reconstruction of Runway 8-26 at Rafael Hernandez
Airport (BQN), Aguadilla, Puerto Rico (SHPO 10-29-15-07)**

Dear Mr. Cancela:

On 13 Feb 19, the Federal Aviation Administration (FAA), in conjunction with the Puerto Rico Port Authority (PRPA), conducted a meeting with the Puerto Rico State Historic Preservation Office (PR-SHPO). The purpose of the meeting was to brief your office on the status of the Environmental Assessment (EA), ongoing cultural resources studies and identify/discuss any concerns of the PR-SHPO.

Per the 13 Feb 19 teleconference, the FAA understands 1) we are in the identification phase of the Section 106 National Historic Preservation Act (NHPA) consultation; 2) consultations are a federal-to-federal interaction between the PR-SHPO and the FAA; 3) the FAA needs to demonstrate consideration of avoidance alternatives for any significant resources; and 4) to support the identification phase, the PR-SHPO request additional analysis of potentially important features within the Areas of Potential Effect (APEs). For reference, see enclosed exhibits.

Regarding item #4, to date, the analysis has focused on archaeological excavation in areas of proposed runway pavement, as well as a NHPA criteria appraisal of potentially significant architectural structures to the south of the proposed runway alternatives, which are slated for demolition. During the 13 Feb 19 teleconference, the PR-SHPO recommended that additional analysis be conducted in our APEs to support the identification phase of this consultation. We understood this to entail conducting an NHPA appraisal of all buildings and/or structures in our APEs, even if they are not expected to be impacted or altered by the proposed undertaking, as well as an equal appraisal of existing runway pavements in our APEs.

The FAA seeks to ensure full compliance with the additional work as described in this letter. Please confirm the FAA understands the PR-SHPO's comments per 13 Feb 19 meeting.

The FAA issued a grant to PRPA to initiate this EA in 2017. The FAA understands PRPA recently changed contractor support. The FAA concurs with this change however it has delayed further consultation with your office. Additionally, the FAA understands the new contract support is responsible for completing the cultural resources analysis and assisting the FAA's consultation with your office (see enclosed Scope of Work and exhibits). Consequently, prior to performing additional work, the FAA seeks assistance from your office to fully understand PR-SHPO's 13 Feb 19 requests.

Based on PR-SHPO's response to this letter, PRPA will provide a draft detailed work plan to the FAA outlining additional investigative work required. The FAA will consult with your office on the draft work plan prior to proceeding.

Please contact me via email or phone for additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Felicia K. Reeves', with a long horizontal flourish extending to the right.

Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708
felicia.reeves@faa.gov

Enclosure (1)

Copy: Romel Pedraza, PRPA
Paul Sanford, AECOM
Victor Morales, AECOM

1 **SCOPE OF WORK**
2 **CULTURAL RESOURCES SUPPORT SERVICES**
3 **FOR RUNWAY 08-26 RECONSTRUCTION**
4 **ENVIRONMENTAL ASSESSMENT**
5 **AT**
6 **RAFAEL HERNANDEZ AIRPORT**
7 **(rev1, 09 June 2019)**

8 **BACKGROUND**

9 AECOM is currently assisting the Puerto Rico Ports Authority (PRPA) and the Federal Aviation
10 Administration (FAA) Atlanta Airports District Office (ADO) in preparing an Environmental
11 Assessment (EA) for the reconstruction of Runway 8-26 at Rafael Hernandez Airport, Aguadilla,
12 Puerto Rico (BQN). The EA focuses on two primary alternatives for project implementation.

13 As proposed, the alternatives being studied in the EA (**Attachment A**) have high potential to
14 significantly adversely affect historic and archaeological resources in the project area. Pursuant
15 to Section 106 of the National Historic Preservation Act (NHPA), consultation with the Puerto
16 Rico State Historic Preservation Office (PR-SHPO) has been initiated by the FAA ADO and is
17 ongoing.

18 To date, cultural resources assessment services have been rendered for this project by a
19 subcontractor to AECOM. The subcontractor has been participating in the project since
20 inception of planning studies in 2014-2015. Based on independent technical review, FAA
21 review, and PR-SHPO comments on their work products, FAA has determined that the
22 documentation produced to date is insufficient to meet the requirements of the NHPA, the
23 National Environmental Policy Act (NEPA), and FAA's NEPA implementation Orders (i.e.,
24 1050.1F, *Environmental Impacts, Policies and Procedures*, and Order 5050.4B, *NEPA*
25 *Implementing Instructions for Airport Actions*).

26 Further, in a 13 February 2019 teleconference between the FAA, the PRPA, AECOM and the
27 PR-SHPO, the PR-SHPO has requested that, to support the investigation phase of the Section
28 106 consultation, additional investigation (above and beyond what has been studied to date by
29 previous subcontractor) should be performed in the project Areas of Potential Effect (APE) as
30 outlined on **Attachment A**.

31 It is the position of the FAA ADO that the reports will be rejected until such a time that all
32 internal review and PR-SHPO comments have been adequately addressed. PRPA concurs with
33 this determination and has requested a plan of action from AECOM to further the Section 106
34 process required for the EA. See **Attachment B** for the related FAA/PRPA communications on
35 this matter.

36 This Scope of Work has been issued such that AECOM can provide data collection, field
37 reconnaissance, documentation, consultation and mitigation support services necessary to

1 complete Section 106 consultation procedures for the EA, such that the EA can advance.
2 AECOM's proposed fee for these services is included as **Attachment C**.

3 **TASK 1 DATA COLLECTION/BACKGROUND RESEARCH**

4 **Task 1.1 Historic Architecture**

5 AECOM will develop historic and architectural contexts for historic resources identified within
6 the project's historic architecture Area of Potential Effects (APE). These resources will include
7 hangars and other resources associated with the former Borinquen Field Army Air Base and
8 resources associated with Borinquen's successor, Ramey Air Force Base (AFB). Research will
9 be conducted: at libraries and historical associations within Aguadilla and San Juan, including
10 the collections of the Ramey AFB Historical Association and Museum; at the research libraries
11 of Duke University, North Carolina State University, and the University of North Carolina at
12 Chapel Hill; and at online digital repositories, including those of the Department of Defense
13 Legacy Resource Management Program. AECOM will additionally develop historical and
14 architectural contexts for any other historic resources identified within the APE.

15 **Task 1.2 Archaeology**

16 The project will include background research to gain further information on archaeological sites
17 in the region to provide a context for identifying likely locations of unrecorded archaeological
18 sites that may remain within the current project area. To achieve this goal, AECOM will review
19 archaeological reports, archaeological site files, historic period maps, and other secondary
20 documents and histories. In addition, data on past land use modifications will be collected and
21 reviewed, such as historic maps, historic aerial photography, and soils mapping.

22 *Deliverable(s): None*

23 **TASK 2 FIELD SURVEY AND RECONNAISSANCE**

24 **Task 2.1 Work Plan Development and Coordination with PR-SHPO**

25 AECOM will develop draft work plans for historic architectural and archaeological resources for
26 submission to the PR-SHPO. AECOM will prepare final work plans that address comments by
27 the PR-SHPO.

28 *Deliverable(s): One (1) Draft and one (1) Final Work Plan. Electronic Format*

29 **Task 2.2 Historic Architecture Survey**

30 AECOM will conduct an intensive-level field survey that includes identifying, analyzing and
31 evaluating all properties 50 years old and older, or of exceptional importance, within the historic
32 architecture APE. Potentially significant airfield pavements at BQN will be included in this
33 appraisal per PR-SHPO request. This survey will include digital photography of resources,

1 settings, landscape features, and any alterations to resources that might affect their integrity. It
2 will also document the relationship of resources to each other and any potential historic district.

3 *Deliverable(s): None*

4 **Task 2.3 Archaeology Survey**

5 Archaeological fieldwork will begin with systematic pedestrian reconnaissance of the entire APE
6 to evaluate current conditions and identify any archaeological resources visible on the surface.
7 This will be followed by systematic shovel test pit excavation where needed. Specific field
8 testing methodologies will be refined in the work plan for SHPO review, but in general, shovel
9 test transects will be spaced at either 25 meter (75 foot) intervals, 50 meter (150 foot), and 100
10 meter (300 foot) intervals and shovel test pits (STPs) along transects likewise will be spaced at
11 25 meter (75 foot) intervals, 50 meter (150 foot), and 100 meter (300 foot) intervals. STPs will
12 be square, approximately 50 centimeters (18 inches) in diameter, and excavated by natural
13 stratigraphy with a long handled shovel into culturally sterile subsoil or to a maximum of one
14 meter in depth. All soils removed from the STP will be screened using quarter-inch wire mesh
15 for uniform artifact recovery. Detailed notes for each STP will be recorded on standardized field
16 forms. Where cultural materials are recovered, a series of close-interval (10 meter/33 feet)
17 STPs will be deployed to determine the horizontal extent of the archaeological site. The
18 locations of all STPs will be recorded in the field using a differentially corrected sub-meter
19 accurate GPS device.

20 The scope of work assumes that AECOM will be able to sample areas previously investigated
21 within the project area to validate the results of the earlier work and will not have to conduct
22 systematic shovel testing over the entire APE. If this approach is not allowed by the PR-SHPO,
23 additional field efforts would be required in a modification to this Scope.

24 *Deliverable(s): None*

25 **TASK 3 CULTURAL RESOURCES ASSESSMENT SURVEY REPORT**

26 **Task 3.1 Historic Architecture**

27 AECOM will prepare a draft historic architectural Cultural Resource Assessment Survey (CRAS)
28 Report for submittal to the PR-SHPO. The CRAS will include a project description,
29 methodology, relevant historic and architectural contexts, and bibliography. It will also include
30 histories and descriptions of each individual recorded historic resource and historic district, as
31 well as integrity and significance statements that will support recommendations of National
32 Register of Historic Places (NRHP) eligibility of the recorded resources. To assist in its eligibility
33 recommendations, AECOM will consult previous Department of Defense Legacy Program
34 studies that include histories of, contexts for, and proposed NRHP eligibility requirements for
35 Army Air Fields, Air Force Bases, and their associated resources dating from World War II and
36 the Cold War. Following review, AECOM will prepare a final historic architectural CRAS that
37 addresses comments by the PR-SHPO.

1 Task 3.2 Archaeology

2 AECOM will prepare a draft archaeological Cultural Resource Assessment Survey (CRAS)
3 Report for submittal to the PR-SHPO. The CRAS will include a project description,
4 methodology, relevant archaeological contexts, and bibliography. It will also include descriptions
5 of any archaeological resources identified, as well as integrity and significance statements that
6 will support recommendations of National Register of Historic Places (NRHP) eligibility of the
7 recorded resources. Following review, AECOM will prepare a final archaeological CRAS that
8 addresses comments by the PR-SHPO.

9 *Deliverable(s): One (1) Draft and three (3) Final CRAS. The Draft will be provided to FAA and*
10 *PRPA electronically for review and comment. The Final will be delivered both electronically and*
11 *in hard copy (1) to the PR-SHPO under FAA Atlanta ADO signature. Hard copies (2) will also be*
12 *provided to PRPA and FAA. AECOM is responsible for all printing, reproduction and shipping*
13 *costs associated with report transmittal.*

14 TASK 4 SHPO CONSULTATION SUPPORT

15 AECOM will provide cultural resources subject matter experts in archaeology and architectural
16 history to facilitate discussion, review, and consultation between the FAA and the PR SHPO.
17 The current scope assumes that no in-person meetings in Puerto Rico will be required for this
18 task.

19 *Deliverable(s): None*

**20 TASK 5 MITIGATION PLANNING AND MEMORANDUM OF AGREEMENT SUPPORT
21 SERVICES****22 Task 5.1 Development of Mitigation Options**

23 If project plans cannot be altered in order to prevent impacts to historic or archaeological
24 properties that are eligible for listing on the NRHP, treatment plans must be developed that limit
25 adverse effects or allow for alternative mitigation measures. AECOM will develop mitigation
26 plans for resources that cannot be avoided through project re-design, but implementation of any
27 required mitigation measures are not included in this Proposal. The current scope assumes that
28 no in-person meetings in Puerto Rico will be required for this task.

29 *Deliverable(s): One (1) Draft and one (1) Final Mitigation Plan. Electronic Format*

30 Task 5.2 Memorandum of Agreement Development

31 Mitigation of impacts to historic or archaeological properties that are eligible for listing on the
32 NRHP will also require development of a Memorandum of Agreement (MOA) between the FAA
33 and the SHPO. AECOM will facilitate and support the development and drafting of an MOA, if

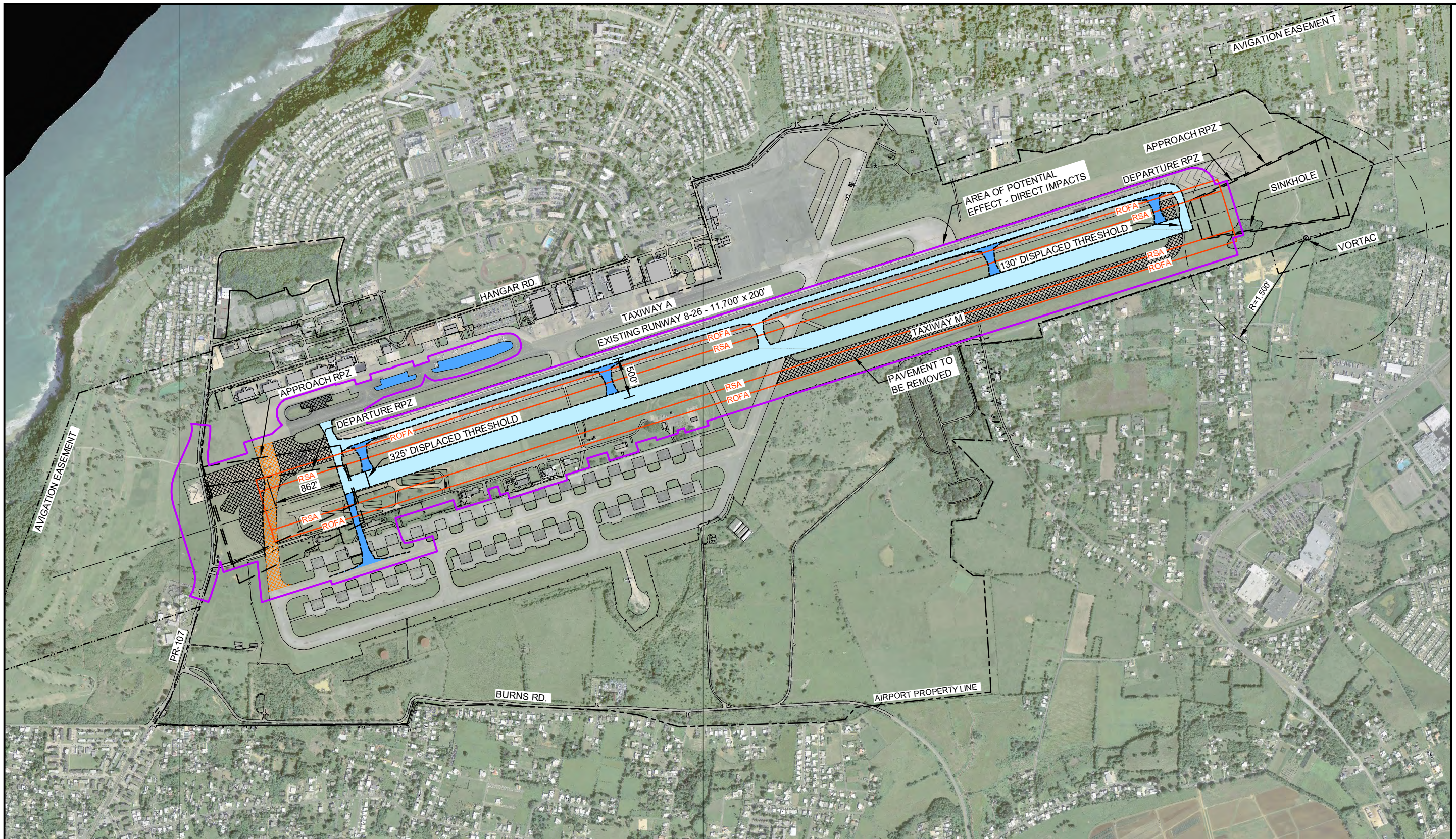
1 needed. The current scope assumes that no in-person meetings in Puerto Rico will be required
2 for this task.

3 *Deliverable(s): One (1) Draft and up to two (2) Final MOA Documents. The Draft will be*
4 *provided to FAA and PRPA electronically for review and comment. The Final will be delivered*
5 *both electronically and in hard copy (1) to the FAA. One (1) hard copy can also be sent to PR-*
6 *SHPO under this scope of work.*

This page intentionally left blank.

ATTACHMENT A – EA ALTERNATIVES AND AREAS OF POTENTIAL EFFECT

This page intentionally left blank.

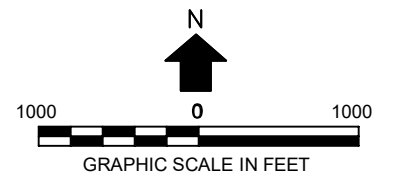


LEGEND

- INITIAL PAVEMENT CONSTRUCTION
- FUTURE TAXIWAY CONNECTIONS (ONCE JUSTIFIED)
- TO BE DEMOLISHED UPON TAXIWAY CONNECTION TO THE SOUTH
- AREA OF POTENTIAL EFFECT - DIRECT IMPACTS

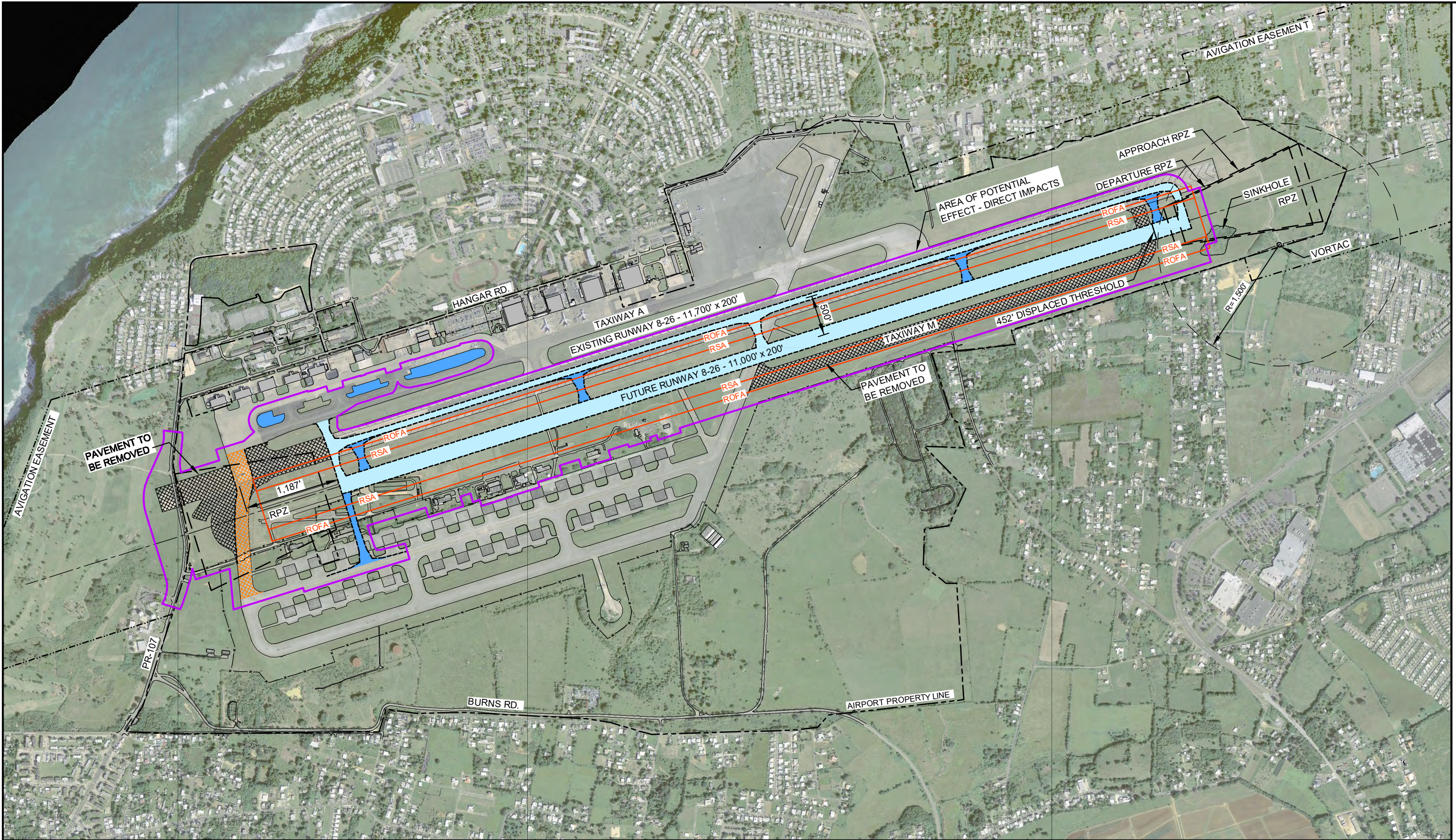
DECLARED DISTANCES

| RUNWAY | TORA | TODA | ASDA | LDA |
|--------|---------|---------|---------|---------|
| 8 | 11,000' | 11,000' | 10,470' | 10,145' |
| 26 | 10,698' | 11,000' | 11,000' | 10,870' |



RAFAEL HERNANDEZ AIRPORT
Aguadilla, Puerto Rico
RUNWAY 8-26 RECONSTRUCTION
ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 2B

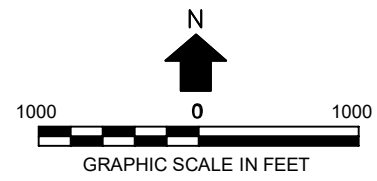


LEGEND

- INITIAL PAVEMENT CONSTRUCTION
- FUTURE TAXIWAY CONNECTIONS (ONCE JUSTIFIED)
- TO BE DEMOLISHED UPON TAXIWAY CONNECTION TO THE SOUTH
- AREA OF POTENTIAL EFFECT - DIRECT IMPACTS

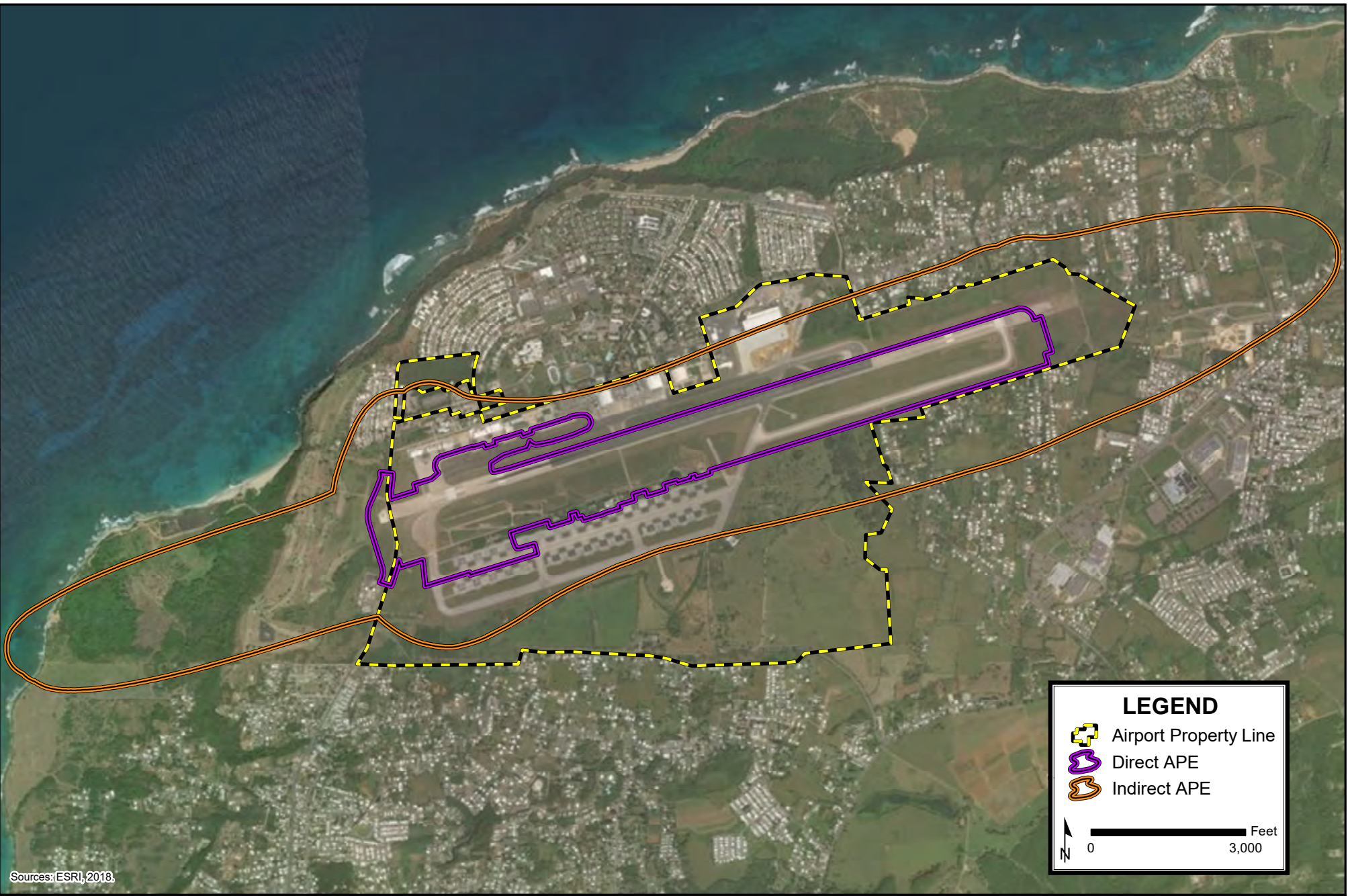
DECLARED DISTANCES

| RUNWAY | TORA | TODA | ASDA | LDA |
|--------|---------|---------|---------|---------|
| 8 | 10,675' | 11,000' | 10,148' | 10,148' |
| 26 | 11,000' | 11,000' | 11,000' | 10,548' |






RAFAEL HERNANDEZ AIRPORT
Aguadilla, Puerto Rico
RUNWAY 8-26 RECONSTRUCTION
ENVIRONMENTAL ASSESSMENT



ALTERNATIVE 2D



Sources: ESRI, 2018.

LEGEND

-  Airport Property Line
-  Direct APE
-  Indirect APE

  Feet

RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION
ENVIRONMENTAL ASSESSMENT

AREAS OF POTENTIAL EFFECT (APE)



This page intentionally left blank.

ATTACHMENT B – FAA AND PRPA CORRESPONDENCE

This page intentionally left blank.



GOVERNMENT OF PUERTO RICO

Ports Authority

June 4, 2019

Mr. Víctor Morales, PE
Project Manager
AECOM Caribe, LLP
954 Ponce de León Ave.
Suite 304
San Juan, Puerto Rico 00907

RE: Environmental Assessment (EA) for Reconstruction of Runway 8-26 at Rafael Hernández Airport (BQN), Aguadilla, Puerto Rico

Dear Mr. Morales:

AECOM Caribe, LLP (AECOM, hereafter) and the Puerto Rico Ports Authority (PRPA) signed an agreement AP-17-18-(5)-065 on January 30, 2018. This contract specifies that AECOM must conduct an Environmental Assessment (EA) to comply with the Federal Aviation Administration (FAA) regarding the NEPA process.

