



**U.S. Department of Housing and Urban
Development**
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov/esp/panol.hud.gov

Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: Parque Pasivo (PR-CRP-000873)

Responsible Entity: Puerto Rico Department of Housing

State/Local Identifier: Puerto Rico/Municipality of Maricao

Preparer: C & G Consultants

Certifying Officer Name and Title:

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Consultant (if applicable): Reforesta Inc.

Direct Comments to: Puerto Rico Department of Housing (environmentcdbg@vivienda.pr.gov)

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The project objective consists of the revitalization of a recreational area and green lung within the traditional Urban Center that serves as recreation for residents and visitors. It will also provide a safe pedestrian connection corridor to different areas in the town.

The proposed project is located by Road PR-357 Km 0.0, Maricao, PR 00606; coordinate 18.181943, -66.980671. The cadaster number of the property is 262-000-002-39. The land under this cadaster number includes the park (Project site) and a Housing Project property of P.R. Housing Department. The project site is only one acre of the three acre site.

The project comprises approximately one acre and includes the following; repair of gazebos and picnic areas, restroom remodeling, reconstruction of sidewalks within the park area, sidewalk improvements along Road PR-357, new ADA access to existing pedestrian bridge, replacement of lighting poles, electrical and potable water system improvements, steel pedestrian bridge overhaul, outdoor amphitheater with approximate capacity of 100 users, landmark signage, improvements to existing fence, installation of new street furniture, installation of playground for children, reforestation, creation of gardens, planting of grasses that help control erosion. In addition, the project includes additional green initiatives, such as; use of low water consumption bathroom equipment and use of low electricity consumption luminaires, among others. The project will include minor demolition work, such as existing sidewalk demolition.

The objective of the project consists in the rehabilitation and improvements to the existing recreational facilities such as gazebos, bathroom, lighting, and steel pedestrian bridge. New construction includes a pedestrian path, playground, park furniture, outdoor amphitheater, sidewalk improvements along PR 357, ADA access and storm water management. Landscape planting will incorporate soil erosion control techniques.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

The purpose of this project is, Parque Pasivo, is within a municipality with structures damaged by Hurricanes Irma and María. The proposed action is part of the Community Revitalization Plan sponsored by the Puerto Rico Department of Housing and the Municipal Government of Maricao.

If the proposed park renovations are not performed, it is expected that the existing structures (bathroom and gazebos) will continue to deteriorate and the recreational facility will become derelict. More so, persistent erosion will prevail and continue scouring existing sidewalks and the footing of existing structures. Erosion will also continue to deteriorate the health of the existing grove of pterocarpus which are an essential feature of the recreational facility.

The objective of the project consists in the renovation of an existing park facility in close proximity to the traditional Urban Center town plaza and the Casa Alcaldía. Proposed improvements will benefit the immediate residential urban community of Maricao. Long term benefits to the Maricao community through increased accessibility to compatible recreational opportunities, community aesthetics and visitors' enjoyment of scenic landscape. Most communities want to increase

greenspace and recreational opportunities. Floodplains provide the greenscape for pleasurable recreational activities and this project has the opportunity to showcase the relevance of a riverine landscape.

Existing Conditions and Trends [24 CFR 58.40(a)]:

Parque Pasivo proposed actions are located within the boundaries of an existing park along the riverine edge of Maricao River. The proposed activity is situated in a diverse flood zone type, 0.12 acres located in the flood zone A, and 0.81 acres out of the floodplains. This area is considered as functionally dependent use. The floodplains in the project area can be found at Flood Insurance Rate Map (FIRM) Panel 72000C01040H, revised on April 19, 2005, as shown in the FEMA Flood Map Service Center. The project includes the renovation of the existing bathroom facilities which are affected by approximately 6 inches of the BFE. The two doors which provide access to girls and boys bathroom will be protected with floodproofing these doors up to 36 inches above the BFE. Therefore, the proposed actions are compatible with the existing recreational and flood plain functions.

If the proposed project is not executed, the existing structures (bathroom and gazebos) will continue to deteriorate and the existing park will become derelict. Pervasive cumulative erosion will continue scouring the footing of existing structures and most important, the grove of existing pterocarpus trees will continue to progressively decay.

Funding Information

Grant Number	HUD Program	Funding Amount
B-17-DM-72-0001	CDBG-DR	\$11,938,162,230
B-18-DP-72-0001		
B-19-DP-78-0002		
B-18-DE-72-0001		

Estimated Total HUD Funded Amount: \$949,308.93

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$949,308.93

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The project site is not within 2,500 feet of a civilian airport or 15,000 feet of a military airport. The project is in compliance with Airport Hazards requirements.</p> <p>The closest civilian airport, "Eugenio Maria de Hostos" is approximately 12 miles (63,360 ft) from project site. IATA location identifier code is MAZ.</p> <p>The distance to Luis Muñoz Marin Int'l Airport (SJU), a joint Military/Civil airport is 67 miles (353 ft).</p> <p>The project is not located within an FAA-designated civilian airport Runway Clear Zone (RCA) or Runway Protection Zone, or within the military Airfield Clear Zone (CZ) or Accident Potential Zone/Approach Protection Zone (APZ), based upon information from the airport or military airfield administrator identifying the boundaries of such zones. The project is in compliance with Airport Hazards requirements.</p> <p>Refer to Appendix B: B01.1-Airport Hazards Map.pdf.</p>
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>This project is not located in a CBRS Unit. It is approximately 11.0 miles (58,080 ft) from a protected area. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act.</p> <p>Refer to Appendix B: B02.1-CBRS Map.pdf</p>
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The Flood Insurance Rate Map (FIRM) 72000C1040H effective date April 19, 2005, locates 0.12 acres of the Project within the SFHA Zone A.</p>

<p>[42 USC 4001-4128 and 42 USC 5154a]</p>		<p>Structures located within the floodplain are required by HUD and the NFIP to maintain flood insurance for the life of the property. This requisite applies to mortgaged residential, commercial properties. The only two structures located within the floodplain are the gazebo and bathroom facility which may be affected by 6 to 8” inches of flood water level. The doors that provide access to the bathroom facilities will be flood proofed up to 36 inches above finished floor elevation.</p> <p>There are no residential or commercial properties that will require mortgage within the project scope of work of the project. Flood Insurance is required when residential or commercial properties are subject to a loan mortgage.</p> <p>Therefore, flood insurance is not mandatory in this instance. The project is in compliance with NFIP flood insurance requirements.</p> <p>Proposed improvements within the state Road PR 357 ROW do not require flood insurance. Proposed improvements within the state Road PR 410 do not occupy or modify the 100 year floodplain. The project is in compliance with Flood Insurance requirements.</p> <p>Refer to Appendix B: B03.1-Location Map, B03.2- JP-DeterminacióndeInundación.pdf, , B03.3-720000C1040H.pdf, B03.4-PR-CRP-000873_FIRM Overlay & Firmettes.pdf, B03.5-FEMA ABFE.pdf., B03.6-SFHA Floodway Limits</p>
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STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
<p>Clean Air</p> <p>Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed actions updating of an existing urban pocket park are not activities that require conversion of land use. No emissions will be generated from the function of the urban pocket park once improvements are in place and the park is in full use. The project is in compliance with the Clean Air Act.</p> <p>The Project Site is not located in a county or air quality management district that is in attainment status for all criteria pollutants. The Municipio of Maricao is not listed in the EPA Green Book "Puerto Rico Nonattainment/Maintenance Status</p>

		<p>for Each County by Year for all Criteria Pollutants”. The project is in compliance with the Clean Air Act.</p> <p>Refer to the Table in Appendix C.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project is not located in or does not affect a Coastal Zone as defined in the National Coastal Zone Management Program. The project area is 10.8 miles (56,915 ft) from the coastal zone. The project is in compliance with the Coastal Zone Management Act.</p> <p>Refer to Appendix B: B05.1- Coastal Zone Map.pdf.</p>
<p>Contamination and Toxic Substances</p> <p>24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project site has been thoroughly observed during the design review of existing site conditions. As a result, no on-site or nearby toxic, hazardous, or radioactive substances that could affect the health and safety of project users were identified. Where the project will take place, no landfills/dumps, industrial sites, UST, substations or dry cleaners were identified in the surroundings. EPA Facilities Map inventory within 3,000 feet of the project does not indicate potential contamination conflicts. Within 3000 feet (0.5 mile) of the Project site,</p> <p>(3) EPA sites were identified. The two NPDES water discharge sites (PRASA WTP Water Filter Plant and FENWALL) had no violations identified for the last 5 years. FENWALL had terminated permit. The Hazardous waste site (RCRA), TOTAL Petroleum gas station also had no violations identified for the last 5 years. The project is in compliance with contamination and toxic substances requirements. The Project will not involve residents or increase in occupancy of any structure. There would be no increase in risk associated with the proposed project.</p> <p>The proposed project does not involve a residence or mid- to long-term occupancy (greater than 4 hours a day) of employees or customers (e.g., office, school, hospitals, stores, etc.), therefore, radon exposure will not be a health issue.</p>

		<p>The project is in compliance with contamination and toxic substances requirements.</p> <p>Refer to map B06.1 and B06.2 in Appendix B and supporting documentation in Appendix C.</p>
<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No <input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>Using the U.S. Fish and Wildlife Service’s (Service) Information for Planning and Consultation (IPaC) system, it has been determined that the proposed project site is located within the range of Puerto Rican boa (<i>Epicrates inornatus</i> now known as <i>Chilabothrus inornatus</i>), Puerto Rican broad-winged hawk (<i>Buteo platypterus brunnescens</i>), Puerto Rican parrot (<i>Amazona vittata</i>), Puerto Rican sharp-shinned hawk (<i>Accipiter striatus venator</i>) and Puerto Rican harlequin butterfly (<i>Atlantea tulita</i>).</p> <p>Based on the nature of the project, scope of work and information available, the PRDOH has determined that the proposed project may affect but is not likely to adversely affect (NLAA) the Puerto Rican parrot, Puerto Rican harlequin butterfly, Puerto Rican boa, Puerto Rican broad-winged hawk and Puerto Rican sharp-shinned hawk. Conservation measures previously provided by the Service for these species will be implemented in case an encounter occurs.</p> <p>In order to complete the informal consultation process, we requested the USFWS Caribbean Ecological Services Field Office its concurrence with the NLAA determinations by our consultant. On May 15, 2024, Robert Tawes, acting Field Supervisor concurred with the PRDOH NLAA determination. The approval letter included updated conservation measures which will be implemented during the execution of the proposed actions. This project is in compliance with the Endangered Species Act.</p> <p>Refer to maps B07.1 and B07.2 in Appendix B and Appendix E for related letters and reports.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project does not include any hazardous facilities or a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries.</p>

		<p>The project activities will not increase residential densities or convert other uses into residential ones. Based on the project description (rehabilitation of existing park facilities) the project includes no activities that would require further evaluation under this section. The project is in compliance with explosive and flammable hazard requirements.</p>
<p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Project activities include rehabilitation of existing facilities in an existing park which has been already subjected to extensive earth movement. Existing Humatas soils have a high content of clay not conducive to agricultural activities. Therefore, this project does not include any activities that could potentially convert agricultural land to a non-agricultural use because. The area has previously been impacted by urban uses for decades. According to the USDA Farmland Classification map, the land is not prime farmland. The project is in compliance with the Farmland Protection Policy Act.</p> <p>Refer to the Farmland Classification Map in Appendix B09, and Appendix E: E09-Parque Pasivo Soil Report.pdf</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No <input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The floodplain management analysis was completed before the issuance of HUD's new floodplain management regulations. The new FFRMS methodology was later used to see if additional area of FFRMS floodplain would be within the project area. Although very little additional 500-year floodplain area was with the project area, the FFRMS evaluation is discussed below.</p> <p>The proposed project is located in the Federal Flood Risk Management Standard (FFRMS) floodplain. The extent of the FFRMS floodplain was determined using the 500-year floodplain as indicated on the ABFE Map effective December 11, 2018 as shown at https://gis-r2-fema.hub.arcgis.com/pages/puertorico. The Advisory Base Flood Elevations Map (ABFE) locates approximately 27% of the project limits which consist of 1.00 acre within the FFRMS.</p> <p>Because this project involves ground disturbance and is in the floodplain, an 8-step analysis was performed. This analysis was performed before</p>

the promulgation of new HUD regulations regarding the FFRMS. In this case the area of the project in the FFRMS and the area discussed in the 8-step is essentially equivalent. As part of the 8-step analysis, the community and general public was notified of the project scope of work in two occasions during the process. Both notifications were published, and no comments were received. Early Notice was published on September 15, 2023, and the Final Notification was published on January 26, 2024.

Although the Parque Pasivo has a gazebo and the bathroom facilities located within a floodplain, the rest of the facilities are located outside the floodplain limits. The impact of floodplain base flood elevations is limited to 6 or 8 inches which is minimal. Such depth can be easily mitigated with flood proofing the two doors which provide access as recommended, 3 feet above finished floor elevation. The proposed action won't change floodplain existing grades, no impact or damage is exerted over the existing drainage patterns and flood plain natural functions.

Opposite the park and the Maricao River is a strip of land which is part of the right of way of the State Road PR 357. This strip of land provides the only access to the existing pedestrian bridge and is totally located within the floodway. There is no other feasible alternative to provide pedestrian access to the bridge. Because this project involves ground disturbance and is in the floodplain, an 8-step analysis was performed.

The 8 step process determination is that the existing bathroom facilities can be renovated in its existing location. The floodplain water levels are minimal and can easily and economically can be mitigated with flood-proofing. The cost to relocate the bathroom facility would be much higher. To demolish the existing facility and deprive the park of bathroom facility provides no social justice.

Additionally, to promote and preserve the floodplain natural intrinsic values, the project includes native planting in focus path nodes.

This project is in compliance with the Floodplain Management regulations.

Refer to Appendix B: B03.1.1-Location Map; B03.2-JP Determinación; B03.3-FIRMETTE-720001040H.pdf; B03.4- PR-CRP000873_FIRM

		<p>Overlay; B03.5-FEMA ABFE; B03.6-SFHA Floodway Limits</p> <p>Refer to Appendix E for complete report of 8- step Analysis.</p>
<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>As defined in 36 CFR §800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. Based on this definition and the nature and scope of the Project, the Program has determined that the direct APE for this project consists of the area where the construction of recreational facilities is proposed, including gazebos, restrooms, a pedestrian bridge, playgrounds, an amphitheater, sidewalks, and the installation of lighting, among others. The area of about 4,323.6774 m2 has an irregular perimeter and is bordered on the northwest by a vacant lot, on the northeast and east by the Residencial Juan Ferrer, on the west by the Maricao River and the PR-357 highway and on the south by a vacant lot. The visual APE is the viewshed of the proposed project.</p> <p>Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within the APE of this undertaking. The review of this existing information, by a Program contracted Historic Preservation Specialist meeting the Secretary of the Interior’s Professional Qualification Standards (36 CFR Part 61), shows that the project area has a low archaeological potential.</p> <p>Within a 0.25-mile radius of the project area we have twelve (12) cultural resources, one of them is included in the NRHP. All sites located within the 0.25-mile radius are historic. The site Based on the results of our efforts to identify historic properties, the Program has determined that there are no historic properties in the project area that would be affected by the project. The project area is outside of the Maricao Traditional Urban Center and there are no NRHP-listed or eligible properties in the indirect APE. The soils and topography in the project area are not suitable for settlement.</p> <p>In a letter dated May 3, 2024, Carlos A Rubio Cancela, State Historic Preservation Officer supports the Program determination of no historic</p>

		<p>properties affected by the proposed project. The Project is in compliance with the National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800.</p> <p>Refer to Appendix A for the complete report and related consultation correspondence letters of: Section 106 NHPA Effect Determination Submittal for PR-CRP-000873, Parque Pasivo Project, Maricao, Puerto Rico – No Historic Properties Affected</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Project activities include installation of a pedestrian path, exterior staircase, a concrete slab and exterior wall, a ramp, the restoration of existing gazebos (4) and bathroom facilities, and new playground equipment. Based on the project description, this project includes no activities that would require further evaluation under HUD's noise regulation. The project is in compliance with HUD's Noise regulation.</p>
<p>Sole Source Aquifers</p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to USGS area map, there are no sole source aquifers present in Puerto Rico. The nearest SSA is in the state of Florida, an approximate distance of 5,213,770.7 feet (987.5 miles). Based on the project description, the project consists of activities that are unlikely to have an adverse impact on groundwater resources. The project is in compliance with Sole Source Aquifer requirements.</p> <p>Refer to Appendix B: B013.1-Sole Source Aquifer Map.pdf.</p>
<p>Wetlands Protection</p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Based on the project description this project includes no activities that would require expansion of the existing footprint of the existing park facilities. According to the definition of wetland by US Corps of Engineers, visual inspection of the area and the National Wetland Inventory, a riverine wetland (Rio Maricao) is located at the South of the project limits, therefore an 8 Step Process was developed as discussed in the Floodplain Management Section and Final</p>

		<p>Notice included the riverine wetland. The project is in compliance with Executive Order 11990.</p> <p>The project footprint is within 100-foot riverine wetland buffer zone of the Maricao river which will be protected with erosion control BMP measures such as: silt fences and straw or hay log filters. Further BMP practices are described in the Mitigation Measures and Conditions [40 CFR 1505.2.(c)]. The project is in compliance with Executive Order 11990.</p> <p>Refer to Appendix B: B014.1-USFWS-NationalWetlandMap.pdf</p>
<p>Wild and Scenic Rivers</p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project is not within proximity of a National Wild and Scenic Rivers (NWSRS) river. The Municipality of Maricao does not have any river registered as a Wild and Scenic River, Study River or listed in the Nationwide Rivers. The distance from the project to the nearest wild and scenic river located at El Yunque area (La Mina, Icacos and Mameyes) is approximately 84 miles (443,520 ft).</p> <p>This project is not within proximity of a NWSRS river. The project is in compliance with the Wild and Scenic Rivers Act.</p> <p>Refer to Appendix B: B015.1-Inventory Map Wild Scenic Rivers.pdf.</p>
ENVIRONMENTAL JUSTICE		
<p>Environmental Justice</p> <p>Executive Order 12898</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>No adverse environmental impacts were identified in any other compliance review portion of this project that may disproportionately be high for low-income and/or communities. The project is in compliance with Executive Order 12898.</p>

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source

documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact - May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The project site is located on land use zone classified as SU, Suelo Urbano (Urban Soil) according to the Puerto Rico Land Use Plan. The proposed renovations to an existing leisure recreational use is compatible with the existing land use zoning and the existing neighborhood scale, therefore no land use zone change will be required.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	<p>Project activities include rehabilitation of existing facilities in an existing park which has been already subjected to extensive earth movement. Existing Humatas soils have a high content of clay not conducive to agricultural activities. However, these soils are compatible with existing land use and the simple bathroom and gazebo structures foundations of the existing facilities that are going to be renovated.</p> <p>The project site is located between two embankments with average elevation difference of 3 meters. Gradient slopes from east to west bordering the edge of the Maricao river and from south to north parallel to the Maricao river flow. The site includes a pedestrian path with average 2% slopes gradient, graded terrace with 2% slopes for the playground, existing terraces for the 4 gazebos and bathroom facilities. The outdoor amphitheater is located at the highest point on the northern edge. Access is provided by a series of stairs salvaging a height difference of 4.3 meters (14 feet) or a ramp (1:12 slope) salvaging a difference in elevation of 1.86 meters (6 feet).</p> <p>Park runoff drains superficial as a laminar flow down to the riverbank.</p> <p>Erosion due to stormwater runoff at the project site is minimized because stormwater management promotes laminar flow and the exterior contribution from the residential community “Juan Ferrer” is intercepted in an open channel down to an energy</p>

		<p>dissipator from where runoff discharges into riverbank as laminar flow.</p> <p>Furthermore, project does not include underground storm sewer nor concentrated stormwater runoff discharges. An extensive landscape planting includes the riverbank which provides an additional erosion control filter to stormwater runoff.</p>
Hazards and Nuisances including Site Safety and Noise	2	<p>Project activities include installation of a pedestrian path, exterior staircase, a concrete slab and exterior wall, a ramp, the restoration of existing gazebos (4) and bathroom facilities, and new playground equipment. Based on the project description, this project includes no activities that would require further evaluation under HUD's noise regulation. The project is in compliance with HUD's Noise regulation.</p> <p>The project would be constructed consistent with the current OSHA and PRDOT requirements for fencing, lighting, and other features related to site safety. No impacts related to hazards, nuisance, or site safety would occur.</p>

SOCIOECONOMIC

Employment and Income Patterns	1	<p>The proposed project has the potential to create temporary employment opportunities during the renovation and construction phases. Income patterns in the town of Maricao would benefit from the proposed project, which would stimulate an increase in visitors spending in Maricao.</p>
Demographic Character Changes, Displacement	1	<p>The proposed project would not have an adverse impact on community character or result in the displacement of existing businesses or individuals because the project would occur on land which is functioning as a leisure recreation urban pocket park.</p> <p>Although community character would remain similar because it is conforming with existing land use designation and design, there would be a user experience and visual landscape quality improvement.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	1	<p>The Parque Pasivo can certainly provide a beneficial impact to nearby educational facilities by providing the stage to perform educational extracurricular activities while enjoying nature.</p> <p>The project is near various educational and cultural facilities, including the following:</p> <ul style="list-style-type: none"> • Raul Ybarra School, an approximate radius of 0.07 miles north of the project site • Mariana Bracetti School, an approximate radius of

		<p>0.15 miles north of the project site (now closed but with excellent potential for reuse)</p> <ul style="list-style-type: none"> • “Plaza de Recreo”, an approximate radius of 0.07 miles north of the project site • “Casa Alcaldía”, an approximate radius of 0.08 miles north of the project site
Commercial Facilities	1	<p>No adverse impacts to surrounding commercial facilities are anticipated. Restaurants occupying nearby commercial retail spaces could experience an increase in business from increase of visitors stimulated by the proposed project.</p> <p>Therefore, businesses near the proposed development would not be adversely impacted.</p>
Health Care and Social Services	2	<p>There would be no adverse impact upon existing health care and social services in the community. The project site is near health care facilities, including the following:</p> <ul style="list-style-type: none"> • CDT Servicios Médicos, an approximate radius of 0.15 miles north of the project site • Migrants Health Care, an approximate radius of 0.08 miles north of the project site
Solid Waste Disposal / Recycling	2	<p>Trash receptacles serviced by the Municipal Government of Maricao will be installed on the playground as part of the project improvements. Only household trash is collected in the waste baskets.</p> <p>Because the proposed project would involve renovation to existing facilities, solid waste generated during the construction phase would be minimized. All generated waste would be properly disposed of and recycled where possible. The amount of solid waste generated by the proposed project during the operational phase is not a significant quantity. As a result, adverse impacts from solid waste disposal associated with the proposed project are not anticipated.</p>
Waste Water / Sanitary Sewers	2	<p>The project will not generate additional domestic wastewater because renovations of existing facilities do not increase plumbing fixtures therefore do not significantly increase water use.</p>
Water Supply	2	<p>Water supply is from the existing water meter located in Juan Ferrer residential community. The project scope of work renovation of existing bathroom facilities does not increase plumbing fixtures nor require a new tapping to existing 2” water service line, therefore the operational phase of the proposed project will not adversely impact existing potable water service infrastructure.</p>