On May 21, 2019 PRPA received a letter from FAA in relation to the above mentioned project. This letter summarizes the works performed by AECOM, in order to comply with the Section 106 of the National Historic Preservation Act, in accordance to the National Environmental Policy Act of 1969. For this purpose, FAA is requesting PRPA to submit a plan in compliance with this federal requirement.

The PRPA's Historical Archeological and the Historical Architectural Survey, both cultural resources studies prepared by AM Group, firm subcontracted by AECOM for this purpose, were reviewed by FAA. This federal agency determined that both documents are unacceptable, based on the four (4) bullets described in a letter, as explained in its letter of May 22, 2019. Also, these documents do not comply with the Puerto Rico State Historic Preservation Office (PRSHPO) requirements, according to the letter dated December 1, 2015 and January 16, 2016 issued by this federal agency. For this reason, FAA has decided not to submit these resources studies reports to PRSHPO.

Also, FAA indicates that the Historical Architectural Survey Report requires additional field work. It is important to mention that PRPA agrees with FAA's determination.

PRPA is requesting AECOM seeks alternatives to comply with the contract, regarding the mentioned issues, in order to comply with Section 106. Therefore, PRPA requires AECOM to submit a plan which explain how these requirements will be fulfilled. As soon as possible PRPA receives and reviews this plan, in order to be accepted by FAA, it will be submitted to FAA for evaluation and approval.

If you need additional information, don't hesitate to contact the subscriber at 787-729-8715, extension 3178 or Milagros Rodríguez Castro, Environmental Affairs Manager, extension 3229.

Cordially,

Romel Pedraza Claudio, PE
Assistant Executive Director for Planning,
Engineering and Construction

Enclosure: FAA's letter dated May 21, 2019





U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

May 21, 2019

Romel Pedraza, P.E.
Chief of Studies and Designs
Puerto Rico Ports Authority (PRPA)
64 Lindbergh Street
Former Miramar Naval Base
San Juan, PR 00907

**RE: Environmental Assessment (EA) for Reconstruction of Runway 8-26 at Rafael
Hernandez Airport (BQN), Aguadilla, Puerto Rico**

Dear Mr. Pedraza;

Puerto Rico Port Authority (PRPA or Airport Sponsor) in conjunction with the Federal Aviation Administration (FAA), began the Alternative Analysis for Reconstruction of Runway 8-26 at Rafael Hernández Airport in 2014 per Airport Improvement Program (AIP) Grant 3-72-0020-26-2014. The grant closed with a deliverable to the FAA entitled "Evaluation of Alternatives for the Reconstruction of Runway 8/26 Rafael Hernández Airport (BQN)". The Prime consultant was Kimley-Horn (KH) Puerto Rico. The sub consultant responsible for the cultural resources studies was AM Group.

On August 7, 2015 PRPA sent the Puerto Rico State Historic Preservation Office (PR SHPO) a Cultural Resources Assessment Survey (CRAS). The PR SHPO responded directly to the FAA requesting additional information on January 8, 2016. SHPO determined the submittal was insufficient and needed to evaluate the historic significance and integrity of the various buildings within the project area. Additionally, PR SHPO requested an intensive survey work plan for their review and concurrence. AIP Grant 3-72-0020-26-2014 closed prior to responding to the SHPO.

Projects funded by the FAA require decisions and approvals by the FAA in accordance to the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) regulations implementing NEPA, FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions, and FAA Order 1050.1F Environmental Impacts: Policies and Procedures.

On January 30, 2018, PRPA signed a contract with AECOM CARIBE, LLP, to conduct an EA for the Reconstruction of Runway 8-26 at Rafael Hernandez Airport (BQN) "Proposed Project" under Professional Services Agreement No. AP-17-18-(5)-065. A Supplemental Agreement was signed June 5, 2018. AECOM CARIBE, LLP subcontracted with AM Group to complete the cultural resources for the Proposed Project started under AIP Grant 3-72-0020-26-2014.

PRPA/ FAA determined, the alternatives to advance in the EA consisted of the 10 options developed in the KM "Evaluation of Alternatives for the Reconstruction of Runway 8/26 Rafael Hernández Airport (BQN)" in addition to the following;

- a) Do nothing alternative
- b) Alternative 10.2 (PRPA preferred alternative)
- c) Alternative 2 & Hybrid Alternative. This one is similar to the combination of alternatives 2 and 7 as described in the KH study.

An Interagency Agency Scoping Meeting was held August 1, 2018 to present the Proposed Project to federal and local agencies. PR SHPO provided comments reaffirming its prior comments (2015 and 2016) regarding the CRAS survey and the historic significance evaluation of various buildings to be demolished.

On September 18, 2018 the FAA received the BQN Runway 8-26 EA: Archaeological Report (CRAS). Based on review, the FAA informed PRPA September 21, 2018 the document was unacceptable based on the following:

- PRPA submitted virtually the same document submitted May 28, 2015. Closed AIP# 3-72-0020-26-2014.
- PRPA submitted virtually the same document submitted June 17, 2016. Closed AIP# 3-72-0020-26-2014.
- Non responsive to 1 Dec 2015 letter per PR SHPO
- Non responsive to 8 Jan 2016 letter per PR SHPO.

PRPA addressed some of FAA's comment matrix and submitted a second document entitled Historical Architectural Survey Report January 2019. In an effort to prevent further delay, on February 13, 2019 the FAA/PRPA conducted a conference call with the PR SHPO. The purpose of the meeting was to brief PR SHPO on the status of the EA, ongoing cultural resources studies and identify/discuss any concerns of the PR SHPO. During the meeting, PR SHPO commented:

- The alternatives presented February 13, 2019 were different from the alternatives in the Evaluation of Alternatives for the Reconstruction of Runway 8/26 Rafael Hernández Airport (BQN). The PR SHPO was not consulted.
- A work plan for the cultural resources evaluation was not presented to PR SHPO for review and concurrence prior to field work.
- The Proposed Project is in the identification phase of the Section 106 National Historic Preservation Act (NHPA) consultation.
- Consultations are a federal-to-federal interaction between the PR-SHPO and the FAA.
- FAA needs to demonstrate consideration of avoidance alternatives for any significant resources.
- Request additional analysis of potentially important features within the Areas of Potential Effect, specifically the runway and historic nature of the former Ramsey Air Force Base.

Based on meeting, the FAA decided not to submit PRPA's Historical Archeological or the Historical Architectural Survey Report to the PR SHPO. The FAA requested PRPA have the prime consultant use their internal reach back capabilities within company to review the sub consultant's reports. This review resulted in over 200 comments which the FAA has determined are substantial.

May 9, 2019, FAA held a conference call with PRPA to discuss the current status of both Section 106 Consultation and the EA. Meeting included: Larry Clark, ATL-ADO Manager, Parks Preston, ATL-ADO Assistant Manager; Rob Rau, ATL-ADO Lead Planner and Jackie Sweatt-Essick, Southern Region EPS and myself. The FAA noted it fully supports the Reconstruction of Runway 8/26 Rafael Hernández Airport (BQN). Additionally, the FAA informed PRPA all comments received to date associated with both the Historical Archeological and the Historical Architectural Survey Report require addressing, additional field work etc. to comply with Section 106 of the National Historic Preservation Act; a requirement of NEPA.

As you are aware, consultation with the PR SHPO is a federal to federal interaction. Request PRPA provide a plan for submitting a Section 106 compliant deliverable to the FAA. Once received, the FAA will then proceed to consult with PR SHPO on the Proposed Project.

Sincerely,



Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708
felicia.reeves@faa.gov

cc: Larry Clark, ATL-ADO Manager
Steve Hicks, ASO Director



ATTACHMENT C – FEE BACKUP (TO BE PROVIDED UPON FAA/PRPA SCOPE APPROVAL)

This page intentionally left blank.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

September 13, 2019

Mr. Carlos A. Rubio Cancela
Puerto Rico State Historic Preservation Office
P.O. Box 9023935
San Juan, PR 00902-3935

**RE: Section 106 Consultation Reconstruction of Runway 8-26 at Rafael Hernandez
Airport (BQN), Aguadilla, Puerto Rico (SHPO 10-29-15-07)**

Dear Mr. Cancela:

Per the August 13, 2019 Federal Aviation Administration (FAA) letter to your office, please find the attached Cultural Resources Work Plan for your review. The FAA seeks to ensure full compliance with Section 106 consultation.

The Proposed Project is based on runway improvements necessary at Rafael Hernandez Airport (BQN) due to deteriorating pavement conditions. These deteriorations preclude safe aircraft operations over time. As such, the Puerto Rico Port Authority (PRPA), Airport Sponsor, and the FAA fully support the Proposed Project. In addition, the FAA has a statutory mandate to ensure the safe and efficient use of the national airspace system.

Please contact me via email or phone with any comments.

Sincerely,

Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office 1701 Columbia Ave Room 220
College Park, GA 30337 404.305.6708
felicia.reeves@faa.gov

Enclosure (2) August 13, 2019 ltr to SHPO and Runway 8-26 Reconstruction EA CR Work Plan

Copy: Romel Pedraza, PRPA
Victor Morales, AECOM
Paul Sanford, AECOM



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

August 13, 2019

Mr. Carlos A. Rubio Cancela
Puerto Rico State Historic Preservation Office
P.O. Box 9023935
San Juan, PR 00902-3935

**RE: Section 106 Consultation Reconstruction of Runway 8-26 at Rafael Hernandez
Airport (BQN), Aguadilla, Puerto Rico (SHPO 10-29-15-07)**

Dear Mr. Cancela:

On 13 Feb 19, the Federal Aviation Administration (FAA), in conjunction with the Puerto Rico Port Authority (PRPA), conducted a meeting with the Puerto Rico State Historic Preservation Office (PR-SHPO). The purpose of the meeting was to brief your office on the status of the Environmental Assessment (EA), ongoing cultural resources studies and identify/discuss any concerns of the PR-SHPO.

Per the 13 Feb 19 teleconference, the FAA understands 1) we are in the identification phase of the Section 106 National Historic Preservation Act (NHPA) consultation; 2) consultations are a federal-to-federal interaction between the PR-SHPO and the FAA; 3) the FAA needs to demonstrate consideration of avoidance alternatives for any significant resources; and 4) to support the identification phase, the PR-SHPO request additional analysis of potentially important features within the Areas of Potential Effect (APEs). For reference, see enclosed exhibits.

Regarding item #4, to date, the analysis has focused on archaeological excavation in areas of proposed runway pavement, as well as a NHPA criteria appraisal of potentially significant architectural structures to the south of the proposed runway alternatives, which are slated for demolition. During the 13 Feb 19 teleconference, the PR-SHPO recommended that additional analysis be conducted in our APEs to support the identification phase of this consultation. We understood this to entail conducting an NHPA appraisal of all buildings and/or structures in our APEs, even if they are not expected to be impacted or altered by the proposed undertaking, as well as an equal appraisal of existing runway pavements in our APEs.

The FAA seeks to ensure full compliance with the additional work as described in this letter. Please confirm the FAA understands the PR-SHPO's comments per 13 Feb 19 meeting.

The FAA issued a grant to PRPA to initiate this EA in 2017. The FAA understands PRPA recently changed contractor support. The FAA concurs with this change however it has delayed further consultation with your office. Additionally, the FAA understands the new contract support is responsible for completing the cultural resources analysis and assisting the FAA's consultation with your office (see enclosed Scope of Work and exhibits). Consequently, prior to performing additional work, the FAA seeks assistance from your office to fully understand PR-SHPO's 13 Feb 19 requests.

Based on PR-SHPO's response to this letter, PRPA will provide a draft detailed work plan to the FAA outlining additional investigative work required. The FAA will consult with your office on the draft work plan prior to proceeding.

Please contact me via email or phone for additional information.


Sincerely,



Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708
felicia.reeves@faa.gov

Enclosure (1)

Copy: Romel Pedraza, PRPA
Paul Sanford, AECOM
Victor Morales, AECOM



**Rafael Hernandez Airport
Runway 8-26 Reconstruction Environmental
Assessment
Cultural Resources Work Plan**

September 5, 2019

Prepared For:
Federal Aviation Administration
Puerto Rico Ports Authority

1. Introduction

AECOM is assisting the Puerto Rico Ports Authority (PRPA) and the Federal Aviation Administration (FAA) Atlanta Airports District Office (ADO) in preparing an Environmental Assessment (EA) for the reconstruction of Runway 8-26 at Rafael Hernandez Airport, Aguadilla, Puerto Rico (BQN).

The EA focuses on two primary alternatives for project implementation, although multiple alternatives were explored by PRPA and FAA during the master planning and EA processes. These two alternatives are known as Alternatives 2B and 2D, each of which would construct a new permanent Runway 8-26 500 feet to the south of the existing runway alignment, and would convert the existing runway to a parallel taxiway. The principal difference between these two alternatives is the eastward/westward location of runway endpoints and the application of operational restrictions on the runway end(s), called declared distances, to ensure safe operation of arriving and departing aircraft while maximizing available runway length. Both of these alternatives would impact a series of buildings on the south campus of BQN because they would become located in the object free areas and airspace clearance surfaces of the proposed Runway 8-26.

As proposed, the alternatives being studied in the EA have high potential to significantly adversely affect historic and archaeological resources in the project area. Pursuant to Section 106 of the National Historic Preservation Act (NHPA), consultation with the Puerto Rico State Historic Preservation Office (PR-SHPO) has been initiated by the FAA ADO and is ongoing.

In a 13 February 2019 teleconference between the FAA, the PRPA, AECOM and the PR-SHPO, the PR-SHPO requested that, to support the investigation phase of the Section 106 consultation, additional investigation (above and beyond what has been studied to date by a previous subcontractor) should be performed in the project Areas of Potential Effect (APE) as outlined in **Figure 1**. The current document describes AECOM's work plan for conducting these additional investigations using AECOM staff.

For the evaluation of archaeological resources, the APE has been defined as areas of direct ground disturbance, inclusive of a 100-foot buffer to account for any indirect ground disturbance activities that may occur during construction, such as materials and equipment staging. Of note, this APE encompasses all alternatives studied in the EA process, not just Alternatives 2B and 2D. For the evaluation of historic architectural resources, the APE corresponds to the area large enough to encompass the predicted composite 60 decibel day-night average sound level (DNL 60 dB) noise contour of the Proposed Project and retained Alternatives. This APE will be used to identify, disclose and evaluate potential impacts on eligible historic architectural resources protected by the NHPA.



RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION
ENVIRONMENTAL ASSESSMENT

AREAS OF POTENTIAL EFFECT (APE)

FIGURE
1

2. Summary of Previous Studies

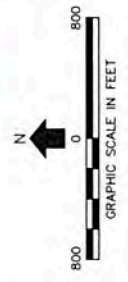
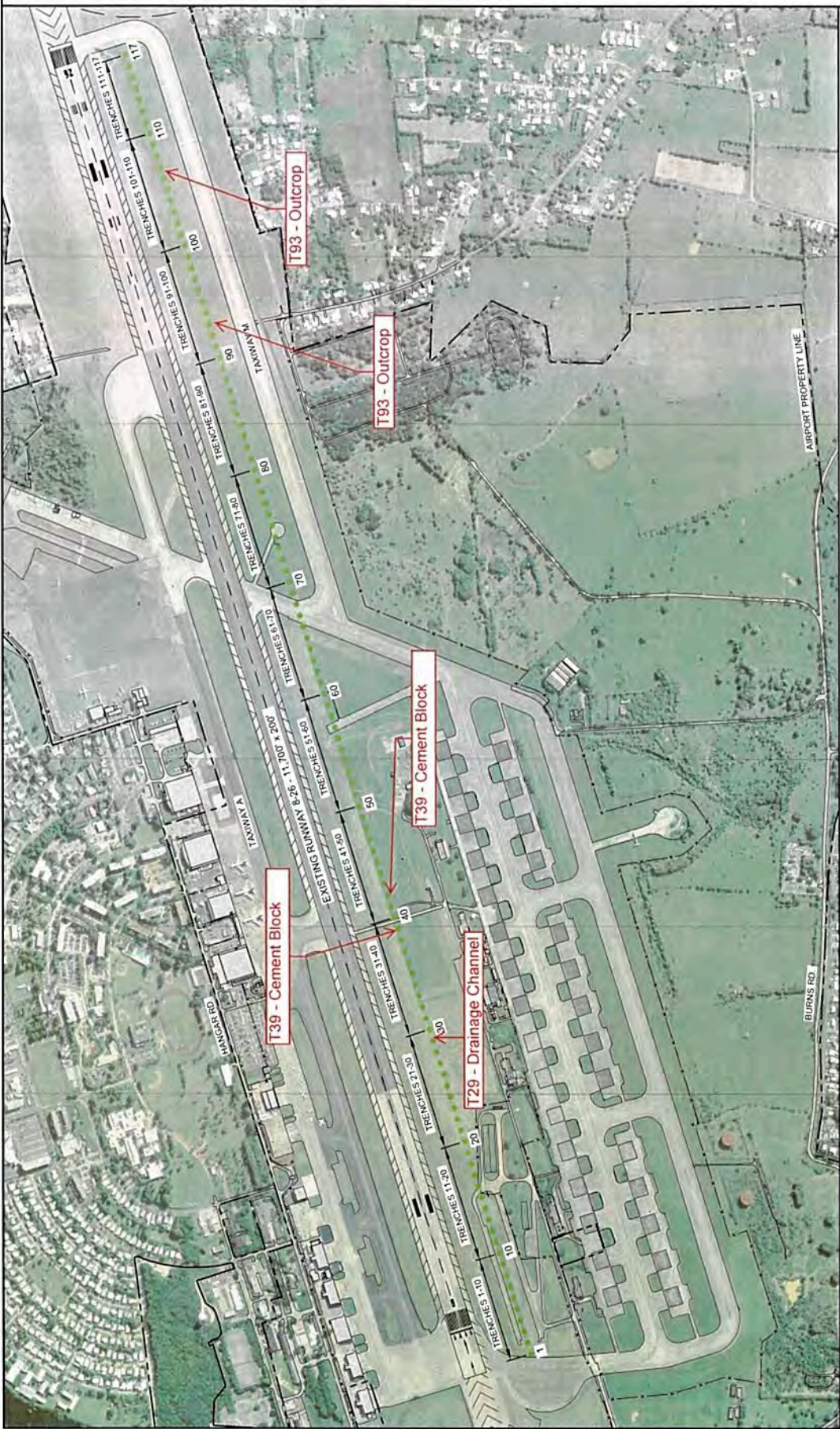
Two previous episodes of archaeological investigations have been conducted at the airport by the AM Group under the direction of archaeologist Fernando Alvarado Munoz. The first survey was conducted in 2015, and the second was conducted in 2018. A January 2019 document entitled *Rafael Hernandez Airport Runway 8-26 Reconstruction Stage 1 Archaeological Survey Report* describes the results of the combined studies. This report describes the survey as consisting of systematic visual surface inspection followed by excavation of approximately 113 backhoe trenches. The trenches were placed in a systematic transect down the alignment of the new proposed runway, approximately in the center of the current APE. Spaced approximately 30 meters apart, the trenches were dug about three meters long and were approximately 60 cm wide. Their depth varied from 50 cm to 1 meter. After excavation with the backhoe, the floor and walls of the trenches were cleaned with hand tools, inspected for presence of archaeological artifacts or features, and then photographed. The text of the report states that “all material obtained was screened using a ¼ inch mesh” (AM Group 2019:143), but based on the photographs of fieldwork and back dirt piles in the report, the systematic use of screening for all backhoe excavated soil cannot be confirmed.

The trenching survey documented that the soils typically consisted of a top layer of dark brown compact clay underlain by a reddish brown extremely compact clay. And limestone rocks were frequently encountered. Near the eastern end of the proposed runway alignment, Trenches 93 and 107 exposed limestone bedrock outcrops (**Figure 2**). In the 2015 report, these outcrops had been identified as possible structure foundations, but the 2019 report stated that additional investigations confirmed that they were natural and not cultural features.

Toward the western end of the survey transect, three trenches uncovered evidence of man-made features (**Figure 2**). Trench 29 uncovered a narrow (25 cm) channel cut into the bedrock that was interpreted as some kind of drainage feature, Trench 39 exposed a block of concrete with a steel hook eye embedded in it (a possible anchor for a tension cable) and Trench 42 exposed concrete with a steel rod embedded. Both of these latter two features likely result from military airfield construction. No other archaeological evidence was reported in any of the other trenches.

A December 2018 document entitled *Historical/Architectural Documentation for 21 Buildings for Rafael Hernandez Airport Runway 8-26* describes the results of architectural history research compiled by Marlene Ramos Velez and Adolfo Norcisa Lopez for AG Group. It provides historic background information, describes 21 buildings located along the southwestern edge of the current APE (**Figures 3 and 4**), and recommends that some of these structures may contribute to a potential, but undefined historic district.

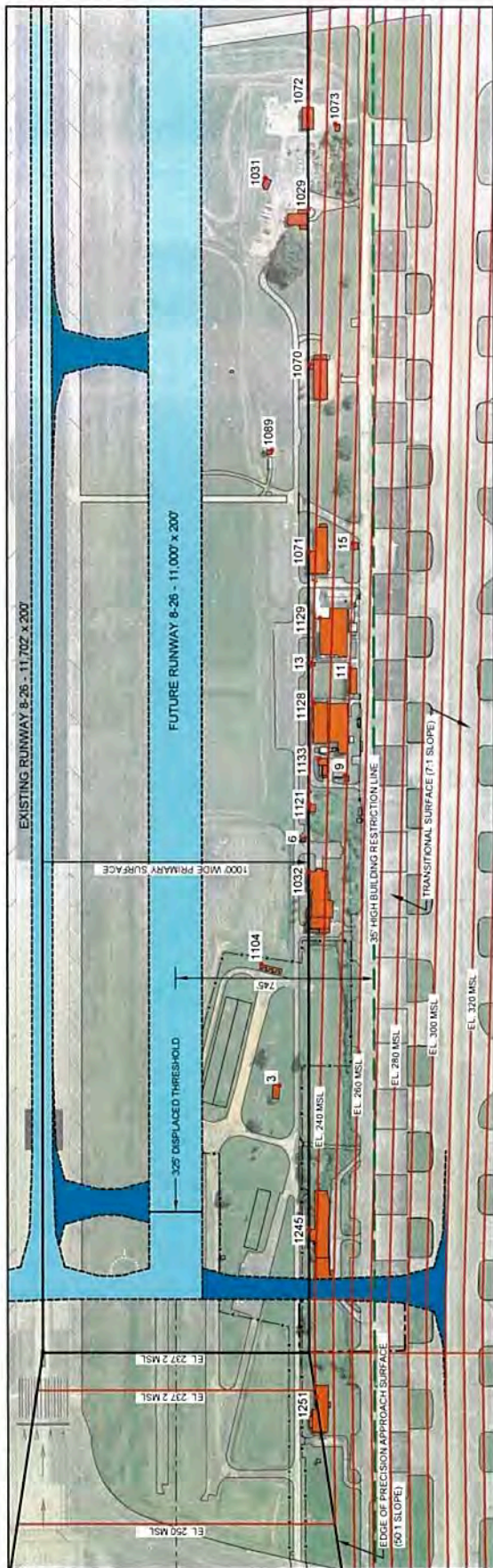
The 2018 archaeological survey provided substantial exposure and evaluation of the long narrow strip of land that will be directly impacted by construction of the new main runway, but it did not adequately document the conditions within the entire archaeological APE. Additional field survey will be required to assess soil integrity and site potential in the remainder of the archaeological APE. Similarly, the 2018 architectural history study only documented buildings within the demolition footprint of the project. It did not evaluate other structure associated with Ramey Air Base, including intact airfield pavements, and it did not assess whether there were NRHP-eligible resources within the broader historic architectural APE defined by the DNL 60 dB noise contour. In addition, the resources that were evaluated in 2018 were not fully evaluated within the broader historic context of Cold War-era U.S. Military Bases.



- PREVIOUS FINDINGS (AM GROUP 2018)
- T29 - DRAINAGE CHANNEL
 - T39 - CEMENT BLOCK
 - T42 - CEMENT BLOCK
 - T93 - OUTCROP
 - T107 - OUTCROP

ALTERNATIVE 2B
(BUILDINGS WITHIN PROPOSED IMAGINARY SURFACES)

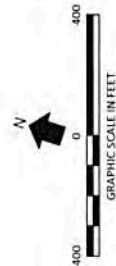
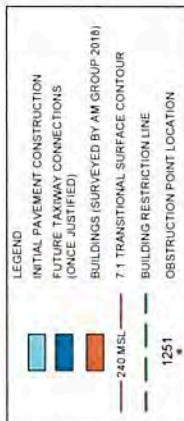
FIGURE
3



PLAN VIEW

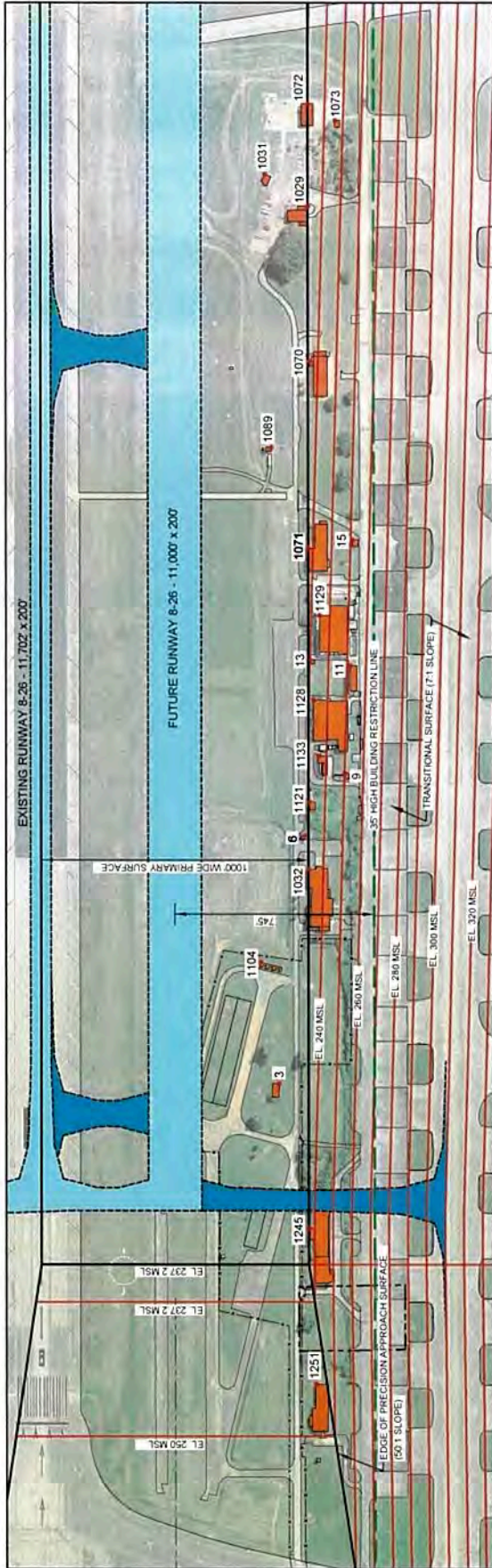
OBSTRUCTION DATA TABLE

| NO. | DESCRIPTION | LATITUDE | LONGITUDE | GROUND ELEVATION (FEET (MSL)) | BUILDING HEIGHT (FEET) | BUILDING ELEVATION (FEET (MSL)) | LOWEST AFFECTED FAR PART 77 SURFACE (FEET (MSL)) | SURFACE ELEVATION (FEET (MSL)) | PENETRATION (FEET) |
|------|-------------|----------------|-----------------|-------------------------------|------------------------|---------------------------------|--|--------------------------------|--------------------|
| 1251 | BUILDING | N 18°29'15.74" | W 067°08'35.79" | 245 | 15 | 260 | RUNWAY 8 APPROACH | 240.5 | 19.5 |
| 1245 | BUILDING | N 18°29'17.84" | W 067°08'29.67" | 238 | 12 | 250 | PRIMARY | 236.2 | 13.8 |
| 3 | BUILDING | N 18°29'20.52" | W 067°08'24.70" | 242 | 12 | 254 | PRIMARY | 234.1 | 19.9 |
| 1104 | BUILDING | N 18°29'22.49" | W 067°08'20.43" | 240 | 12 | 252 | PRIMARY | 232.3 | 19.7 |
| 1032 | BUILDING | N 18°29'21.85" | W 067°08'16.44" | 233 | 25 | 258 | PRIMARY | 230.9 | 27.1 |
| 6 | BUILDING | N 18°29'22.83" | W 067°08'15.25" | 231 | 15 | 246 | PRIMARY | 230.4 | 15.6 |
| 1121 | BUILDING | N 18°29'22.96" | W 067°08'13.94" | 231 | 15 | 246 | 7:1 TRANSITIONAL | 230.5 | 15.5 |
| 1133 | BUILDING | N 18°29'22.77" | W 067°08'12.16" | 234 | 20 | 254 | 7:1 TRANSITIONAL | 234.3 | 19.7 |
| 9 | BUILDING | N 18°29'21.63" | W 067°08'12.47" | 234 | 15 | 249 | 7:1 TRANSITIONAL | 249.0 | 0.0 |
| 1128 | BUILDING | N 18°29'23.55" | W 067°08'10.15" | 231 | 30 | 261 | 7:1 TRANSITIONAL | 231.2 | 29.8 |
| 11 | BUILDING | N 18°29'22.03" | W 067°08'08.43" | 232 | 25 | 257 | 7:1 TRANSITIONAL | 250.4 | 6.6 |
| 13 | BUILDING | N 18°29'24.10" | W 067°08'08.71" | 232 | 15 | 247 | 7:1 TRANSITIONAL | 229.0 | 18.0 |
| 1129 | BUILDING | N 18°29'24.29" | W 067°08'06.95" | 232 | 30 | 262 | 7:1 TRANSITIONAL | 233.1 | 28.9 |
| 15 | BUILDING | N 18°29'23.95" | W 067°08'03.78" | 231 | 12 | 243 | 7:1 TRANSITIONAL | 249.8 | -6.8 |
| 1071 | BUILDING | N 18°29'25.42" | W 067°08'04.61" | 231 | 15 | 246 | PRIMARY | 226.2 | 19.8 |
| 1089 | BUILDING | N 18°29'27.85" | W 067°08'01.32" | 230 | 25 | 255 | PRIMARY | 224.7 | 30.3 |
| 1070 | BUILDING | N 18°29'27.46" | W 067°07'57.70" | 228 | 15 | 243 | 7:1 TRANSITIONAL | 224.3 | 18.7 |
| 1029 | BUILDING | N 18°29'29.34" | W 067°07'52.02" | 223 | 30 | 253 | PRIMARY | 221.2 | 31.8 |
| 1031 | BUILDING | N 18°29'31.11" | W 067°07'51.34" | 226 | 15 | 241 | PRIMARY | 220.7 | 20.3 |
| 1072 | BUILDING | N 18°29'30.38" | W 067°07'48.25" | 225 | 20 | 245 | PRIMARY | 219.7 | 25.3 |
| 1073 | BUILDING | N 18°29'29.33" | W 067°07'48.53" | 223 | 12 | 235 | 7:1 TRANSITIONAL | 234.5 | 0.5 |



ALTERNATIVE 2D
 (BUILDINGS WITHIN PROPOSED IMAGINARY SURFACES)

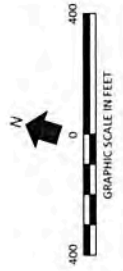
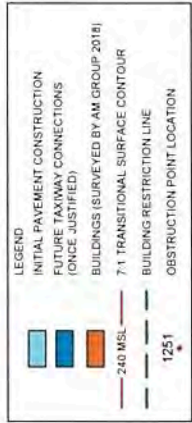
FIGURE 4



PLAN VIEW

OBSTRUCTION DATA TABLE

| NO. | DESCRIPTION | LATITUDE | LONGITUDE | GROUND ELEVATION FEET (MSL) | BUILDING HEIGHT (FEET) | BUILDING ELEVATION FEET (MSL) | LOWEST AFFECTED FAR PART 77 SURFACE | SURFACE ELEVATION FEET (MSL) | PENETRATION (FEET) |
|------|-------------|----------------|-----------------|-----------------------------|------------------------|-------------------------------|-------------------------------------|------------------------------|--------------------|
| 1251 | BUILDING | N 18°29'15.86" | W 067°08'35.35" | 245 | 15 | 260 | RUNWAY 8 APPROACH | 246.1 | 13.9 |
| 1245 | BUILDING | N 18°29'17.84" | W 067°08'29.67" | 238 | 12 | 250 | PRIMARY | 237.2 | 12.8 |
| 3 | BUILDING | N 18°29'20.52" | W 067°08'24.70" | 242 | 12 | 254 | PRIMARY | 235.3 | 18.7 |
| 1104 | BUILDING | N 18°29'22.49" | W 067°08'20.43" | 240 | 12 | 252 | PRIMARY | 233.6 | 18.4 |
| 1032 | BUILDING | N 18°29'21.85" | W 067°08'16.44" | 233 | 25 | 258 | PRIMARY | 232.2 | 25.8 |
| 6 | BUILDING | N 18°29'22.33" | W 067°08'15.25" | 231 | 15 | 246 | PRIMARY | 231.7 | 14.3 |
| 1121 | BUILDING | N 18°29'22.56" | W 067°08'13.94" | 231 | 15 | 246 | 7:1 TRANSITIONAL | 231.8 | 14.2 |
| 1133 | BUILDING | N 18°29'22.77" | W 067°08'12.16" | 234 | 20 | 254 | 7:1 TRANSITIONAL | 235.6 | 18.4 |
| 9 | BUILDING | N 18°29'21.63" | W 067°08'12.47" | 234 | 15 | 249 | 7:1 TRANSITIONAL | 250.2 | -1.2 |
| 1128 | BUILDING | N 18°29'23.55" | W 067°08'10.15" | 231 | 30 | 261 | 7:1 TRANSITIONAL | 232.5 | 28.5 |
| 11 | BUILDING | N 18°29'22.83" | W 067°08'08.43" | 232 | 25 | 257 | 7:1 TRANSITIONAL | 251.7 | 5.3 |
| 13 | BUILDING | N 18°29'24.10" | W 067°08'08.71" | 232 | 15 | 247 | 7:1 TRANSITIONAL | 230.3 | 16.7 |
| 1129 | BUILDING | N 18°29'24.39" | W 067°08'06.95" | 232 | 30 | 262 | 7:1 TRANSITIONAL | 234.4 | 27.6 |
| 15 | BUILDING | N 18°29'23.95" | W 067°08'03.78" | 231 | 12 | 243 | 7:1 TRANSITIONAL | 251.0 | -8.0 |
| 1071 | BUILDING | N 18°29'25.42" | W 067°08'04.61" | 231 | 15 | 246 | PRIMARY | 227.5 | 18.5 |
| 1089 | BUILDING | N 18°29'27.85" | W 067°08'01.32" | 230 | 25 | 255 | PRIMARY | 226.0 | 29.0 |
| 1070 | BUILDING | N 18°29'27.46" | W 067°07'57.70" | 228 | 15 | 243 | 7:1 TRANSITIONAL | 225.6 | 17.4 |
| 1029 | BUILDING | N 18°29'29.24" | W 067°07'52.02" | 223 | 30 | 253 | PRIMARY | 222.5 | 30.5 |
| 1031 | BUILDING | N 18°29'31.11" | W 067°07'51.34" | 226 | 15 | 241 | PRIMARY | 222.0 | 19.0 |
| 1072 | BUILDING | N 18°29'30.88" | W 067°07'48.25" | 225 | 20 | 245 | PRIMARY | 221.0 | 24.0 |
| 1073 | BUILDING | N 18°29'29.23" | W 067°07'48.53" | 223 | 12 | 235 | 7:1 TRANSITIONAL | 235.8 | -0.8 |



3. Research Design and Methods

Background Research

Background data collection will be conducted prior to initiating field work and on an ongoing basis as needed to identify and interpret resources identified during the study. The project will include background research to gain further information on archaeological sites and historic structures in the region to provide a context for identifying and evaluating resources that may remain within the current project area. To achieve this goal, AECOM will review cultural resource survey reports, archaeological site files, historic period maps, and other secondary documents and histories. In particular, the summary report *Sitios Arqueológicos de Aguadilla* prepared by the Oficina Estatal de Conservación Histórica will be consulted as a valuable regional synthesis. In addition, data on past land use modifications will be collected and reviewed, such as historic maps, historic aerial photography, and soils mapping. The reports prepared previously for the project by a subcontractor will be used as a starting point for information gathering.

Archaeological Survey

Archaeological fieldwork will begin with systematic pedestrian reconnaissance of the entire APE to evaluate current conditions and identify any archaeological resources visible on the surface. This will be followed by systematic shovel test pit excavation where needed. Specific field testing methodologies will be refined based on field conditions, but in general, shovel test pits will be spaced at either 25 meter (75 foot) intervals, 50 meter (150 foot), and 100 meter (300 foot) intervals and shovel test pits (STPs) along transects likewise will be spaced at 25 meter (75 foot) intervals, 50 meter (150 foot), and 100 meter (300 foot) intervals. STPs will be approximately 50 centimeters (18 inches) in diameter, and excavated by natural stratigraphy with a long handled shovel into culturally sterile subsoil or to a maximum of one meter in depth. All soils removed from the STP will be screened using quarter-inch wire mesh for uniform artifact recovery.

Upon completion, the walls of each STP will be inspected for the presence of additional artifacts, evidence of subsurface features, and/or intact subsurface deposits. Standardized data will be recorded for each STP. This information will include (but is not limited to) thickness, color, and texture of encountered soil horizons; presence/absence and number of cultural materials recovered from each stratum; and other general information (e.g., provenience data, excavators, excavation date). After the STP has been excavated and recorded, it will be backfilled; positive STPs will be marked with either a pin flag or flagging tape.

Detailed notes for each STP will be recorded on standardized field forms. Where cultural materials are recovered, a series of close-interval (10 meter/33 feet) STPs will be deployed to determine the horizontal extent of the archaeological site. The locations of all STPs will be recorded in the field using a differentially corrected sub-meter accurate GPS device.

This work plan assumes that AECOM will be able to sample areas previously investigated within the project area by AG Group to validate the results of the earlier work and will not have to conduct systematic shovel testing over the entire APE.

The archaeologist in charge of fieldwork will also maintain a field log book with additional details including, but not limited to: areas worked, resources identified, sketch maps and drawings. Photographs

will be taken, and a photo log maintained, to document each work area, general conditions in the APE, each site identified, and unit profiles.

Treatment of Human Remains

If historic or prehistoric human remains are encountered, the remains will be left in situ and work in their vicinity shall cease immediately. Appropriate local government officials will be immediately notified. The treatment of any human remains discovered within the project area will comply with Puerto Rico laws concerning archaeological sites and treatment of human remains. No additional excavation will be conducted until the Principal Investigator is notified by regulatory officials with instructions on how to proceed.

Laboratory Analysis and Curation

Following completion of the fieldwork, AECOM will analyze and report the results of the previous tasks. Artifacts will be processed, cleaned, and analyzed. The first laboratory task will be to wash, analyze, and catalog artifacts from the field investigations. Processing of any specialized samples such as soil flotation, radiocarbon, bone, etc. will be completed, and spatial analysis will be conducted to identify horizontal and vertical limits of any occupations.

Before cleaning, each artifact will be inspected to determine its condition (i.e., fragility, material composition); thereafter, each item will be cleaned in a manner appropriate for their raw material. Most will be washed in clean water and air-dried, although fragile artifacts may be dry brushed or left uncleaned. Each artifact will be individually catalogued, including its site provenience, and analyzed by a variety of categories including, but not limited to, class, material, type, variety, technology, size, date, and comments.

Initial prehistoric lithic analysis will focus on sorting artifacts into tool and debitage classes and tabulating them by raw materials. Detailed analysis of lithics will commence after preliminary sorting of the assemblage by raw material and tool/artifact class has been completed. Debitage analysis will focus on identification of flake type and recording of basic size attributes. Flakes are identified by their place in a reduction sequence as well as by the amount of cortex exhibited on the surface. These data can then be quantified to represent reduction stages present (within any one lithic raw material group) for each site, or component within a site. Bifaces and other lithic tool categories will be described by raw material and form/function. Other classes of lithic artifacts (e.g. cores, scrapers, hammer stones) will be described by the raw materials from which they were manufactured. Diagnostic projectile points will be identified based on established typologies for the region.

Prehistoric ceramics will be analyzed based on various characteristics such as paste, temper, interior and exterior surface treatments and decorations, rim form, and vessel shape or type as applicable. Ceramics will be typed according to established typologies for the region.

Historic artifacts will be analyzed in terms of material type, form, function, and temporal attributes following established procedures. Detailed analyses for the historic artifacts will include the identification of the Terminus Post Quem (TPQ) of artifacts for each context; research on the manufacturing date ranges of ceramic, glass, and other types of datable artifacts; and generation of mean beginning and end dates for assemblages.

Reporting

AECOM will prepare a draft archaeological Cultural Resource Assessment Survey (CRAS) Report for submittal to the PR-SHPO. The CRAS will include a project description, methodology, relevant archaeological contexts, and bibliography. Report figures and tables will be presented in a professional manner and the report will include descriptions of site boundaries within the text, Universal Transverse Mercator (UTM) coordinates, site location map illustrations, and updated state site forms. It will also include descriptions of any archaeological resources identified, as well as integrity and significance statements that will support recommendations of National Register of Historic Places (NRHP) eligibility of the recorded resources. Following review, AECOM will prepare a final archaeological CRAS that addresses comments by the PR-SHPO.

Historic Structures Survey

AECOM will conduct an intensive-level architectural field survey that includes identifying, analyzing and evaluating all properties 50 years old and older, or of exceptional importance, within the historic architecture APE. Potentially significant airfield pavements will be included in this appraisal per PR-SHPO request. This survey will include digital photography of resources, settings, landscape features, and any alterations to resources that might affect their integrity. It will also document the relationship of resources to each other and any potential historic district.

AECOM will prepare a draft historic architectural Cultural Resource Assessment Survey (CRAS) Report for submittal to the PR-SHPO. The CRAS will include a project description, methodology, relevant historic and architectural contexts, and bibliography. It will also include histories and descriptions of each individual recorded historic resource and historic district, as well as integrity and significance statements that will support evaluations of National Register of Historic Places (NRHP) eligibility of the recorded resources. To assist in its eligibility recommendations, AECOM will consult previous Department of Defense Legacy Program studies that include histories of, contexts for, and proposed NRHP eligibility requirements for Army Air Fields, Air Force Bases, and their associated resources dating from World War II and the Cold War. Following review, AECOM will prepare a final historic architectural CRAS that addresses comments by the PR-SHPO

This page intentionally left blank.



GOBIERNO DE PUERTO RICO
Oficina Estatal de Conservación Histórica

September 26, 2019

Ms. Felicia Reeves

Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave. Room 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Reeves,

We acknowledge the receipt of your letter dated August 13, 2019 and the draft Scope of Work to carry out additional work for the Environmental Assessment regarding the above referenced project. It includes data collection, field reconnaissance, documentation, consultation and mitigation support. As agreed in the telephone conversation you held with Santiago Gala Aguilera of our Office on September the 13th, we would like to confirm you that both an electronic copy of the Environmental Assessment Cultural Resources Work Plan prepared by AECOM (September 5, 2019) was forwarded that same day to Mr. Gala and a hard copy was personally submitted by the Puerto Rico Port Authority two days later. We are currently evaluating the document and will provide you our comments accordingly via separate letter, aware that the proposed field survey is to be conducted within thirty days upon the receipt of work plan.

Once you receive our comments on the proposed plan and carry out the field survey, we look forward to receiving the documents for our review and concurrence.

If you have any questions concerning our comments, do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/SGA/srf





GOBIERNO DE PUERTO RICO

Oficina Estatal de Conservación Histórica
State Historic Preservation Office

Tuesday, October 15, 2019

Ms. Felicia K. Reeves

Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave. Room 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Reeves:

Our Office received correspondence on September 17, 2019 related to the above referenced project by the Puerto Rico Ports Authority (PRPA) and the Federal Aviation Administration (FAA). Said submission includes two letters, dated August 13 and September 13, 2019, and a document titled "Rafael Hernández Airport Runway 8-26 Reconstruction Environmental Assessment Cultural Resources Work Plan", dated September 5, 2019, prepared by your consultants AECOM.

Regarding the above-ground resources, Section 2 of the proposed 2019 work plan (Summary of Previous Studies) mentions a 2018 document titled *Historical / Archaeological Documentation for 21 Buildings of Rafael Hernández Airport Runway 8-26*. The Historic Structures Survey is being proposed to be carried out on an intensive level, but we believe its scope in terms of volume of resources, could have been deemed adequate should the 2018 documentation be submitted for our review and comments. Since our February 2019 meeting, this request has not been fulfilled.

The work plan also references the first archaeological survey conducted in 2015. In letters to the FAA dated December 1, 2015 and January 8, 2016 (enclosed), we requested that this report be revised, although this, apparently, has not occurred. Likewise, reference is made to a second archaeological survey carried out in 2018 that produced a report entitled *Rafael Hernández Airport Runway 8-26 Reconstruction Stage I Archaeological Survey Report* which, allegedly, "describes the results of the combined studies". Our office has not received a copy of this report either.

Considering the above, and in order to adequately evaluate the 2019 work plan, we request a copy of each archaeological survey report carried out so far for the proposed project, as well as any architectural documentation. Surveys and reports should be consistent with the *Secretary of the Interior's Standards and*

Ms. Felicia K. Reeves
October 15, 2019
Page 2

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Guidelines for Identification and Evaluation. Once all the information on the previous archeological work and above-ground documentation is available, the SHPO will be in a better position to offer comments to FAA on the proposed work plan.

No additional archaeological surface or sub-surface testing, as well as demolition, should be carried out in the APE of the proposed undertaking until our Office has evaluated the adequacy of identification efforts carried out so far.

As soon as we receive the requested information, we will continue with our review of this project. If you have any questions, please contact our Office at (787) 721-3737.

Sincerely,



Carlos A. Rubio Cancela
State Historic Preservation Officer

CARC/GMO/SG/MC

c Eng. Romel Pedraza, Assistant Executive Director in Planning, Engineering and Construction, Puerto Rico Ports Authority

Enclosures



ESTADO LIBRE ASOCIADO DE
PUERTO RICO

Oficina Estatal de Conservación Histórica
State Historic Preservation Office

December 1, 2015

Ms. Dana L. Perkins
Environmental Program Manager
Atlanta Airports District Office
Federal Aviation Administration
1701 Columbia Ave.
Suite 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Perkins:

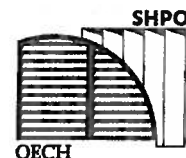
Our Office has received and reviewed a cultural resources assessment survey report (Stage I) titled "Alternatives for the Reconstruction of Runway 8/26 Rafael Hernández Airport, Aguadilla, PR".

The State Historic Preservation Officer (SHPO) advises and assists federal agencies and other responsible entities in the identification, evaluation and assessment of effects on historic properties (district, site, buildings, structure or object) of projects, activities or programs requiring a Federal permit, license or approval. The authority for these procedures is contained in the National Historic Preservation Act, as amended. In order for the SHPO better assist you in fulfilling your section 106 responsibilities, please provide us with the following documentation:

1. Section 106 delivery control form. Please include total amount of federal funds to be assigned.
2. A detailed written description of the project, including related activities to be carried out in conjunction with the project. If an application was submitted for Federal funding, licenses, or permits, please provide a copy of the application.
3. Project information:
 - a) Area of the project in acres.
 - b) As-found or as-built plans of the building/structure(s) to be affected by the project saved as a PDF file and included with printed copies, size 11"x17".
 - c) Schematic or preliminary drawings (floor plans, elevations, sections) that show the proposed project design saved as a PDF file and included with printed

Cuartel de Ballajá (Tercer Piso),
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, P.R. 00901

PO Box 9023935, San Juan, P.R. 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.gobierno.pr



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR

STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

Ms. Perkins
December 1, 2015
Page 2

SHPO: 10 29 15 07 RECONSTRUCTION OF RUNWAY 8 26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

copies, size 11"x17".

4. Determine and document the proposed boundaries of the project's Area of Potential Effect (APE) - geographic area where the project could have a direct or indirect effect on historic properties.
5. Measures taken to provide the public with information about this undertaking and its effects on historic properties, as well as to seek public comment and input.

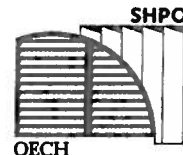
Regarding the Stage I report and pending a formal definition of the project's APE, we hereby submit some initial comments and recommendations for your consideration. The document should omit that the survey was requested by the Puerto Rico State Historic Preservation Office (page 51) as this is the first submittal to us related to this undertaking. All drawings contained in the document are printed in a very small scale; please reprint and include at a legible scale. After analyzing the results of the archival research, we can infer that there is a high probability of historic structures remains; therefore, the implementation of a 50 meter interval subsurface testing strategy at the West side of the taxiway appears too large.

The Rafael Hernández International Airport [Borinquen (BQN) Airport], is located within the boundaries of the former *Ramey Air Force Base*, a potentially eligible district to the *National Register of Historic Places*. As a result of this survey, several structures remains - allegedly made of concrete and lime - of unknown significance were identified in the surveyed area that perhaps are associated with the San Antonio village (c. late XIX century) and with the military use of the land (c. early XX century – WWII – Cold War context). The Stage I report does not evidence the application of the *National Register of Historic Places* criteria and their associated aspects of integrity in evaluating the historic significance of these properties; therefore, we believe that any determination of eligibility or finding of effect on historic properties regarding this undertaking, at this time, would be premature.

You should evaluate the historic significance of these properties in consultation with our Office as per 36 CFR 800.4 (c)(1). An intensive survey should be carried out consistent with the Secretary of the Interior Standards and Guidelines for Identification and Evaluation; therefore we request an intensive survey work plan for our review and concurrence prior to implementation.

Cuartel de Ballata (Tercer Piso).
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, PR 00901

PO Box 9023935, San Juan, PR 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.gobierno.pr



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR

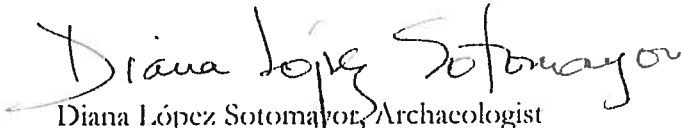
STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

Ms. Perkins
December 1, 2015
Page 3

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

As soon as we receive the requested information, the revised Stage I survey report and the intensive survey work plan, we will continue with our review of this project. If you have any questions, please contact Archacologist Marinés Colón, Historic Property Specialist, at mcolon@prshpo.pr.gov or (787) 721-3737.

Sincerely,


Diana López Sotomayor, Archacologist
State Historic Preservation Officer

DIS/NAPT/BRS/MC

- c Mr. Jorge Suárez, Assistant Executive Director for Planning, Engineering, Construction and Environmental Affairs, Puerto Rico Ports Authority
Ms. Eileen M. Vélez Vega, PE, Kimley Horn Puerto Rico, LLC



ESTADO LIBRE ASOCIADO DE
PUERTO RICO

Oficina Estatal de Conservación Histórica
State Historic Preservation Office

January 8, 2016

Ms. Dana L. Perkins
Environmental Program Manager
Atlanta Airports District Office
Federal Aviation Administration
1701 Columbia Ave.
Suite 220
College Park, Georgia 30337

**SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL
HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO**

Dear Ms. Perkins:

A meeting was requested by the archaeology consultant in order to clarify comments included in our letter dated December 1, 2015 related to the archaeological reconnaissance survey report prepared for the above referenced project. At said meeting, held in our Office on December 14, 2015, the archaeology consultant handed us a set of documents with highlighted and flagged pages without a cover letter.

These documents comprise a 15-page "Scope of Services" prepared by Kimley Horn Puerto Rico, LLC for the Puerto Rico Ports Authority (PRPA), a 32-page "Professional Services Agreement" between PRPA and Kimley Horn, and a 137-page "Evaluation of Alternatives", also prepared by Kimley Horn for PRPA that includes condition and operational assessments, formulation of alternatives and technical considerations, an alternative analysis and selection of preferred alternatives and an environmental and funding analysis with recommendations.

These documents do not address the information requested in our December 1 letter. It is still unclear to us as to what is the undertaking. We need a detailed written description of the project, including related activities to be carried out in conjunction with the project. Also, as commented in our last letter dated December 1, 2015, all drawings presented are printed in an unreadable scale; to review please enlarge and resubmit at a legible scale, saved as a PDI² file and included with printed copies size 11"x17".

Also pending is a formal determination and documentation of the project's Area of Potential Effect boundaries by the federal agency. Please fill out and submit include the "Section 106 Delivery Control Form" (enclosed and also available on our web

Cuartel de Ballajá (Tercer Piso),
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, P.R. 00901

PO Box 9023935, San Juan, P.R. 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.gobierno.pr



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR

STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

Ms. Perkins
January 8, 2016
Page 2

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8 26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

page www.oech.pr.gov).

As soon as we receive the requested information, the revised Stage I survey report and the intensive archaeological survey work plan, we will continue with our review of this project. If you have any questions, please contact Archaeologist Marinés Colón, Historic Property Specialist, at mcolon@prshpo.pr.gov or (787) 721-3737.

Sincerely,



Diana López Sotomayor, Archaeologist
State Historic Preservation Officer

DLS/NAPT/BRS/MC

c Mr. Jorge Suárez, Assistant Executive Director for Planning, Engineering, Construction
and Environmental Affairs, Puerto Rico Ports Authority
Ms. Eileen M. Vélez-Vega, PE, Kimley Horn Puerto Rico, LLC

Enclosure



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

October 18, 2019

Mr. Carlos A. Rubio Cancela
Puerto Rico State Historic Preservation Office
P.O. Box 9023935
San Juan, PR 00902-3935

**RE: Section 106 Consultation Reconstruction of Runway 8-26 at Rafael Hernandez
Airport (BQN), Aguadilla, Puerto Rico (SHPO 10-29-15-07)**

Dear Mr. Cancela:

The FAA has received your October 15, 2019 response to the FAA's September 17, 2019 submittal of the Cultural Resources Work Plan for SHPO's review/comment.

The FAA concurs with SHPO's statement "*Surveys and reports should be consistent with the Secretary of the Interior's Standards and Guidelines for Identification and Evaluation*". And as you are aware, federal agencies have a responsibility to independently evaluate contractor-submitted information to determine the accuracy of the information and compliance with regulations/guidelines.

As detailed in FAA's August 13, 2019 letter to SHPO, based on the significant comments raised by your office during our February 14, 2019 teleconference, the FAA subsequently performed an internal technical and legal sufficiency review of AM Group 2018/2019 reports. The FAA concluded the reports do not comply with 36 CFR 800 or the Secretary of Interior's Standards and Guidelines for Identification and Evaluation. Further, the reports do not comply with FAA Order 1050.1F, Environmental Impacts, Policies, and Procedures, and Order 5050.4B National Environmental Policy Act Implementing Instructions for Airport Actions in multiple ways:

- The APE investigated for archaeological resources should encompass all areas of possible direct ground disturbance that may occur during construction, including activities such as materials and equipment staging. AM Group conducted archaeological field survey only along the direct alignment of the proposed new runway, and did not provide sufficient information to document that all other portions of the APE are clear of archaeological sites.