Public Safety - Police, Fire and Emergency Medical	2	<p>The project site is in close proximity to public safety providers, including the following:</p> <ul style="list-style-type: none"> • Migrants Health Care, an approximate radius of 0.07 miles north of the project site • Municipal Police, an approximate radius of 0.06 miles south of the project site
Parks, Open Space and Recreation	1	<p>The recreational spaces which complement and are in close proximity to the proposed Parque Pasivo project are:</p> <ul style="list-style-type: none"> • Recreational Area Alfonso Acosta Fornes, an entrance gate to the facilities are adjacent to the start of the project along the “Gruta de San Juan Bautista”. Its facilities include an auditorium with basketball/volleyball courts, an exterior swimming pool and various gazebos for family picnics. • Plaza de Recreo, an approximate radius of 0.12 miles north of the project site. • The proposed Paseo Hatchery and existing Gruta de San Juan Bautista, an approximate radius of 0.19 miles south of the project site.
Transportation and Accessibility	2	<p>The proposed project is within walking distance of the urban town center (0.06 miles), the adjacent Costa Fornes. The Costa Fornes facilities provide limited parking for visitors. Relative accessibility to urban development reduce transportation, parking and accessibility issues.</p> <p>Considering the nature of the project, a bicycle and pedestrian path along the river, it is not expected to adversely affect transportation or accessibility in the area.</p> <p>The only access to the park is through a pedestrian bridge crossing the Maricao river. The bridge is accessed through a proposed stair and ramp from the sidewalk at Camino Las Vegas Road (PR 357). This ramp provides ADA access required in project’s scope of work.</p> <p>Impact to Camino Las Vegas Road (PR 357) during construction will be minimal because work along the road ROW is limited to the sidewalk. No new construction is proposed in the road itself.</p>
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	<p>The project site borders the Maricao River. Together they provide a landmark view of a high visual landscape quality at the entrance to Maricao town.</p> <p>The Maricao river runs along the path of the river which provides more landmark views of high visual quality while crossing the pedestrian bridge.</p> <p>The project proposes a new pedestrian path together with storm water management measures mitigates existing erosion and prevents any adverse impact to the river.</p>

Vegetation, Wildlife	2	The project site is adjacent to the Maricao River reserve. That is why the proposed project is within the ranges of various endangered species: 3 birds, 1 reptile, 1 insect. Although none of these species are found on the project site there are other wildlife species which may make frequent visits to the park which is forested.
Climate Change Impacts	2	This is a project with no footprint impact because it is limited to renovation of existing facilities structures. No new construction is proposed except for those site improvements such as pedestrian path, stairs, ramp, playground and outdoor amphitheater. The project also includes extensive landscape planting. Therefore, the project has no impact on urban heat island effects and/or rainfall intensity. Project is located 450 meters above mean sea level which does not raises the possibility of rising sea levels.
Energy Efficiency	2	The proposed project is not a high energy consumer. Proposed pedestrian path lighting uses LED luminaires which are energy efficient. The renovations of the gazebos and bathroom as well as the outdoor amphitheater will also incorporate LED significantly reducing energy consumption compared to traditional lighting technologies. By leveraging the high efficiency, longer lifespan, and advanced control capabilities of LEDs, the project not only lowers operational costs but also contributes to environmental sustainability through reduced carbon emissions. This makes LED lighting an optimal choice for modern urban infrastructure projects aiming to enhance both functionality and energy efficiency.

Additional Studies Performed:

- “Estudio de Flora y Fauna. Proyecto PR-CRP-000873 Parque Pasivo, Maricao, Puerto Rico.” Prepared by: Reforesta, Inc., February 2024.
- Informal consultation under Section 7 (a)(2) of the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and in accordance with the Fish and Wildlife Coordination Act (47 Stat. 401, as amended; 16 U.S.C. 661 et seq.) for the proposed project PR-CRP-000873, located at PR Road 357 Km 0, Maricao, PR 00606, coordinates 18.18219, -66.98569.
- Section 106 Effect Determination Submittal for PR-CRP-000873: Parque Pasivo Project, Maricao, Puerto Rico–No Adverse Effect. May 3, 2024.

Field Inspection (Date and completed by):

- Preliminary design site visits to become aware of existing conditions. Performed by C&G on: 04/26/2023, 06/23/2023, 09/06/2022.
- Inventory of flora and fauna report site visits. Performed by Reforesta Inc.: 01/24/2024.
- Section 106 NHPA Effect Determination. Performed by SOI Qualified Archaeologist Jaqueline López Meléndez, 02/06/2024.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

- “2020 Municipio de Maricao Plan de Mitigación contra Peligros Naturales.”
- “Plan de Usos de Terrenos Municipio de Maricao, Junta de Planificación 2016, Borrador Vista Pública.”
- “Plan de Recuperación del Municipio de Maricao, noviembre 2022.”
- National Register of Historic Places Multiple Property Documentation Form. New Deal Era Constructions in the Forest Reserves in Puerto Rico, 1933-1942 Amendment. Mar. 25, 2016.
- National Register of Historic Places Registration Form. “Vivero de Peces de Maricao” New Deal Era Constructions in the Forest Reserves in Puerto Rico, 1933-1942 Amendment. Jan. 6, 2017.
- Map of Puerto Rico Airport Locations. “Autoridad de los Puertos de Puerto Rico.” <https://www.prpa.pr.gov/>
- Coastal Barrier resources System Mapper, USFWS. <https://fwsprimary.wim.usgs.gov/CBRMapper-v2/>
- HUD EXCHANGE, Are there any exceptions to the flood insurance purchase requirements? <https://www.hudexchange.info/faqs/crosscutting-requirements/environmental-review/flood-insurance/are-there-any-exceptions-to-the-flood-insurance-purchase-requirements/>
- EPA NEPAAssit- EPA Facilities - <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>
- USFWS Information for Planning and Consultation (IPaC) <https://ipac.ecosphere.fws.gov/>.
- USFWS National Wetlands Inventory, Surface Waters and Wetlands Map. <https://www.fws.gov/wetlands/data/mapper.html>.
- US National Park Service, Interactive Map of NPS Wild and Scenic Rivers. <https://nps.maps.arcgis.com/apps/View>.
- USDA, (U. S. Department of Agriculture) Web Soil Service <http://websoilsurvey.nrcs.usda.gov/>.
- FEMA (Federal Emergency Management Agency). FEMA Flood Map Service Center <https://gis-r2-fema.hub.arcgis.com/pages/puertorico>

List of Permits Obtained:

-

Public Outreach [24 CFR 50.23 & 58.43]:

- Early Notice published on September 15, 2023
- Final Notice published on January 26, 2024

Cumulative Impact Analysis [24 CFR 58.32]:

The proposed project would not contribute to a significant cumulative impact under the National Environmental Policy Act because it is a recreational project consistent with land use and zoning designations and will be developed within the existing footprint of an already existing urban park. Therefore, there will be no increase in soil disturbance and traffic density or speed. The City Revitalization Program planning guidelines encourage the development of this project because it provides improvements to an existing recreational urban park; enhances the natural scenery and provides an amenable scenic access to the traditional urban town center for the benefit of residents and visitors.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

The local government evaluated alternatives that could satisfy these requirements of the Maricao Community Revitalization Plan (CRP):

Alternate A - Reconstruction of Parque Pasivo and streetscape improvements along State Road PR 357

Although the Parque Pasivo has a gazebo and the bathroom facilities located within a floodplain, the rest of the facilities are located outside the floodplain limits. The park has no vehicular access besides the bridge which provides pedestrian access, but the proposed renovations and new construction do not require the use of large machinery, therefore it has no impact on floodplain natural values.

Its strategic location provides the opportunity to enhance and showcase the Maricao river riverine landscape and the intrinsic values of its riparian ecosystem. After further evaluation it is still evident that the existing park with its strategic urban location, generous forest cover, existing gazebo and bathroom facilities provides favorable conditions to perform a feasible economic update of existing recreational facilities and opportunities that will benefit the Maricao community.

The impact of floodplain base flood elevations is limited to a gazebo and the bathroom facilities located at the northeastern end of the park. The impact of flood depth is limited to 6 or 8 inches which is minimal. Such depth can be easily mitigated with flood proofing as recommended, 3 feet above finished floor elevation.

The proposed project location is beneficial to the Municipal Government City Revitalization Program. The proposed action won't change floodplain existing grades, no impact or damage is exerted over the existing drainage patterns and flood plain natural functions.

Most communities want to increase greenspace and recreational opportunities. Floodplains provide the greenspace for pleasurable recreational activities and this project provides such an opportunity.

Opposite the park and the Maricao River is a strip of land which is part of the right of way of the State Road PR 357. This strip of land provides the only access to the existing pedestrian bridge

and is totally located within the floodway. There is no other feasible alternative to provide pedestrian access to the bridge.

There will be no quantifiable impact on plant and animal life because no wetland is located near the road. Also because the proposed action will take place on previously disturbed road shoulder.

Alternate B - Locate the Existing Facilities Outside of the Floodplain

This alternative is not a practical option because the relocation of the affected existing facilities will significantly increase costs and reduce the park's recreation potential use because existing topographic variations exert significant limitations to space use. The increased cost and diminished park recreational opportunities this alternative represents does not provide any additional advantages or value to the CRP objectives.

No Action Alternative [24 CFR 58.40(e)]:

A no action alternative is not an option because the preferred alternative locating the Paseo Hatchery within the floodplain exerts no negative impacts upon existing conditions, then there is no reason why to take no action and deprive the Maricao community of its long term benefits.

Alternate Evaluation Determination

It is the Municipal Government of Maricao determination that there is no practicable alternative to partially locating the proposed action "Parque Pasivo" along the Special Flood Hazard Area of Maricao Urban Area.

This is due to:

- 1) the desire to interconnect town recreation areas;
- 2) update and diversify existing recreation facilities;
- 3) enhance natural park scenery;
- 4) minimize environmental impact;
- 5) the ability to mitigate and minimize impacts on human health, public property and Floodplain values.

A final notice was published and posted on Jan. 26, 2024, consistent with the prior notice. The notice listed the objectives of the proposed action, explained the alternatives considered and mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial values. No comments were received from the public.

Summary of Findings and Conclusions:

Although part of the Parque Pasivo site is in a floodplain, it has no impact on floodplain natural values. One of its design objectives is to showcase the intrinsic values of the Maricao River riparian ecosystem which can be appreciated along the park.

The proposed site improvements will result in no impact to the floodplain values and will result in long term benefits to the Maricao community through increased accessibility to compatible recreational opportunities, community aesthetics and visitors’ enjoyment of scenic landscape. Most communities want to increase greenspace and recreational opportunities. Floodplains provide the greenscape for pleasurable recreational activities and this project has the opportunity to educate the community on the importance of floodplain management and the riverine edge.

The USFWS data listed endangered species along the protected area along the Maricao River. Critical Habitats were not noted within the project area. Based on the nature of the project, scope of work, information available, and a careful analysis of the Project Site, and IPaC species list, we have made the following effects determinations: A No effect has been made based on project scope of work, as well as the scarce need for vegetation removal in the proposed project area. Contractor will be oriented as to the environmental context he will be performing his work. This determination was submitted for concurrence as an informal consultation to the USFWS.

Based on the results of our historic property identification effort and viewshed assessment, the Program has determined that project actions will not affect the historic properties that comprise the Area of Potential Effect.

The project would conform to all applicable federal, state, and regional regulations associated with land use compatibility, air emissions, water quality, geologic hazards, and related environmental resources addressed herein. Neither the project site, the proposed existing roadway improvements nor the surrounding neighborhood suffer from adverse environmental impacts tendencies. Based on the analyses of environmental issues contained in this document, the proposed project is not expected to have significant environmental impacts.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Endangered Species	Updated conservation measures for the Puerto Rican harlequin butterfly as listed by Robert Tawes, USFWS Acting Field Supervisor in a letter dated May 15, 2024. Refer to Appendix D. Puerto Rican parrot, Puerto Rican boa, Puerto Rican broad-winged hawk and Puerto Rican sharp- skinned hawk. Conservation measures previously provided by the service for these species will be implemented in case an encounter occurs. If a Puerto Rican Boa is encountered, work will cease until it moves off site or, failing

	that, the Puerto Rico Department of Natural Resources (PRDNER) Rangers will be notified for safe capture and relocation of the reptile, in accordance with the USFW Puerto Rican Boa conservation Measures guidelines and the July 27, 2023, Amended Programmatic Biological Opinion.
Floodplain Management	The site design chosen as an alternative at Step 3 reduces floodplain and riverine wetland impacts and prevents new construction from occurring in the floodplain considering provisions for draining and using pervious surfaces throughout the site. The construction will have minimal effects on water resources. Impacts to the floodplain and riverine wetland will also be limited due to construction occurring within the previously developed site. Construction debris will be collated and disposed at a certified dump site or other authorized facility to manage wastes.
Soil Suitability/ Slope/ Erosion/Drainage/ Storm Water Runoff	Permanent erosion control measures include interception and diversion of external storm water runoff over steep slopes which will be induced to discharge as laminar flow, avoiding high intensity concentrated discharge flows. Depleted soils by storm water erosion will be replenished and planted with groundcovers which will reduce flow velocity and control erosion.
Hazards and Nuisances including Site Safety and Noise	Noise abatement will be achieved with the preservation of existing trees and the planting of new trees. The Regulation for the control of noise pollution of the PR DNER will be followed during construction.
Permits and regulations	State permits will be required prior to commencement of construction work. Demolition activities may require asbestos and lead testing.

Determination:

Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.27]

The project will not result in a significant impact on the quality of the human environment.

Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.



Preparer Signature: _____

Date: 25/11/2024

Name/Title/Organization: José M Castro Pavía
JMCP/Principal/Landscape Architecture Civil Engineering

Certifying Officer Signature: J. Loung Date: 11.26.2024

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Appendix A - Historic Preservation

SHPO Report NHPA



GOVERNMENT OF PUERTO RICO

STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio Cancela | carubio@prshpo.pr.gov

Friday, May 3, 2024

Lauren B Poche

269 Avenida Ponce de Leon, San Juan, PR, 00917

SHPO-CF-04-25-24-01 PR-CRP-000873 (Maricao), Parque Pasivo Project

Dear Ms. Poche,

Our Office has received and reviewed the above referenced project in accordance with 54 U.S.C. 306108 (commonly known as Section 106 of the National Historic Preservation Act) and 36 CFR Part 800: Protection of Historic Properties.

Our records support your finding of no historic properties affected for this undertaking. Please note that should you discover other historic properties at any point during project implementation, you should notify the SHPO immediately. If you have any questions regarding our comments, please do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio Cancela

State Historic Preservation Officer

CARC/GMO/MB



Cuartel de Ballajá (Tercer Piso), Calle Norzagaray, Esq. Beneficencia, Viejo San Juan, PR 00901 | PO Box 9023935, San Juan, PR 00902-3935



October 20, 2022

Arch. Carlos A. Rubio Cancela

Executive Director

State Historic Preservation Officer

Cuartel de Ballajá Bldg.

San Juan, Puerto Rico

Re: Authorization to Submit Documents

Dear Arch. Rubio Cancela:

The U.S. Department of Housing (HUD) approved the allocations of Community Development Block Grant (CDBG-DR) funds on February 9, 2018. It also approved the allocation of Community Development Block Grant Mitigation (CDBG-MIT) funds on January 27, 2020. The purpose of these allocations is to address unsatisfied needs as a result of Hurricanes Irma and Maria in September 2017; and to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

To comply with the environmental requirements established by HUD, the Department of Housing of Puerto Rico (PRDOH) contracted Horne Federal LLC to provide environmental registry review services, among others, that will support the objectives of the agenda for both CDBG-DR and CDBG -MIT Programs.

In line to expedite the processes, Horne Federal LLC, is authorized to submit to the State Historic Preservation Officer, documentation of projects related to both the CDBG-DR and CDBG-MIT on behalf of PRDOH.

Cordially,

Juan C. Pérez Bofill, P.E. M.Eng

Director of Disaster Recovery

CDBG DR-MIT

April 25, 2024

Carlos A. Rubio Cancela
State Historic Preservation Officer
Puerto Rico State Historic Preservation Office
Cuartel de Ballajá (Tercer Piso)
San Juan, PR 00902-3935

Puerto Rico Disaster Recovery, CDBG-DR City Revitalization (City-Rev) Program

Section 106 NHPA Effect Determination Submittal for PR-CRP-000873, Parque Pasivo Project, Maricao, Puerto Rico – *No Historic Properties Affected*

Dear Architect Rubio Cancela,

On February 9, 2018, an allocation of Community Development Block Grant - Disaster Recovery (CDBG-DR) funds was approved by the United States Department of Housing and Urban Development (HUD) under the Federal Register Volume 83, No. 28, 83 FR 5844, to assist the Commonwealth of Puerto Rico in meeting unmet needs in the wake of Hurricanes Irma and Maria. On August 14, 2018, an additional \$8.22 billion recovery allocation was allocated to Puerto Rico under the Federal Register Volume 83, No. 157, 83 FR 40314. With these funding allocations, the Puerto Rico Department of Housing (PRDOH) aims to lead a comprehensive and transparent recovery for the benefit of Puerto Rico residents. To faithfully comply with HUD's environmental requirements, the Puerto Rico Department of Housing contracted Horne Federal, LLC (HORNE) to provide environmental records review services that will support the Department's objectives Puerto Rico Housing (PRDOH) for CDBG-DR.

On behalf of PRDOH and the subrecipient, the Municipality of Maricao, we are submitting documentation for the proposed Parque Pasivo Project. The proposed undertaking consists of the revitalization of an existing recreational park that is adjacent to the northwestern mapped boundary of the Maricao Traditional Urban Center. The full scope of the project is described in the submitted documentation, which includes mapping, photographs, and the 90% construction plans.

Based on the provided documentation, the Program requests concurrence that a determination of **no historic properties affected** is appropriate for this undertaking.

Please contact me by email at lauren.poche@horne.com or phone at 225-405-7676, or Ms. Sharon Meléndez Ortiz at sharon.melendez@horne.com with any questions or concerns about the project.

Kindest regards,



Lauren Bair Poche. M.A.

Architectural Historian, EHP Senior Manager
Attachments

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination		
Subrecipient: Municipality of Maricao		
Project Name: Parque Pasivo de Maricao	Project ID: PR-CRP-000873	

Project Location: PR-357 km. 0.0, Maricao, Puerto Rico 00606	
Project Coordinates: 18.182184 -66.980838	
TPID (Número de Catastro): 262-000-002-39	
Type of Undertaking: <input checked="" type="checkbox"/> Substantial Repair <input type="checkbox"/> New Construction	
Construction Date (AH est.): c1976	Property Size (acres): 1.07

SOI-Qualified Architect/Architectural Historian: Maria F. Lopez Schmid
Date Reviewed: February 16, 2024 / April 8, 2024.
SOI-Qualified Archaeologist: Jaqueline López Meléndez
Date Reviewed: February 6, 2024

In compliance with Section 106 of the National Historic Preservation Act (NHPA), the Program is responsible for identifying historic properties listed in the NRHP and any properties not listed that would be considered eligible for listing that are located within the geographic area of potential effects (APE) of the proposed project and assessing the potential effects of its undertakings on these historic properties.

Project Description (Undertaking)

This project undertaking consists of the revitalization of a green park with recreational area that serves the residents and visitors of Maricao. The southern parcel boundary of the park is adjacent to the northwestern mapped boundary of the Maricao Traditional Urban Center. The project will also provide a safe pedestrian connection corridor to different areas of the town. The objective of the project is the rehabilitation and improvements to the existing recreational facilities such as gazebos, bathrooms, lighting, and steel pedestrian bridge. New construction includes a pedestrian path, playground, park furniture, outdoor amphitheater, sidewalk improvements along PR-357, ADA access and storm water management.

The project includes the repair of gazebos and picnic areas, adding concrete slabs, benches and firepits for grilling and installation of new park furniture. The existing restroom will be remodeled with new bathroom equipment, and potable water system improvements.

The reconstruction of sidewalks within the park area will take place with sidewalk improvements along Road PR-357, replacement of lighting poles, and electrical systems. The project also proposes the installation of park signage, improvements to the existing fence, reforestation of the park, creation of gardens, and the planting of grasses that help control erosion. Landscape planting will incorporate soil erosion control techniques.

As part of the undertaking, the existing steel pedestrian bridge will receive an aesthetic renovation including new resin exterior railings, new steel bars, new abutments, and a new ADA access. A new outdoor amphitheater with capacity for approximately 100 spectators will be built on the southwest corner of the park. The construction and installation of

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination	 <small>GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING</small>
Subrecipient: Municipality of Maricao	
Project Name: Parque Pasivo de Maricao	Project ID: PR-CRP-000873

playground facilities for children is also proposed. In addition, the project includes green initiatives, such as the use of low water consumption bathroom equipment and the use of low electricity consumption luminaires, among others.

The project will include minor demolition work, such as existing sidewalk demolition. The anticipated depth of ground disturbance for demolition activities is 3 feet.

Area of Potential Effects

As defined in 36 CFR §800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. Based on this definition and the nature and scope of the Project, the Program has determined that the direct APE for this project consists of the area where the construction of recreational facilities is proposed, including gazebos, restrooms, a pedestrian bridge, playgrounds, an amphitheater, sidewalks, and the installation of lighting, among others. The area of about 4,323.6774 m² has an irregular perimeter and is bordered on the northwest by a vacant lot, on the northeast and east by the Residencial Juan Ferrer, on the west by the Maricao River and the PR-357 highway and on the south by a vacant lot. The APE measures 607.64 feet long by 199.50 feet wide. The visual APE is the viewshed of the proposed project. The visual APE extends to the north, west, and south of the property across the Maricao River and to the opposite side of highway PR-357 and measures 637.00 feet long by 331.71 feet wide.

Identification of Historic Properties – Archaeology

Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within the APE of this undertaking. The review of this existing information, by a Program contracted Historic Preservation Specialist meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61), shows that the project area has a low archaeological potential.