- For the evaluation of historic architectural resources, the APE should correspond to the area large enough to encompass the predicted composite 65 decibel day-night average sound level (DNL 65 dB) noise contour of the Proposed Project and retained Alternatives, but may be larger. Due to the potential for airport noise impacts, FAA elected to use the larger DNL 60 dB contour for APE delineation. AM Group did not survey all potential historic structures within this APE.

- It is necessary to put the buildings and the former air base into a broader historic context, but this was not done. They should be compared to similar resources, rather than just the local architecture. For example, the PR SHPO has already developed a publication called *In the Service of Ares: the United States Military Bases in Puerto Rico (1898-2000) Historic Context* completed in 1999 by Arleen Pabón, which would be extremely relevant.

- In addition to historic context, there is a need to discuss and justify whether a building retains integrity as defined by the National Register criteria, regardless of a building's condition or whether it is economically recoverable. What must be addressed is whether a building retains enough architectural integrity to support its significance. AM Group's documentation does not accomplish this objective.

Thus, the FAA did not submit these reports to your office. FAA is the lead agency for the referenced action. There are no cooperating agencies. Pursuant to FAA's consultation responsibilities under Section 106 and NEPA, FAA has the authority to determine what is submitted to SHPO and ACHP. AM Group's submittals do not comply with 36 CFR 800 or the Secretary of Interior's Standards and Guidelines for Identification and Evaluation or FAA Order 1050.1F, and thus cannot be forwarded to your office.

The FAA anticipates field survey to begin shortly in accordance with the Cultural Resources Work Plan submitted to your office September 17, 2019. Please let me know if SHPO has additional areas of concern per BQN.

Sincerely,

A handwritten signature in black ink, appearing to read 'Felicia K. Reeves', followed by a long horizontal line extending to the right.

Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office 1701 Columbia Ave Room 220
College Park, GA 30337 404.305.6708
felicia.reeves@faa.gov

Copy: Romel Pedraza, PRPA
Victor Morales, AECOM
Paul Sanford, AECOM



GOBIERNO DE PUERTO RICO
Oficina Estatal de Conservación Histórica

November 20, 2019

Ms. Felicia K. Reeves

Noise/Environmental Program Manager
FAA South Region/Atlanta Airports District Office
1701 Columbia Ave. Room 220
College Park GA 30337

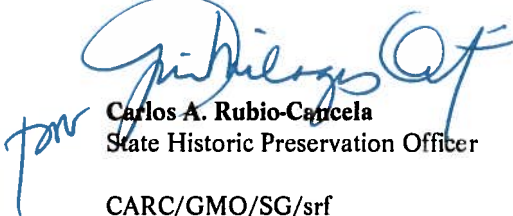
SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Reeves,

We acknowledge receipt of your letter dated October 18, 2019, regarding the above referenced project.

If you have any questions concerning our comments, do not hesitate to contact our Office.

Sincerely,


Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/SG/srf



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR
STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

December 3, 2019

Mr. Carlos A. Rubio Cancela
Puerto Rico State Historic Preservation Office
P.O. Box 9023935
San Juan, PR 00902-3935

**RE: Section 106 Consultation Reconstruction of Runway 8-26 at Rafael Hernandez
Airport (BQN), Aguadilla, Puerto Rico (SHPO 10-29-15-07)**

Dear Mr. Cancela:

The FAA received your email acknowledging receipt of our October 18, 2019 letter (attached).

As detailed in numerous correspondence, based on the significant comments raised by your office during our February 14, 2019 teleconference, the FAA determined a new Cultural Resources Work Plan was necessary and submitted it to your office September 13, 2019.

AECOM, PRPA's consultant for subject EA, will conduct a field survey at BQN Dec 16-20, 2019. The survey will be conducted according to the Cultural Resources Work Plan. Additionally, Mr. Marvin Brown, will visit your office to conduct necessary research for the study.

Please let me know if SHPO has any areas of concern per BQN.

Sincerely,

Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office 1701 Columbia Ave Room 220
College Park, GA 30337 404.305.6708
felicia.reeves@faa.gov

Copy: Romel Pedraza, PRPA
Victor Morales, AECOM
Paul Sanford, AECOM



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337
404.305.6708

October 18, 2019

Mr. Carlos A. Rubio Cancela
Puerto Rico State Historic Preservation Office
P.O. Box 9023935
San Juan, PR 00902-3935

RE: Section 106 Consultation Reconstruction of Runway 8-26 at Rafael Hernandez Airport (BQN), Aguadilla, Puerto Rico (SHPO 10-29-15-07)

Dear Mr. Cancela:

The FAA has received your October 15, 2019 response to the FAA's September 17, 2019 submittal of the Cultural Resources Work Plan for SHPO's review/comment.

The FAA concurs with SHPO's statement "*Surveys and reports should be consistent with the Secretary of the Interior's Standards and Guidelines for Identification and Evaluation*". And as you are aware, federal agencies have a responsibility to independently evaluate contractor-submitted information to determine the accuracy of the information and compliance with regulations/guidelines.

As detailed in FAA's August 13, 2019 letter to SHPO, based on the significant comments raised by your office during our February 14, 2019 teleconference, the FAA subsequently performed an internal technical and legal sufficiency review of AM Group 2018/2019 reports. The FAA concluded the reports do not comply with 36 CFR 800 or the Secretary of Interior's Standards and Guidelines for Identification and Evaluation. Further, the reports do not comply with FAA Order 1050.1F, Environmental Impacts, Policies, and Procedures, and Order 5050.4B National Environmental Policy Act Implementing Instructions for Airport Actions in multiple ways:

- The APE investigated for archaeological resources should encompass all areas of possible direct ground disturbance that may occur during construction, including activities such as materials and equipment staging. AM Group conducted archaeological field survey only along the direct alignment of the proposed new runway, and did not provide sufficient information to document that all other portions of the APE are clear of archaeological sites.
- For the evaluation of historic architectural resources, the APE should correspond to the area large enough to encompass the predicted composite 65 decibel day-night average sound level (DNL 65 dB) noise contour of the Proposed Project and retained Alternatives, but may be larger. Due to the potential for airport noise impacts, FAA elected to use the larger DNL 60 dB contour for APE delineation. AM Group did not survey all potential historic structures within this APE.
- It is necessary to put the buildings and the former air base into a broader historic context, but this was not done. They should be compared to similar resources, rather than just the local architecture. For example, the PR SHPO has already developed a publication called *In the Service of Ares: the United States Military Bases in Puerto Rico (1898-2000) Historic Context* completed in 1999 by Arleen Pabón, which would be extremely relevant.

- In addition to historic context, there is a need to discuss and justify whether a building retains integrity as defined by the National Register criteria, regardless of a building's condition or whether it is economically recoverable. What must be addressed is whether a building retains enough architectural integrity to support its significance. AM Group's documentation does not accomplish this objective.

Thus, the FAA did not submit these reports to your office. FAA is the lead agency for the referenced action. There are no cooperating agencies. Pursuant to FAA's consultation responsibilities under Section 106 and NEPA, FAA has the authority to determine what is submitted to SHPO and ACHP. AM Group's submittals do not comply with 36 CFR 800 or the Secretary of Interior's Standards and Guidelines for Identification and Evaluation or FAA Order 1050.1F, and thus cannot be forwarded to your office.

The FAA anticipates field survey to begin shortly in accordance with the Cultural Resources Work Plan submitted to your office September 17, 2019. Please let me know if SHPO has additional areas of concern per BQN.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Felicia K. Reeves', with a long horizontal flourish extending to the right.

Felicia K. Reeves
Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office 1701 Columbia Ave Room 220
College Park, GA 30337 404.305.6708
felicia.reeves@faa.gov

Copy: Romel Pedraza, PRPA
Victor Morales, AECOM
Paul Sanford, AECOM



GOBIERNO DE PUERTO RICO
Oficina Estatal de Conservación Histórica

December 9, 2019

Felicia Reeves

Noise / Environmental Program Manager
FAA Southern Region / Atlanta Airports District Office
1701 Columbia Ave. Room 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNANDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Reeves,

We acknowledge the receipt of your letter dated December 3, 2019 regarding the above referenced project. An official, hard copy of your October 18, 2019 letter, electronically forwarded to us that same day, was also provided.

We again appreciate the opportunity to express any areas of concern regarding your responsibilities under Section 106. Our concerns, as expressed in our letter dated October 15, 2019 (enclosed), remain in effect.

If you have any questions concerning our comments, do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio-Cancela
State Historic Preservation Officer

c. Mr. Romel Pedraza, Puerto Rico Ports Authority

CARC/GMO/SG/MB

Enclosure



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR
STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR



GOBIERNO DE PUERTO RICO

Oficina Estatal de Conservación Histórica
State Historic Preservation Office

Tuesday, October 15, 2019

Ms. Felicia K. Reeves

Noise/Environmental Program Manager
FAA Southern Region/Atlanta Airports District Office
1701 Columbia Ave. Room 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Reeves:

Our Office received correspondence on September 17, 2019 related to the above referenced project by the Puerto Rico Ports Authority (PRPA) and the Federal Aviation Administration (FAA). Said submission includes two letters, dated August 13 and September 13, 2019, and a document titled "Rafael Hernández Airport Runway 8-26 Reconstruction Environmental Assessment Cultural Resources Work Plan", dated September 5, 2019, prepared by your consultants AECOM.

Regarding the above-ground resources, Section 2 of the proposed 2019 work plan (Summary of Previous Studies) mentions a 2018 document titled *Historical / Archaeological Documentation for 21 Buildings of Rafael Hernández Airport Runway 8-26*. The Historic Structures Survey is being proposed to be carried out on an intensive level, but we believe its scope in terms of volume of resources, could have been deemed adequate should the 2018 documentation be submitted for our review and comments. Since our February 2019 meeting, this request has not been fulfilled.

The work plan also references the first archaeological survey conducted in 2015. In letters to the FAA dated December 1, 2015 and January 8, 2016 (enclosed), we requested that this report be revised, although this, apparently, has not occurred. Likewise, reference is made to a second archaeological survey carried out in 2018 that produced a report entitled *Rafael Hernández Airport Runway 8-26 Reconstruction Stage I Archaeological Survey Report* which, allegedly, "describes the results of the combined studies". Our office has not received a copy of this report either.

Considering the above, and in order to adequately evaluate the 2019 work plan, we request a copy of each archaeological survey report carried out so far for the proposed project, as well as any architectural documentation. Surveys and reports should be consistent with the *Secretary of the Interior's Standards and*

Cuartel de Ballaja (ferrer Piso),
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, P.R. 00901

PO Box 9023935, San Juan, P.R. 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.pr.gov



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR
STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

Ms. Felicia K. Reeves
October 15, 2019
Page 2

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ
(BQN) AIRPORT, AGUADILLA, PUERTO RICO

Guidelines for Identification and Evaluation. Once all the information on the previous archeological work and above-ground documentation is available, the SHPO will be in a better position to offer comments to FAA on the proposed work plan.

No additional archaeological surface or sub-surface testing, as well as demolition, should be carried out in the APE of the proposed undertaking until our Office has evaluated the adequacy of identification efforts carried out so far.

As soon as we receive the requested information, we will continue with our review of this project. If you have any questions, please contact our Office at (787) 721-3737.

Sincerely,

Carlos A. Rubio Cancela
State Historic Preservation Officer

CARC/GMO/SG/MC

c Eng. Romel Pedraza, Assistant Executive Director in Planning, Engineering and Construction, Puerto Rico
Ports Authority

Enclosures



December 1, 2015

Ms. Dana L. Perkins
Environmental Program Manager
Atlanta Airports District Office
Federal Aviation Administration
1701 Columbia Ave.
Suite 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Perkins:

Our Office has received and reviewed a cultural resources assessment survey report (Stage I) titled "Alternatives for the Reconstruction of Runway 8/26 Rafael Hernández Airport, Aguadilla, PR".

The State Historic Preservation Officer (SHPO) advises and assists federal agencies and other responsible entities in the identification, evaluation and assessment of effects on historic properties (district, site, buildings, structure or object) of projects, activities or programs requiring a Federal permit, license or approval. The authority for these procedures is contained in the National Historic Preservation Act, as amended. In order for the SHPO better assist you in fulfilling your section 106 responsibilities, please provide us with the following documentation:

1. Section 106 delivery control form. Please include total amount of federal funds to be assigned.
2. A detailed written description of the project, including related activities to be carried out in conjunction with the project. If an application was submitted for Federal funding, licenses, or permits, please provide a copy of the application.
3. Project information:
 - a) Area of the project in acres.
 - b) As-found or as-built plans of the building/structure(s) to be affected by the project saved as a PDF file and included with printed copies, size 11"x17".
 - c) Schematic or preliminary drawings (floor plans, elevations, sections) that show the proposed project design saved as a PDF file and included with printed

Ms. Perkins
December 1, 2015
Page 2

SHPO: 10 29 15 07 RECONSTRUCTION OF RUNWAY 8 26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

copies, size 11"x17".

4. Determine and document the proposed boundaries of the project's Area of Potential Effect (APE) - geographic area where the project could have a direct or indirect effect on historic properties.
5. Measures taken to provide the public with information about this undertaking and its effects on historic properties, as well as to seek public comment and input.

Regarding the Stage I report and pending a formal definition of the project's APE, we hereby submit some initial comments and recommendations for your consideration. The document should omit that the survey was requested by the Puerto Rico State Historic Preservation Office (page 51) as this is the first submittal to us related to this undertaking. All drawings contained in the document are printed in a very small scale; please reprint and include at a legible scale. After analyzing the results of the archival research, we can infer that there is a high probability of historic structures remains; therefore, the implementation of a 50 meter interval subsurface testing strategy at the West side of the taxiway appears too large.

The Rafael Hernández International Airport [Borinquen (BQN) Airport], is located within the boundaries of the former *Ramey Air Force Base*, a potentially eligible district to the *National Register of Historic Places*. As a result of this survey, several structures remains - allegedly made of concrete and lime - of unknown significance were identified in the surveyed area that perhaps are associated with the San Antonio village (c. late XIX century) and with the military use of the land (c. early XX century - WWII - Cold War context). The Stage I report does not evidence the application of the *National Register of Historic Places* criteria and their associated aspects of integrity in evaluating the historic significance of these properties; therefore, we believe that any determination of eligibility or finding of effect on historic properties regarding this undertaking, at this time, would be premature.

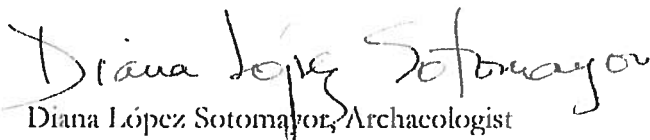
You should evaluate the historic significance of these properties in consultation with our Office as per 36 CFR 800.4 (c)(1). An intensive survey should be carried out consistent with the Secretary of the Interior Standards and Guidelines for Identification and Evaluation; therefore we request an intensive survey work plan for our review and concurrence prior to implementation.

Ms. Perkins
December 1, 2015
Page 3

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

As soon as we receive the requested information, the revised Stage I survey report and the intensive survey work plan, we will continue with our review of this project. If you have any questions, please contact Archaeologist Marinés Colón, Historic Property Specialist, at mcolon@prshpo.pr.gov or (787) 721-3737.

Sincerely,



Diana López Sotomayor, Archaeologist
State Historic Preservation Officer

DLS/NAPT/BRS/MC

- c Mr. Jorge Suárez, Assistant Executive Director for Planning, Engineering, Construction and Environmental Affairs, Puerto Rico Ports Authority
Ms. Eileen M. Vélez Vega, PE, Kimley Horn Puerto Rico, LLC



ESTADO LIBRE ASOCIADO DE
PUERTO RICO

Oficina Estatal de Conservación Histórica
State Historic Preservation Office

January 8, 2016

Ms. Dana L. Perkins
Environmental Program Manager
Atlanta Airports District Office
Federal Aviation Administration
1701 Columbia Ave.
Suite 220
College Park, Georgia 30337

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Perkins:

A meeting was requested by the archaeology consultant in order to clarify comments included in our letter dated December 1, 2015 related to the archaeological reconnaissance survey report prepared for the above referenced project. At said meeting, held in our Office on December 14, 2015, the archaeology consultant handed us a set of documents with highlighted and flagged pages without a cover letter.

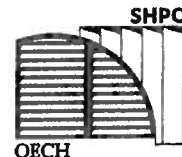
These documents comprise a 15-page "Scope of Services" prepared by Kimley Horn Puerto Rico, LLC for the Puerto Rico Ports Authority (PRPA), a 32-page "Professional Services Agreement" between PRPA and Kimley Horn, and a 137-page "Evaluation of Alternatives", also prepared by Kimley Horn for PRPA that includes condition and operational assessments, formulation of alternatives and technical considerations, an alternative analysis and selection of preferred alternatives and an environmental and funding analysis with recommendations.

These documents do not address the information requested in our December 1 letter. It is still unclear to us as to what is the undertaking. We need a detailed written description of the project, including related activities to be carried out in conjunction with the project. Also, as commented in our last letter dated December 1, 2015, all drawings presented are printed in an unreadable scale; to review please enlarge and resubmit at a legible scale, saved as a PDF file and included with printed copies size 11"x17".

Also pending is a formal determination and documentation of the project's Area of Potential Effect boundaries by the federal agency. Please fill out and submit include the "Section 106 Delivery Control Form" (enclosed and also available on our web

Cuartel de Ballajá (Tercer Piso),
Calle Norzagaray, Esquina Beneficencia, Viejo San Juan, P.R. 00901

PO Box 9023935, San Juan, P.R. 00902-3935
Tel: 787-721-3737 Fax: 787-721-3773
www.oech.gobierno.pr



OFICINA ESTATAL DE
CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR

STATE HISTORIC
PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

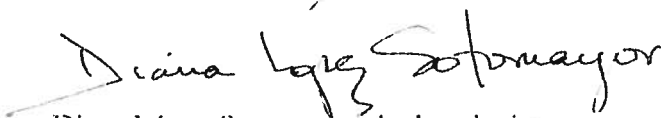
Ms. Perkins
January 8, 2016
Page 2

SHPO: 10 29 15 07 RECONSTRUCTION OF RUNWAY 8 26, RAFAEL HERNÁNDEZ (BQN)
AIRPORT, AGUADILLA, PUERTO RICO

page www.oech.pr.gov).

As soon as we receive the requested information, the revised Stage I survey report and the intensive archaeological survey work plan, we will continue with our review of this project. If you have any questions, please contact Archaeologist Marinés Colón, Historic Property Specialist, at mcolon@prshpo.pr.gov or (787) 721-3737.

Sincerely,



Diana López Sotomayor, Archaeologist
State Historic Preservation Officer

DLS/NAPT/BRS/MC

c Mr. Jorge Suárez, Assistant Executive Director for Planning, Engineering, Construction
and Environmental Affairs, Puerto Rico Ports Authority
Ms. Hileen M. Vélez-Vega, PE, Kimley Horn Puerto Rico, LLC

Enclosure



GOBIERNO DE PUERTO RICO
Oficina Estatal de Conservación Histórica

Tuesday, April 21, 2020

Lee Kyker

Environmental Protection Specialist
US Department of Transportation
Federal Aviation Administration
Atlanta Airports District Office
1701 Columbia Ave., Campus Bldg.
Atlanta, GA 30337-2747

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26 AT THE AGUADILLA RAFAEL HERNÁNDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Kyker,

On March 24, 2020, our Office received three (3) documents titled: “Rafael Hernandez Airport Runway 8-26 Reconstruction, Aguadilla, Puerto Rico, Stage I Archaeological Survey Report” prepared by AM Group, dated April 22, 2019; “Historical/Architectural Documentation for Twenty-one Buildings for Rafael Hernandez Airport Runway 8-26 Reconstruction Project, Aguadilla, PR” prepared by AM Group, dated June 18, 2019; and “Rafael Hernandez Airport Runway 8-26 Reconstruction Environmental Assessment, Phase I Cultural Resources Assessment Survey” prepared by AECOM, dated March 2020.

In response to initial efforts to identify historic properties made in 2015 by AM Group - first project submission to our office - we requested additional basic information pertaining the undertaking (e. g., Area of Potential Effects, project description, schematic drawings, etc.), a revised archaeological survey report and an intensive archaeological survey work plan for our review and concurrence prior to its implementation (letter dated December 1, 2015). Although we have had several meetings, telephone conversations, emails and formal letters over the past four (4) years, in which the need for additional information was reiterated, we are still awaiting to receive all of the information requested.

As the result of archaeological surveys (2015, 2018 and 2019), structures were identified (i. e., cement blocks, channel segment, building/structure foundations) whose eligibility to the National Register of Historic Places is not adequately discussed in reports. Specifically, although recommendations regarding eligibility are presented, the basis for such recommendations is not included. We hereby request the submission of a single archaeological survey report integrating the entirety of archaeological identification and evaluation work carried out so far, attaching all related letters by the SHPO, and including the aforementioned evaluation of eligibility.



Ms. Kyker
Tuesday, April 21, 2020
Page 2

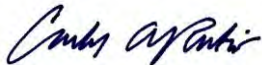
SHPO: 10-29-15-07 RECONSTRUCTION OF RAFAEL HERNANDEZ AIRPORT RUNWAY 8-26,
AGUADILLA, PUERTO RICO

If additional subsurface testing is deemed necessary to accomplish this – and considering that previous interventions ranged from surface inspection to excavation with mechanical methods of more than one-hundred 3.00 meters long trenches - a work plan for our review and concurrence prior to implementation is again requested.

At a minimum, we believe the runway is eligible for listing on the National Register of Historic Places under Criteria **A** (Cold War) and **C** (design/construction) and that implementation of the undertaking meets the criteria of **adverse effect** by altering the use of the structure. If the Federal Aviation Administration (FAA) agrees with this opinion, you should notify the Advisory Council on Historic Preservation and continue consultation with the consulting parties to seek ways to resolve the adverse effects. In general, we believe architectural documentation and greater historic background research would be adequate treatment measures. A Memorandum of Agreement (MOA) should be developed, as per 36 CFR 800.6, to formalize the treatment measures to be implemented. The MOA should also include language that provides for the completion of any outstanding (phased) identification efforts regarding archaeological properties. Execution of the MOA, as far as Section 106 is concerned, would make way for the expenditure of Federal funds for this project, while still providing a process for completing identification efforts prior to project construction.

If you have any questions concerning our comments, do not hesitate to contact our Office.

Sincerely,



Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/MDT/MB/MC



U.S. Department
of Transportation
**Federal Aviation
Administration**

Atlanta Airports District Office
1701 Columbia Ave.
College Park, GA 30337-2747
Phone: 404-305-7150

May 20, 2020

Mr. John M. Fowler
Executive Director
Advisory Council on Historic Preservation
401 F Street NW, Suite 308
Washington, DC 20001

**RE: FAA Section 106 Notification of Adverse Effect – Runway Replacement
Rafael Hernandez Airport, Aguadilla, Puerto Rico (BQN)**

Dear Mr. Fowler:

The Federal Aviation Administration (FAA) is the lead federal agency for an undertaking, as defined by Section 106 of the National Historic Preservation Act, at the Rafael Hernandez Airport, Aguadilla, Puerto Rico. The undertaking includes financial grant assistance to the airport sponsor to construct a new permanent Runway 8-26, 500 feet south of the existing Runway 8-26 centerline, to replace the existing Runway 8-26. The existing Runway 8-26 would be converted to a full length partial parallel taxiway. The FAA hereby notifies the Advisory Council on Historic Preservation (ACHP) that the undertaking will result in an adverse effect.

The undertaking is within an area that is a potentially eligible for listing in the National Register of Historic Places (NRHP) as a historic district. The potentially eligible historic district is comprised of the runway and buildings/structures associated with the former Ramey Air Force Base. The proposed action under consideration will affect the physical use of Section 106/4(f) resources by the demolition of buildings and realignment of the runway. The action diminishes the setting by removal of resources that may be eligible for listing in the National Register, if not by individual designation, by physical removal of structures and realignment of the runway, that may as a whole, be designated as a historic district. Therefore, the FAA has determined that the proposed action will result in substantial impairment to 4(f) resources.

FAA is in consultation with the Puerto Rico State Historic Preservation Office to mitigate the adverse effect through a Memorandum of Agreement (MOA). Please note that the attached Historic Architecture Survey Report supplements the preliminary determination and provides additional context on the undertaking. This report will be assimilated with previous work conducted into a single report as requested by PR SHPO.

If you have any questions or concerns, please contact me at 404-305-6708 or email at lee.kyker@faa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Lee Kyker".

Lee Kyker
Environmental Protection Specialist, Atlanta Airports District Office

Enclosure



U.S. Department
of Transportation
**Federal Aviation
Administration**

Atlanta Airports District Office
1701 Columbia Ave., Campus Bldg.
Atlanta, GA 30337-2747
Phone: (404) 305-7150

May 20, 2020

Mr. Carlos Rubio – Cancela, SHPO
State Historic Preservation Office
P.O. Box 9023935
San Juan, PR 00902-3935

Reference: Section 106 Determination – Runway Replacement

Dear Mr. Rubio-Cancela:

The Federal Aviation Administration (FAA) Atlanta Airports District Office (ATL-ADO) has issued a Section 106 Determination for the undertaking at the Rafael Hernandez Airport, Aguadilla, Puerto Rico (BQN). The undertaking involves the following improvements:

- Construction of a new permanent Runway 8-26, 500 feet south of the existing Runway 8-26 centerline, to replace the existing Runway 8-26. The runway would measure 11,000 feet by 200 feet, comprised of Portland Cement Concrete (PCC) with asphalt overlay.
- The existing Runway 8-26 would be converted to a full length partial parallel taxiway.

The FAA concurs in the PR SHPO's position that the undertaking will have an adverse effect on the potentially eligible historic district. The proposed action under consideration will affect the physical use of Section 106 resources by the demolition of buildings/structures and realignment of the runway. The action diminishes the setting by removal of resources that may be eligible for listing in the National Register of Historic Places (NRHP), if not by individual designation, by physical removal of structures and realignment of the runway that may as a whole, be designated as a historic district. The FAA and project proponent have elected to develop a Memorandum of Agreement (MOA) to mitigate the adverse effect for the undertaking. On May 20, 2020, the FAA notified the Advisory Council on Historic Preservation (ACHP) of its determination of adverse effect and invited ACHP to join the consultation. The determination as to whether additional archaeological investigation is needed has not been completed. If additional subsurface testing is determined necessary, there is the potential for the identification of additional properties which will be addressed in the Memorandum of Agreement.

On behalf of the agency, and the project proponent, I thank you and your staff for your assistance and cooperation in the Section 106 process and look forward to continued collaboration in the

development of the MOA. An initial draft MOA is enclosed for your review and comment. If you have any questions or concerns regarding the determination, please give me a call at (404) 305-6708 or email at lee.kyker@faa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Lee Kyker".

Lee Kyker
Environmental Protection Specialist, Atlanta Airports District Office

Enclosure – Draft MOA

From: [Carlos A. Rubio Cancela Director Ejecutivo](#)
To: [Kyker, Lee \(FAA\)](#)
Subject: RE: BQN - Section 106 Determination - MOA
Date: Thursday, May 21, 2020 5:45:29 PM
Attachments: [image003.png](#)



Good afternoon,

Thank you, Lee. I will forward your letter and the MOA draft to my staff for evaluation and comments.

Best regards,

Carlos

Carlos A. Rubio-Cancela
Director Ejecutivo / Oficial Estatal de Conservación Histórica
Executive Director / State Historic Preservation Officer
P.O. Box 9023935
San Juan, P.R. 00902-3935
T. (787) 721-3737
F. (787) 721-3773



From: Kyker, Lee (FAA) [mailto:Lee.Kyker@faa.gov]
Sent: Wednesday, May 20, 2020 4:02 PM
To: Carlos A. Rubio Cancela Director Ejecutivo <carubio@prshpo.pr.gov>
Subject: BQN - Section 106 Determination - MOA

Good Afternoon,

The attached letter is a follow up to our call of May 12th to formalize our agreement that the proposed undertaking will have an Adverse Effect. Also attached is an initial draft of a Memorandum of Agreement for your review and comment. Please let me know if I can assist in making any edits to this draft document or if you would like me to set up another call to discuss any suggested revisions to the MOA in more detail.

Thank you again for your assistance in this proposed project.

Lee

Lee Kyker
Environmental Specialist
Atlanta Airports District Office
(404) 305-6708



From: [Carlos A. Rubio Cancela Director Ejecutivo](#)
To: [Kyker, Lee \(FAA\)](#)
Cc: [Gloria Ortiz](#)
Subject: RE: BQN - Section 106 Determination - MOA
Date: Monday, June 01, 2020 6:41:26 PM
Attachments: [image006.png](#)
[image004.png](#)



Good afternoon!

Thank you for letting us know about the PRPA decision to continue with the discussed scope of work. In a few days, we will be sending our comments of the MOA draft submitted.

Thank you,

Carlos

Carlos A. Rubio-Cancela
Director Ejecutivo / Oficial Estatal de Conservación Histórica
Executive Director / State Historic Preservation Officer
P.O. Box 9023935
San Juan, P.R. 00902-3935
T. (787) 721-3737
F. (787) 721-3773



From: Kyker, Lee (FAA) [mailto:Lee.Kyker@faa.gov]
Sent: Monday, June 1, 2020 5:39 PM
To: Carlos A. Rubio Cancela Director Ejecutivo <carubio@prshpo.pr.gov>
Subject: RE: BQN - Section 106 Determination - MOA

Good Afternoon,

I learned today the PRPA has decided to continue with the current proposed project scope at BQN which is a realignment of the runway. I wanted to update you on this decision since I had mentioned during our last discussion that FAA has requested that the PRPA revisit the possibility of reconstruction of the runway in place due to a reduction in global operations during the pandemic. This alternative, which had originally been considered several years ago, was again rejected.

I have a telcon tomorrow morning and anticipate I'll be asked for an update on status of the draft MOA. I wanted to check in to see how the review was going and if there's any additional information I need to provide at this time. Also, any estimate on when you think PR SHPO will have comments on the MOA?

Thank you,

Lee

*Lee Kyker
Environmental Specialist
Atlanta Airports District Office
(404) 305-6708*



From: Carlos A. Rubio Cancela Director Ejecutivo <carubio@prshpo.pr.gov>
Sent: Thursday, May 21, 2020 5:45 PM
To: Kyker, Lee (FAA) <Lee.Kyker@faa.gov>
Subject: RE: BQN - Section 106 Determination - MOA



GOBIERNO DE PUERTO RICO
Oficina Estatal de Conservación Histórica

Good afternoon,

Thank you, Lee. I will forward your letter and the MOA draft to my staff for evaluation and comments.

Best regards,

Carlos

Carlos A. Rubio-Cancela

Director Ejecutivo / Oficial Estatal de Conservación Histórica

Executive Director / State Historic Preservation Officer

P.O. Box 9023935

San Juan, P.R. 00902-3935

T. (787) 721-3737

F. (787) 721-3773



From: Kyker, Lee (FAA) [<mailto:Lee.Kyker@faa.gov>]

Sent: Wednesday, May 20, 2020 4:02 PM

To: Carlos A. Rubio Cancela Director Ejecutivo <carubio@prshpo.pr.gov>

Subject: BQN - Section 106 Determination - MOA

Good Afternoon,

The attached letter is a follow up to our call of May 12th to formalize our agreement that the proposed undertaking will have an Adverse Effect. Also attached is an initial draft of a Memorandum of Agreement for your review and comment. Please let me know if I can assist in making any edits to this draft document or if you would like me to set up another call to discuss any suggested revisions to the MOA in more detail.

Thank you again for your assistance in this proposed project.

Lee

Lee Kyker

Environmental Specialist

Atlanta Airports District Office

(404) 305-6708



GOBIERNO DE PUERTO RICO

Oficina Estatal de Conservación Histórica

June 03, 2020

Lee Kyker

Environmental Protection Specialist
Federal Aviation Administration
Atlanta Airports District Office
1701 Columbia Ave., Campus Bldg.
Atlanta, GA 30337-2747

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNANDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Dear Ms. Kyker,

We have reviewed the draft memorandum of agreement prepared for the above referenced project and have the following observations

In the WHEREAS section, the Ramey Air Force Base Historical Association (Association) is missing and only mentioned on the signature page. It is not clear whether the Federal Aviation Administration (FAA) has consulted with them regarding this undertaking. Also, while according to the draft, the US Coast Guard has been invited to consult on the project, we are not aware of their views regarding the effects on the undertaking on historic properties. The US Coast Guard and Association should not merely be given the agreement to sign, but should also be given opportunity to consult on its development. Also, since invited signatories may terminate or seek to amend an MOA, the Association should, instead be a concurring party, not an invited signatory. The agreement should record the Advisory Council on Historic Preservation's decision regarding direct participation. Also, a graphic depiction of the area of potential effects should be included as an appendix.

The introduction to the Stipulations section should refer to the FAA and not Puerto Rico Ports Authority (PRPA). The stipulations themselves may state the responsibilities (activities to be carried out) PRPA will assume. The MOA also needs to be consistent regarding the use of "PRPA" or "Sponsor" when referring to the Ports Authority.

Stipulation I (Archaeology), since the FAA will be carrying out phased identification and evaluation, needs to contain language for consensus determinations of eligibility, assessment of effects and resolution of effects.



Lee Kyker
June 3, 2020

SHPO: 10-29-15-07 RECONSTRUCTION OF RUNWAY 8-26, RAFAEL HERNANDEZ (BQN) AIRPORT, AGUADILLA, PUERTO RICO

Historical Documentation (Stipulation II) appears to be a summary of what PR SHPO personnel suggested, as a for instance, in the conference call. Ramey was not a Strategic Air Command (SAC), but part of it. We believe the former Ramey Air Force Base's Cold War history is much more complex than is commonly known and the Association's web site only gives us a hint of that history. The mission and history of the SAC should be explored and Ramey's contribution to this command.

We are not familiar with the language of Stipulation IV (Public Domain of Agency Records) and we question whether it is necessary or applicable. The agency in question was not even identified. Would this apply to all the reports we have received prior to the MOA?

The above comments should be taken into account in revising the draft MOA.

If you have any questions concerning our comments, do not hesitate to contact our Office.

Sincerely,



Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/MB

**MEMORANDUM OF AGREEMENT
AMONG
FEDERAL AVIATION ADMINISTRATION (FAA),
PUERTO RICO PORT AUTHORITY (PRPA),
AND THE
PUERTO RICO HISTORIC PRESERVATION OFFICER (PR SHPO)
REGARDING
THE RUNWAY 8/26 RECONSTRUCTION
AT RAFAEL HERNANDEZ AIRPORT, AGUADILLA, PUERTO RICO
SHPO10-29-15-07**

WHEREAS, the FAA has conditionally approved the Airport Layout Plan and plans for possible Federal Funding to reconstruct Runway 8/28 at Rafael Hernandez Airport, Aguadilla, Puerto Rico (undertaking) pursuant to 49 U.S.C. § 47101; and

WHEREAS, the undertaking consists of construction of a new permanent Runway 8-26, 500 feet south of the existing Runway 8-26 centerline, to replace the existing Runway 8-26. The runway would measure 11,000 foot by 200 foot, comprised of Portland Cement Concrete (PCC) with asphalt overlay. The existing Runway 8-26 would be converted to a full length partial parallel taxiway that meets all FAA design and safety standards; and

WHEREAS, FAA has defined the undertaking's area of potential effect (APE) in accordance with 36 CFR Part 800.16(d), in consultation with the PR SHPO. For archaeological resources, the Archaeological APE corresponds to areas of planned construction and demolition activities for all alternatives evaluated in the EA. Additionally, to account for indirect ground disturbance activities that may occur during construction, such as materials and equipment staging, the archaeological APE includes a 100-foot buffer around planned construction areas. For evaluation of historic architectural resources, a separate APE was delineated to assess potential impacts not related to the construction footprint and corresponds to the original area of the Ramey Air Force Base; and

WHEREAS, the undertaking is owned and operated by the Puerto Rico Port Authority (Sponsor) and therefore, the Sponsor has been asked to participate and sign this Memorandum of Agreement (MOA); and

WHEREAS, FAA, in consultation with PR SHPO, has found the former Ramey AFB eligible for listing as a historic district; and

WHEREAS, FAA approval of the proposed action would constitute an adverse effect to the historic district; and

WHEREAS, FAA has consulted with the public through public notice and solicitation of public comment during the NEPA process, and with PR SHPO regarding the effects of the

undertaking on historic properties. *To be completed* comments were received concerning historic properties; and

WHEREAS, the Ramey Air Force Base Historical Association (RAFBHA) is a non-benefit association with the sole mission of keeping the historical backdrop of Ramey AFB alive has been invited to participate in the development of this MOA as a concurring party; and

WHEREAS, in accordance with 36 C.F.R. § 800.6(a)(1), FAA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation and invited the ACHP to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii) and the ACHP has concluded that Appendix A, Criteria for Council Involvement in Reviewing Individual Section 106 Cases, of our regulations, “Protection of Historic Properties” (36 CFR Part 800), does not apply to this undertaking ; and

NOW, THEREFORE, the FAA, PR SHPO, PRPA agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

The FAA shall ensure that the following measures are carried out by a professional who meets the applicable Secretary of Interior Professional Qualifications Standards:

I. ARCHAEOLOGICAL INVESTIGATION

- A. As the result of archaeological surveys (2015, 2018 and 2019), structures were identified (i. e., cement blocks, channel segment, building/structure foundations) whose eligibility to the National Register of Historic Places is not adequately discussed in reports. A single archaeological survey report will be prepared by PRPA that integrates the entirety of archaeological identification and evaluation work carried out so far and will include all related letters by the SHPO, and an evaluation of eligibility with the basis for such recommendations. This single report will be submitted to the PR SHPO for review.
- B. If additional subsurface testing is deemed necessary, a work plan will be submitted to the PR SHPO for review and concurrence prior to implementation. FAA will obtain consensus determinations of eligibility, assessment of effects and resolution of effects from PR SHPO.

II. HISTORICAL SITE DOCUMENTATION

- A. The PRPA (Sponsor) will prepare a report to document the architectural and cultural history of the airfield to include the following:
 - 1) History of the airport’s role during the Cold War

- 2) Documentation of Ramey Air Force Base's role in the use of reconnaissance planes during the Cold War
- 3) Oral histories from a locals' perspective in how the Air Force Base affected the economy of Puerto Rico
- 4) The role of Ramey Air Force Base as part of a strategic air command (SAC) which will include the mission and history of the SAC and exploration of Ramey's contribution to this command.
- 5) Discussion of Ramey Air Force Base's influence on life including education, employment, and people's views concerning the base.

III. PERMANENT ARCHIVAL RECORD

- A. Prior to acquisition and demolition of buildings, digital photographs will be taken of the buildings and landscape within the Area of Potential Affect including views of the exterior and interior of all buildings, structural or decorative. Digital photographs showing the overall complex and its setting will also be included.
- B. The photographer shall comply with the minimum level standards necessary for document retention at PR SHPO pursuant to the *Guidelines for Establishing a Photographic Permanent Archival Record*. A draft copy of the PAR will be provided to PR SHPO for a 30-day review and comment period. PRPA will respond to PR SHPO comments regarding the draft PAR within 30-days of receipt. After the draft has been reviewed, a final archival copy of the PAR will be provided to PRSHPO and to RAFBHA.

IV. DURATION

This MOA shall expire if its terms are not carried out within five (5) years from the date which the fully executed MOA is filed with ACHP. Prior to such time, FAA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VIII, below.

V. POST-REVIEW DISCOVERIES

If potential cultural resources are discovered or unanticipated effects on cultural resources found during design or construction, all work shall promptly stop and the FAA, PRPA, and PR SHPO will be notified and consulted on how to proceed pursuant to 36 CFR Part 800.13.

VI. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires or is terminated, the PRPA (Sponsor) shall provide all parties to this MOA a summary report detailing work undertaken

pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the Sponsor's efforts to carry out the terms of this MOA.

VII. DISPUTE RESOLUTION

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FAA shall consult with such party to resolve the objection. If FAA determines that such objection cannot be resolved, FAA will:

A. Forward all documentation relevant to the dispute, including the FAA's proposed resolution, to the ACHP. The ACHP shall provide FAA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FAA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. FAA will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty- (30) day time period, FAA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FAA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories to the MOA and provide them and the ACHP with a copy of such written response.

C. The responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

VIII. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

IX. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VIII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, work shall stop on the undertaking. Prior to work continuing on the undertaking, FAA shall either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP

under 36 CFR § 800.7. FAA shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the FAA, PR SHPO, and the PRPA, its submission to the ACHP in accordance with 36 CFR 800.6(b)(1)(iv), and implementation of its terms, is evidence that the FAA has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORIES:

FEDERAL AVIATION ADMINISTRATION

BY: _____ **DATE:** _____
Larry F. Clark, Manager, Atlanta Airports District Office

PUERTO RICO STATE HISTORIC PRESERVATION OFFICER

BY: _____ **DATE:** _____
Carlos A. Rubio-Cancela, Executive Director / State Historic Preservation Officer

PUERTO RICO PORT AUTHORITY

BY: _____ **DATE:** _____
Joel A. Pizá Batiz, Acting Executive Director

Appendix – Areas of Potential Effect

Path: S:\Projects\PI\Puerto Rico_2018\06\75488_BONENARMS\02E\Environmental\00-Work\200_GIS\mxd\Cultural\200730_Figure 1.3-1_APEL.mxd Date Saved: 3/27/2018 1:16:13 PM



RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION
ENVIRONMENTAL ASSESSMENT

AREAS OF POTENTIAL EFFECT

FIGURE
1.3-1



June 22, 2020

Mr. Lee Kyker
Environmental Protection Specialist
Federal Aviation Administration
Atlanta Airports District Office
1701 Columbia Avenue
College Park, GA 30337

Ref: *Proposed Runway Replacement Project at Rafael Hernandez Airport
Aguadilla, Puerto Rico
ACHP Project Number: 15443*

Dear Mr. Kyker:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the Puerto Rico State Historic Preservation Officer (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Anthony Guy Lopez at (202) 517-0220 or by email at alopez@achp.gov.

Sincerely,

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

**MEMORANDUM OF AGREEMENT
AMONG
FEDERAL AVIATION ADMINISTRATION (FAA),
PUERTO RICO PORTS AUTHORITY (PRPA),
AND THE
PUERTO RICO STATE HISTORIC PRESERVATION OFFICER (PR SHPO)
REGARDING
THE RUNWAY 8/26 RECONSTRUCTION
AT RAFAEL HERNANDEZ AIRPORT, AGUADILLA, PUERTO RICO
SHPO10-29-15-07**

WHEREAS, the FAA has approved the plans for possible Federal Funding to reconstruct Runway 8/26 at Rafael Hernandez Airport, Aguadilla, Puerto Rico (undertaking) pursuant to 49 U.S.C. § 47101; and

WHEREAS, the undertaking consists of construction of a new permanent Runway 8-26, 500 feet south of the existing Runway 8-26 centerline, to replace the existing Runway 8-26. The runway would measure 11,000 foot by 200 foot, comprised of Portland Cement Concrete (PCC) with asphalt overlay. The existing Runway 8-26 would be converted to a full length partial parallel taxiway that meets all FAA design and safety standards; and

WHEREAS, FAA has defined the undertaking's area of potential effect (APE) in accordance with 36 CFR Part 800.16(d), in consultation with the PR SHPO. For archaeological resources, the Archaeological APE corresponds to areas of planned construction and demolition activities for all alternatives evaluated in the EA. Additionally, to account for indirect ground disturbance activities that may occur during construction, such as materials and equipment staging, the archaeological APE includes a 100-foot buffer around planned construction areas. For evaluation of historic architectural resources, a separate APE was delineated to assess potential impacts not related to the construction footprint and corresponds to the original area of the Ramey Air Force Base; and

WHEREAS, the undertaking is owned and operated by the PRPA, as project Sponsor and therefore, the PRPA has been asked to participate and sign this Memorandum of Agreement (MOA); and

WHEREAS, FAA, in consultation with PR SHPO, has found the former Ramey AFB eligible for listing in the National Register of Historic Places (NRHP) as a historic district; and

WHEREAS, FAA approval of the proposed action would constitute an adverse effect to the historic district, but also potentially to archaeological sites once they have been evaluated; and

WHEREAS, FAA has consulted with PR SHPO regarding the effects of the undertaking on historic properties and will also consult with the public through public notice and solicitation

of public comment during the NEPA process; and

WHEREAS, the Ramey Air Force Base Historical Association (RAFBHA) is a non-benefit association with the sole mission of keeping the historical backdrop of Ramey AFB alive has been invited to participate in the development of this MOA as a concurring party; and

WHEREAS, the USCG was invited to sign this agreement, but declined to do so; and

WHEREAS, in accordance with 36 C.F.R. § 800.6(a)(1), FAA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation and invited the ACHP to participate in the consultation and the ACHP has chosen not to participate at this time; and

WHEREAS, the proposed project is as described in the Draft Environmental Assessment for Runway 8-26 Reconstruction, June 2020 contained as an attachment to this MOA and the APE, as shown in the attached Figure 1.3-1, is inclusive of the area of the former Ramey Air Force Base containing 16 historically significant structures as well as the existing Runway 8-26.

NOW, THEREFORE, the FAA, PR SHPO, PRPA agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

The FAA shall ensure that the following measures are carried out:

I. ARCHAEOLOGICAL INVESTIGATION

- A. As the result of archaeological surveys (2015, 2018 and 2019), structures were identified (i. e., cement blocks, channel segment, building/structure foundations) whose eligibility to the National Register of Historic Places is not adequately discussed in reports. A single archaeological survey report will be prepared by PRPA that integrates the entirety of archaeological identification and evaluation work carried out so far and will include all related letters by the SHPO, and an evaluation of eligibility with the basis for such recommendations. This single report will be submitted to the PR SHPO for review.
- B. In accordance with 36 CFR 800.4 through 800.6, the FAA will consult with the PR SHPO regarding determinations of eligibility, assessment of effects and resolution of effects.

II. HISTORICAL SITE DOCUMENTATION

- A. The PRPA will prepare a report to document the architectural and cultural history of the airfield to include the following:
 - 1) History of the airport's role during the Cold War

- 2) Documentation of Ramey Air Force Base's role in the use of reconnaissance planes during the Cold War
- 3) Oral histories from a locals' perspective in how the Air Force Base affected the economy of Puerto Rico
- 4) The role of Ramey Air Force Base as part of a Strategic Air Command (SAC) which will include the mission and history of the SAC and exploration of Ramey's contribution to this command.
- 5) Discussion of Ramey Air Force Base's influence on life including education, employment, and people's views concerning the base.

III. PERMANENT ARCHIVAL RECORD

- A. Prior to acquisition and demolition of buildings, digital photographs will be taken of the buildings and landscape within the Area of Potential Affect including views of the exterior and interior of all buildings, structural or decorative. Digital photographs showing the overall complex and its setting will also be included.
- B. The photographer shall comply with the minimum level standards necessary for document retention at PR SHPO pursuant to the *Guidelines for Establishing a Photographic Permanent Archival Record*. A draft copy of the Permanent Archival Record (PAR) will be provided to PR SHPO for a 30-day review and comment period. PRPA will respond to PR SHPO comments regarding the draft PAR within 30-days of receipt. After the draft has been reviewed, a final archival copy of the PAR will be provided to PRSHPO and to RAFBHA.

IV. DURATION

This MOA shall expire if its terms are not carried out within five (5) years from the date which the fully executed MOA is filed with ACHP. Prior to such time, FAA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VIII, below.

V. POST-REVIEW DISCOVERIES

If potential cultural resources are discovered or unanticipated effects on historic properties found during design or construction, all work shall promptly stop and the FAA, PRPA, and PR SHPO will be notified and consulted on how to proceed pursuant to 36 CFR Part 800.13.

VI. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires or is terminated, the PRPA shall provide all parties to this MOA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the PRPA's efforts to carry out the terms of this MOA.

VII. DISPUTE RESOLUTION

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FAA shall consult with such party to resolve the objection. If FAA determines that such objection cannot be resolved, FAA will:

A. Forward all documentation relevant to the dispute, including the FAA's proposed resolution, to the ACHP. The ACHP shall provide FAA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FAA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. FAA will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty- (30) day time period, FAA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FAA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories to the MOA and provide them and the ACHP with a copy of such written response.

C. The responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

VIII. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

IX. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VIII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, work shall stop on the undertaking. Prior to work continuing on the undertaking, FAA shall either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. FAA shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the FAA, PR SHPO, and the PRPA, its submission to the ACHP in accordance with 36 CFR 800.6(b)(1)(iv), and implementation of its terms, is evidence that the

FAA has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORIES:

FEDERAL AVIATION ADMINISTRATION

BY: *Larry F. Clark* DATE: July 15, 2020
Larry F. Clark, Manager, Atlanta Airports District Office

PUERTO RICO STATE HISTORIC PRESERVATION OFFICER

CR BY: *Carlos A. Rubio-Cancela* DATE: July 15, 2020
Carlos A. Rubio-Cancela, Executive Director / State Historic Preservation Officer

PUERTO RICO PORT AUTHORITY

BY: *Joel A. Piza Batiz* DATE: July 14, 2020
Joel A. Piza Batiz, Executive Director

Attachments – Draft Environmental Assessment for Runway 8-26 Reconstruction, June 2020
APE Figure 1.3-1

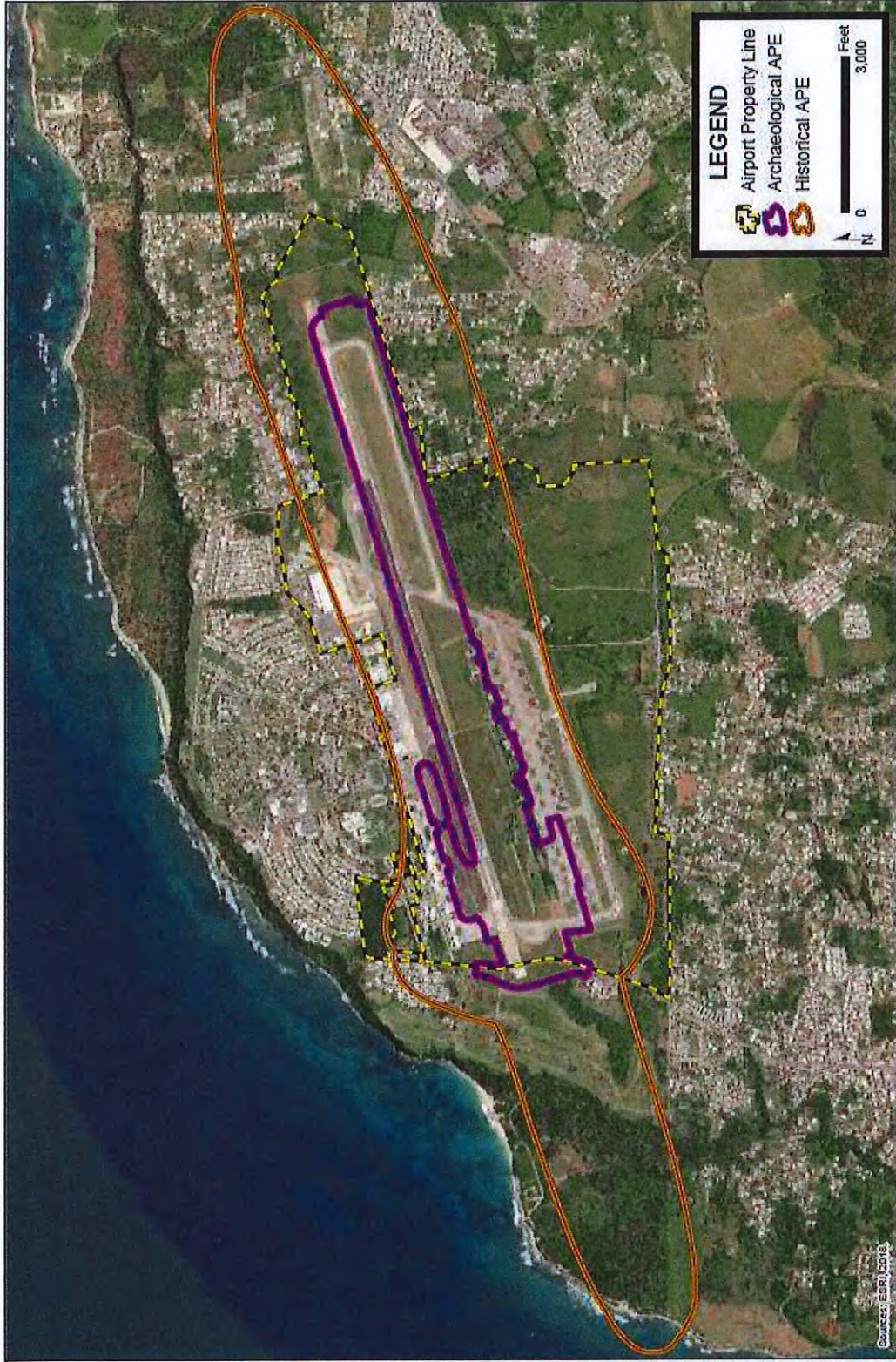


FIGURE
1.3-1

AREAS OF POTENTIAL EFFECT

**RAFAEL HERNANDEZ AIRPORT
RUNWAY 8-26 RECONSTRUCTION
ENVIRONMENTAL ASSESSMENT**

APPENDIX D
Air Quality Analysis Technical Report

This page intentionally left blank.

Rafael Hernandez Airport Runway 8-26 Reconstruction Environmental Assessment

Air Quality Technical Report

Prepared for:

**Puerto Rico Port Authority
and
Federal Aviation Administration**

Prepared by:

AECOM

November 2019

This page intentionally left blank.