The project area is located on a parcel of land to the northwest of the Traditional Urban Center, east of PR-357 and west of PR-120. The property has an irregular topography and is covered with vegetation. There is grass, bushes, and large trees. The property is located at an elevation of 1,378 feet above sea level. To the northwest it is adjacent to the Maricao River and PR-357, to the south it is bordered by a vacant lot, to the east and northeast it is bordered by the Residencial Juan Ferrer and to the northwest by a vacant lot. As already mentioned, the nearest body of water is the Maricao River, which borders the west. The west coast is 11.40 miles away. The soils on this property are predominantly Humatas clay, 40 to 60 percent slopes (HmF2). The soil HmF2 is on strongly dissected side slopes and narrow ridgetops throughout the volcanic uplands. The surface layer consists chiefly of a mixture of the material

PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM CITY REVITALIZATION PROGRAM (CITY-REV) Section 106 NHPA Effect Determination	 GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING
Subrecipient: Municipality of Maricao	
Project Name: Parque Pasivo de Maricao	Project ID: PR-CRP-000873

from the original surface layer and part of the subsoil as a result of erosion. Runoff is rapid, and the erosion hazard is severe. Slope, runoff, past erosion, and hazard of further erosion are limitations. The parcel also has Urban land-Humatas complex soils, 20 to 40 percent slopes (Uh). These soils contain 46% urban soils and 44% Humata or similar soils. They are found on hill slopes and mountain slopes. They are mostly clayey with good drainage and very high runoff.

The area of the municipality of Maricao was populated very early in history by Indians, especially in the mid-sixteenth century when they received their freedom. There are three known Pre-Columbian sites in Maricao. The only Pre-Columbian site with temporal information is the Guabá I site (MI0100001) located in the Maricao Afuera neighborhood and associated with the Agro-Alfarero III period (Taíno) with dates between ca. 1,200 AD-1,500 AD, composed of a batey and shell, ceramic, and lithic remnants. This site is located more than 1 mile from the project area. None of the three Pre-Columbian sites are within 0.25 miles of the project area.

Maricao was founded as a municipality in 1874 after being separated from San Germán. The traditional urban center of Maricao is adjacent to the project area. During the 19th century, Maricao's economy was entirely agricultural. It was based mainly on the harvest of small fruits, citrus fruits and coffee as the main product.

The first image we have of the Maricao area is a map of the Itinerary from Maricao to Mayagüez made by the Army Geographic Center in 1888 (Figure 1). In this plan we can see two small red dots. It is possible that it is some structure that forms the size we think could be a wooden dwelling. The urban center to the south of the project is compact and few structures are observed. We see the church, in front of it an empty space that could be the plaza, two large structures to the north and south of the church and plaza, another large structure to the southeast of the central core and some smaller structures to the south, east, west, and north.

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873

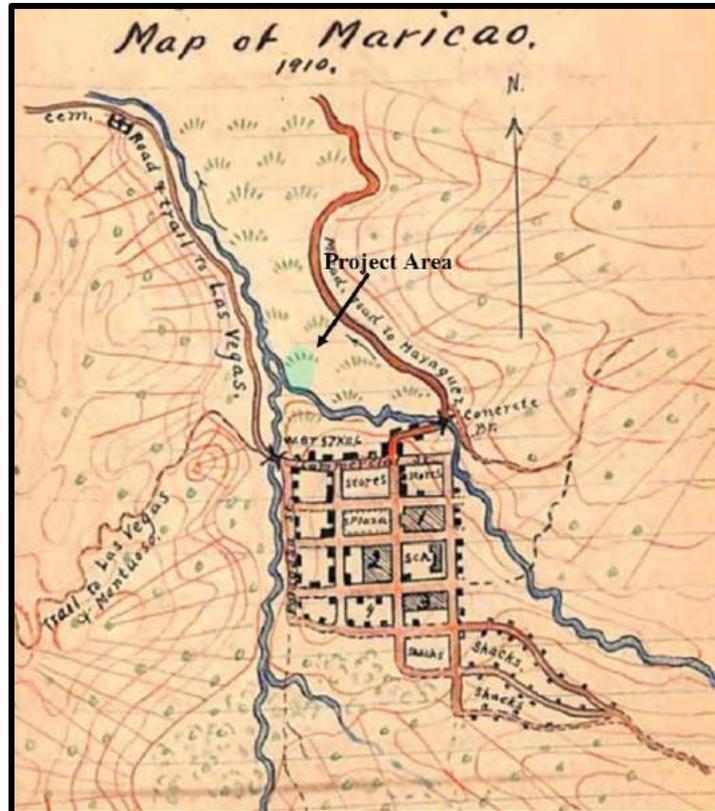


Figure 2. Project area in Maricao map (William Armstrong: 1910).

<https://bibliotecavirtualpr.wordpress.com/2016/09/15/manuscritos-de-william-armstrong>

By 1936 there was a slight expansion of the urban center to the northeast. Highway PR-357 appears as a road. No structures or significant changes are observed in the project area (Figure 3). The 1940 aerial imagery also shows no alterations. This is still the same as in 1946 (Figure 4).

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873

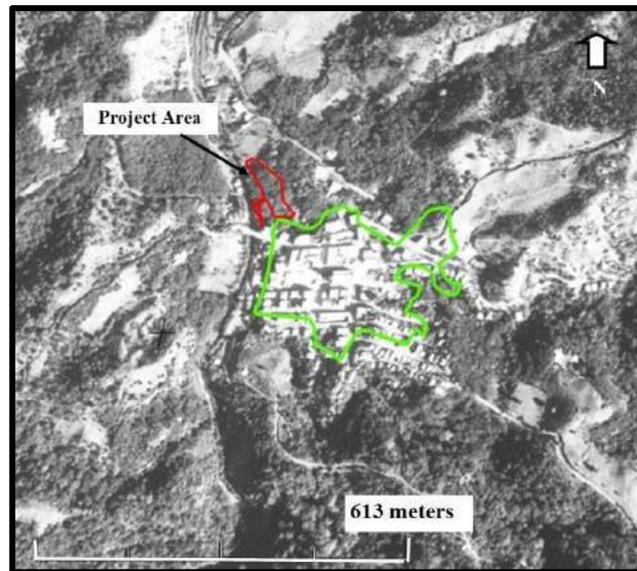


Figure 3. Project area in the 1930s aerial photograph

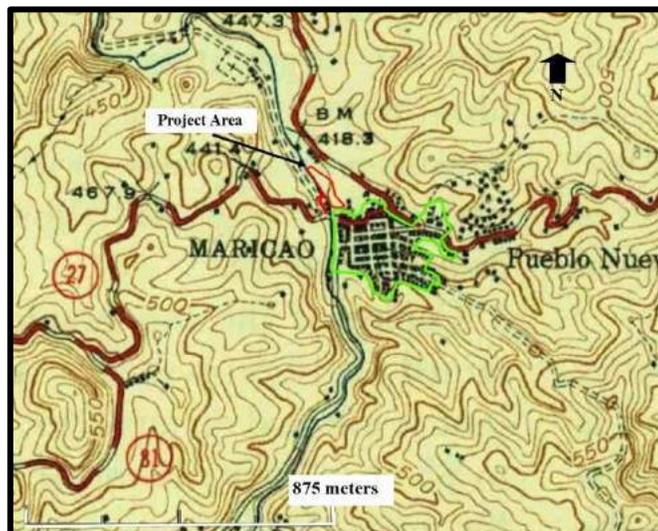


Figure 4. Project area in the 1946 USGS Topographic Quadrangle of Maricao

By 1952 the expansion to the northeast continued slowly. The PR-357 road to the west of the project appears delimited with the same alignment it has today. The property continues without structures or changes (Figure 5).

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873

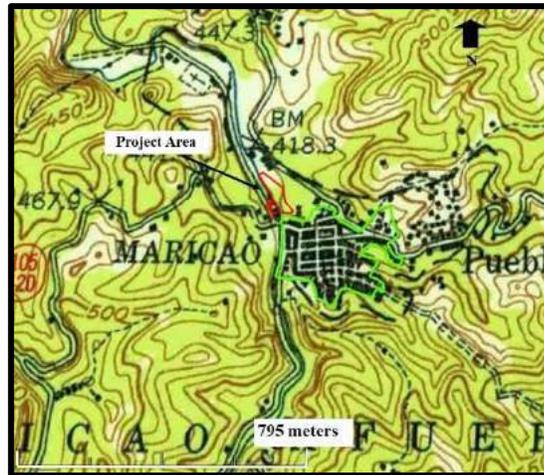


Figure 5. Project area in the 1952 USGS Topographic Quadrangle of Maricao

In the 1964 aerial photo (Figure 6) no structures are visible in the project area, but the property appears without vegetation, as if a machine had been run over it. The expansion of the Traditional Urban Center into this area is evident. At this time, the Residencial Juan Ferrer is under construction, and there are also some structures attached to the PR-357 highway bordering our project to the southwest and west. The expansion of the urban center is also seen at this time towards the east and north.

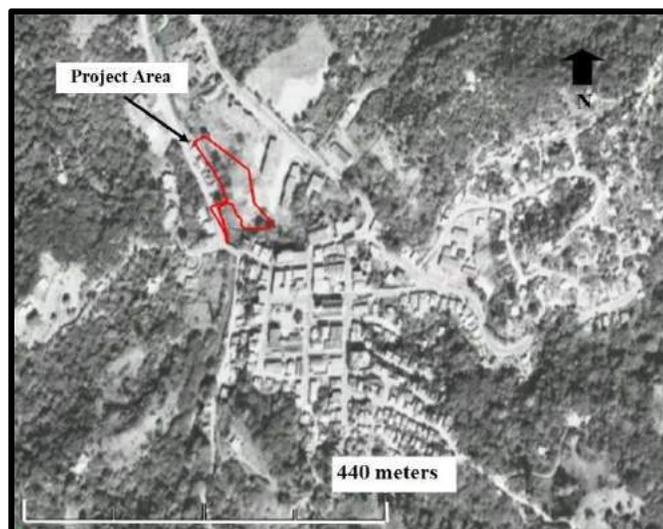


Figure 6. Project area in the 1964 aerial photograph.

In most of the aerial photos, the project area is obscured by trees. This makes it impossible to determine the date of construction of the passive park in the project area. Formal use as a

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park is possible ca. 1976 since there are some paths and structures present in the 1977 aerial photo below left compared to the 1975 aerial photo, right, that has an empty lot.



Figures 7 & 8. Project area in 1975 and 1977 aerial photographs.

At the same time, it allows us to infer that the area has been used since its beginnings as a recreational area or passive park. It is in the 2011 aerial photo where we can see some structures belonging to the passive park extant on the site (Figure 9). In this photo the property appears with fewer trees in the northwestern part, which makes it possible to observe the structures that look like gazebos.



Figure 9. Project area in 2011 aerial photograph.

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In the archives of the State Historic Preservation Office (SHPO) and the Institute of Puerto Rican Culture (ICP), three (3) archaeological studies were found within a 0.25 miles study radius of the project area. All studies were negative (Table 1).

Table 1. Table of cultural resources surveys conducted within the project area or within a 0.25-miles radius.

Author	Phase/Title	Year	SHPO / IPRC code	Results	Distance/ Direction
Jaqueline Lopez Meléndez	IA-IB/ Informe de Inspección de Proyectos de Emergencia PR-143 desde Adjuntas hasta Barranquitas; PR-503, PR-139 y PR-132 en Ponce; PR-120 y PR-128 en Maricao; PR-611 en Utuado; PR-135 y PR-518 en Adjuntas; PR-656 y PR-123 en Arecibo; PR-771 en Barranquitas	2006	ICP/CAT-AD-06-04-08	Negative	0.08 mi N
Ethel Schlafer	IA/ Las Marías Sewer System PR-120 and PR-119	1986	ICP/CAT-LM-86-01-03	Negative	0.02 mi NE
Juan González	IA-IB/ Cerro Alto Apartments Project	1991	SHPO: 11-01-91-01	Negative	0.13 mi W

Within a 0.25-mile radius of the project area we have twelve (12) cultural resources; one of them is included in the NRHP (see Table 2). All sites located within the 0.25-mile radius are historic. The site included in the NRHP located within the 0.25-mile radius is the San Juan Bautista de Maricao Church (SHPO: MI0200001), located 0.08 miles southeast. This church was built in 1898 by Eng. Jerónimo Jiménez. Its design combines the neoclassical style and consists of a rectangular volume with a tower on the facade. Nine of the twelve sites reported appear as eligible for the NRHP in the survey for Maricao (NPS Grant money). These are: Maricao Town Square (ICP: MR-47) located 0.07 miles southeast (Colonial Spanish period; Raul Ybarra school (ca. 1970 has a modern language) located 0.07 miles northeast; Commercial Building (ca. 1890 with classic language) located 0.03 miles southeast; El Buen Pastor Presbyterian Church (ca. 1946, structure with elements of neo-Romanesque language) located 0.11 miles southeast; City Hall (ca. 1944 designed by Henry Klumb) located 0.08 miles southeast; Sisters of Fatima Convent (ca. 1950) located 0.13 miles southeast; Mariana Bracetti school (ca. 1946) located 0.15 miles southeast; Rafael Janer school (built in 1942) located 0.10 miles southeast and Municipal cemetery, located 0.21 miles northwest. The information shown in the table

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for eligible sites is what we have available in the survey (NPS grant money). The Traditional Urban Center of Maricao is adjacent to the project area. We include PR-410 in the table because it was built ca. 1920 by the Civilian Conservation Corps (CCC) as the main entrance to the Maricao State Forest and the Maricao Fish Hatchery. The PR-410 highway is located 0.15 miles south of the project area.

Table 2. Table of archaeological sites, historic properties and historic districts located within the project area or within a 0.25-miles radius

	Name	SHPO id #	IPRC id #	Distance/Direction	Description	NRHP (listed, eligible, non-eligible, no data)
1	Plaza del Pueblo de Maricao	-	MR-47	0.07 mi SE	Colonial Spanish period	Eligible
2	Iglesia San Juan Bautista de Maricao	MI0200001	MR-5	0.08 mi SE	Church built in 1898. Designed by Eng. Jerónimo Jiménez. It replaced a wooden church. Its design combines the neoclassical style and consists of a rectangular volume with a tower on the facade. The original gabled roof was replaced in 1960 by a concrete one.	Listed, September 18, 1984
3	Escuela Raúl Ybarra	-	-	0.07 mi NE	ca. 1970, has modern language	Eligible
4	Edificio Comercial	-	-	0.03 mi SE	Commercial structure built in 1890. It has classic language and today is used as a medical office.	Eligible
5	Iglesia Presbiteriana El Buen Pastor	-	-	0.10 mi SE	Structure with elements of neo-Romanesque language. Ca. 1946	Eligible

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	Name	SHPO id #	IPRC id #	Distance/Direction	Description	NRHP (listed, eligible, non-eligible, no data)
6	Alcaldía	-	-	0.08 mi SE	Ca. 1944 Originally with modern language, designed by Henry Klumb although it was altered with contemporary addition.	Eligible
7	Convento de las Hermanas Fátima	-	-	0.13 mi SE	It has a similar volumetry to other convents on the island, with large balconies, ca. 1950.	Eligible
8	Escuela Mariana Bracetti	-	-	0.15 mi SE	School ca. 1946	Eligible
9	Escuela Rafael Janer	-	-	0.10 mi SE	School built in 1942. It appears to have been modified and is now used as an integrated service center.	Eligible
10	PR-410	-	-	0.15 mi S	Historic road (PR-410) built ca. 1920 by CCC	No data
11	Maricao Traditional Urban Center	-	-	Adjacent	19 th Century city plaza	No data
12	Cementerio Municipal			0.21 mi NW	19 th Century Cemetery	Eligible

The project area is located in a property to the northwest of the Traditional Urban Center of Maricao. The characteristics of the soils and its topography do not make it suitable for pre-Columbian settlements or settlements during early colonization. The history of the use of the area according to the cartographic resources studied does not show the existence of permanent structures such as buildings or houses in the area. In the 1888 plan, two points appear on the property, however, in the 1936 aerial photo, no structures are visible. Those two points could be any structure possibly built of wood that did not last through time. The

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project area has remained uninhabited over the years with a lot of vegetation, especially large trees. We do not know at what point it began to be used as a passive park. It is in the 2011 aerial photo where we see the park's gazebos for the first time. And this was possible because for some reason in that year there were fewer trees in that part of the park, allowing us to see the surface of that area.

To conclude, there are no known historical resources of an archaeological nature in the project area or in its immediate vicinity, and the potential for the existence of known archaeological resources with research potential is very low.

Identification of Historic Properties - Architecture

Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within the APE of this undertaking. The review of this existing information, by a Program contracted Historic Preservation Specialist meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61), shows that the project area is outside of the Maricao Traditional Urban Center, but adjacent on the northwest. However, the quarter-mile buffer zone includes nearly all of the Maricao TUC. There is one NRHP-listed property and nine NRHP-eligible properties inside the quarter-mile buffer zone from the APE. These properties are summarized below following the numbering of the archaeology portion of this form.

The NRHP-listed property is the [2] **Iglesia San Juan Bautista de Maricao** (84003125) located 0.08 miles southeast of the APE. The property was listed on 9/18/1984. The parish church of San Juan Bautista de Maricao was built in the 1890s, replacing an existing wooden church. Designed by engineer Jerónimo Jiménez Coronado, the church was almost finished by 1898. The building combines neoclassical and neo-Gothic styles and consists of a rectangular volume with a tower centered on the façade. The use of towers on church facades is known as westwerk, monumental entrance on the western façade, with towers, vestibule, and chapel. This element, in addition to ennobling the façade, framed the main entrance to the enclosure. This tower is divided into three horizontal bands: the entrance, a rose window, and the bells, and ends with a pointed hipped roof. The facades are richly ornamented. The floor plan of the church is rectangular divided into three naves: one main and two lateral ones divided by arcades. Window and door openings give light to the interior, characteristic of Gothic architecture. The use of pointed windows, ashlar masonry, exposed brick and the modulation of the planes add lightness to the structure. The wooden gabled roof was replaced by a concrete roof in the 1960s.

The [1] **Public Plaza of Maricao** is located 0.07 miles southeast of the APE. This NRHP-eligible plaza from the Spanish colonial period constructed in the early 19th century.

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The [3] **Escuela Raúl Ybarra** is located 0.07 miles northeast of the APE. This eligible ca. 1970 school is a large-scale concrete building with a modern architectural design.

A [4] **commercial building** is located 0.03 miles southeast of the APE. This one-story commercial building was constructed in 1890 as indicated by a façade plaque. The exterior façade has a neo-classic language and today the building is used as a medical office.

The [5] **Iglesia Presbiteriana El Buen Pastor** is located 0.10 miles southeast of the APE. This church sits on the same block of the catholic church that is to the north. The concrete building has elements of neo-Romanesque style of architecture and was built c1946.

The town's [6] **City Hall** is located 0.08 miles southeast of the APE. This c1944 building was designed by Henry Klumb originally and had a modern architecture style. However, the style was altered with contemporary building addition.

The [7] **Convento de las Hermanas Fátima** is located 0.13 miles southeast of the APE. This ca. 1950 convent is three stories high, built in concrete, and has similar volumetry to other convents on the island featuring large exterior balconies on the top two levels.

The [8] **Escuela Mariana Bracetti** is located 0.15 miles southeast of the APE. This two-story concrete school building with ceramic roof tile awnings was constructed c1946.

The [9] **Escuela Rafael Janer** is located 0.10 miles south of the APE. Built on an incline, this school is a two-story concrete building that has a first level basement. The school built in 1942 appears to have been modified from an earlier version. Today the building is used as the integrated service center.

The [10] **Cementerio Municipal** is located 0.21 miles northwest of the APE. This property is a 19th century Cemetery built between 1885 and 1946.

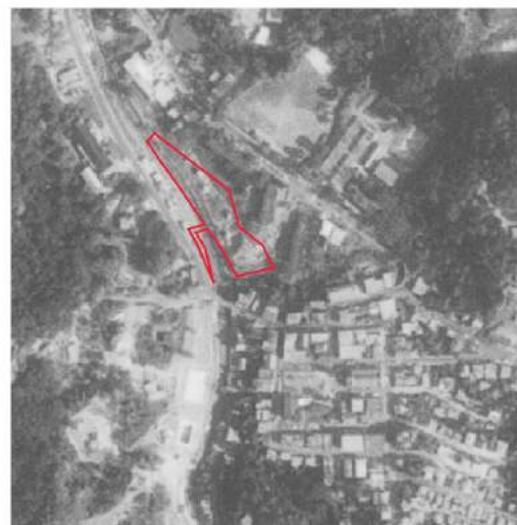
Property Description

The project undertaking is located Northwest of the town of Maricao TUC. The parcel is bordered by the Rosario River and Camino Las Vegas PR-357 to the west, PR-105 and commercial buildings to the south, Ruta Panorámica (PR-120) and buildings from the Residencial Juan Ferrer to the northeast. The passive park is an irregular shaped green park with a northwest southeast orientation. The park is accessed by Camino Las Vegas PR-357 on the southwest by way of a pedestrian bridge over a the Maricao River. This pedestrian bridge is constructed of metal trusses on either side that act as railings covered with cyclone fence and topped with short metal pipe to complete the required railing height. Metal planks cover the top surface and two concrete bollards on each end support the top of the trusses. The

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park includes concrete pathways, concrete gazebos, a concrete building with bathrooms, a concrete and cyclone fence along the north boundary line, concrete benches and tables, concrete fire pit, luminaries, garbage cans, mature trees, and grass areas. The terrain gently slopes upward to the east of the park from the river level to the west.

In the 1964 aerial photo below, the construction of the Residencial Juan Ferrer was underway. The project area was at the time barren with only a few trees left along the river. The passive park was left empty and some of the buildings along PR-357 highway on the west side of the riverbank are present. Available aerial images after 1964 show mature vegetation on the project area, and it is not possible to determine when the park features were built, however the area was a park after this date. The estimated date for the park is c1976. Pathways are visible in the 1975 aerial, but a more formalized park was present in 1977 (see images below), suggesting YB of ca. 1976 for the park.



Figures 7 & 8. Project area in 1975 and 1977 aerial photographs.

The park features and the overall design are commonplace in Maricao and it does not have special architectural design or characteristics. Therefore, this passive park **does not** meet the eligibility requirements for inclusion on the National Register of Historic Places.

Criterion A. The buildings on the property are not associated with events, patterns, customs, practices, beliefs, or important trends related to the history of Quebradillas and of Puerto Rico.