TABLE OF CONTENTS

| <u>Section</u> | <u>Page</u> |
|--|--------------------|
| CHAPTER 1 INTRODUCTION..... | 1 |
| 1.1. Anaysis Methodology..... | 1 |
| 1.1.1. Operational Emissions..... | 1 |
| 1.1.2. Construction Emissions | 2 |

LIST OF TABLES

| | |
|--|----|
| Table 1.1-1 2016 Annual Fleet Mix and Operations..... | 1 |
| Table 1.2-1: Estimated Annual Construction Activity | 4 |
| Table 1.2-2a: 2020 Off-Road Equipment Emissions Rates..... | 6 |
| Table 1.2-2b: 2021 Off-Road Equipment Emissions Rates..... | 7 |
| Table 1.2-2c: 2022 Off-Road Equipment Emissions Rates..... | 8 |
| Table 1.2-2d: 2023 Off-Road Equipment Emissions Rates..... | 9 |
| Table 1.2-2e: On-Road Vehicle Emissions Rates..... | 10 |

ACRONYMS AND ABBREVIATIONS

| | |
|-------------------|--|
| ACEIT | Airport Construction Emissions Inventory Tool |
| ACRP | Airport Cooperative Research Program |
| AVMT | Annual Vehicle Miles of Travel |
| BMP | Best Management Practice |
| BQN | Rafael Hernandez Airport |
| CO | Carbon Monoxide |
| CO _{2e} | Carbon Dioxide Equivalent |
| EF | Emissions Rate |
| EPA | U.S. Environmental Protection Agency |
| GHG | Greenhouse Gas |
| HP | Horsepower |
| MOVES mph | Motor Vehicle Emissions Simulator miles-per-hour |
| NO _x | Nitrogen Oxides |
| PM | Particulate Matter |
| PM _{2.5} | Particulate Matter equal to or less than 2.5 micrometers in diameter |
| PM ₁₀ | Particulate Matter equal to or less than 10 micrometers in diameter |
| SO ₂ | Sulfur Dioxide |
| TPY | Tons Per Year |
| TSP | Total Suspended Particulate |
| VOC | Volatile Organic Compounds |

CHAPTER 1 INTRODUCTION

This *Air Quality Technical Report* details the assessment scope, calculation methodology, input data and other technical information used in the analysis of air quality impacts associated with the proposed Runway 8-26 Reconstruction at the Rafael Hernandez Airport (i.e., BQN, or the Airport), hereinafter referred to as the Proposed Project.

1.1. ANALYSIS METHODOLOGY

1.1.1. OPERATIONAL EMISSIONS

None of the Proposed Project Alternatives (2B, 2D and No-Action) would result in a change in aircraft fleet mix and operations, and therefore would not result in a change in operational emissions at BQN. A baseline operational emissions inventory was prepared to disclose emissions from existing aircraft operations in 2016 conditions. Emissions from aircraft were calculated using FAA's Aviation Environmental Design Tool (AEDT). Air emission analyses for airports are required to use AEDT for these sources. The analysis used AEDT default emission factors for specific aircraft airframe and engine combinations applied to aircraft operations, including taxi in and out, take off, climb out, approach descent, and aircraft Auxiliary Power Unit (APU) use. The fleet mix and total annual operations by aircraft type used for the analysis was provided by the BQN Air Traffic Control Tower and is shown on Table 1.1-1.

Table 1.1-1 2016 Annual Fleet Mix and Operations

| Aircraft | Engine Model | Total |
|------------------------------------|----------------------|--------|
| Airbus A300F4-600 Series | PW4x58 | 2 |
| Airbus A310-300 Series | CF6-80C2A2 | 91 |
| Airbus A319-100 Series | V2522-A5 | 61 |
| Airbus A320-200 Series | V2527-A5 | 2,960 |
| Bell 429 | TPE331-1 | 11 |
| Bell AH-1W SuperCobra | T700-GE-401 -401C | 11,445 |
| Boeing 737-400 Series | CFM56-3C-1 (Rerated) | 1 |
| Boeing 737-700 Series | CFM56-7B24 | 19 |
| Boeing 737-800 Series | CFM56-7B26/2 | 635 |
| Boeing 747-200 Series | JT9D-7 | 2 |
| Boeing 747-400 Series | PW4056 | 313 |
| Boeing 747-800 Series | CF6-80C2B1F | 113 |
| Boeing 767-200 Series Freighter | JT9D-7R4D, -7R4D1 | 5 |
| Boeing 767-300 Series | PW4060 | 1 |
| Boeing DC-10-10 Series | CF6-6D | 571 |
| Boeing DC-3 | R-1820 | 14 |
| Boeing MD-11 | CF6-80C2D1F | 1,308 |
| Boeing MD-83 | JT8D-219 | 2 |
| Bombardier Challenger 600 | ALF 502L-2 | 55 |
| Bombardier Learjet 35A/36A (C-21A) | TFE731-2/2A | 174 |
| Britten-Norman BN-2 Islander | 250B17B | 60 |
| Cessna 172 Skyhawk | TSIO-360C | 2,027 |
| Cessna 182 | IO-360-B | 436 |
| Cessna 206 | TIO-540-J2B2 | 901 |

| Aircraft | Engine Model | Total |
|--|-----------------------|---------------|
| Cessna 208 Caravan | PT6A-114 | 2,101 |
| Cessna 441 Conquest II | TPE331-8 | 128 |
| Cessna 500 Citation I | JT15D-4series | 27 |
| Cessna 560 Citation XLS | BIZMEDIUMJET_F | 12 |
| Cessna 650 Citation III | TFE731-3 | 9 |
| Cessna 680 Citation Sovereign | BIZMEDIUMJET_F | 8 |
| Cessna 750 Citation X | AE3007C1 | 5 |
| CESSNA CITATION 510 | UNKNOWN | 21 |
| Convair CV-580 | 501 D13 alternative 2 | 620 |
| Dassault Falcon 20-D | CF700-2D | 9 |
| DeHavilland DHC-6-200 Twin Otter | PT6A-27 | 1,592 |
| DeHavilland DHC-8-100 | PW121A | 1 |
| Dornier 328-100 Series | PW119C | 540 |
| EADS Socata TB-9 Tampico | IO-320-D1AD | 676 |
| Eclipse 500 / PW610F | PW610F-A | 2 |
| Embraer EMB120 Brasilia | PW118 | 886 |
| Embraer ERJ145 | AE3007A1/1 | 8 |
| Embraer ERJ190 | CF34-10E6A1 | 3 |
| Fokker F100 | TAY Mk620-15 | 6 |
| Gulfstream G550 | BR700-710A1-10 | 2 |
| Gulfstream IV-SP | TAY Mk611-8 | 26 |
| Hawker HS748-2B | DART 552 | 2 |
| Israel IAI-1125 Astra | TFE731-3 | 7 |
| Lockheed C-130 Hercules | T56-A-7 | 1,024 |
| Mitsubishi MU-300 Diamond | JT15D-5, -5A, -5B | 47 |
| Piper PA-24 Comanche | TIO-540-J2B2 | 7,207 |
| Piper PA-28 Cherokee Series | IO-320-D1AD | 1,425 |
| Piper PA-30 Twin Comanche | IO-320-D1AD | 180 |
| Piper PA-42 Cheyenne Series | PT6A-41 | 3 |
| Raytheon Beech Baron 58 | TIO-540-J2B2 | 535 |
| Robinson R44 Raven / Lycoming O-540-F1B5 | TIO-540-J2B2 | 34 |
| Saab 340-B | CT7-9B | 401 |
| Shorts 330-200 Series | PT6A-45R | 1,697 |
| Total | | 40,451 |

Sources: Air Traffic Control Tower, AEDT 2d

1.1.2. CONSTRUCTION EMISSIONS

Construction period emission inventories of the following criteria pollutants and their precursors were prepared for the Proposed Project: carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide (SO₂), particulate matter (PM), and volatile organic compounds (VOC). Greenhouse gas (GHG) emissions, expressed in metric tons of carbon dioxide equivalent (CO₂e) emissions, were also computed. The inventories include annual emissions from the following construction emissions sources: off-road equipment, on-road vehicles, and fugitive sources including asphalt paving and dust generation from site-wide construction activities. Off-road equipment and on-road vehicle emissions were computed using **Equations 1** and **2**, respectively.

Annual hours of off-road equipment operation and on-road annual vehicle miles of travel (AVMT) were derived using an engineering estimate of probable materials quantities and construction cost developed for the Proposed Project. This information was input to the Airport Cooperative

Research Program Airport Construction Emissions Inventory Tool (ACRP ACEIT), which then estimates the number and types of equipment to be used on the project and the deployment schedule (monthly and annually). Annual construction equipment and vehicle activity is summarized on **Table 1.2-1**.

Equation 1:

$$\text{Emissions}_{(\text{tpy})} = \sum_{v=i}^n \text{EF}_v \times \text{HP}_v \times \frac{\text{hours}}{\text{day}} \times \frac{\text{days}}{\text{year}} \div 2,000 \div 453.59$$

Where:

Emissions_(tpy) = annual emissions (tons per year)

EF_v = emissions rate for equipment v(i)...v(n) (grams per horsepower-hour of operation)

HP_v = rated horsepower for equipment v(i)...v(n)

2,000 = pounds per ton

453.59 = grams per pound

Equation 2:

$$\text{Emissions}_{(\text{tpy})} = \sum_{v=i}^n \text{EF}_v \times \frac{\text{miles}}{\text{day}} \times \frac{\text{days}}{\text{year}} \div 2,000 \div 453.59$$

Where:

Emissions_(tpy) = annual emissions (tons per year)

EF_v = emissions rate for vehicle v(i)...v(n) (grams per mile)

2,000 = pounds per ton

453.59 = grams per pound

Table 1.2-1: Estimated Annual Construction Activity

| Off-road Equipment | Fuel | Annual Operating Hours | | | |
|----------------------------------|----------|---------------------------------------|--------------------|--------------------|--------------------|
| | | 2020 | 2021 | 2022 | 2023 |
| Air Compressor | Gasoline | 307.2 | 306.0 | 304.8 | 304.8 |
| Asphalt Paver | Diesel | 156.3 | 155.7 | 155.1 | 155.1 |
| Bob Cat | Diesel | 739.8 | 736.9 | 734.1 | 734.1 |
| Chain Saw | Gasoline | 604.1 | 601.8 | 599.5 | 599.5 |
| Chipper/Stump Grinder | Diesel | 604.1 | 601.8 | 599.5 | 599.5 |
| Concrete Saws | Gasoline | 307.2 | 306.0 | 304.8 | 304.8 |
| Concrete Truck | Diesel | 1,351.8 | 1,346.6 | 1,341.4 | 1,341.4 |
| Dozer | Diesel | 4,838.6 | 4,820.1 | 4,801.6 | 4,801.6 |
| Dump Truck | Diesel | 2,220.1 | 2,211.6 | 2,203.1 | 2,203.1 |
| Dump Truck (12 cy) | Diesel | 4,826.8 | 4,808.3 | 4,789.9 | 4,789.9 |
| Excavator | Diesel | 2,852.8 | 2,841.9 | 2,831.0 | 2,831.0 |
| Excavator with Bucket | Diesel | 369.9 | 368.5 | 367.1 | 367.1 |
| Flatbed Truck | Diesel | 328.1 | 326.9 | 325.6 | 325.6 |
| Generator Sets | Gasoline | 369.9 | 368.5 | 367.1 | 367.1 |
| Grader | Diesel | 99.4 | 99.0 | 98.7 | 98.7 |
| Hydroseeder | Gasoline | 68.7 | 68.4 | 68.2 | 68.2 |
| Loader | Diesel | 409.1 | 407.6 | 406.0 | 406.0 |
| Off-Road Truck | Diesel | 68.7 | 68.4 | 68.2 | 68.2 |
| Other General Equipment | Diesel | 2,152.9 | 2,144.7 | 2,136.5 | 2,136.5 |
| Pickup Truck | Diesel | 9,910.1 | 9,872.2 | 9,834.4 | 9,834.4 |
| Pumps | Gasoline | 201.4 | 200.6 | 199.8 | 199.8 |
| Roller | Diesel | 1,876.6 | 1,869.5 | 1,862.3 | 1,862.3 |
| Rubber Tired Loader | Diesel | 307.2 | 306.0 | 304.8 | 304.8 |
| Scraper | Diesel | 865.4 | 862.1 | 858.8 | 858.8 |
| Skid Steer Loader | Diesel | 530.7 | 528.7 | 526.7 | 526.7 |
| Slip Form Paver | Diesel | 307.2 | 306.0 | 304.8 | 304.8 |
| Surfacing Equipment (Grooving) | Gasoline | 507.3 | 505.3 | 503.4 | 503.4 |
| Tractors/Loader/Backhoe | Diesel | 690.8 | 688.2 | 685.5 | 685.5 |
| Water Truck | Diesel | 1,446.9 | 1,441.4 | 1,435.9 | 1,435.9 |
| Total, Off-road Equipment | | 39,318.7 | 39,318.7 | 39,168.6 | 39,018.6 |
| Onroad Vehicles | Fuel | Annual Vehicle Miles of Travel (AVMT) | | | |
| | | 2020 | 2021 | 2022 | 2023 |
| Asphalt 18 Wheeler | Diesel | 12,046.5 | 12,000.5 | 11,954.5 | 11,954.5 |
| Cement Mixer | Diesel | 191,989.2 | 191,256.4 | 190,523.7 | 190,523.7 |
| Dump Truck | Diesel | 707,142.8 | 704,443.8 | 701,744.7 | 701,744.7 |
| Dump Truck - Asphalt | Diesel | 17,065.7 | 17,000.5 | 16,935.4 | 16,935.4 |
| Dump Truck Subbase Material | Diesel | 102,394.3 | 102,003.5 | 101,612.6 | 101,612.6 |
| Passenger Car | Gasoline | 1,898,558.8 | 1,891,312.4 | 1,884,065.9 | 1,884,065.9 |
| Total, On-road Vehicles | | 2,929,197.2 | 2,918,017.0 | 2,906,836.9 | 2,906,836.9 |

Because construction equipment and vehicle emissions rates contained in ACEIT are not sufficiently representative of local conditions, equipment and vehicle emissions rates were instead generated using the current version of the U.S. Environmental Protection Agency Motor Vehicle Emissions Simulator (EPA MOVES2014a). MOVES2014a was invoked at the project-level using input databases specific to Aguadilla Municipio, Puerto Rico. Input databases were adapted from EPA's most recent National Emissions Inventory, which incorporates Aguadilla Municipio-specific

information to the extent it was submitted to the EPA by state and local air quality and transportation agencies.

Vehicle age distributions, inspection and maintenance programs (to the extent applied), fuel supply and other data were held constant for future years; that is, projections or adjustments were not applied unless available from locally-developed data. A summer design hour representative of a July weekday in Aguadilla Municipio from 1400 to 1500 was selected for emissions rate modeling based on the worst-case temperature/humidity hourly condition, according to the MOVES 'ZoneMonthHour' input database. Emissions rates for on-road vehicles were generated for five mile-per-hour (mph) increments ranging from 5 to 65 mph. For the purposes of emissions calculations it was assumed that all on-road vehicles would travel at an average speed of 35 miles per hour. **Tables 1.2-2a** through **1.2-2e** specify the annual off-road equipment and on-road vehicle emissions rates applied in the analysis.

Equation 3 was used to estimate dust emissions from site-wide construction activities, adapted from EPA's AP-42 methodology¹. EPA studies have concluded that ten percent of the dust emissions in the PM₁₀ or less size fractions are PM_{2.5}.² Therefore, uncontrolled PM₁₀ dust emissions were factored by 0.10 to derive the PM_{2.5} component. Further, dust suppression and erosion control Best Management Practices (BMPs) during construction, such as site watering and track-out prevention measures, will ensure that PM impacts from construction activities are minimized. According to EPA, adherence to these BMPs can result in a dust control efficiency of 75 percent, which was applied to the calculation to represent controlled PM emissions.³

Estimation of annual evaporative VOC emissions from asphalt curing is based upon the EPA methods outlined in AP-42⁴ as well as the Emissions Inventory Improvement Program⁵. **Equation 4** outlines this method. Because the asphalt characterization is not known, assuming that 35 percent of liquefied asphalt is diluent that can evaporate as VOC, 95 percent of this diluent would evaporate during asphalt curing, and that the density of the diluent is 1.98 pounds per liter of diluent applied.

¹ U.S. Environmental Protection Agency. *Compilation of Air Pollutant Emissions Factors (AP-42). Fifth Edition, Volume I Chapter 13: Miscellaneous Sources*. 1995.

² Pace, Thompson G. *Examination of the Multiplier Used to Estimate PM_{2.5} Fugitive Dust Emissions From PM₁₀*. Presented at the Environmental Protection Agency 14th International Emission Inventory Conference. Las Vegas, NV, 2005

³ U.S. Environmental Protection Agency. *Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures*. OAQPS, EPA-450/2-92-004. 1992.

⁴ U.S. Environmental Protection Agency. *Compilation of Air Pollutant Emission Factors (AP-42). Fifth Edition Volume I Chapter 4.5: Asphalt Paving Operations*. 1995.

⁵ U.S. Environmental Protection Agency. *Emissions Inventory Improvement Program (EIIP), Volume III: Chapter 17, "Asphalt Paving"*. 2001.

Table 1.2-2a: 2020 Off-Road Equipment Emissions Rates

| Equipment | Fuel Type | Load | Horsepower | 2020 Emission Rate (grams per horsepower-hour at operating load) | | | | | | |
|---------------------------------|-----------|------|------------|--|-----------------|------------------|-------------------|-----------------|--------|------------------|
| | | | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Air Compressors | Gasoline | 0.56 | 5.19 | 207.231 | 2.158 | 0.378 | 0.348 | 0.007 | 9.828 | 1247.329 |
| Chain Saws < 6 HP (com) | Gasoline | 0.7 | 3.92 | 266.028 | 1.528 | 9.748 | 8.968 | 0.004 | 73.279 | 710.948 |
| Chippers/Stump Grinders (com) | Diesel | 0.43 | 84.47 | 1.670 | 2.974 | 0.283 | 0.274 | 0.003 | 0.363 | 589.667 |
| Commercial Turf Equipment (com) | Gasoline | 0.6 | 5.22 | 203.350 | 2.019 | 0.316 | 0.291 | 0.007 | 7.469 | 1247.841 |
| Concrete/Industrial Saws | Gasoline | 0.78 | 4.53 | 266.029 | 1.528 | 9.748 | 8.968 | 0.004 | 63.423 | 710.953 |
| Crawler Tractor/Dozers | Diesel | 0.59 | 136.10 | 0.282 | 0.719 | 0.050 | 0.049 | 0.003 | 0.165 | 536.670 |
| Excavators | Diesel | 0.59 | 137.60 | 0.228 | 0.558 | 0.036 | 0.035 | 0.003 | 0.160 | 536.676 |
| Generator Sets | Gasoline | 0.68 | 8.82 | 273.202 | 1.675 | 0.113 | 0.104 | 0.006 | 7.886 | 1060.731 |
| Graders | Diesel | 0.59 | 231.20 | 0.196 | 0.649 | 0.027 | 0.026 | 0.003 | 0.161 | 536.674 |
| Off-highway Trucks | Diesel | 0.59 | 419.90 | 0.195 | 0.524 | 0.021 | 0.020 | 0.003 | 0.157 | 536.680 |
| Other Construction Equipment | Diesel | 0.59 | 442.60 | 0.955 | 2.244 | 0.131 | 0.127 | 0.003 | 0.204 | 536.542 |
| Pavers | Diesel | 0.59 | 134.60 | 0.379 | 0.911 | 0.077 | 0.075 | 0.003 | 0.172 | 536.660 |
| Pumps | Gasoline | 0.69 | 4.63 | 205.309 | 2.089 | 0.348 | 0.320 | 0.007 | 10.373 | 1247.583 |
| Rollers | Diesel | 0.59 | 84.76 | 1.208 | 1.216 | 0.140 | 0.136 | 0.003 | 0.187 | 595.957 |
| Rubber Tire Loaders | Diesel | 0.59 | 136.30 | 0.442 | 1.042 | 0.095 | 0.092 | 0.003 | 0.178 | 536.651 |
| Scrapers | Diesel | 0.59 | 422.50 | 0.525 | 1.294 | 0.077 | 0.075 | 0.003 | 0.168 | 536.659 |
| Skid Steer Loaders | Diesel | 0.21 | 57.67 | 4.264 | 4.652 | 0.616 | 0.598 | 0.004 | 0.861 | 694.026 |
| Surfacing Equipment | Gasoline | 0.49 | 8.92 | 276.425 | 1.727 | 0.124 | 0.114 | 0.006 | 6.344 | 1060.449 |
| Tractors/Loaders/Backhoes | Diesel | 0.21 | 87.17 | 3.935 | 3.037 | 0.535 | 0.519 | 0.004 | 0.647 | 694.778 |

Source: EPA MOVES2014a

Table 1.2-2b: 2021 Off-Road Equipment Emissions Rates

| Equipment | Fuel Type | Load | Horsepower | 2021 Emission Rate (grams per horsepower-hour at operating load) | | | | | | |
|---------------------------------|-----------|------|------------|--|-----------------|------------------|-------------------|-----------------|--------|------------------|
| | | | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Air Compressors | Gasoline | 0.56 | 5.19 | 207.231 | 2.158 | 0.378 | 0.348 | 0.007 | 9.828 | 1247.329 |
| Chain Saws < 6 HP (com) | Gasoline | 0.7 | 3.92 | 266.029 | 1.528 | 9.748 | 8.968 | 0.004 | 73.280 | 710.951 |
| Chippers/Stump Grinders (com) | Diesel | 0.43 | 84.47 | 1.550 | 2.746 | 0.258 | 0.250 | 0.003 | 0.339 | 589.739 |
| Commercial Turf Equipment (com) | Gasoline | 0.6 | 5.22 | 203.351 | 2.019 | 0.316 | 0.291 | 0.007 | 7.469 | 1247.840 |
| Concrete/Industrial Saws | Gasoline | 0.78 | 4.53 | 266.029 | 1.528 | 9.748 | 8.968 | 0.004 | 63.423 | 710.951 |
| Crawler Tractor/Dozers | Diesel | 0.59 | 136.10 | 0.241 | 0.578 | 0.039 | 0.038 | 0.003 | 0.162 | 536.674 |
| Excavators | Diesel | 0.59 | 137.60 | 0.198 | 0.438 | 0.027 | 0.026 | 0.003 | 0.158 | 536.678 |
| Generator Sets | Gasoline | 0.68 | 8.82 | 273.068 | 1.666 | 0.113 | 0.104 | 0.006 | 7.854 | 1060.706 |
| Graders | Diesel | 0.59 | 231.20 | 0.173 | 0.525 | 0.022 | 0.021 | 0.003 | 0.159 | 536.677 |
| Off-highway Trucks | Diesel | 0.59 | 419.90 | 0.174 | 0.416 | 0.017 | 0.016 | 0.003 | 0.157 | 536.681 |
| Other Construction Equipment | Diesel | 0.59 | 442.60 | 0.864 | 2.031 | 0.119 | 0.116 | 0.003 | 0.197 | 536.564 |
| Pavers | Diesel | 0.59 | 134.60 | 0.290 | 0.725 | 0.052 | 0.051 | 0.003 | 0.166 | 536.669 |
| Pumps | Gasoline | 0.69 | 4.63 | 205.309 | 2.089 | 0.348 | 0.320 | 0.007 | 10.373 | 1247.583 |
| Rollers | Diesel | 0.59 | 84.76 | 0.969 | 0.989 | 0.102 | 0.099 | 0.003 | 0.178 | 595.973 |
| Rubber Tire Loaders | Diesel | 0.59 | 136.30 | 0.354 | 0.855 | 0.070 | 0.068 | 0.003 | 0.171 | 536.661 |
| Scrapers | Diesel | 0.59 | 422.50 | 0.445 | 1.116 | 0.064 | 0.062 | 0.003 | 0.165 | 536.665 |
| Skid Steer Loaders | Diesel | 0.21 | 57.67 | 3.961 | 4.499 | 0.564 | 0.547 | 0.004 | 0.788 | 694.232 |
| Surfacing Equipment | Gasoline | 0.49 | 8.92 | 276.425 | 1.727 | 0.124 | 0.114 | 0.006 | 6.344 | 1060.451 |
| Tractors/Loaders/Backhoes | Diesel | 0.21 | 87.17 | 3.642 | 2.761 | 0.485 | 0.470 | 0.004 | 0.589 | 694.926 |

Source: EPA MOVES2014a

Table 1.2-2c: 2022 Off-Road Equipment Emissions Rates

| Equipment | Fuel Type | Load | Horsepower | 2022 Emission Rate (grams per horsepower-hour at operating load) | | | | | | |
|---------------------------------|-----------|------|------------|--|-----------------|------------------|-------------------|-----------------|--------|------------------|
| | | | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Air Compressors | Gasoline | 0.56 | 5.19 | 207.231 | 2.158 | 0.378 | 0.348 | 0.007 | 9.828 | 1247.329 |
| Chain Saws < 6 HP (com) | Gasoline | 0.7 | 3.92 | 266.029 | 1.528 | 9.748 | 8.968 | 0.004 | 73.280 | 710.952 |
| Chippers/Stump Grinders (com) | Diesel | 0.43 | 84.47 | 1.447 | 2.537 | 0.237 | 0.230 | 0.003 | 0.320 | 589.795 |
| Commercial Turf Equipment (com) | Gasoline | 0.6 | 5.22 | 203.351 | 2.019 | 0.316 | 0.291 | 0.007 | 7.469 | 1247.839 |
| Concrete/Industrial Saws | Gasoline | 0.78 | 4.53 | 266.029 | 1.528 | 9.748 | 8.968 | 0.004 | 63.423 | 710.948 |
| Crawler Tractor/Dozers | Diesel | 0.59 | 136.10 | 0.211 | 0.464 | 0.031 | 0.030 | 0.003 | 0.159 | 536.677 |
| Excavators | Diesel | 0.59 | 137.60 | 0.176 | 0.382 | 0.020 | 0.020 | 0.003 | 0.157 | 536.679 |
| Generator Sets | Gasoline | 0.68 | 8.82 | 273.010 | 1.662 | 0.113 | 0.104 | 0.006 | 7.841 | 1060.693 |
| Graders | Diesel | 0.59 | 231.20 | 0.155 | 0.425 | 0.018 | 0.018 | 0.003 | 0.158 | 536.679 |
| Off-highway Trucks | Diesel | 0.59 | 419.90 | 0.159 | 0.367 | 0.014 | 0.013 | 0.003 | 0.156 | 536.680 |
| Other Construction Equipment | Diesel | 0.59 | 442.60 | 0.780 | 1.830 | 0.108 | 0.105 | 0.003 | 0.191 | 536.582 |
| Pavers | Diesel | 0.59 | 134.60 | 0.249 | 0.594 | 0.041 | 0.040 | 0.003 | 0.163 | 536.673 |
| Pumps | Gasoline | 0.69 | 4.63 | 205.310 | 2.089 | 0.348 | 0.320 | 0.007 | 10.373 | 1247.581 |
| Rollers | Diesel | 0.59 | 84.76 | 0.761 | 0.787 | 0.068 | 0.066 | 0.003 | 0.171 | 595.985 |
| Rubber Tire Loaders | Diesel | 0.59 | 136.30 | 0.278 | 0.689 | 0.048 | 0.047 | 0.003 | 0.166 | 536.668 |
| Scrapers | Diesel | 0.59 | 422.50 | 0.372 | 0.954 | 0.051 | 0.049 | 0.003 | 0.163 | 536.670 |
| Skid Steer Loaders | Diesel | 0.21 | 57.67 | 3.670 | 4.353 | 0.514 | 0.499 | 0.004 | 0.720 | 694.424 |
| Surfacing Equipment | Gasoline | 0.49 | 8.92 | 276.424 | 1.727 | 0.124 | 0.114 | 0.006 | 6.344 | 1060.447 |
| Tractors/Loaders/Backhoes | Diesel | 0.21 | 87.17 | 3.360 | 2.497 | 0.436 | 0.423 | 0.004 | 0.534 | 695.064 |

Source: EPA MOVES2014a

Table 1.2-2d: 2023 Off-Road Equipment Emissions Rates

| Equipment | Fuel Type | Load | Horsepower | 2023 Emission Rate (grams per horsepower-hour at operating load) | | | | | | |
|---------------------------------|-----------|------|------------|--|-----------------|------------------|-------------------|-----------------|--------|------------------|
| | | | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Air Compressors | Gasoline | 0.56 | 5.188 | 207.231 | 2.158 | 0.378 | 0.348 | 0.007 | 9.828 | 1247.329 |
| Chain Saws < 6 HP (com) | Gasoline | 0.7 | 3.916 | 266.029 | 1.528 | 9.748 | 8.968 | 0.004 | 73.280 | 710.950 |
| Chippers/Stump Grinders (com) | Diesel | 0.43 | 84.47 | 1.350 | 2.338 | 0.217 | 0.211 | 0.003 | 0.302 | 589.846 |
| Commercial Turf Equipment (com) | Gasoline | 0.6 | 5.217 | 203.352 | 2.019 | 0.316 | 0.291 | 0.007 | 7.469 | 1247.839 |
| Concrete/Industrial Saws | Gasoline | 0.78 | 4.532 | 266.029 | 1.528 | 9.748 | 8.968 | 0.004 | 63.423 | 710.946 |
| Crawler Tractor/Dozers | Diesel | 0.59 | 136.1 | 0.188 | 0.406 | 0.024 | 0.023 | 0.003 | 0.158 | 536.679 |
| Excavators | Diesel | 0.59 | 137.6 | 0.161 | 0.344 | 0.016 | 0.015 | 0.003 | 0.156 | 536.681 |
| Generator Sets | Gasoline | 0.68 | 8.816 | 272.984 | 1.660 | 0.113 | 0.104 | 0.006 | 7.835 | 1060.688 |
| Graders | Diesel | 0.59 | 231.2 | 0.141 | 0.378 | 0.015 | 0.015 | 0.003 | 0.157 | 536.680 |
| Off-highway Trucks | Diesel | 0.59 | 419.9 | 0.150 | 0.334 | 0.012 | 0.012 | 0.003 | 0.156 | 536.681 |
| Other Construction Equipment | Diesel | 0.59 | 442.6 | 0.703 | 1.643 | 0.098 | 0.095 | 0.003 | 0.186 | 536.598 |
| Pavers | Diesel | 0.59 | 134.6 | 0.221 | 0.487 | 0.033 | 0.032 | 0.003 | 0.161 | 536.675 |
| Pumps | Gasoline | 0.69 | 4.631 | 205.310 | 2.089 | 0.348 | 0.320 | 0.007 | 10.373 | 1247.582 |
| Rollers | Diesel | 0.59 | 84.76 | 0.668 | 0.643 | 0.053 | 0.052 | 0.003 | 0.166 | 595.992 |
| Rubber Tire Loaders | Diesel | 0.59 | 136.3 | 0.243 | 0.571 | 0.039 | 0.038 | 0.003 | 0.163 | 536.672 |
| Scrapers | Diesel | 0.59 | 422.5 | 0.305 | 0.806 | 0.039 | 0.038 | 0.003 | 0.161 | 536.673 |
| Skid Steer Loaders | Diesel | 0.21 | 57.67 | 3.407 | 4.219 | 0.468 | 0.454 | 0.004 | 0.660 | 694.591 |
| Surfacing Equipment | Gasoline | 0.49 | 8.918 | 276.425 | 1.727 | 0.124 | 0.114 | 0.006 | 6.344 | 1060.447 |
| Tractors/Loaders/Backhoes | Diesel | 0.21 | 87.17 | 3.090 | 2.246 | 0.390 | 0.378 | 0.004 | 0.483 | 695.191 |

Source: EPA MOVES2014a

Table 1.2-2e: On-Road Vehicle Emissions Rates

| Vehicle Type | Fuel Type | 2020 Emission Rate (grams per vehicle mile traveled) | | | | | | |
|------------------------------|-----------|--|-----------------|------------------|-------------------|-----------------|-------|------------------|
| | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Light commercial truck | Diesel | 3.528 | 1.183 | 0.097 | 0.052 | 0.005 | 0.206 | 641.754 |
| Single unit short-haul truck | Diesel | 1.507 | 3.133 | 0.386 | 0.235 | 0.010 | 0.460 | 1181.443 |
| Passenger car | Gasoline | 3.762 | 0.170 | 0.044 | 0.009 | 0.007 | 0.140 | 337.979 |
| Passenger truck | Gasoline | 6.249 | 0.426 | 0.049 | 0.011 | 0.009 | 0.237 | 445.886 |
| Vehicle Type | Fuel Type | 2021 Emission Rate (grams per horsepower-hour at operating load) | | | | | | |
| | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Light commercial truck | Diesel | 3.260 | 1.057 | 0.089 | 0.046 | 0.005 | 0.176 | 629.770 |
| Single unit short-haul truck | Diesel | 1.383 | 2.885 | 0.361 | 0.213 | 0.010 | 0.417 | 1175.092 |
| Passenger car | Gasoline | 3.595 | 0.148 | 0.044 | 0.009 | 0.007 | 0.131 | 329.246 |
| Passenger truck | Gasoline | 5.853 | 0.373 | 0.049 | 0.010 | 0.009 | 0.216 | 433.546 |
| Vehicle Type | Fuel Type | 2022 Emission Rate (grams per horsepower-hour at operating load) | | | | | | |
| | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Light commercial truck | Diesel | 3.011 | 0.928 | 0.083 | 0.040 | 0.005 | 0.147 | 617.562 |
| Single unit short-haul truck | Diesel | 1.259 | 2.648 | 0.339 | 0.192 | 0.010 | 0.372 | 1168.854 |
| Passenger car | Gasoline | 3.451 | 0.130 | 0.044 | 0.009 | 0.006 | 0.123 | 320.096 |
| Passenger truck | Gasoline | 5.485 | 0.326 | 0.049 | 0.010 | 0.008 | 0.196 | 420.582 |
| Vehicle Type | Fuel Type | 2023 Emission Rate (grams per horsepower-hour at operating load) | | | | | | |
| | | CO | NO _x | PM ₁₀ | PM _{2.5} | SO ₂ | VOC | CO _{2e} |
| Light commercial truck | Diesel | 2.763 | 0.827 | 0.078 | 0.035 | 0.005 | 0.125 | 605.516 |
| Single unit short-haul truck | Diesel | 1.161 | 2.424 | 0.318 | 0.174 | 0.010 | 0.337 | 1162.434 |
| Passenger car | Gasoline | 3.296 | 0.116 | 0.044 | 0.009 | 0.006 | 0.116 | 310.489 |
| Passenger truck | Gasoline | 5.151 | 0.287 | 0.049 | 0.010 | 0.008 | 0.179 | 407.085 |

Source: EPA MOVES2014a

Equation 3:**

$$PM_{10(tpy)} = EF_{TSP} \times \frac{\text{days}}{\text{year}} \times \frac{\text{acres}}{\text{day}} \times 0.45 \div 2,000$$

Where:

$PM_{10(tpy)}$ = annual PM_{10} dust emissions (tons per year)

EF_{TSP} = total suspended particulate (TSP) emissions rate (80 pounds per acre-day)

0.45 = estimated ratio of PM_{10} to TSP

2,000 = pounds per ton

**Represents uncontrolled emissions of PM_{10} . Controlled emissions are derived by applying a 75% control factor.

$PM_{2.5} = PM_{10} \times 0.10$

Equation 4:

$$VOC_{(tpy)} = A \times AR \times VD \times EF \times D \div 2,000$$

Where:

$VOC_{(tpy)}$ = annual VOC paving emissions (tons per year)

A = area of pavement in square meters(m^2)

AR = asphalt application rate (0.679 liter/ m^2)

VD = volume fraction of diluent (0.35)

AF = mass fraction of diluent which evaporates as VOC (0.95)

D = solvent density (1.98 pounds/liter)

2,000 = pounds per ton

This page intentionally left blank.

APPENDIX E
**Preliminary Coastal Federal Consistency
Certification**

This page intentionally left blank.

Commonwealth of Puerto Rico
Office of the Governor
Puerto Rico Planning Board
Physical Planning Area
Land Use Planning Bureau

**Application for Certification of Consistency with the
Puerto Rico Coastal Management Program**

General Instructions:

- A. Attach a 1:20,000 scale, U.S. Geological Survey topographic quadrangular base map of the site. (See Item 6)
- B. Attach a reasonably scaled plan or schematic design of the proposed object, indicating the following: (See Item 6)
 - 1. Peripheral areas
 - 2. Bodies of water, tidal limit and natural systems.
- C. You may attach any further information you consider necessary for proper evaluation of the proposal. (See Item 6)
- D. If any information requested in the questionnaire does not apply in your case, indicate by writing "N/A"(not applicable).
- E. Submit a minimum of seven (7) copies of this application.

| | | | |
|---------------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| DO NOT WRITE IN THIS BOX | | | |
| Type of application: _____ | Application Number: _____ | | |
| Date received: _____ | Date of Certification: _____ | | |
| Evaluation result: | <input type="checkbox"/> Objection | <input type="checkbox"/> Acceptance | <input type="checkbox"/> Negotiation |
| Technician: _____ | Supervisor: _____ | | |
| Comments: _____ | | | |

- 1. Name of Federal Agency: Federal Aviation Administration
- 2. Federal Program Catalog Number: _____
- 3. Type of Action:
 - Federal Activity
 - License or permit
 - Federal Assistance
- 4. Name of Applicant: Eng. Romel Pedraza on behalf of Ms. Felicia Reeves
 Postal Address: Southern Region/ Atlanta Airports District Office , 1701 Columbia Ave. Room 220
College Park, GA, 30337
 Telephone: 404-305-67808 Fax: _____
- 5. Project name: Environmental Assessment for Reconstruction of Runway 8-26 at Rafael Hernández Airport
- 6. Physical Description of Project Location (area, facilities such as vehicular access, drainage, storm and sanitary sewer placement, etc.): Please see Section 3 of enclosed Wetland Assessment Report

Lambert Coordinates: X = _____ Y = _____

Note: lat/long in degree decimal format: Lat. 18.492122°, Long. -67.134479°.

7. Type of construction or other work proposed:

- drainage channeling landfill sand extraction
 pier bridge residential tourist

others (specify and explain) See description of proposed work below.

Description of proposed work: _____

The proposed project would specifically consist of improvements to the currently deteriorated Runway 8-26 of the above-referenced airport, as to ensure safe aircraft operations. Two potential alternatives are currently being considered for this project. The first alternative entails the

construction of a temporary runway 720 ft south of the existing runway, reconstruction of the existing runway, and conversion of the new temporary runway into a permanent full parallel taxiway (upon completion of the reconstruction of the existing runway). The second alternative

entails the construction of a new permanent runway 500 ft south of the existing runway, and reconstruction of the existing runway into a permanent parallel taxiway. None of the above-described alternatives would require discharges of dredge or fill material into waters of the United States.

8. Natural, artificial, historic or cultural systems likely to be affected by the project

Place an X opposite any of the systems indicated below that are in the project area or its surroundings, which are likely to be affected by that activity. Indicate the distance from the project to any outside system that would likely be affected.

| System | Within Project | Outside Project | Distance (meters) | Local name of affected system |
|--------------------------|----------------|-----------------|-------------------|-------------------------------|
| beach, dunes | <u>N/A</u> | <u>N/A</u> | | |
| marshes | <u>N/A</u> | <u>N/A</u> | | |
| coral, reefs | <u>N/A</u> | <u>N/A</u> | | |
| river, estuary | <u>N/A</u> | <u>N/A</u> | | |
| bird sanctuary | <u>N/A</u> | <u>N/A</u> | | |
| pond, lake, lagoon | <u>N/A</u> | <u>N/A</u> | | |
| agricultural unit | <u>N/A</u> | <u>N/A</u> | | |
| forest, wood | <u>N/A</u> | <u>N/A</u> | | |
| cliff, breakwater | <u>N/A</u> | <u>N/A</u> | | |
| cultural or tourist area | <u>N/A</u> | <u>N/A</u> | | |
| other (explain) | <u>N/A</u> | <u>N/A</u> | | |

Describe the likely impact of the project on the identified system (s).

- Positive Negative

Explain:

No impacts are expected.

9. Indicate permits, approvals and endorsements of the proposal by Federal and Puerto Rican government agencies. Evidence of such support should be attached to the proposal.

| | Yes | No | Pending | Application Number |
|--|-------------------------------------|--------------------------|--------------------------|---------------------------------|
| a. Planning Board | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| b. Regulation and Permits Administration | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| c. Environmental Quality Board | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| d. Department of Natural Resources | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| e. State Historic Preservation Office | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| f. U.S. Army Corps of Engineers | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>SAJ-2018-02710 (NPR-DCM)</u> |
| g. U.S. Coast Guard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| h. Other (s) (specify) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

CERTIFICATION

I CERTIFY THAT (project name) Reconstruction of Runway 8-26 Project at Rafael Hernández Airport is consistent with the Puerto Rico Coastal Zone Management Program, and that to the best of my knowledge the above information is true.

Eng. Romel Pedraza

Name (legible)

PRPA Acting Executive Director for Engineering

and Construction

Position

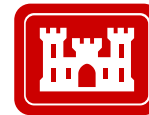
Signature

Date



®

Regulatory Program



®

INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

SECTION I: BACKGROUND INFORMATION

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD): Septemer 14, 2018

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): SAJ-2018-02710-DCM

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:PR

County/parish/borough:

City: Aguadilla

Center coordinates of site (lat/long in degree decimal format): Lat. 18.492122°, Long. -67.134479°.

Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: attached in report/map titled BQN Airport Aguadilla - Review Area.

Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1):

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office (Desk) Determination Only. Date: September 14, 2018.

Office (Desk) and Field Determination. Office/Desk Dates: Field Date(s):

SECTION II: DATA SOURCES

Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate.

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: Maps and information provided by applicant in document titled Final Report Jurisdictional Wetland Assessment - Rafael Hernandez Airport (BQN) Runway Improvements, submitted on August 15, 2018.

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date:

Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon:

Revised Title/Date:

Data sheets prepared by the Corps. Title/Date:

Corps navigable waters study. Title/Date:

CorpsMap ORM map layers. Title/Date:

USGS Hydrologic Atlas. Title/Date:

USGS, NHD, or WBD data/maps. Title/Date:

USGS 8, 10 and/or 12 digit HUC maps. HUC number:

USGS maps. Scale & quad name and date:

USDA NRCS Soil Survey. Citation:

USFWS National Wetlands Inventory maps. Citation: USFWS National Wetland Inventory Wetland Mapper (<https://www.fws.gov/wetlands/Data/Mapper.html>).

State/Local wetland inventory maps. Citation:

FEMA/FIRM maps. Citation:

Photographs: Aerial. Citation: Google Earth; March 30, 2016. or Other. Citation:

LiDAR data/maps. Citation:

Previous JDs. File no. and date of JD letter:

Applicable/supporting case law:

- Applicable/supporting scientific literature:
- Other information (please specify):

SECTION III: SUMMARY OF FINDINGS

Complete ORM “Aquatic Resource Upload Sheet” or Export and Print the Aquatic Resource Water Droplet Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required

A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:

- “navigable waters of the U.S.” within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.

- **Complete Table 1 - Required**

NOTE: If the navigable water is not subject to the ebb and flow of the tide or included on the District’s list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.

B. CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: “waters of the U.S.” within CWA jurisdiction (as defined by 33 CFR part 328.3) in the review area. **Check all that apply.**

- (a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))
 - **Complete Table 1 - Required**
 - This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.
- (a)(2): All interstate waters, including interstate wetlands.
 - **Complete Table 2 - Required**
- (a)(3): The territorial seas.
 - **Complete Table 3 - Required**
- (a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.
 - **Complete Table 4 - Required**
- (a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
 - **Complete Table 5 - Required**
- (a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.
 - **Complete Table 6 - Required**
 - Bordering/Contiguous.
 - Neighboring:
 - (c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.
 - (c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.
 - (c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.
- (a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
 - **Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(7) waters identified in the similarly situated analysis. - Required**
 - Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.
- (a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
 - **Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(8) waters identified in the similarly situated analysis. - Required**

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

C. NON-WATERS OF THE U.S. FINDINGS:

Check all that apply.

- The review area is comprised entirely of dry land.
- Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(7) waters identified in the similarly situated analysis. - Required**
- Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.
- Potential-(a)(8) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(8) waters identified in the similarly situated analysis. - Required**
- Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.
- Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):
- **Complete Table 10 - Required**
- (b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA.
- (b)(2): Prior converted cropland.
- (b)(3)(i): Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1)-(a)(3).
- (b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease.
- (b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.
- (b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.¹
- (b)(4)(iv): Small ornamental waters created in dry land.¹
- (b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water.
- (b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.¹
- (b)(4)(vii): Puddles.¹
- (b)(5): Groundwater, including groundwater drained through subsurface drainage systems.¹
- (b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.¹
- (b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.
- Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of (a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).
- **Complete Table 11 - Required.**

D. ADDITIONAL COMMENTS TO SUPPORT AJD: Based on the information provided by the applicant and other supplementary data evaluated for this JD (see checked items in Section II of this form), there are no Corps' jurisdictional waters within the review area.

¹ In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

Non-Jurisdictional Waters

Table 1. Non-Waters/Excluded Waters and Features

| Paragraph (b) Excluded Feature/Water Name | Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion. |
|--|---|
| EXCLDB3III | The review area for this JD includes man-made ditches excavated in uplands as part of the construction of the stormwater infrastructure of the BQN Airport. According to the information provided by the applicant, including a jurisdictional wetland assessment report conducted for the project area, and other supplementary information reviewed by the Corps, including aerial photography, these ditches are not connected downstream or upstream to any other aquatic feature, and do not flow, directly or through another water, into a traditional navigable water, interstate water, or territorial sea ((a)(1)-(a)(3) waters). |



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
ANTILLES OFFICE
FUND. ÁNGEL RAMOS ANNEX BLDG., SUITE 202
383 FRANKLIN DELANO ROOSEVELT AVE.
SAN JUAN, PUERTO RICO 00918

September 14, 2018

Regulatory Division
South Permits Branch
Antilles Permits Section
SAJ-2018-02710 (NPR-DCM)

Ms. Felicia K. Reeves
Noise/Environmental Program Manager
Federal Aviation Administration
Southern Region/Atlanta Airports District Office
1701 Columbia Ave Room 220
College Park, GA 30337

Dear Ms. Reeves:

Reference is made to your letter dated July 20, 2018, requesting comments regarding proposed improvements to the Rafael Hernández (BQN) Airport, which is located within the premises of the former Ramey Air Force Base, Roads PR-107 & PR-110, Municipality of Aguadilla, Puerto Rico. Reference is also made to a Jurisdictional Wetland Assessment Report dated June 20, 2018, that was conducted for the referenced project, and which was submitted to our office on August 15, 2018. This case was assigned number SAJ-2018-02710 (NPR-DCM). Please refer to this number in future correspondence concerning this project.

According to the information provided, the proposed project would specifically consist of improvements to the currently deteriorated Runway 6-28 of the above-referenced airport, as to ensure safe aircraft operations. Two potential alternatives are currently being considered for this project. The first alternative entails the construction of a temporary runway 720 ft south of the existing runway, reconstruction of the existing runway, and conversion of the new temporary runway into a permanent full parallel taxiway (upon completion of the reconstruction of the existing runway). The second alternative entails the construction of a new permanent runway 500 ft south of the existing runway, and reconstruction of the existing runway into a permanent parallel taxiway. Any of the above-described alternatives would require discharges of dredge or fill material into waters of the United States.

Based on the information provided, the U.S. Army Corps of Engineers (Corps) has determined that the project as proposed will not require a Department of the Army (DA) permit in accordance with Section 10 of the Rivers and Harbors Act of 1899 as it is not located within the navigable waters of the United States. Furthermore, a permit will not be required in accordance with Section 404 of the Clean Water Act as it will not involve

the discharge of dredged or fill material into waters of the United States. Provided the work is done in accordance with the information and drawings provided, DA authorization will not be required.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination/decision, you may request an administrative appeal under Corps' regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination/decision, you must submit a completed RFA form to the South Atlantic Division Office at the following address:

Mr. Jason Steele
South Atlantic Division
U.S. Army Corps of Engineers
CESAD-CM-CO-R, Room 9M15
60 Forsyth St., SW.
Atlanta, Georgia 30303-8801.

Mr. Steele can be reached by telephone number at 404-562-5137, or by facsimile at 404-562-5138.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the RFA. Should you decide to submit an RFA form, it must be received at the above address by **November 13, 2018**. It is not necessary to submit an RFA form to the Division office, if you do not object to the determination/decision in this letter.

This determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work. Please be advised this determination reflects current policy and regulations and is valid for a period of no longer than 5 years from the date of this letter unless new information warrants a revision of the determination before the expiration date. If after the 5-year period, the Corps has not specifically revalidated this determination, it will automatically expire. Any reliance upon this determination beyond the expiration date may lead to possible violation of current Federal laws and/or regulation.

This letter does not obviate the requirement to obtain any other Federal, State, or local permits that may be necessary for your project. Should you have any questions, please contact Mrs. Deborah J. Cedeño-Maldonado, Project Manager, at the letterhead address, by email at Deborah.J.Cedeno-Maldonado@usace.army.mil, or by telephone at 787-289-7036.

Thank you for your cooperation with our permit program. The Corps Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to take a few minutes to visit <http://per2.nwp.usace.army.mil/survey.html> and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise. Please be aware this web address is case sensitive and should be entered as it appears above.

Sincerely,

for Sindulfo Castillo
Chief, Antilles Regulatory Section

Enclosures

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

| | | | |
|-------------------------------------|--|------------------------------------|--------------------|
| Applicant: Ms. Felicia Reeves (FAA) | | File Number: SAJ-2018-02710 | Date: Sep 14, 2018 |
| Attached is: | | | See Section below |
| | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) | | A |
| | PROFFERED PERMIT (Standard Permit or Letter of permission) | | B |
| | PERMIT DENIAL | | C |
| X | APPROVED JURISDICTIONAL DETERMINATION | | D |
| | PRELIMINARY JURISDICTIONAL DETERMINATION | | E |

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- *ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.*
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- *ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.*
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- *ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.*
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Project Manager as noted in letter

If you only have questions regarding the appeal process you may also contact:

**Jason Steele
404-562-5137**

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

JURISDICTIONAL WETLAND ASSESSMENT

RAFAEL HERNÁNDEZ AIRPORT (BQN) RUNWAY IMPROVEMENTS

Abstract

This work evaluates the current wetland status to be impacted by the Rafael Hernández Airport (BQN) Runway 8-26 improvement project. Evaluation criteria used was based on those required for an official jurisdictional wetland determination in compliance with CWA Section 404, administered by the US Army Corp of Engineers (USACE)

www.marlinengineering.com

MARLIN

This page intentionally left blank.

Notice

This document and its contents have been prepared and are intended solely for the AECOM Caribe and the Puerto Rico Ports Authority information and used in relation to the Rafael Hernandez Airport (BQN) Runway 8-26 Improvements Project

MARLIN assumes no responsibility to any other party in respect of, or arising out of, or in connection with this document and/or its contents.

This document has 22 pages, including the cover.

Document History

| Job number: | | | Document Ref: | | | |
|-------------|---------------------|------------|---------------|----------|------------|---------------|
| Version | Purpose/Description | Originated | Checked | Reviewed | Authorized | Date |
| Ver. 1 | Draft Final | ACA/RDC | ACA | ACA | | June 5, 2018 |
| Ver. 2 | Final Document | ACA | ACA | VM/PS | | June 20, 2018 |
| | | | | | | |

Table of Contents

| | | |
|-----|--|----|
| 1 | Introduction..... | 2 |
| 2 | Definition of Wetland and Waters of the United States..... | 2 |
| 3 | Description of the Study Area..... | 4 |
| 3.1 | Topography..... | 4 |
| 3.2 | Soils..... | 5 |
| 3.3 | National Wetlands Inventory (NWI) Map..... | 6 |
| 3.4 | Historic and Current Uses..... | 7 |
| 4 | Site Evaluation..... | 9 |
| 4.1 | Literature Evaluation..... | 9 |
| 4.2 | Field Evaluation..... | 9 |
| 5 | Conclusion..... | 11 |
| 6 | References..... | 12 |
| 7 | Field Assessment Photo-Documentation..... | 13 |
| | Appendix 1..... | 17 |

Table of Figures

| | | |
|----------|---|----|
| Figure 1 | <i>Rafael Hernández Airport (BQN), in the Municipality of Aguadilla. The red line shows the study area.....</i> | 4 |
| Figure 2 | USGS Topographic Map of the Rafael Hernández Airport (BQN)..... | 5 |
| Figure 3 | USDA/NRCS Soil Map of the Rafael Hernández Airport (BQN)..... | 6 |
| Figure 4 | National Wetland Inventory (NWI) Map..... | 7 |
| Figure 5 | Geological Map; The location of the sinkhole is marked by the red circle..... | 10 |

1 Introduction

Marlin Engineering was retained by AECOM Caribe to perform a Jurisdictional Wetland Assessment to determine the presence of wetland indicators, and measure potential impacts from the proposed reconstruction of Runway 8-26. Wetland specialist, Raúl DiCristina, and environmental engineer, Adelís Cabán evaluated the current wetland status within the provided project footprint area in the Rafael Hernández Airport (BQN) located at the Municipality of Aguadilla, Puerto Rico. The criteria used to evaluate this property were based on those required for an official jurisdictional wetland determination regulated by the US Army Corp of Engineers (USACE).

2 Definition of Wetland and Waters of the United States

For the purposes of the Clean Water Act, 33 United States Code (U.S.C.) 1251 et. seq. and its implementing regulations, the term “*waters of the United States*” means: (1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) All interstate waters, including interstate wetlands; and (3) The territorial seas. These three categories include impoundments of waters otherwise identified as waters of the United States (U.S.) under this section, tributaries, waters adjacent to wetlands, ponds, lakes, oxbows, impoundments, and similar waters. In addition, all where they are determined, on a case-specific basis, to have a significant nexus to a water of the U.S.

As stated in Section 404(b)(1) of the Clean Water Act: Definition of Waters of the U.S. (40 Code of Federal Regulation [CFR] 230.3) defines wetlands as “*those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typical adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*”

The Classification of Wetlands and Deepwater Habitats of the United States, Cowardin et al. (1979) states that “Wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface.”

Another definition described by Cowardin et al. (1979) is: “Wetlands are transitional lands between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is

covered by shallow water. Wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year”.

The single characteristic that most wetlands share is that the soil or substrate is at least periodically saturated with or covered by water. This condition creates severe physiological problems for many plants and animals that are not adapted for life in water or in saturated substrates. According to the definitions stated above, and following the *Regional Supplement of the Corps of Engineers Wetland Manual: Caribbean Islands Region (Version 2.0) (USACE 2011)*, wetlands have to meet the following general characteristics:

- hydrophytic vegetation;
- hydric soils; and
- hydrological conditions (inundated or saturated).

3 Description of the Study Area

The project is located at the BQN, Roads PR-107 and PR-110, in the Quemados Ward, Municipality of Aguadilla, Puerto Rico. The project coordinates are *Latitude 18°29'40.13"N and Longitude 67° 7'58.37"W* (**Figure 1, Project Location**).



FIGURE 1 RAFAEL HERNÁNDEZ AIRPORT (BQN), IN THE MUNICIPALITY OF AGUADILLA. THE RED LINE SHOWS THE STUDY AREA.

3.1 Topography

According to the U.S. Geological Survey (USGS) Aguadilla topographic quadrant, revised in 1960, the project area is located at an average of 70 meters above sea level (**Figure 2, USGS Topographic Map**).