Criterion B. The buildings on the property are not associated with significant people or with activities that in the past were important within local, state, or national history.

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Criterion C. The buildings on the property have no specific details, patterns, volumetric massing, or stylistic elements to be considered historically important. They do not represent a significant or contributing entity within the neighborhood. The buildings are not the work of a master, and do not have high artistic value.

Criterion D. The property does not yield information important for the understanding of prehistory or history.

Determination

The following historic properties have been identified within the APE:

- Direct Effect:
 - N/A
- Indirect Effect:
 - N/A

Based on the results of our efforts to identify historic properties, the Program has determined that there are no historic properties in the project area that would be affected by the project. The project area is outside of the Maricao Traditional Urban Center and there are no NRHP-listed or eligible properties in the indirect APE. The soils and topography in the project area are not suitable for settlement. Within 0.25 miles of the project area there are twelve archaeological sites reported, eleven of them associated with the Maricao Traditional Urban Center and the PR-410 road located 0.15 miles south built by the Civilian Conservation Corps in 1920 which served as access to the Maricao State Forest and the Maricao Fish Hatchery. The cartography studied does not show evidence of early uses of the project area, so we understand that the project area has a low archaeological potential.

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Recommendation *(Please keep on same page as SHPO Staff Section)*

The Puerto Rico Department of Housing requests that the Puerto Rico SHPO concur that the following determination is appropriate for the undertaking (Choose One):

- No Historic Properties Affected
 No Adverse Effect
 Condition (if applicable):

- Adverse Effect
 Proposed Resolution (if applicable).

This Section is to be Completed by SHPO Staff Only

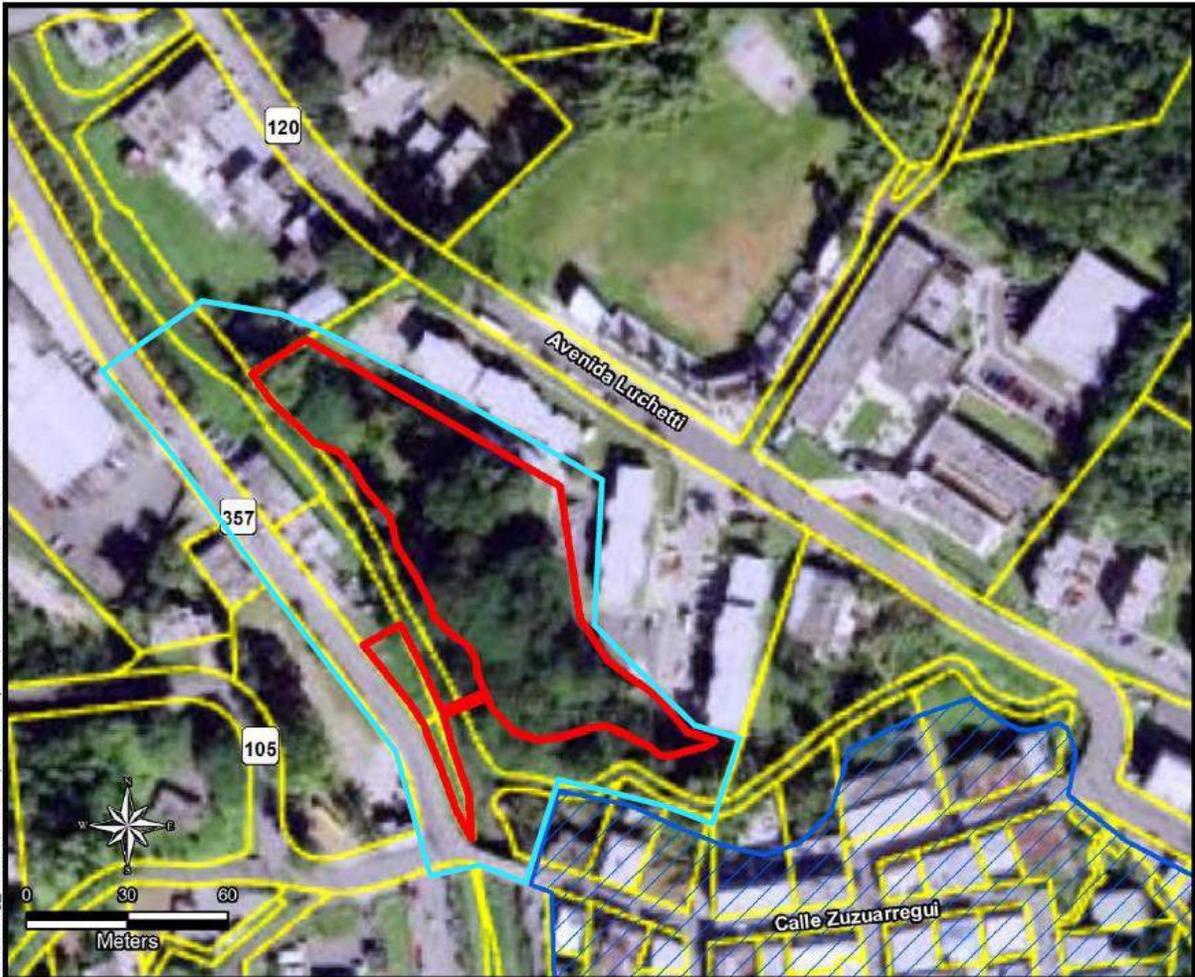
The Puerto Rico State Historic Preservation Office has reviewed the above information and: <input type="checkbox"/> Concurs with the information provided. <input type="checkbox"/> Does not concur with the information provided.	
Comments: 	
Carlos Rubio-Cancela State Historic Preservation Officer	Date:

Subrecipient: Municipality of Maricao

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Project (Parcel) Location – Area of Potential Effect Map (Aerial)



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TETRA TECH

Source: CRIM, PR State
 Historic Preservation
 Office, NSPS NRIS,

Author: GK

Date: 2/22/2024

Legend

-  Area of Potential Effect
-  Traditional Urban Area
-  Parcels
-  Visual APE



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Project (Parcel) Location - Aerial Map



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Source: CRIM, PR State
 Historic Preservation
 Office, NSPS NRIS,

Author: GK

Date: 2/22/2024

Legend

-  Area of Potential Effect
-  Traditional Urban Area
-  Parcels

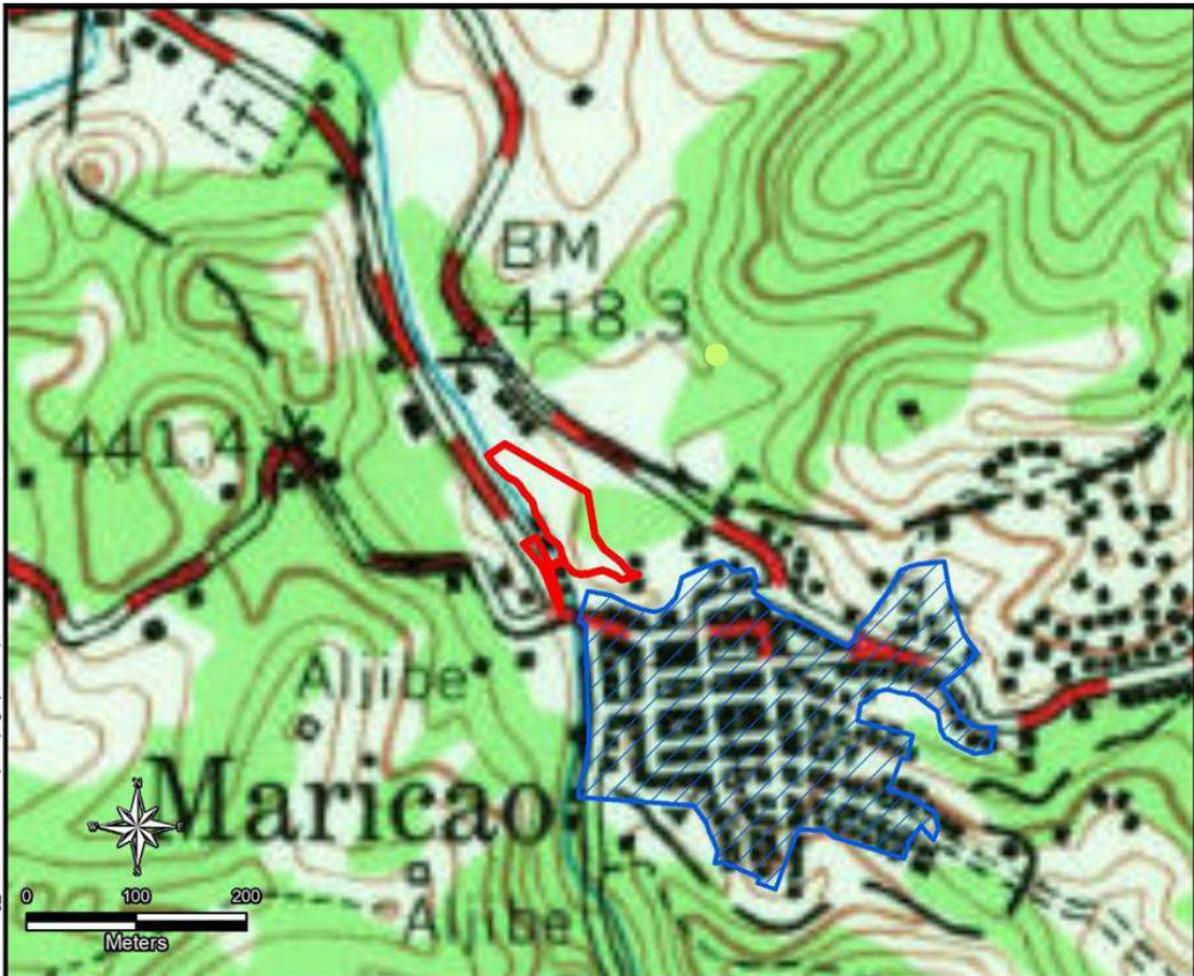


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Project (Parcel) Location - USGS Topographic Map



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Source: CRIM, PR State
Historic Preservation
Office, NSPS NRIS,

Author: GK

Date: 2/22/2024

Legend

-  Area of Potential Effect
-  Traditional Urban Area



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Project (Parcel) Location – Soils Map



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TETRA TECH

Source: CRIM, PR State
 Historic Preservation
 Office, NSPS NRIS,

Author: GK

Date: 2/22/2024

Legend

- Area of Potential Effect
- Traditional Urban Area
- Soils**
- HmD=Humatas clay, 12 to 20 percent slopes
- HmE2=Humatas clay, 20 to 40 percent slopes
- HmF2=Humatas clay, 40 to 60 percent slopes
- Uh=Urban land-Humatas complex, 20 to 40 percent slopes

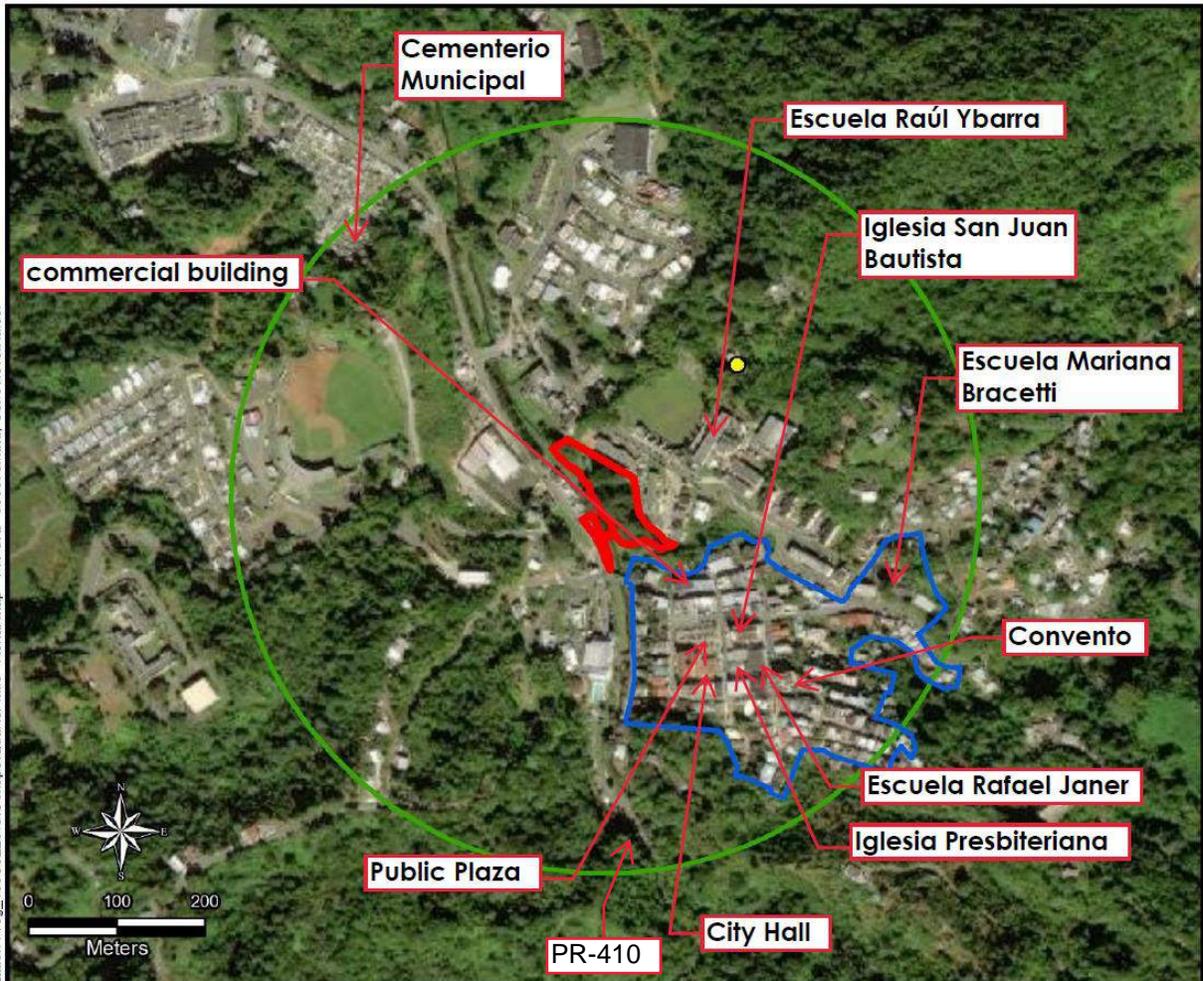


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Project (Parcel) Location with NRHP-listed and Eligible Resources - Aerial Map



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Source: CRIM, PR State Historic Preservation Office, NSPS NRIS,

Author: GK

Date: 2/23/2024

Legend

- Area of Potential Effect
- Traditional Urban Area
- Quarter Mile Buffer

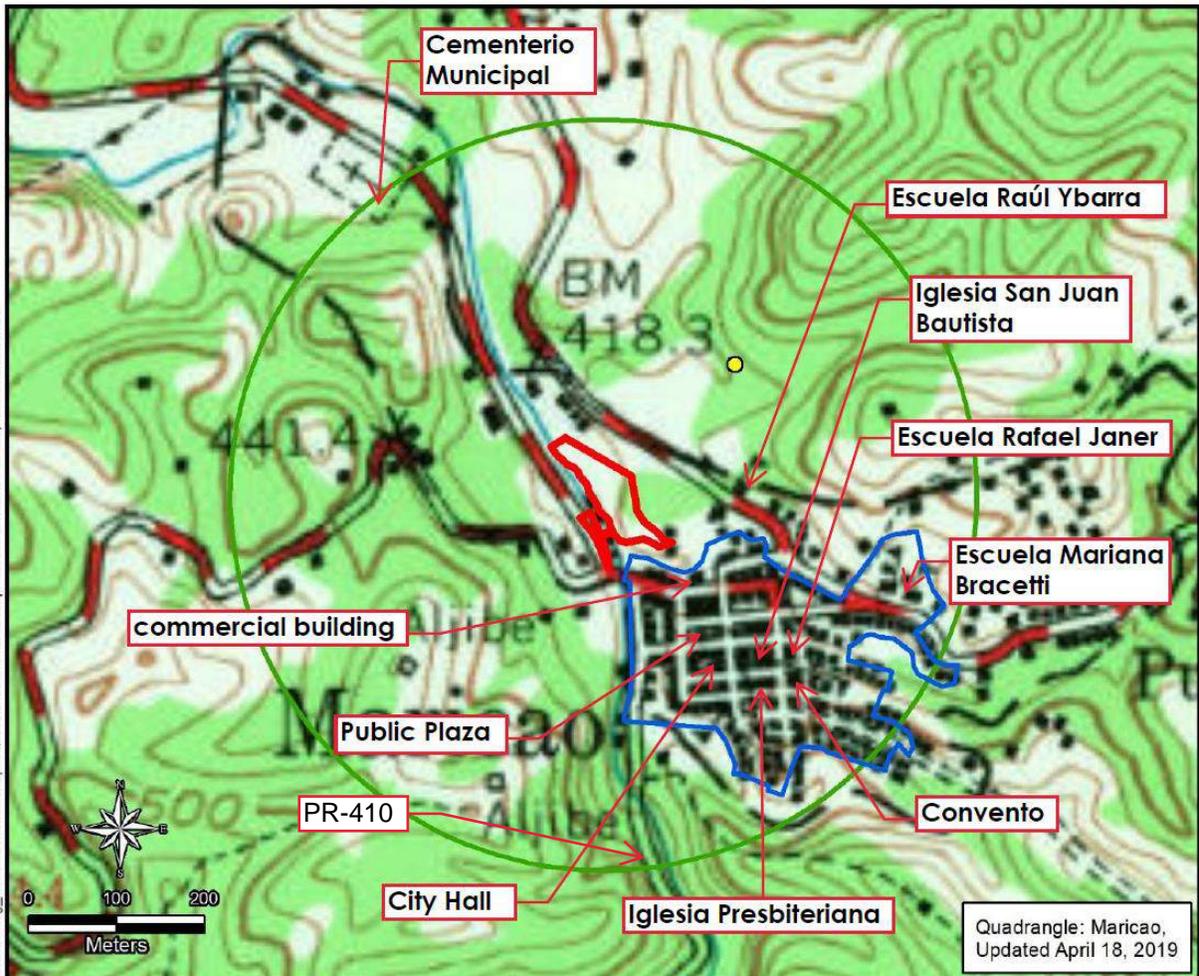


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Project (Parcel) Location with NRHP-listed and Eligible Resources USGS Topographic Map



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Source: CRIM, PR State Historic Preservation Office, NSPS NRIS,

Author: GK

Date: 2/22/2024

Legend

- Area of Potential Effect
- Traditional Urban Area
- Quarter Mile Buffer

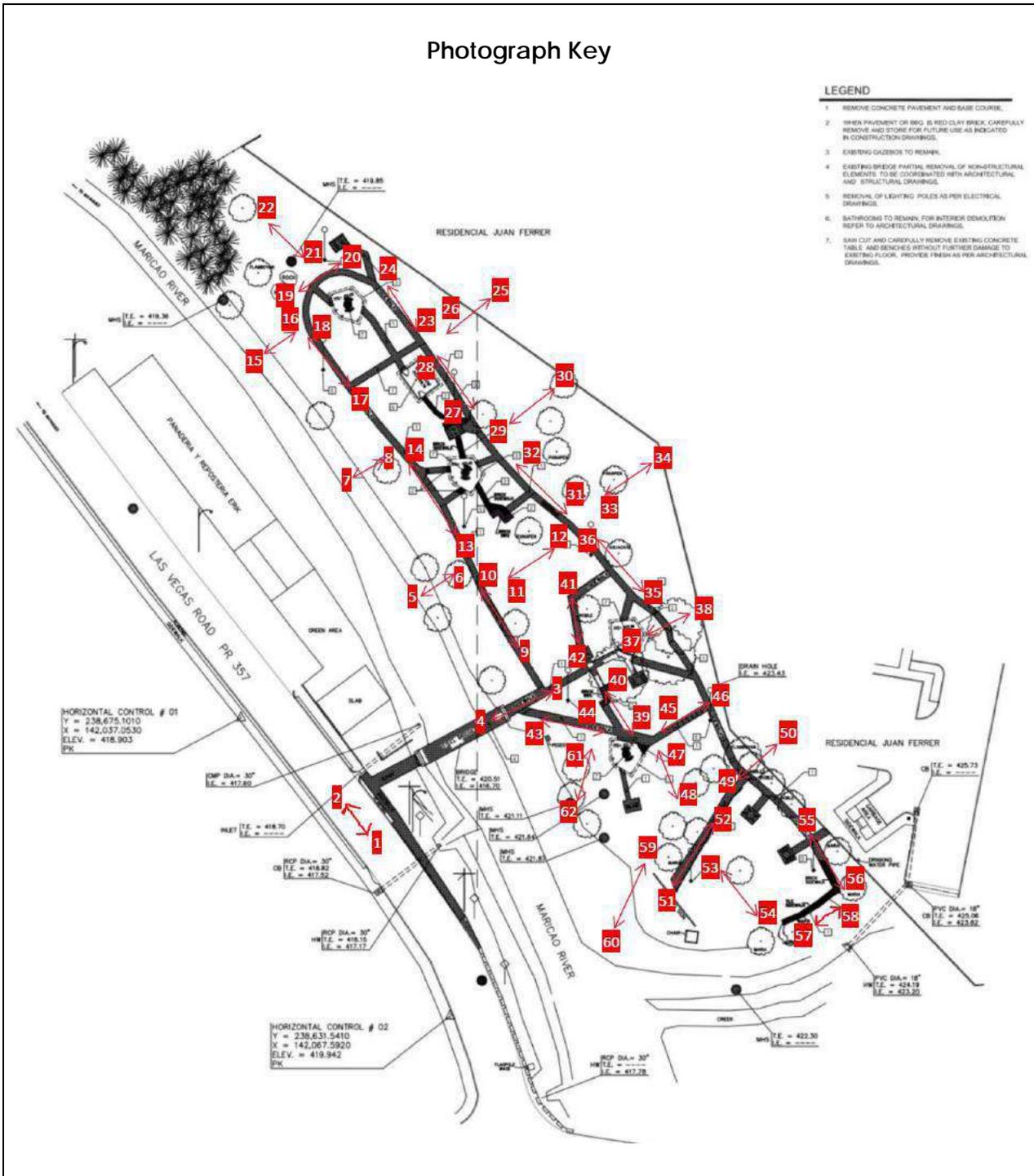


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Photograph Key



Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 1

Description (include direction): Las Vegas Road PR-357, view to the northwest.

Date: 2/20/2024



Photo #: 2

Description (include direction): Las Vegas Road PR-357, view to the southeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 3

Description (include direction): Pedestrian bridge, view to the northeast.

Date: 2/20/2024



Photo #: 4

Description (include direction): Pedestrian bridge, view to the southwest.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

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Photo #: 5

Description (include direction): Maricao River creek, view to the southwest.

Date: 2/20/2024



Photo #: 6

Description (include direction): From Maricao River creek, view to the northeast.

Date: 2/20/2024

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Photo #: 7

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 8

Description (include direction): Park view to the northeast.

Date: 2/20/2024

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Photo #: 9

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 10

Description (include direction): Park view to the northwest.

Date: 2/20/2024

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Photo #: 11

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 12

Description (include direction): Park view to the northeast.

Date: 2/20/2024

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Photo #: 13

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 14

Description (include direction): Park view to the northwest.

Date: 2/20/2024

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Photo #: 15

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 16

Description (include direction): Park view to the northeast.

Date: 2/20/2024

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Photo #: 17

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 18

Description (include direction): Park view to the northwest.

Date: 2/20/2024

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Photo #: 19

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 20

Description (include direction): Park view to the northeast.

Date: 2/20/2024

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Photo #: 21

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 22

Description (include direction): Park view to the northwest.

Date: 2/20/2024

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Photo #: 23

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 24

Description (include direction): Park view to the northwest.

Date: 2/20/2024

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Photo #: 25

Description (include direction): Park view to the northeast.

Date: 2/20/2024



Photo #: 26

Description (include direction): Park view to the southwest.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 27

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 28

Description (include direction): Park view to the northwest.

Date: 2/20/2024

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Photo #: 29

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 30

Description (include direction): Park view to the northeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

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Project ID: PR-CRP-000873



Photo #: 31

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 32

Description (include direction): Park view to the northeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 33

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 34

Description (include direction): Park view to the northeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 35

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 36

Description (include direction): Park view to the northwest.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 37

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 38

Description (include direction): Park view to the northeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 39

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 40

Description (include direction): Park view to the northwest.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 41

Description (include direction): Park view to the north.

Date: 2/20/2024



Photo #: 42

Description (include direction): Park view to the south.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 43

Description (include direction): Park view to the west.

Date: 2/20/2024



Photo #: 44

Description (include direction): Park view to the east.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 45

Description (include direction): Gazebo view to the southeast.

Date: 2/20/2024



Photo #: 46

Description (include direction): Steps view to the northeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 47

Description (include direction): Gazebo view to the northwest.

Date: 2/20/2024



Photo #: 48

Description (include direction): Park view to the southeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 49

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 50

Description (include direction): Park view to the northeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 51

Description (include direction): Park view to the southeast.

Date: 2/20/2024



Photo #: 52

Description (include direction): Park view to the northwest.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 53

Description (include direction): Park view to the northwest.

Date: 2/20/2024



Photo #: 54

Description (include direction): Park view to the southeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 55

Description (include direction): Park view to the northwest.

Date: 2/20/2024



Photo #: 56

Description (include direction): Park view to the southeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 57

Description (include direction): Park view to the southwest.

Date: 2/20/2024



Photo #: 58

Description (include direction): Park view to the northeast.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 59

Description (include direction): Park view to the northeast.

Date: 2/20/2024

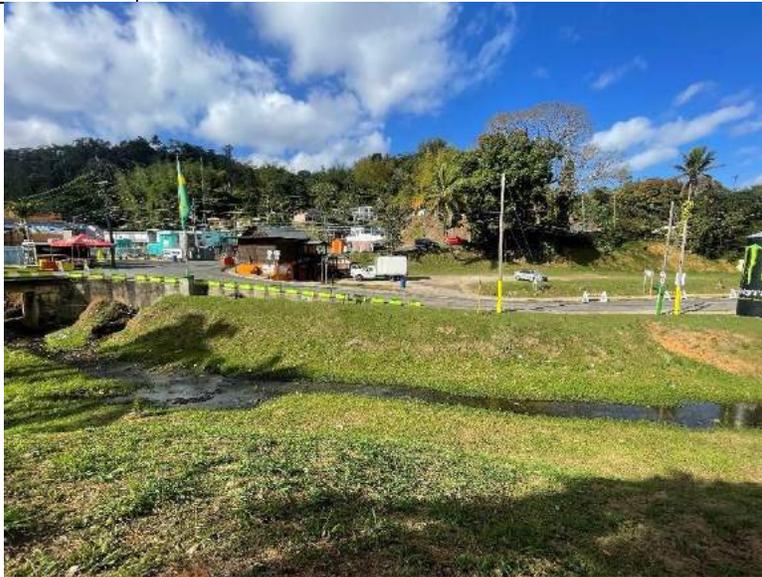


Photo #: 60

Description (include direction): Park view to the southwest.

Date: 2/20/2024

Subrecipient: Municipality of Maricao

Project Name: Parque Pasivo de Maricao

Project ID: PR-CRP-000873



Photo #: 61

Description (include direction): Park view to the northeast.

Date: 2/20/2024



Photo #: 62

Description (include direction): Park view to the southwest.

Date: 2/20/2024

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PARQUE PASIVO PR-CRP-000873

STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR

90% PROGRESS SET - 2/27/2024

INDEX OF DRAWINGS

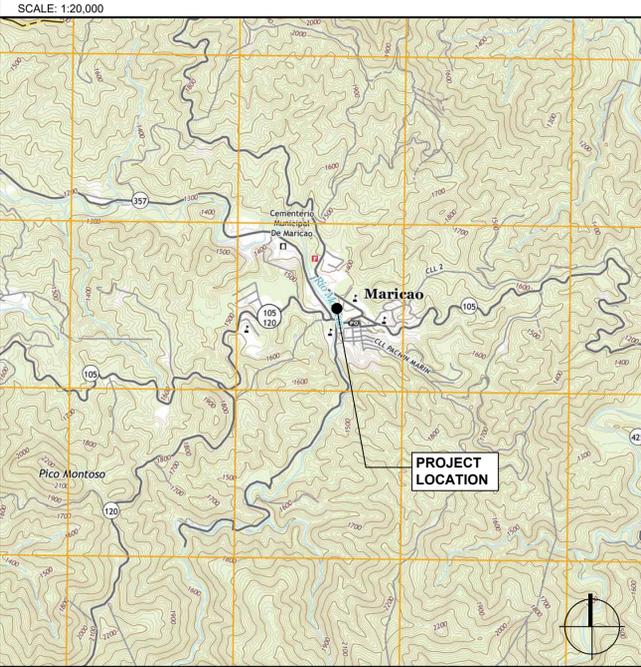
CIVIL:			
G-000	TITLE SHEET	LA-103	SITE LANDSCAPE PLAN
V-101	AS BUILT & TOPOGRAPHIC PLAN	LA-111	PLANTING DETAILS
G-001	GENERAL NOTES	LA-110	PLANT SCHEDULE & PLANTING DETAILS
G-100	GENERAL SITE PLAN	ARCHITECTURE:	
CD-101	DEMOLITION PLAN	A-1.0	GAZEBOS SITE LOCATION
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LA-101	SITE LANDSCAPE PLAN		
LA-102	SITE LANDSCAPE PLAN		

PROJECT DIRECTORY

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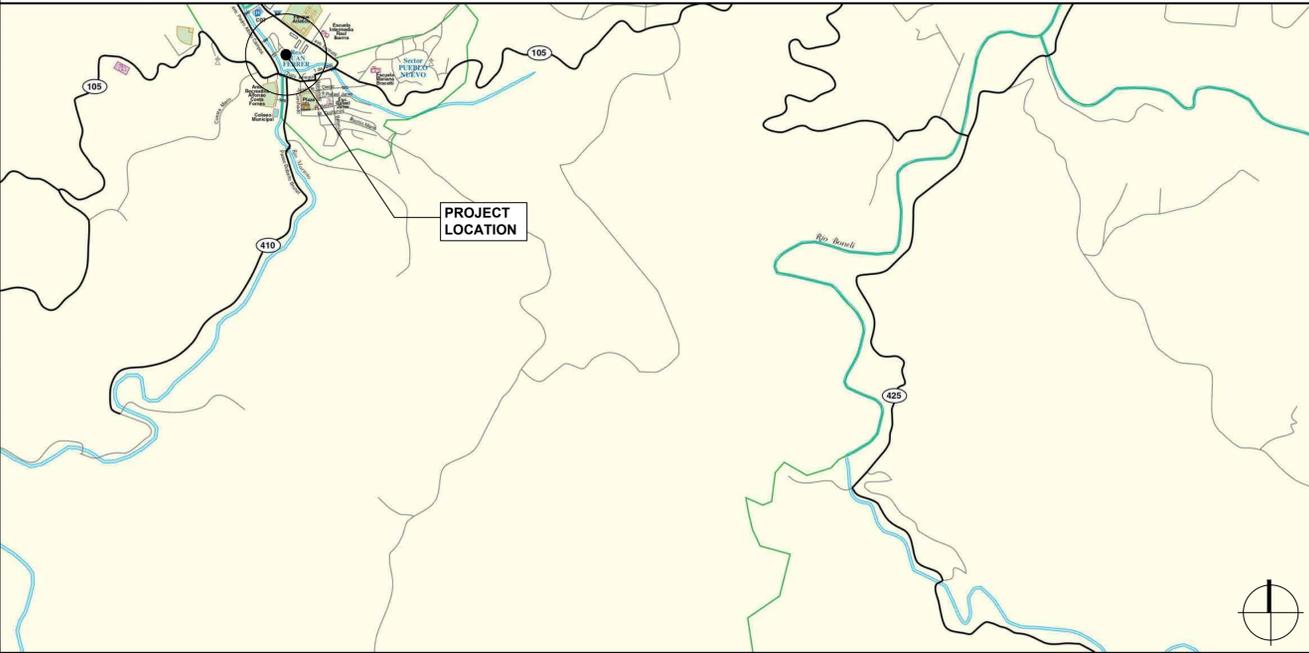
TOPOGRAPHIC MAP

USGS MARICAO, PR QUADRANGLE
REVISED 2018



ROAD MAP

N.T.S.

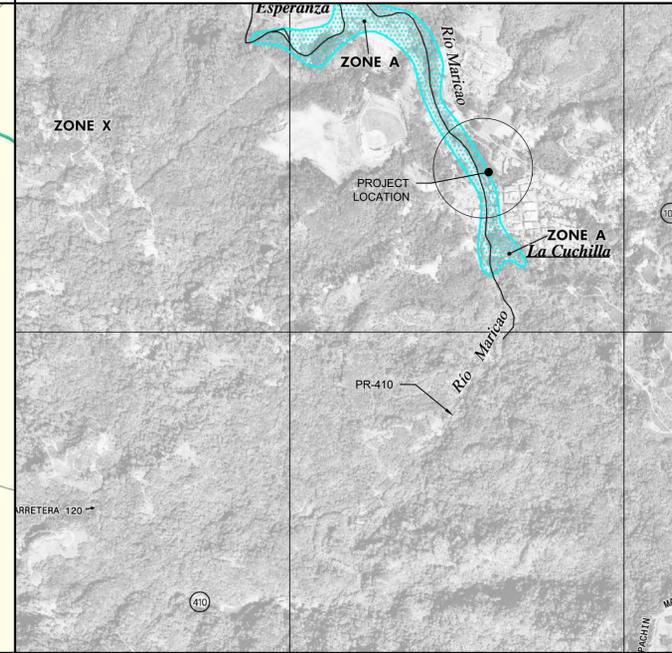


MARICAO, PR

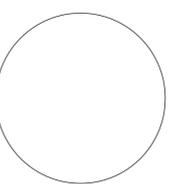
FLOOD MAP

SCALE: 1:10,000

PANEL 72000C1040H
REV. 04/19/2005



90% PRE DESIGN SET
NOT FOR CONSTRUCTION



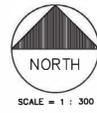
PROJECT: PR-CRP-000873
PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR

TITLE SHEET
SCALE: AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET		
△	09.22.23	60% PROGRESS SET		
△	02.27.24	90% PROGRESS SET		
△				
△				
△				

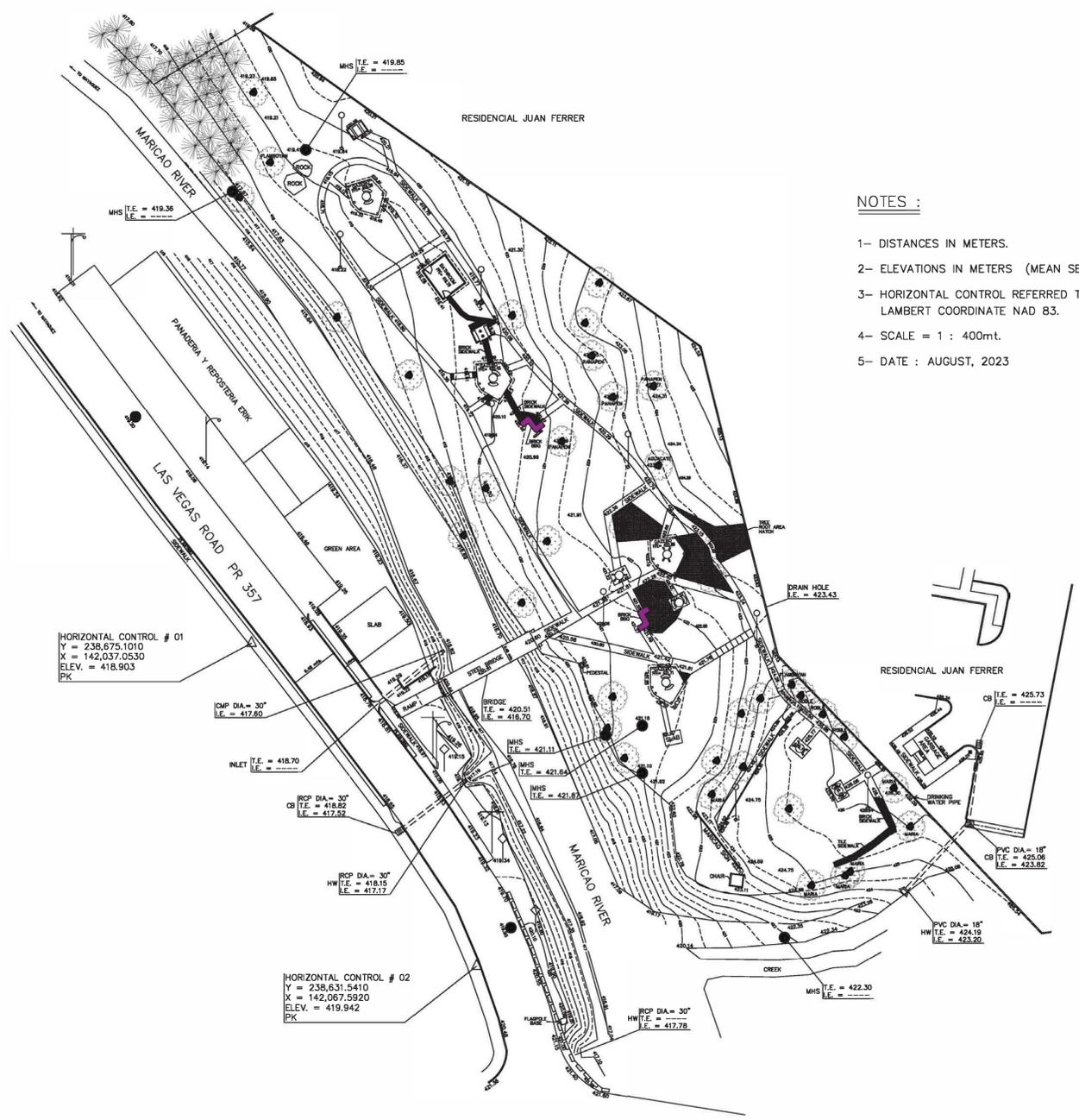
DRAWN BY: _____
REVIEWED BY: _____
DATE: 09.22.23

SHEET TITLE: _____ DRAWING NO. **G-000**

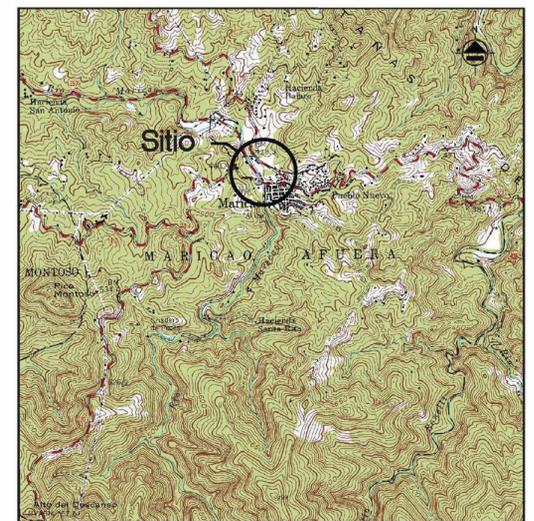


LEGEND

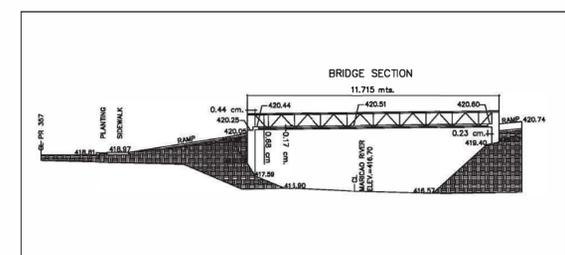
SYMBOL	DESCRIPTION
	PROPERTY POINT AND LINE.
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	HIDRANT
	SANITARY MANHOLE
	STORM SEWER CATCH BASIN
	VALVE
	CLEAN OUT
	WATER METER
	HORIZONTAL AND VERTICAL CONTROL.
	BAMBU
	TREE
	PALM



- NOTES :**
- 1- DISTANCES IN METERS.
 - 2- ELEVATIONS IN METERS (MEAN SEA LEVEL).
 - 3- HORIZONTAL CONTROL REFERRED TO LAMBERT COORDINATE NAD 83.
 - 4- SCALE = 1 : 400mt.
 - 5- DATE : AUGUST, 2023



LOCATION MAP
SCALE = 1 : 20,000



STEEL AND CONCRETE BRIDGE SECTION (INLET WATER FLOW)
HORIZONTAL AND VERTICAL SCALE = 1 : 2000

DEVELOPER NAME	
ADDRESS	
REVISIONS	
SYMBOL	
DATE	
BY	

AS BUILT & TOPOGRAPHY PLAN
PROJECT PASSIVE PARK
State Road No. 357
Km. MARICAO
PUERTO RICO

STAMP: CERTIFY CORRECT :
JUAN TORRES
ENGINEER
BERNARD TORRES
LIC. NO. 8765, RPA

TECHNIGROUP
Riverside Park Street 4 No. B-4, Bayamon, P.R. 00981 - Tel. (787) 378-8900