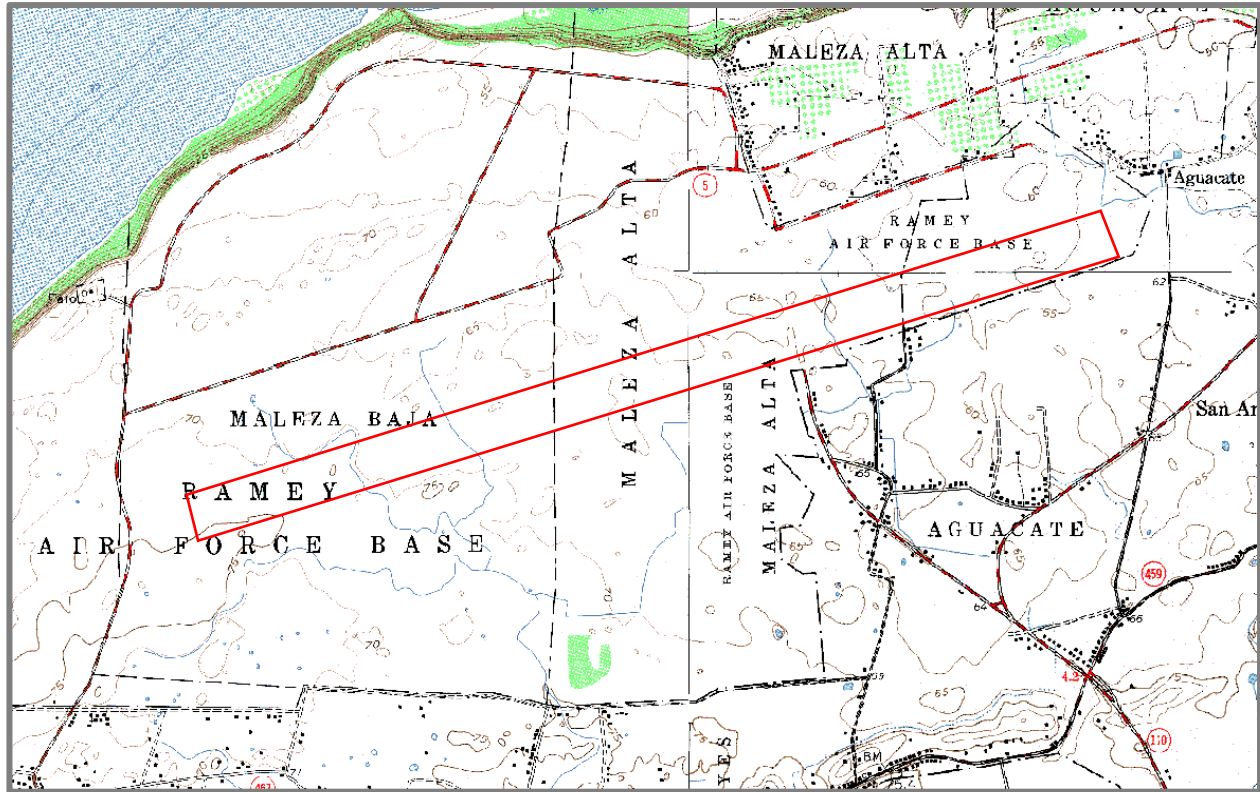


FIGURE 2 USGS TOPOGRAPHIC MAP OF THE RAFAEL HERNÁNDEZ AIRPORT (BQN).

3.2 Soils

Based on the U.S. Department of Agriculture Natural Resources Conservation Service (USDA/NRCS) Web Soil Survey, Mayagüez Area, Puerto Rico Western Part (**Version 13, Oct 28, 2017**) the soils within the project area are classified as NOTCOM: No Digital Data Available.



FIGURE 3 USDA/NRCS SOIL MAP OF THE RAFAEL HERNÁNDEZ AIRPORT (BQN).

3.3 National Wetlands Inventory (NWI) Map

The US Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) map (**Figure 4, USFWS National Wetlands Inventory Map**) shows the area that has been proposed for the project is located **in a non-wetland area**. However, a small wetland area identified by the NWI as *Riverine* is located at the southeast portion of the project area, near the project limit. Based on the Cowardin classification (1979) of the NWI map, this riverine area is defined as: *Riverine Unknown Perennial Unconsolidated Bottom, Permanently Flooded (R5UBH)*.



FIGURE 4 NATIONAL WETLAND INVENTORY (NWI) MAP

3.4 Historic and Current Uses

BQN is currently used as a joint civil-military airport located in Aguadilla, Puerto Rico. It is the second largest international airport in Puerto Rico, as well as being home to the Coast Guard Air Station Borinquen. BQN mainly serves Puerto Ricans living in the western region of the island.

In 1939, Major George C. Kenney from the U.S. Army was sent to Puerto Rico to conduct a preliminary survey of possible air base sites on the island. He examined a total of 42 sites and declared that Punta Borinquen was the best site for a major air base.

Before the area was converted for military purposes, the land was originally used for the cultivation of sugar cane, which covered some 3,796 acres (see **Historical Photographic Documentation**). These lands were purchased by the government for military use in the first week of September 1939 at a cost of \$1,215,000. Later that year, Major Karl S. Axtater assumed command of what was to become Borinquen Army Air Field.

With the establishment of an independent U.S. Air Force in 1947, the complex was renamed Ramey Air Force Base (AFB) in 1948. Ramey AFB was home to a Strategic Air Command bombardment wing and housed a number of B-36 Peacemaker intercontinental bombers. The B-36s were later B-52 Stratofortress heavy bombers and KC-135 Stratotanker aerial refueling aircraft, while a tenant weather reconnaissance squadron operated WB-47 Stratojet and WC-130 Hercules aircraft. Due to

the size and weight of the B-36, the runway at Ramey AFB had to be built to a length of 11,702 feet and a width of 200 ft.

The closure of what became Ramey AFB began in 1971 and lasted until 1973. Following its closure, it was converted into a civilian airport, receiving mostly domestic commercial flights.

In 2004, the Puerto Rico Ports Authority (PRPA) announced that it would be remodeling and expanding BQN to accommodate more flights and passengers. An expansion of the terminal building and a new parking lot were among the projects in mind, with said expansion being inaugurated on July 12, 2005.

The capacity of the airport and its role as the main gateway to western region has led local officials to take the position that the airport is extremely underserved in a region which accounts for one third of the total population of Puerto Rico.

On February 20, 2012, it was announced by both the mayor of Aguadilla and the U.S. Secretary of Commerce that the airport will be designated a "free trade zone" (FTZ), as are many other airports in the U.S., a move that is believed will improve the development of the airport and surrounding areas.

On April 10, 2014, Lufthansa Technik announced the creation of a maintenance, repair and overhaul center (MRO) at the airport, starting operations July 21, 2015. Current Lufthansa Technik Puerto Rico facility covers a total area of 215, 000 square feet providing maintenance services for Airbus 320.

4 Site Evaluation

The methodology employed for this study consisted preliminarily in an overall assessment of existing literature and geographic maps to determine the potential jurisdictional wetlands within the project area. To identify wetland areas that are under the jurisdiction of Section 404 of the Clean Water Act and under the jurisdiction of the USACE, a detailed screening analysis was performed using Geographic Information System (GIS) tools, aerial photographs and a field evaluation by wetland specialists. The evaluation was focused on identifying the presence of the attributes that wetland areas meet: (1) hydrophytic vegetation; (2) hydric soils; and (3) hydrological conditions (inundated or saturated).

4.1 Literature Evaluation

According to the NWI map, the only area under the jurisdiction of Section 404 is a small riverine area on the southeast part of the project site; however, the images used by the NWI were from 1983.

On the topographic map, some creeks were identified within the airport property. However, the map was created in 1937, with the hydrographic data compiled in 1957, and revised in 1960. As the historical data shows, the area has been used as a military airport base since 1939 (see Historical Photographic Documentation in Appendix 1).

4.2 Field Evaluation

The field work consisted of walking the entire project area, mostly focusing on the stormwater infrastructure and the sinkhole areas. During the field evaluation, it was confirmed that the project site has been modified for airport activities, and that the unpaved areas were altered to control stormwater coming from the runway and taxiway areas.

No wetland areas were observed along the project site. The riverine wetland identified in the NWI map was not observed during the site visit. Apparently, the riverine system was eliminated after the development of the stormwater infrastructure at the airport.

Hydric conditions were not observed within the project site. Man-made ditches can be observed as part of the stormwater system within the project area of the airport. These ditches do not present any wetland attributes and do not meet the criteria to be classified as “water of the U.S.” because the ditches do not flow directly or through another water of the U.S.

According to the geological map provided by “Mi Puerto Rico Interactivo (MIPR)” from the Puerto Rico Planning Board. (**Figure 5**), the BQN airport is located over many sinkholes, characteristic of

the limestone/karst typical of the northern portions of the island of Puerto Rico. Most of these sinkholes and depressions were filled during the construction of the airport. At the eastern section of the project area, a sinkhole is still present. This area can be observed in the aerial photograph as a forested area. This sinkhole is also identified in the Topographic maps and in the geological maps provided by MIPR.



FIGURE 5 GEOLOGICAL MAP; THE LOCATION OF THE SINKHOLE IS MARKED BY THE RED CIRCLE.

The vegetation on the project site consists mostly of grasses and herbaceous vegetation typical of impacted upland areas. The dominant species and its wetland indicators (in parenthesis) are *Sporobolus indicus* (FACU), *Megathyrsus maximus* (FACU), *Ipomoea tiliasea* (UPL), *Chloris barbata* (FACU), *Digitaria eriantha* (FACU) and *Leucaena leucocephala* (FACU). Although the project areas have channels related to the stormwater system, no different species were identified within these areas. The dominant species within the sinkhole area, are *Leucaena leucocephala* (FACU) and *Pennisetum purpureum* (FAC). The following table shows the **Former USFWS Wetland Plant Indicator Status Categories**.



TABLE 1 FORMER USFWS WETLAND PLANT INDICATOR STATUS CATEGORIES

| Wetland Indicator | Code | Definition | Estimate Probability |
|---------------------|------|---|----------------------|
| Obligate wetland | OBL | Occurs almost always under natural conditions in wetlands | >99% |
| Facultative Wetland | FACW | Usually occur in wetlands, but occasionally found in non-wetlands | 67-99% |
| Facultative | FAC | Equally likely to occur in wetlands or non-wetlands | 34-66% |
| Facultative Upland | FACU | Usually occur in non-wetlands, but occasionally found in wetlands | 67-99% |
| Obligate Upland | UPL | Occur in wetlands in another region but occur almost always under natural conditions in non-wetlands in the region specified. | >99% |

According to the USACE 2016 National Wetlands Plant List, the site is dominated by vegetation species that are not hydrophytic or cannot adapt for life in water or in saturated substrates. In addition, all vegetated areas within airport boundaries are subject to mowing, preventing any establishment of additional species.

5 Conclusion

The wetland assessment confirmed that the project site has been modified for airport activities. The riverine wetland identified in the NWI map was not observed during the site visit, seemingly, the riverine system was eliminated after the development of the stormwater infrastructure at the airport, as well as unpaved areas that have been altered to convey stormwater runoff coming from the runway and taxiway areas.

No wetland areas were observed along the project site, validating preliminary research of existing literature and aerial photographs indicating that **no wetland areas** were present within the project site. Furthermore, the project site does not meet the attributes for hydric soils, dominance of hydrophytic vegetation or hydrological conditions that are required to classify the site as a wetland. Hence, there will be no impacts to U.S. waters under the jurisdiction of the Section 404 of the Clean Water Act.

6 References

- Cowardin, L.M., Carter, V., Golot, F.C., and LaRose, E.T. (1979) *Classification of Wetlands and Deepwater Habitats of the United States*, FWS/OBS-73/31, U.S. Fish and Wildlife Services, Office of Biological Services, Washington DC.
- Dennis Smith. Air Force Base 1936-1973. Ramey Air Force Base Historical Association. <http://rameyafb.net/air-force-base-1936-1973/>
- Environmental Laboratory (1987) Corps of Engineers wetlands delineation manual. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experimental Station. (<http://el.erdc.usace.army.mil/wetlands/pdfs/wlman87.pdf>)
- Lichvar R. W., D. L. Bank, W. N. Kirchner and N. C. Melvin (2016) *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X. <http://wetland-plants.usace.army.mil/>
- Lufthansa Technik Puerto Rico <http://www.lht-puertorico.com>
- Mi Puerto Rico Interactivo, Junta de Planificacion GIS <http://gis.jp.pr.gov/mipr/>
- U.S. Army Corps of Engineers (2011) Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Island Region (Version 2). ERDC/EL TR- _11-4. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service. National Wetland Inventory (NWI). <http://www.fws.gov/wetlands/Data/Mapper.html>.
- U.S. Geological Survey. Aguadilla Quadrangle, Puerto Rico, 7.5 minutes series (Topographic). Revised 1960.
- USDA Natural Resources Conservation Service. Web Soil Survey. National Cooperative Soil Survey. Mayaguez Area, Puerto Rico Western Part: Version 13, Oct 28, 2017. <http://websoilsurvey.nrcs.usda.gov>.

7 Field Assessment Photo-Documentation



This image shows the sinkhole area at the eastern side of the project area dominated by *Leucaena leucocephala* and *Pennisetum purpureum*.



This image shows green areas beside the runway and taxiways dominated by *Megathyrsus maximus* and *Leucaena leucocephala*.



This image shows green areas beside the runway and taxiways dominated by *Megathyrsus maximus* and *Sporobolus indicus*.



This image shows green areas beside the runway and taxiways dominated by *Digitaria eriantha* and *Chloris barbata*



This image shows green areas beside the runway and taxiways dominated by *Megathyrsus maximus*.



This image shows one (the main) man-made ditch part of the stormwater system dominated by *Megathyrsus maximus*.



These images show part of the stormwater system (ditches and inlets) at the airport.





Soil pit made to verify wetland indicators.



The image shows green areas impacted by filled material and used by airport security patrol.

This page intentionally left blank.



Appendix 1

This page intentionally left blank.

Historical Photographic Documentation



Image No. 1



Image No. 2

Images 1 and 2 show BQN's undeveloped lands on the 1930 (images provided by <http://pr1930.revistatp.com/>). It is remarkable to see that the soils were used for agricultural purpose.



Image No. 3

Image number 3 shows Ramey AFB development at BQN during the 40's and 50's.



Image No. 4



Image No. 5

Images 4 and 5 show how former Ramey AFB looked at the end of the 1950's.

GOBIERNO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE PLANIFICACION
SAN JUAN, PUERTO RICO

OFICINA DEL SECRETARIO
COBRO DE DERECHOS

FECHA: 04 DEC 2018

NUM. CONTROL:

A: RECAUDADOR OFICIAL/AUXILIAR
DIVISION DE FINANZAS

DE: LOIDA SOTO
OFICINA DEL SECRETARIO

REPRESENTANTE

NOMBRE: AUTORIDAD DE LOS PUERTOS DE PUERTO RICO
DIRECCION: ENG. ROMEL PEDRAZA
PO BOX 362829
SAN JUAN PR 00936-2829

TRAMITE

NUEVA RADICACION DE CASO
CERTIFICACIÓN ZONA COSTANERA

NUMERO CASO: CZ-2019-1204-043

DESCRIPCION: CERTIFICACION DE ZONA COSTANERA PARA PROYECTO DE RECONSTRUCCION DE LA
PISTA 826 DEL AEROPUERTO DE AGUADILLA.
CATASTRO NUM. EXC-TMP-050-00.



COSTO: \$0.00

Adelis Caban

From: Romel Pedraza
Sent: Friday, December 28, 2018 3:16 PM
To: Adelis Caban; Ivelisse Lorenzo Torres
Subject: RE: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

Gracias!


From: Adelis Caban [mailto:acaban@marlinengineering.com]
Sent: Friday, December 28, 2018 1:52 PM
To: Romel Pedraza <RPedraza@prpa.pr.gov>; Ivelisse Lorenzo Torres <ilorenzo@prpa.pr.gov>
Subject: FW: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

Saludos,

Me indicó Rose por teléfono que la determinación está aprobada, pero debido al receso de navideño no tienen secretaria para pasarla a final y firmarla. Me aseguró que tendremos la determinación tan pronto regresen del receso de navidad.

En un punto aparte, dialogamos acerca de cómo excluir el aeropuerto de BQN del programa de Zona Costanera. El foro correcto es elevarlo y dirigir una carta a Ernesto Díaz detallando las razones para que consideren la exclusión del aeropuerto del programa, quien a su vez lo tiene que llevar a NOAA.

¡Feliz Año!

 Adelis Cabán | P 787.395.7155 | P 787.923.7021 | acaban@marlinengineering.com




From: Adelis Caban <acaban@marlinengineering.com>
Sent: Thursday, December 27, 2018 2:21 PM
To: 'Rose Ortíz Díaz' <Ortiz_R@jp.pr.gov>
Subject: RE: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

Buenos días Rose:

Me llamó el Ing. Romel Pedraza de la Autoridad de Puertos, ellos están inquietos porque necesitan sacar el borrador de la EA para el proyecto de referencia a mediados de enero y respetuosamente me solicitan de seguimiento a la certificación.
¿Existe la posibilidad de que podamos recibir la certificación esta semana?


Cordialmente,
Adelís

 Adelís Cabán | P 787.395.7155 | P 787.923.7021 | acaban@marlinengineering.com



From: Adelís Caban <acaban@marlinengineering.com>
Sent: Friday, December 21, 2018 1:29 PM
To: 'Rose Ortíz Díaz' <Ortiz_R@jp.pr.gov>
Subject: RE: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

¡Que Buena noticia! ¡Gracias!

 Adelís Cabán | P 787.395.7155 | P 787.923.7021 | acaban@marlinengineering.com



From: Rose Ortíz Díaz <Ortiz_R@jp.pr.gov>
Sent: Friday, December 21, 2018 1:17 PM
To: Adelís Caban <acaban@marlinengineering.com>
Subject: RE: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

Saludos:

El día de hoy la Junta emitió la Certificación para el proyecto. Ya tengo el borrador listo para firma y procesamiento. Tan pronto salga de Secretaria, te lo envío.

Rose A. Ortiz Díaz

Analista de Planificación V
Unidad de Zona Costanera
Oficina de Geología e Hidrogeología



GOVERNMENT OF PUERTO RICO

Puerto Rico Planning Board

From: Adelis Caban



ortiz_r@jp.pr.gov



787-723-6200 Ext. 16012



PO BOX 41119 | San Juan, P.R. 00940-1119



www.jp.pr.gov



[Junta de Planificación de Puerto Rico](#)



[@JuntaPlanifica](#)

[<mailto:acaban@marlinengineering.com>]

Sent: Thursday, December 20, 2018 12:41 PM

To: Rose Ortíz Díaz <Ortiz_R@jp.pr.gov>

Subject: RE: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

Saludos Rose:

Según conversamos hace unos minutos, adjunto PDF de las Alternativas en 11 X 17.

Las zonas con la capa ("layer") cuadrículada color negra y anaranjada representa el material a ser demolido y dispuesto a sistemas de relleno sanitario (vertederos). La diferencia es que la anaranjada será demolida luego de que se haga la conexión al sur de la pista. Dichas áreas permanecerán como áreas verdes libre de árboles u objetos según regulado por la Administración Federal de Aviación (FAA).

Favor confirmar que lo hayas recibido.

Cordialmente,



Adelis Cabán | P 787.395.7155 | P 787.923.7021 | acaban@marlinengineering.com



From: Rose Ortíz Díaz <Ortiz_R@jp.pr.gov>
Sent: Tuesday, December 18, 2018 10:46 AM
To: Adelis Caban <acaban@marlinengineering.com>
Subject: RE: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

Buenos Días:

Ayer acabo de regresar de mis vacaciones y el viaje a una cumbre en California. Ya vi lo que radicaron. Voy a tratar de prepararlo esta semana para presentar el caso en Junta y emitir la Certificación, pues se trata de un Federal Assistance y entiendo que el impacto no será significativo, toda vez que los trabajos propuestos se realizaran en un área previamente impactada. Además, se trata de una infraestructura de importancia regional.

Rose A. Ortíz Díaz

Analista de Planificación V
Unidad de Zona Costanera
Oficina de Geología e Hidrogeología



GOVERNMENT OF PUERTO RICO
Puerto Rico Planning Board

From: Adelis Caban



ortiz_r@jp.pr.gov



787-723-6200 Ext. 16012



PO BOX 41119 | San Juan, P.R. 00940-1119



www.jp.pr.gov



[Junta de Planificación de Puerto Rico](#)



[@JuntaPlanifica](#)

[<mailto:acaban@marlinengineering.com>]

Sent: Tuesday, December 18, 2018 10:36 AM
To: Rose Ortíz Díaz <Ortiz_R@jp.pr.gov>
Subject: BQN Runway 8-26 Reconstruction Project (CE-2019-1204-043)

Buenos días Rose:

Espero se encuentre bien. Escribo para dar seguimiento al “Federal Assistance” de referencia. Solo deseamos confirmar la fecha aproximada para recibir la Certificación de Zona Costanera.

¡Les deseo una Feliz Navidad y un Próspero Año 2019!
Sinceramente,

Adelís Cabán, BS.EnvE. | Puerto Rico Office Manager/ Environmental Manager
P 787.395.7155 | M 787.923.7021 | acaban@marlinengineering.com



GOVERNMENT OF PUERTO RICO
PUERTO RICO PLANNING BOARD

December 21, 2018

CZ-2019-1204-043
Federal Consistency Certificate with the
Puerto Rico Coastal Zone Management Program (PRCZMP)

RESOLUTION

TO NOTIFY PARTIES ABOUT THE PUERTO RICO PLANNING BOARD
DETERMINATION OF CONSISTENCY WITH THE PRZCMP POLICIES ACCORDING
TO COASTAL ZONE MANAGEMENT ACT FEDERAL CONSISTENCY
REGULATIONS AT 15 CFR Part 930

The PR Ports Authority (PRPA) submitted the application at reference in order to obtain a Federal Consistency Certificate to perform improvements at the Rafael Hernández Airport with Federal Assistance of the Federal Aviation Administration (FAA). The project consists in the reconstruction of Runway 8-26 to relocate it 500 feet to the south of its current location and transform the existing runway in a Taxiway. These modifications will occur within the existing operation footprint of the airport.

The proposed project is located within the former Ramey Air Force Base, at Aguadilla, Puerto Rico. The access to the project site is through road PR-107 (Borinquen Avenue) and east through PR-110.

After reviewing the submitted information, the Puerto Rico Planning Board (PRPB) concluded that the proposed reconstruction of runway 8-26 would occur within the existing airport footprint and will not have significant impact in the Puerto Rico Coastal Zone. Therefore, the PRPB in its meeting of December 21, 2018 determined to **concur with the PRPA determination that the proposed "Reconstruction of Runway 8-26 at Rafael Hernández Airport" is consistent with the Puerto Rico Coastal Zone Management Program.**

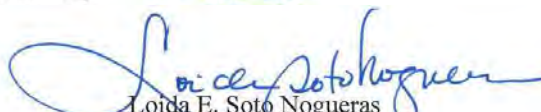
This Federal Consistency Certification does not exempt the project to comply with other federal or state requirements.

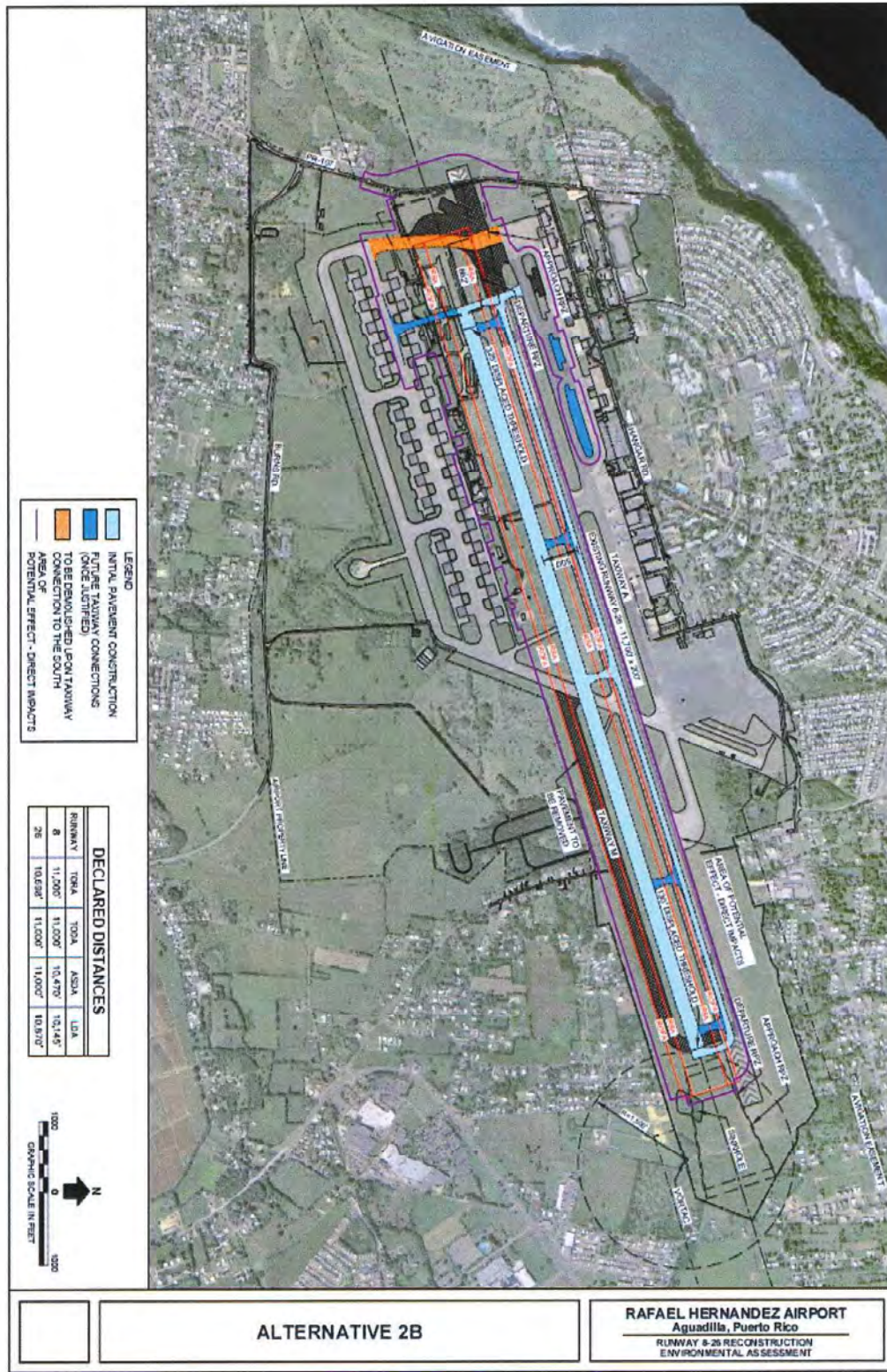
The following parties shall be notified: Eng. Romel Pedraza, PRPA; Adelis Caban, Marlin Engineering; Ernesto Díaz, Puerto Rico Coastal Zone Management Program, DENR.


María del C. Gordillo Pérez
President

Certify: That this Resolution is copy of the agreement adopted by Puerto Rico Planning Board (PRPB) in its meeting of **December 21, 2018**. I expedite and notify this copy to the parties under my sign and official stamp of the Puerto Rico Planning Board stamp, for general use and knowledge.

In San Juan, Puerto Rico, today 04 ENE 2019


Loida E. Soto Noguera
Secretary



This page intentionally left blank.

APPENDIX F
Hazardous Materials

This page intentionally left blank.

APPENDIX F.1
Hazardous Materials Database Records
Review
(electronic only)

This page intentionally left blank.