Project:
DATE : 08/2023
SCALE : 1: 400



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GENERAL NOTES

1. CONTRACTOR SHALL ASSURE ALL REQUIRED PERMITS PRIOR TO BEGINNING ANY EARTH MOVEMENTS OR EXCAVATIONS IN THE PROJECT. BEFORE ANY EXCAVATION CONTRACTOR SHALL NOTIFY "CENTRO DE COORDINACION DE EXCAVACIONES Y DEMOLICIONES" HTTP://DDED.DTOP.GOV.PR/EXC/, TELEPHONES: 787-722-2929, X 12277, 12274, 12400, 12513.
2. THE CONTRACTOR SHALL PROVIDE ADEQUATE COFFERDAM OR PROTECTION SYSTEM FOR THE EXCAVATIONS, FOR THE STORM SEWER PIPES AND STRUCTURES CONSTRUCTION, AS TO AVOID ANY ACCIDENT OR SLIDING OF EARTH IN THE PROJECT. EXCAVATION OF TRENCHES MUST BE SUFFICIENTLY WIDE TO ENABLE INSTALLATION AND ALLOW INSPECTION. ALL CONSTRUCTION AND OSHA SAFETY REGULATIONS MUST BE FOLLOWED AT ALL TIMES. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED TO ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
3. SHORING SHALL BE USED IN OPEN TRENCHES WITHIN 1.5 METERS (ANY DIRECTION) OF LIGHT OR POWER POLES, 7.0 METERS OF TOWERS, AND WITHIN 45° BEARING SPLAY OF ANY STRUCTURE UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL DESIGN THE SHORING TO ACCOUNT FOR ADDITIONAL SURCHARGE LOADS OF THE POLE, TOWER, OR STRUCTURE FOUNDATIONS ACTING ON THE SHORING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING ALL SHORING AND FOR PROTECTING ALL ELECTRICAL AND TELECOMMUNICATIONS Poles AND TOWERS.
4. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE DNER, NSF, EQB, AWWA, USACE AND OGPE STANDARDS FOR INSTALLING STORM SEWER PIPELINES.
5. UPON COMPLETION OF CONSTRUCTION, FINISHED GRADES WILL BE BROUGHT BACK TO PRE-CONSTRUCTION CONDITIONS UNLESS APPROVED BY THE PROPERTY OWNER OR NOTED ON THE PLANS. FENCES, GATES, ROADWAYS, DRIVES, GROUND SURFACES, ETC., SHALL BE LEFT IN A CONDITION EQUAL TO OR BETTER THAN THAT FOUND BEFORE CONSTRUCTION. COORDINATE WITH THE PROPERTY OWNERS.
6. ALL IMPACTED FENCES AND OR STRUCTURES SHALL BE REINSTALLED IN ORIGINAL LOCATION AND OF SAME TYPE UNLESS OTHERWISE SHOWN ON PLANS DIRECTED OR BY THE ENGINEER.
7. IF CONTRACTOR ENCOUNTERS WET OR SEEPING SOIL CONDITIONS IN TRENCH OR CONDITIONS INDICATING THE POSSIBLE LOCATION OF SINKHOLE, CONTRACTOR SHALL NOTIFY ENGINEER AND NOT PROCEED WITH PIPE INSTALLATION IN THIS AREA UNTIL DIRECTION ON HOW TO PROCEED IS RECEIVED FROM THE ENGINEER. IF GROUNDWATER IS ENCOUNTERED, CONTRACTOR SHALL TAKE MEASURES TO PREVENT AND TO NOT PROMOTE THE MIGRATION OF THE GROUNDWATER IN THE TRENCH EXCAVATION AND PIPE EMBEDMENT ZONE. CONTRACTOR IS RESPONSIBLE FOR DEWATERING COSTS IF DEEMED NECESSARY.
8. DISCOVERY OF UNSUITABLE SOILS OR ROCK MUST BE IMMEDIATELY REPORTED TO THE OWNER, OWNER REPRESENTATIVE, AND ENGINEER. ALL EARTHWORK OPERATION IN THIS AREA MUST NOT PROCEED UNTIL PROJECT GEOTECHNICAL ENGINEER REVIEWS THE AREA AND THE OWNER RELEASES THE CONTRACTOR TO PROCEED.
9. CONTRACTOR SHALL PROVIDE ALL MAINTENANCE AND PROTECTION OF TRAFFIC DURING THE EXECUTION OF THE CONTRACTOR'S WORK. THE CONTRACTOR SHALL PROVIDE ALL THE SAFETY MEASUREMENTS TO AVOID HAZARDOUS CONDITIONS DURING THE CONSTRUCTION PERIOD. SAFETY TRAFFIC AND CONSTRUCTION PLAN SHOULD BE SUBMITTED TO THE PROJECT MANAGER APPROVAL BEFORE ANY HAZARDOUS OR RISKY WORK IS STARTED.
10. NEW CONSTRUCTION SHALL MEET HORIZONTAL AND VERTICAL ALIGNMENTS OF EXISTING FACILITIES.
11. CONTRACTOR SHALL NOTIFY THE OCCURRENCE OF ANY CHANGES ON THE PIPING HORIZONTAL OR VERTICAL ALIGNMENT TO THE DESIGNER PRIOR TO MAKING THEM.
12. THE CONTRACTOR WILL ASSUME ALL RESPONSIBILITY FOR ANY PROPERTY OR PERSONAL DAMAGE OR LOSS, THAT MAY OCCUR, PRIVATE OR PUBLIC RELATED TO THE CONSTRUCTION OF THE PROJECT OR DURING THE CONSTRUCTION PROCESS. THE OWNER WILL BE RELIEVED BY THE CONTRACTOR FROM ANY LOSS OR DAMAGE CAUSED.
13. CONTRACTOR SHALL BE CAREFUL DURING THE CONSTRUCTION OPERATIONS IN ORDER TO PRESERVE ALL EXISTING TREES, PLANTS, BUSHES OR CROPS WITHIN THE PROJECT SITE HAVING NO INTERFERENCE.
14. CONTRACTOR SHALL PREPARE AN INVENTORY OF ALL TREES THAT REQUIRE CUTTING, PRUNING AND/OR REMOVAL AND CONSEQUENTLY PREPARE AND EXECUTE A TREE MITIGATION PLAN ACCORDING TO OGPE'S REGULATIONS.
15. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL EXISTING PROPERTY, PAVED AREAS, TREES, GRASS AND VEGETATION FROM CONSTRUCTION PERSONNEL TRAFFIC AND SHOULD KEEP THESE AREAS FREE FROM TRASH OR WEEDS.
16. CONTRACTOR SHALL SUBMIT TO THE RESIDENT ENGINEER INSPECTOR A DETAILED PLAN OF CONSTRUCTION, THAT WILL INCLUDE DEFINED STAGING AREAS AND TEMPORARY STORAGE AREAS TO BE USED TO PILE EXCAVATED MATERIALS OR SELECTED BACKFILL DUE TO SPACE LIMITATION IN THE AREA OF WORK.
17. THE CONTRACTOR SHALL ACQUIRE AT HIS OWN EXPENSE ALL TEMPORARY RIGHT OF WAY NECESSARY TO PERFORM HIS WORK, INCLUDING STAGING AREAS AND TEMPORARY FACILITIES.
18. CONTRACTOR SHALL COORDINATE WITH LUMA THE MINIMUM CLEARANCE REQUIRED FOR OVERHEAD POWER LINES. ANY WORK WITHIN THIS MINIMUM CLEARANCE DISTANCE IS STRICTLY PROHIBITED. IN THE EVENT THAT WORK NEAR THE POWER LINES, WITHIN THE CLEARANCE DISTANCE, IS REQUIRED, CONTRACTOR MUST COORDINATE WITH LUMA ENERGY THE DE-ENERGIZING OF THE POWER LINES (VIA LIBRE) WHILE THE CONSTRUCTION ACTIVITIES ARE PERFORMED, AND ITS ASSOCIATED COST.
19. DETAILS OF CONSTRUCTION NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN FOR SIMILAR CONDITIONS AND MATERIALS, AND IN ACCORDANCE WITH ACCEPTED PUERTO RICO STANDARDS.
20. THE OWNER SHALL RETAIN A QUALIFIED PROFESSIONAL TO OBSERVE THE CONSTRUCTION IN ORDER TO VERIFY THAT THE PROJECT IS BEING CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
21. ALL DISTANCES AND ELEVATIONS ARE IN METERS UNLESS OTHERWISE NOTED.
22. COORDINATES AND ELEVATIONS ARE REFERRED TO THE STATE PLANE COORDINATES SYSTEM FOR PUERTO RICO AND THE US VIRGIN ISLANDS, NAD 83.
23. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN THE FOLLOWING PERMITS PRIOR TO COMMENCE WITH THE CONSTRUCTION.
 - A. EROSION AND SEDIMENTATION CONTROL (CES)
 - B. ATMOSPHERIC EMISSION (PFE)
 - C. NON HAZARDOUS SOLID WASTE (DS-3)
 - D. DISPOSAL OF HAZARDOUS WASTE
 - E. DISCHARGE OF STORM WATER RUNOFF DURING CONSTRUCTION (NPDES)
 - F. IN CASE OF REMOVAL AND DISPOSAL OF MATERIALS CONTAINING ASBESTOS AND LEAD PAINT, THE CONTRACTOR SHALL SUBMIT A PLAN FOR REMOVAL, MANAGEMENT AND DISPOSAL OF SUCH MATERIALS.
 - G. OGPE INCIDENTAL PERMIT (PU-IN SPANISH)
24. ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCE WITH ANY EARTHWORK OR EXCAVATION AND MAINTAINED THROUGHOUT THE DURATION OF THE CONSTRUCTION.
25. THE SIZE AND LOCATION OF EXISTING UTILITIES SHOWN ON THE CONTRACT PLANS, BOTH ABOVE AND BELOW GROUND IS BASED ON AN EXAMINATION OF EXISTING PLANS AND THE RESULT OF FIELD INSPECTION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING IN THE FIELD THE LOCATION AND SIZE OF ALL UTILITIES INCLUDING ELECTRIC, SANITARY, TELEPHONE, STORM SEWER AND WATER. NO EXTRA COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR DISCREPANCIES BETWEEN THE SIZE AND LOCATION OF THE UTILITIES SHOWN ON THE PLANS AND THE UTILITIES AS DETERMINED BY HIS FIELD VERIFICATION. HOWEVER, ANY MAJOR CONFLICT THAT CANNOT BE RESOLVED IN THE FIELD SHALL BE NOTIFIED TO THE ENGINEER FOR ITS RESOLUTION. DAMAGES CAUSED TO EXISTING UTILITIES WITHIN THE PROJECT AREA SHALL BE REPAIRED BY CONTRACTOR AT NO COST TO THE OWNER.
26. THE CONTRACTOR SHALL VERIFY ALL HORIZONTAL AND VERTICAL CONTROLS.
27. ALL DEMOLITION TO BE PERFORMED BY THE CONTRACTOR ACCORDING TO SPEC. 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS UNLESS OTHERWISE NOTED.
28. IN CASE OF DOUBT IN THE INTERPRETATION OF ANY ASPECTS OF THESE DRAWINGS AND/OR SPECIFICATIONS THE ENGINEER SHALL BE CONSULTED.
29. CONTRACTOR SHALL COORDINATE WITH PRHTA (OFICINA DE CONTROL DE ACCESOS) THE CONSTRUCTION WORKS TO BE PERFORMED DURING SPECIAL EVENTS IN THE AREA. CONTRACTOR SHALL SUBMIT TO PRHTA (CONTROL ACCESOS) THE CONSTRUCTION SCHEDULE FOR REVISION AND TO COORDINATE THESE SPECIAL EVENTS.
30. THE MOT PLAN INCLUDED ON THIS SET WAS DESIGNED CONSIDERING PROPOSED ROAD IMPROVEMENTS TO PR 410. ANY CHANGES IN THE MOT PLANS SHALL BE SUBMITTED TO THE DESIGNER AND PRHTA FOR REVISION AND FINAL APPROVAL.
31. THE CONTRACTOR SHALL OBTAIN ALL THE PERMITS AND ENDORSEMENTS REQUIRED AND PAY ALL THE FEES REQUESTED BY LOCAL OR FEDERAL AGENCY, PRIOR THE CONSTRUCTION WORKS BEGINS AND/OR DURING THE CONSTRUCTION WORKS, AT NO ADDITIONAL COST TO THE OWNER.
32. THE CONSTRUCTOR IS RESPONSIBLE TO PAY THE COSTS ASSOCIATED TO THE LABORATORY TESTS REQUIRED FOR ALL THE MATERIALS AS PER SPECIFICATIONS AND DURING CONSTRUCTION THE COSTS INCLUDE SAMPLES, TRANSPORTATION, TECHNICAL SUPPORT, TESTS, LABORATORY EXPENSES, AND OTHERS.
33. THE CONTRACTOR SHALL NOTIFY THE SOIL ENGINEER AT LEAST THREE DAYS PRIOR TO COMPLETION OF EXCAVATIONS. NO FOUNDATION FILL OR CONCRETE SHALL BE DEPOSITED UNTIL THE SOIL BEARING CAPACITY IS VALIDATED BY THE GEOTECHNICAL ENGINEER.
34. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE TO THE ORIGINAL CONDITION, DAMAGES MADE TO SIDEWALKS, CURBS, PAVEMENT OR PRIVATE PROPERTY OUTSIDE THE CONSTRUCTION LIMIT OR NOT INCLUDED IN THE SCOPE.
35. THE CONTRACTOR SHALL MAINTAIN ALL UTILITIES IN SERVICE AT ALL TIMES DURING THE CONSTRUCTION.
36. ALL METAL BARRIERS TO BE INSTALLED IN THIS PROJECT SHALL BE DONE AS MASH STANDARD DRAWINGS DATED JUNE 2018.
37. ALL DRAINAGE STRUCTURES (PIPES, MANHOLES, INLETS, HEADWALLS) INDICATED TO REMAIN SHALL BE CLEANED AND REPAIRED AS PER SPEC. 632.
38. PAVEMENT MARKING SHALL BE AS PER SPEC. 618. PROPOSED PAVEMENT MARKING SHALL MATCH WITH EXISTING PAVEMENT MARKING OF THE ROADWAY.
39. ALL AREAS DISTURBED BY THE CONSTRUCTION SHALL BE GRADED AND FINISHED AS INDICATED ON PLANS OR AS DIRECTED BY THE ENGINEER.
40. FINAL ELEVATION FOR SETTING MANHOLE CASTINGS SHOULD BE BASED ON ACTUAL FINISHED GRADE OF SURFACE AT MANHOLE.
41. NEW CONSTRUCTION SHALL MEET HORIZONTAL AND VERTICAL ALIGNMENTS OF EXISTING ROADWAYS.
42. EQUIPMENT, MATERIALS AND OTHER DEVICES USED FOR CONSTRUCTION SHALL BE REMOVED FROM THE TRAFFIC LANES AFTER WORK HOURS, EVERY DAY AND SHALL BE STAGED A MINIMUM OF TEN METERS FROM THE TRAVELED WAY.
43. THE CONTRACTOR SHALL BE RESPONSIBLE TO KEEP ACCESS PAVED AT ALL TIME ADJACENT TO ALL PROPERTIES DURING THE PROJECT CONSTRUCTION, MAINTAIN, PROTECT THROUGH LOCAL TRAFFIC WITHIN THE LIMITS OF THE PROJECT INCLUDING TRAFFIC ON ACCEPTANCE OF PROJECT. THIS TASK WILL REQUIRE COORDINATION WITH BUSINESSES AND PRIVATE OWNERS.



SCALE = 1:300

PAVING, GRADING AND DRAINAGE NOTES

1. ALL SPOT ELEVATIONS WITHIN VEHICULAR CIRCULATION AREAS ARE AT THE EDGE OF PAVEMENT AND / OR THE TOP OF CURB. WHERE SOD IS APPLIED, FINISHED GRADE SHALL BE NOMINAL HEIGHT OF GRASS AFTER SOD IS FIRMLY PLACED.
2. CONCRETE PAVEMENT CONSTRUCTION AND JOINTING SHALL BE IN ACCORDANCE WITH ACI-309R. CONCRETE PAVING SHALL INCLUDE THE USE OF FULL DEPTH EXPANSION JOINTS. CONTAINING PREMOULDED JOINT FILLER AT ALL MANHOLES, STORM SEWER STRUCTURES, BUILDINGS, SIDEWALKS, POWER POLES, OR OTHER PERMANENT STRUCTURES. COORDINATE FINISH AND PATTERNS WITH ARCHITECTURAL DRAWINGS. OTHERWISE, PROVIDE LIGHT BROOM FINISH.
3. ALL CONCRETE PAVING SUBJECT TO VEHICULAR TRAFFIC SHALL BE 4,000 PSI AT 28 DAYS, BROOM FINISH, MATERIALS AND WORKMANSHIP TO MEET OR EXCEED PRHTA SPECIFICATIONS FOR PORTLAND CEMENT CONCRETE PAVING.
4. PROVIDE ISOLATION JOINTS WITH THICKENED EDGE PAVEMENT AT CONNECTIONS TO EXISTING ASPHALT OR CONCRETE PAVING.
5. SUBGRADE FOR CONCRETE PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR. COMPACTION AROUND STRUCTURES, MANHOLES AND STORM INLETS SHALL BE VERIFIED. PRIOR TO PLACING CONCRETE PAVING, THE SUBGRADE SHALL BE SMOOTH AND LEVEL, ANY WHEEL RUTS OR OTHER DISTURBANCES SHALL BE LEVELED. MOISTEN SUBGRADE PRIOR TO PLACING PAVEMENT.
6. SOD AND LANDSCAPING SHALL NOT IMPEDE THE FLOW OF RUN OFF FROM PAVED SURFACES. SOIL, GRASS AND PLANTING BEDS SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM SIDEWALKS.
7. BEFORE REQUESTING FINAL INSPECTION BY THE ENGINEER AND BEFORE PLACING SOD, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COMPLETE AS-BUILT SURVEY FROM A REGISTERED SURVEYOR, AS FOLLOWS:
 - a. LOCATION AND FINISH FLOOR ELEVATION OF CONSTRUCTED STRUCTUES WITH TIES TO PROPERTY LINE.
 - b. LOCATION AND ELEVATION OF PAVEMENT AT ELEVATION POINTS SHOWN ON PLANS, AND WHERE EXISTING PAVEMENT IS REPLACED OR OVERLAYED, AT SUFFICIENT POINT TO DETERMINE GRADE AND DRAINAGE PATTERNS.
 - c. LOCATION AND ELEVATION OF WALKS, AND OTHER CONSTRUCTED IMPROVEMENTS SUCH AS DUMPSTER ENCLOSURES, MECHANICAL PADS, FENCING, ETC.
 - d. PERIMETER, SLOPE BREAK AND BOTTOM ELEVATIONS OF ALL SWALES AND RETENTION AREAS.
 - e. LOCATION, RIMFLOW AND INVERT ELEVATIONS, TYPE AND SIZE OF ALL DRAINAGE STRUCTURES AND PIPES, INCLUDING WEIRS, ORIFICES AND OTHER APPURTENANCES.
8. ALL FILL MATERIAL SHALL MEET RECOMMENDATIONS SPECIFIED IN THE SOIL'S REPORT.

SOURCES OF DATA

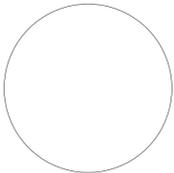
1. THE SURVEY PLAN WAS PREPARED BY JUAN TORRES, LIC. # 8765.
2. THE GEOTECHNICAL REPORT PREPARED ON THE GEOTECHNICAL EXPLORATION PERFORMED AT THE PROPOSED PROJECT'S SITE BY * FORMS PART OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE CONTINUING WORK IF DISCREPANCIES ARE FOUND BETWEEN THE REPORT AND THE CONSTRUCTION DESIGN PLANS.

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PROJECT: PR-CRP-000873

PARQUE PASIVO

CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO

GOBIERNO MUNICIPAL DE MARICAO

NO.	DATE	DRAWING ISSUE	BY	APP.
1	06.12.23	30% PROGRESS SET		
2	09.22.23	60% PROGRESS SET		
3	02.27.24	90% PROGRESS SET		

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 DATE:
 SHEET TITLE

DRAWING NO.

GENERAL NOTES **G-001**

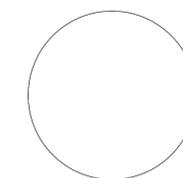
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MARICAO
CAPITAL DE LA MONTAÑA

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PROJECT: PR-CRP-000873

PARQUE PASIVO

CARRERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO

GOBIERNO MUNICIPAL DE MARICAO

LEGEND EXISTING CONDITIONS

SYMBOL	DESCRIPTION
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	SIGN
	SIGN
	SIGN
	BAMBU
	TREE
	PALM

PLAYGROUND LEGEND

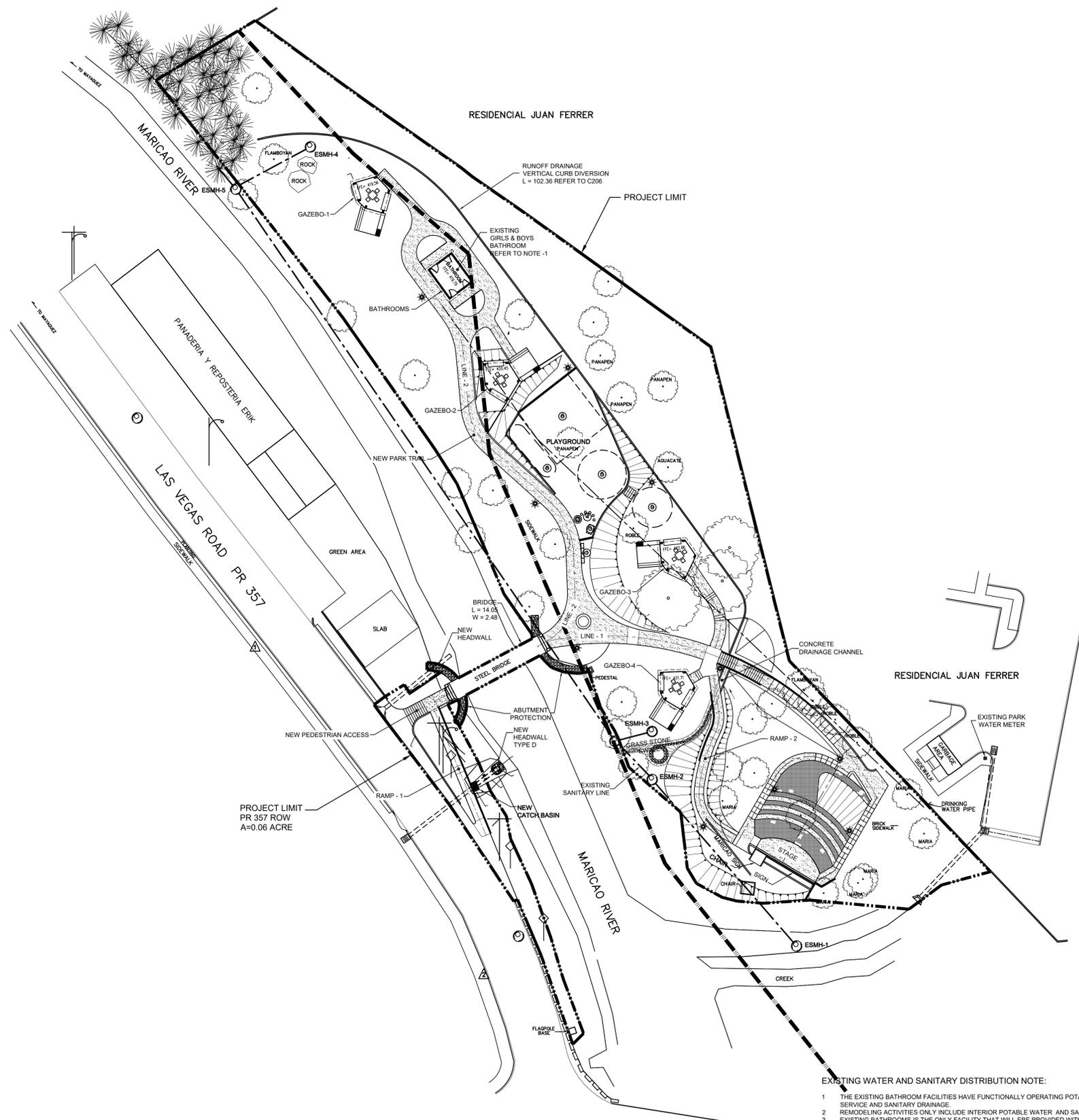
- 1 FLOWERS
- 2 TENOR TREE
- 3 MARIMBA
- 4 DRUMS
- 5 CLIMBER
- 6 MULTI ACTIVITY
- 7 SPARE
- 8 SEESAW
- 9 SPINNER

NOTES

- 1 FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
- 2 FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.

HORIZONTAL VERTICAL CONTROLS

STATION # 01 Y = 238,675.1010 X = 142,037.0530 ELEV. = 418.903 PK	STATION # 02 Y = 238,631.5410 X = 142,067.5920 ELEV. = 419.942 PK
---	---



EXISTING WATER AND SANITARY DISTRIBUTION NOTE:

- 1 THE EXISTING BATHROOM FACILITIES HAVE FUNCTIONALLY OPERATING POTABLE WATER SERVICE AND SANITARY DRAINAGE.
- 2 REMODELING ACTIVITIES ONLY INCLUDE INTERIOR POTABLE WATER AND SANITARY P
- 3 EXISTING BATHROOMS IS THE ONLY FACILITY THAT WILL BE PROVIDED WITH POTABLE AND SANITARY DRAINAGE.

GENERAL SITE PLAN
scale = 1:300



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DATE:

SHEET TITLE

DRAWING NO.

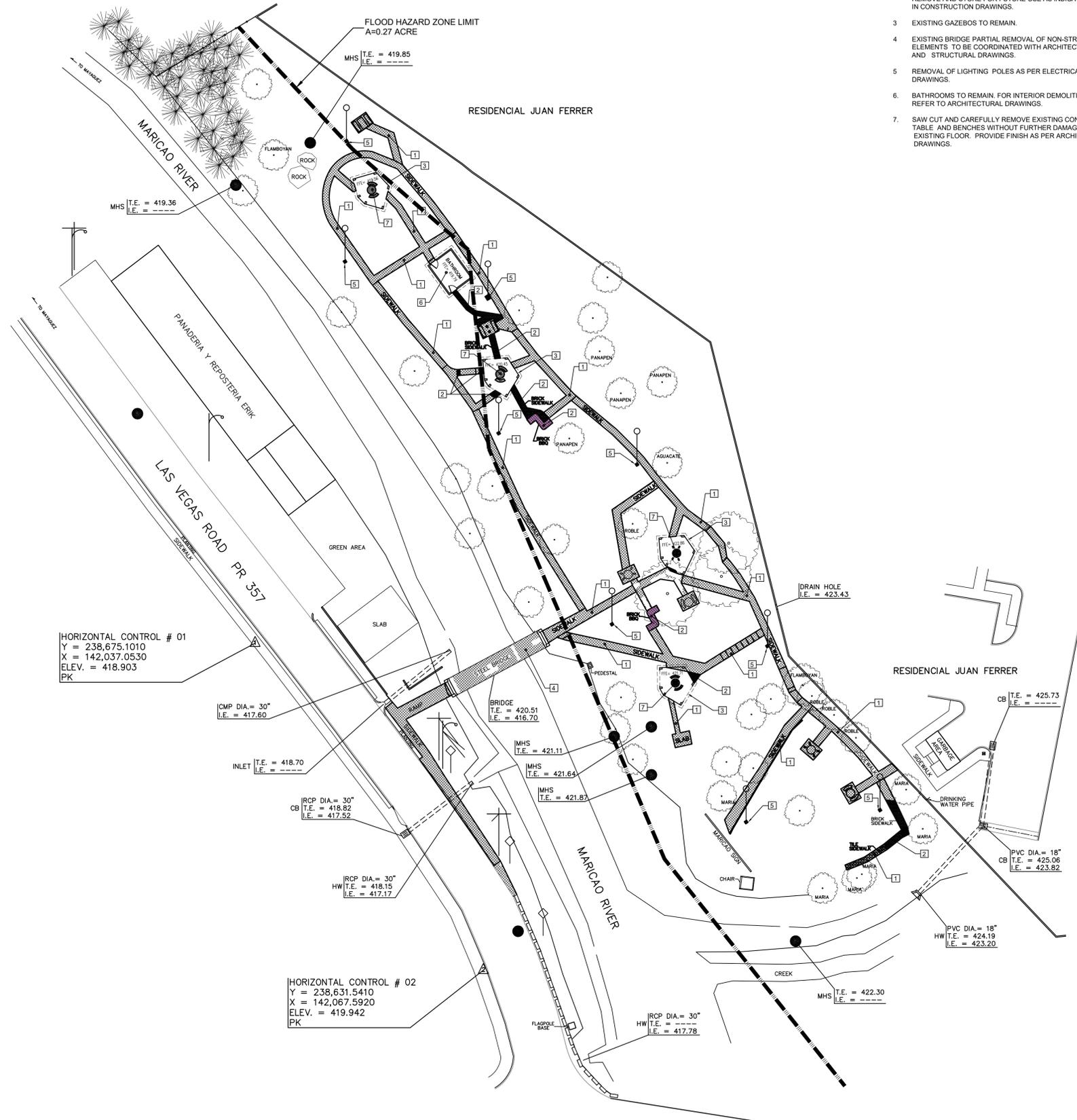
GENERAL SITE PLAN

G-100

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LEGEND EXISTING CONDITIONS

SYMBOL	DESCRIPTION
	PROPERTY POINT AND LINE.
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	HIDRANT
	SANITARY MANHOLE
	STORM SEWER CATCH BASIN
	VALVE
	CLEAN OUT
	WATER METER
	HORIZONTAL AND VERTICAL CONTROL.
	BAMBU
	TREE
	PALM



LEGEND

- 1 REMOVE CONCRETE PAVEMENT AND BASE COURSE.
- 2 WHEN PAVEMENT OR BBQ IS RED CLAY BRICK, CAREFULLY REMOVE AND STORE FOR FUTURE USE AS INDICATED IN CONSTRUCTION DRAWINGS.
- 3 EXISTING GAZEBOS TO REMAIN.
- 4 EXISTING BRIDGE PARTIAL REMOVAL OF NON-STRUCTURAL ELEMENTS TO BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- 5 REMOVAL OF LIGHTING POLES AS PER ELECTRICAL DRAWINGS.
- 6 BATHROOMS TO REMAIN. FOR INTERIOR DEMOLITION REFER TO ARCHITECTURAL DRAWINGS.
- 7 SAW CUT AND CAREFULLY REMOVE EXISTING CONCRETE TABLE AND BENCHES WITHOUT FURTHER DAMAGE TO EXISTING FLOOR. PROVIDE FINISH AS PER ARCHITECTURAL DRAWINGS.

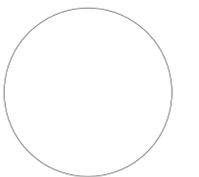
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CAPITAL DE LA MONTAÑA

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PROJECT: PR-CRP-000873
PARQUE PASIVO
CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO
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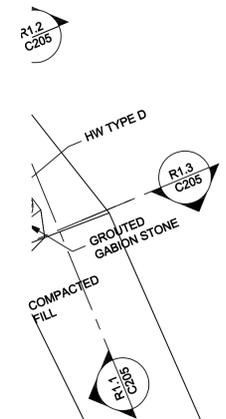
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DEMOLITION PLAN CD-101

SCALE = 1:300

DEMOLITION PLAN
scale= 1:300

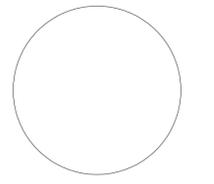


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PROJECT: PR-CRP-000873
PARQUE PASIVO
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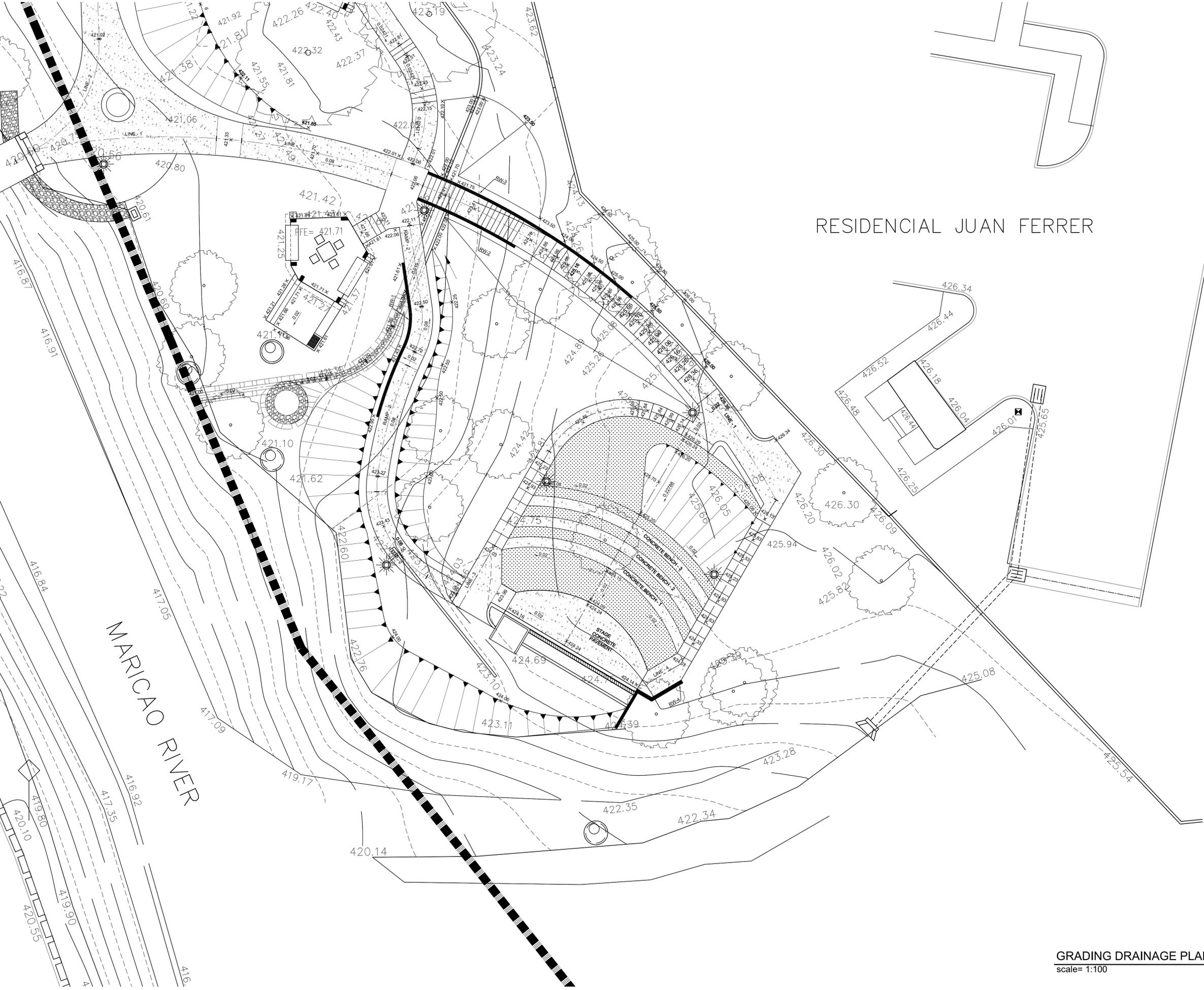
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REVIEWED BY:
DATE:
SHEET TITLE: SITE LAYOUT PLAN
DRAWING NO.: CI-101

SITE LAYOUT PLAN
scale= 1:100

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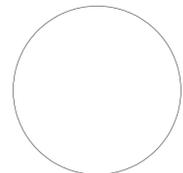


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RESIDENCIAL JUAN FERRER

GRADING DRAINAGE PLAN
scale= 1:100



PROJECT: PR-CRP-000873
PARQUE PASIVO
CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

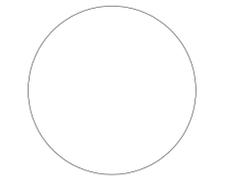
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1	06.12.23	30% PROGRESS SET		
2	09.22.23	60% PROGRESS SET		
3	02.27.24	90% PROGRESS SET		

DRAWN BY:
REVIEWED BY:
DATE:
SHEET TITLE

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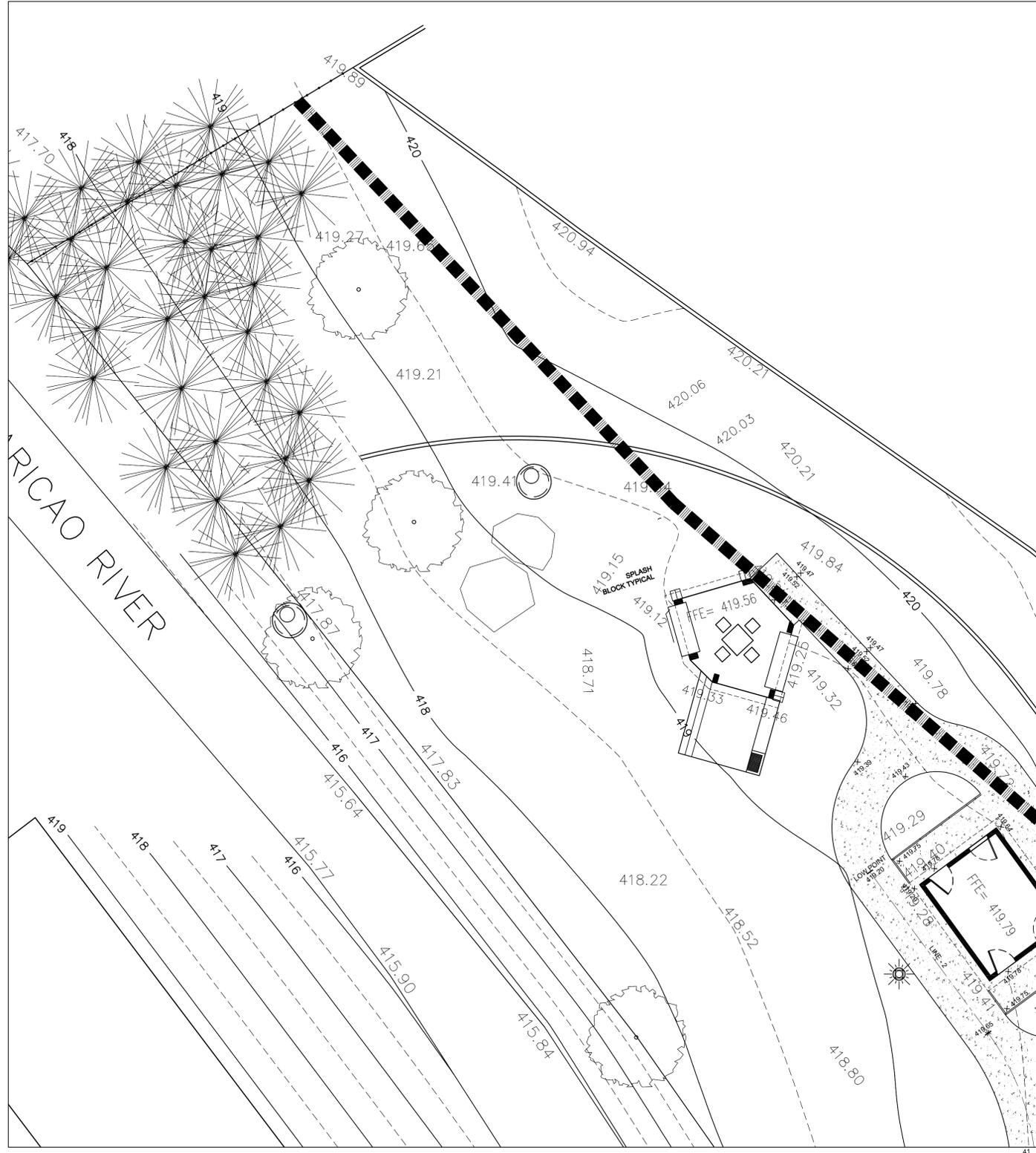
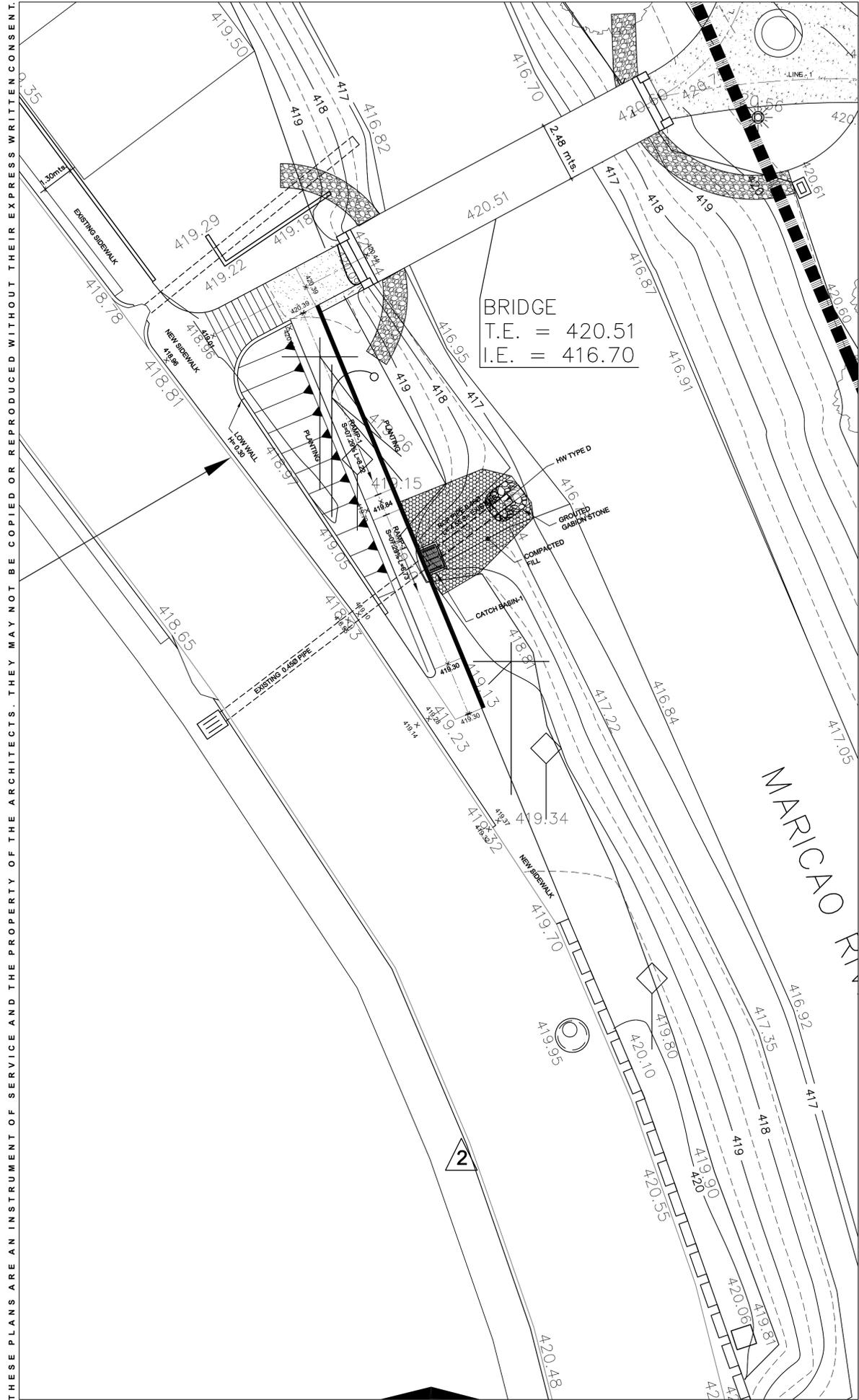
GRADING DRAINAGE PLAN
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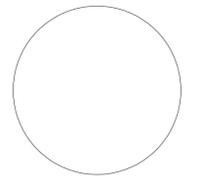
PROJECT: PR-CRP-000873
PARQUE PASIVO
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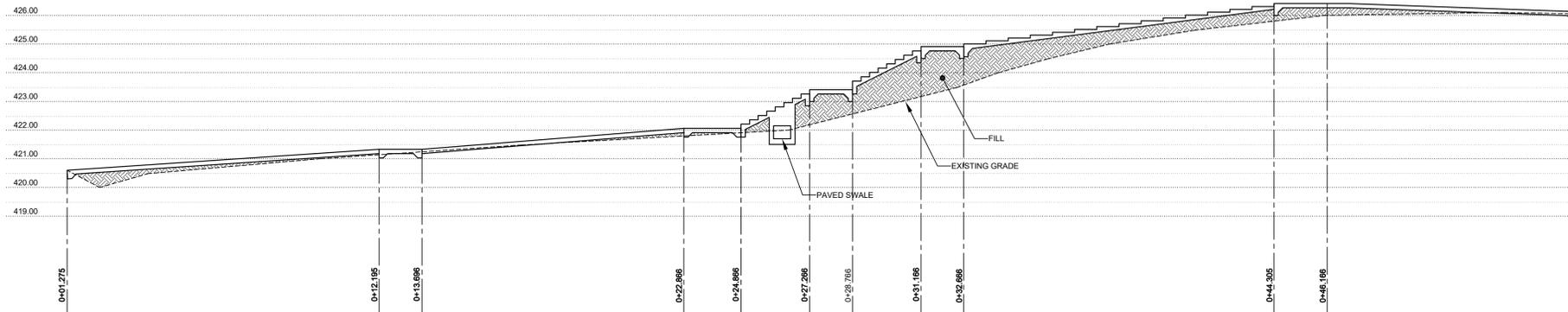


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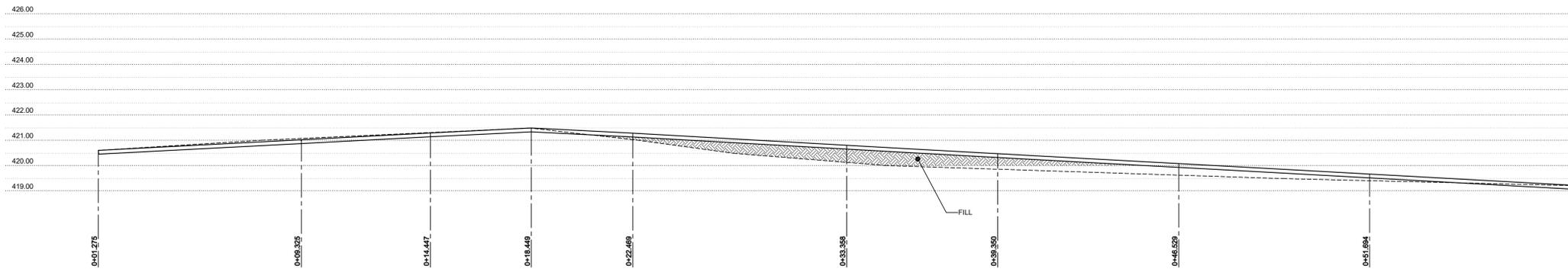


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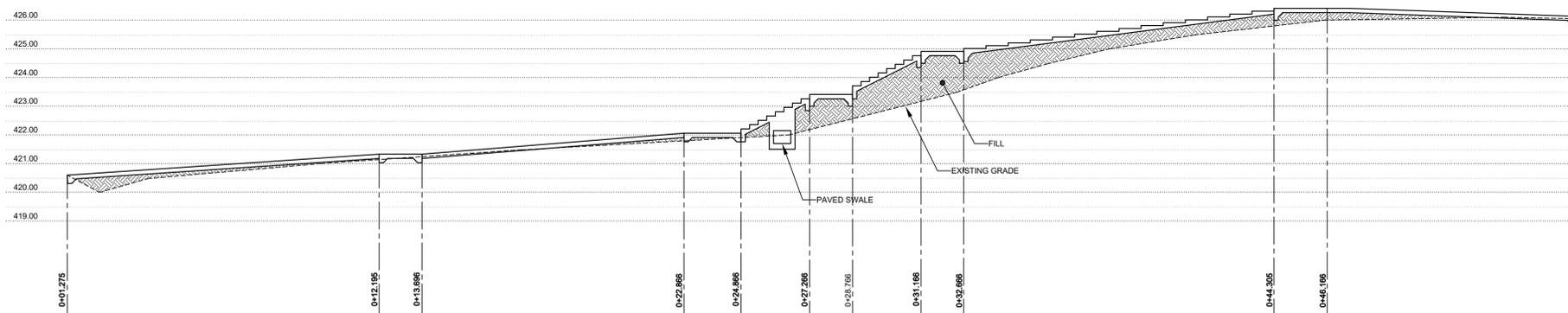
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LINE - 1 LONGITUDINAL SECTION
SCALE = 1:100

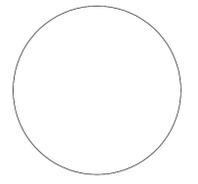


LINE - 2 LONGITUDINAL SECTION
SCALE = 1:100



LINE - 1 LONGITUDINAL SECTION
SCALE = 1:100

SECTIONS AND ELEVATIONS
scale= 1:100



PROJECT: PR-CRP-000873
PARQUE PASIVO
CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

NO.	DATE	DRAWING ISSUE	BY	APP.
1	06.12.23	30% PROGRESS SET		
2	09.22.23	60% PROGRESS SET		
3	02.27.24	90% PROGRESS SET		

DRAWN BY:
REVIEWED BY:
DATE:

SHEET TITLE: SECTIONS AND ELEVATIONS
DRAWING NO.: C-204

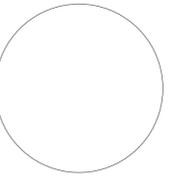
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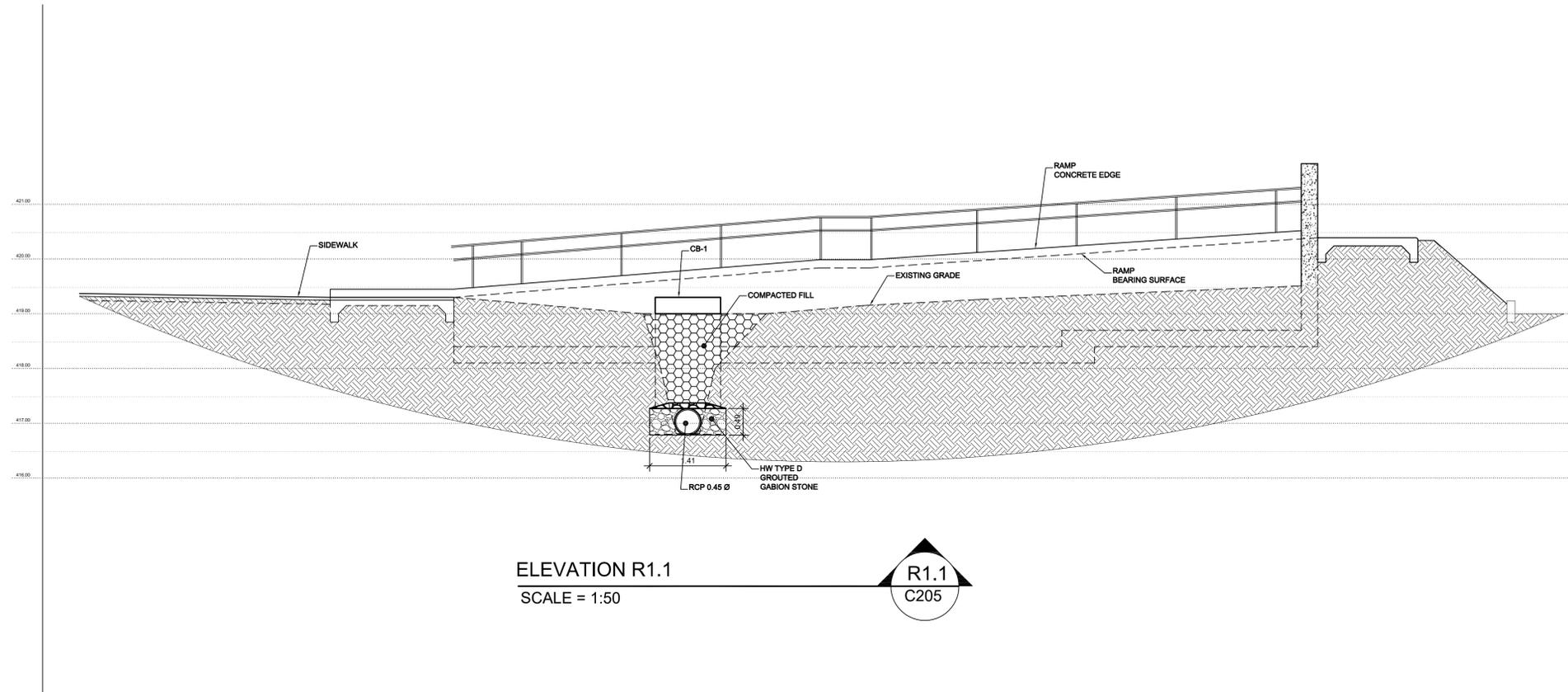
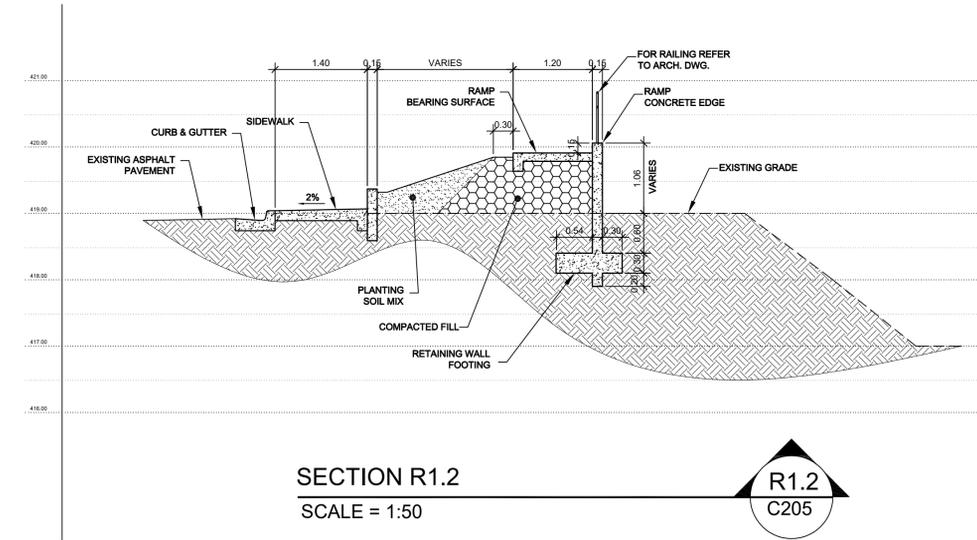
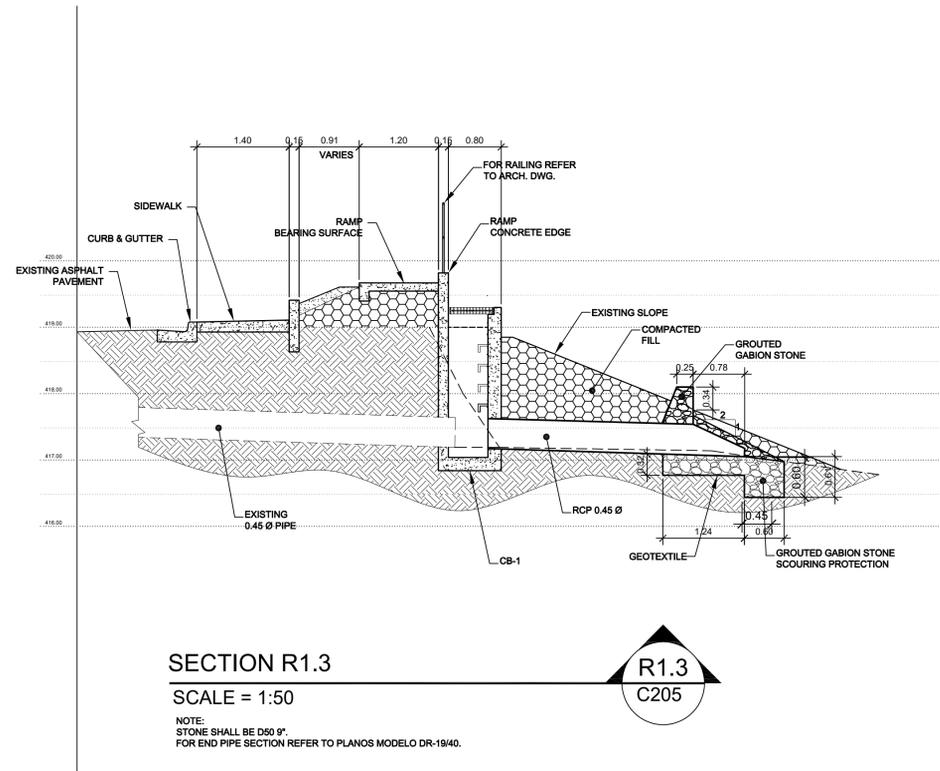
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SECTIONS AND ELEVATIONS
scale= 1:100



NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET		
	09.22.23	60% PROGRESS SET		
	02.27.24	90% PROGRESS SET		

DRAWN BY:
REVIEWED BY:
DATE:
SHEET TITLE

DRAWING NO.
C-205

SECTIONS AND ELEVATIONS

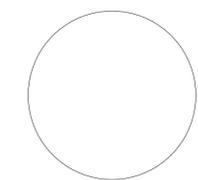
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REVIEWED BY:
DATE:
SHEET TITLE

DRAWING NO.
C-305

LEGEND EXISTING CONDITIONS

SYMBOL	DESCRIPTION
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	BAMBU
	TREE
	PALM

PLAYGROUND LEGEND

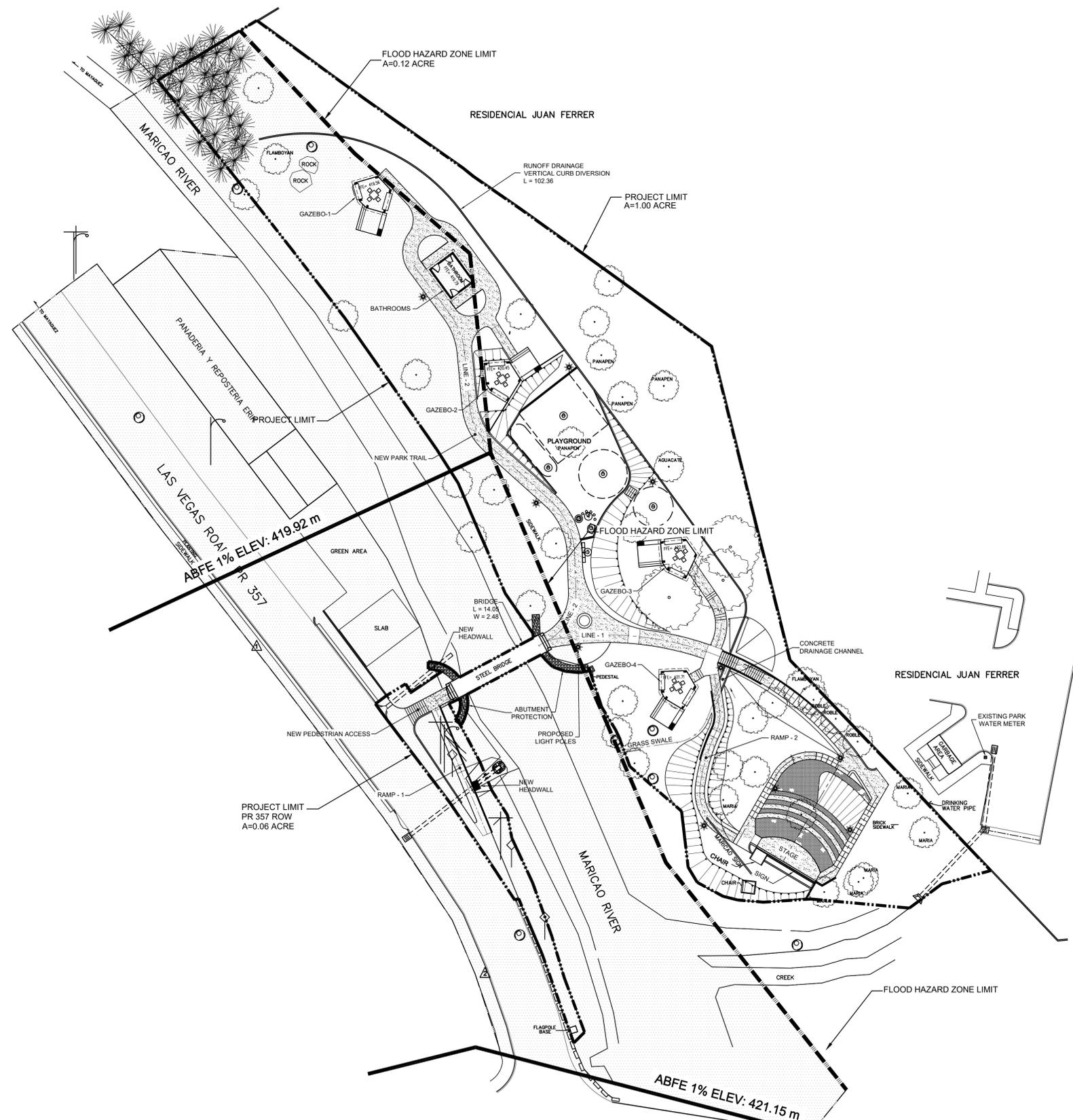
- 1 FLOWERS
- 2 TENOR TREE
- 3 MARIMBA
- 4 DRUMS
- 5 CLIMBER
- 6 MULTI ACTIVITY
- 7 SPARE
- 8 SEESAW
- 9 SPINNER

NOTES

- 1 FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
- 2 FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.

HORIZONTAL VERTICAL CONTROLS

STATION # 01 Y = 238,675.1010 X = 142,037.0530 ELEV. = 418.903 PK	STATION # 02 Y = 238,631.5410 X = 142,067.5920 ELEV. = 419.942 PK
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FLOOD HAZARD ZONE LIMITS
scale= 1:300



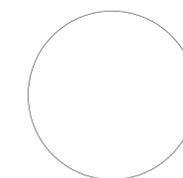
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LEGEND EXISTING CONDITIONS

SYMBOL	DESCRIPTION
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	FLOWERS
	TENOR TREE
	MARIMBA
	DRUMS
	CLIMBER
	MULTI ACTIVITY
	SPARE
	SEESAW
	SPINNER
	FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
	FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.
	BAMBU
	TREE
	PALM

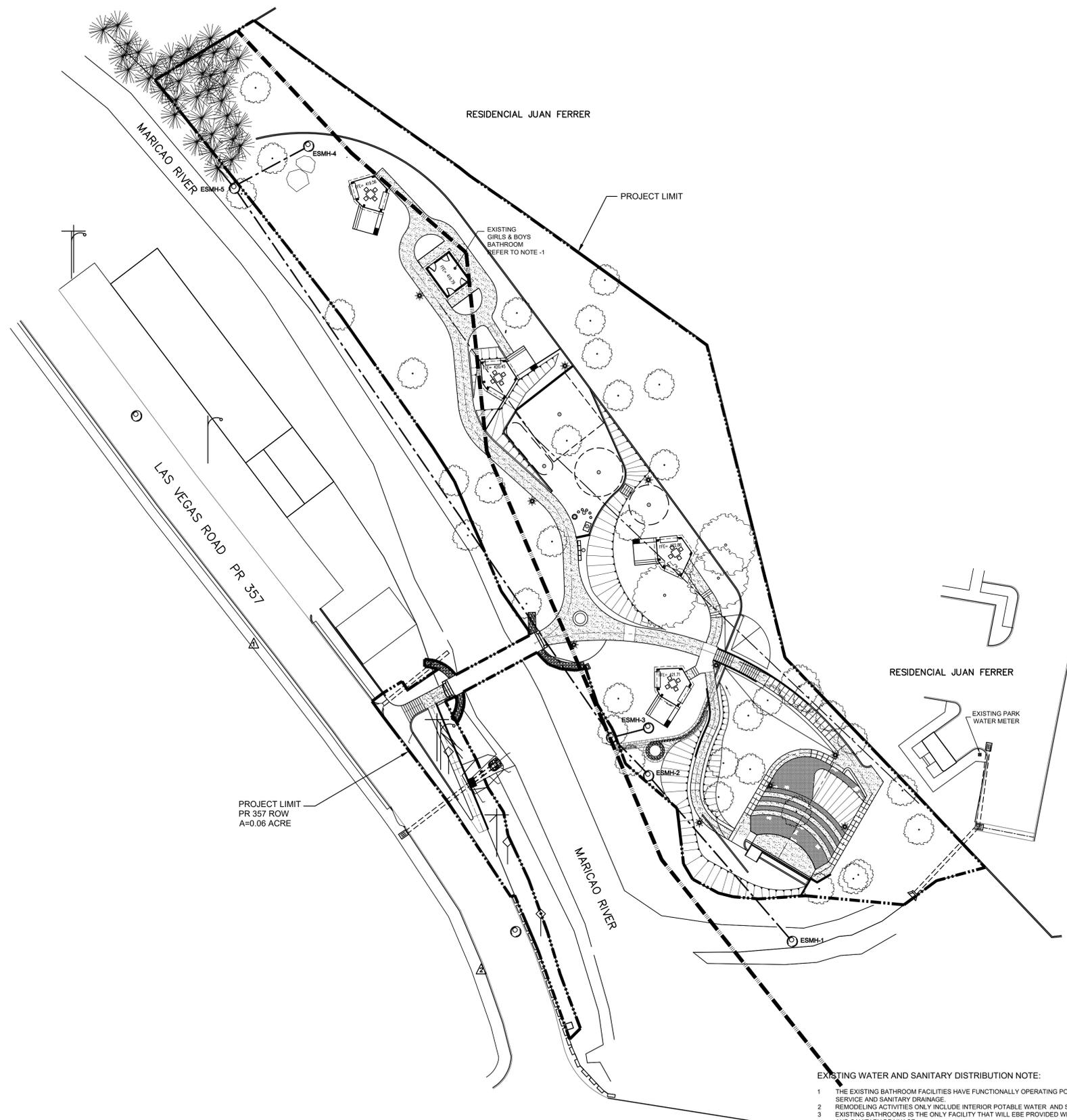
PLAYGROUND LEGEND

- 1 FLOWERS
- 2 TENOR TREE
- 3 MARIMBA
- 4 DRUMS
- 5 CLIMBER
- 6 MULTI ACTIVITY
- 7 SPARE
- 8 SEESAW
- 9 SPINNER

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HORIZONTAL VERTICAL CONTROLS	
STATION # 01 Y = 238,675.1010 X = 142,037.0530 ELEV. = 418.903 PK	STATION # 02 Y = 238,631.5410 X = 142,067.5920 ELEV. = 419.942 PK



EXISTING WATER AND SANITARY DISTRIBUTION NOTE:

- 1 THE EXISTING BATHROOM FACILITIES HAVE FUNCTIONALLY OPERATING POTABLE WATER SERVICE AND SANITARY DRAINAGE.
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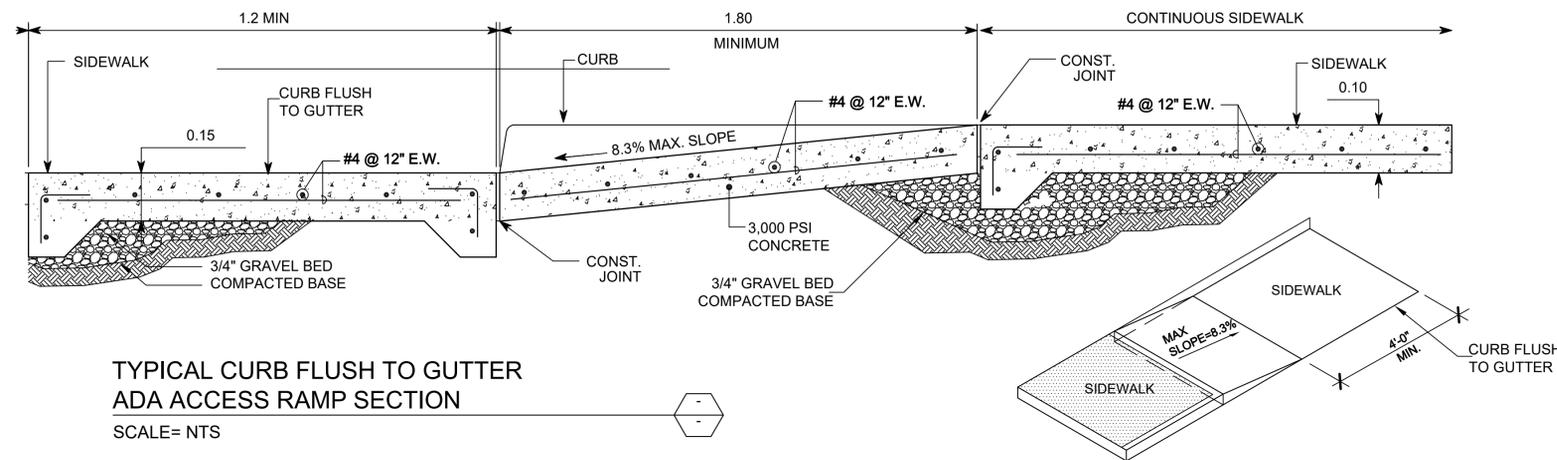
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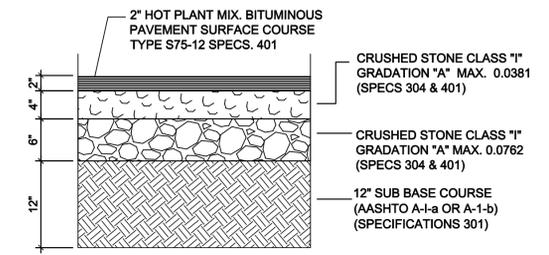
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REVIEWED BY:	
DATE:	
SHEET TITLE	DRAWING NO.
EXISTING WATER & SANITARY DISTRIBUTION PLAN	C-500

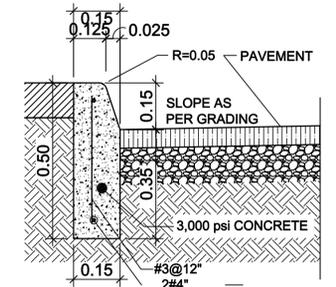
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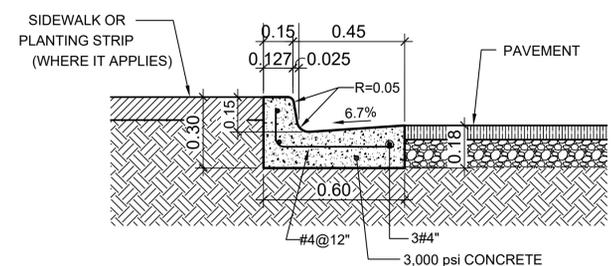
**TYPICAL CURB FLUSH TO GUTTER
ADA ACCESS RAMP SECTION**
SCALE= NTS



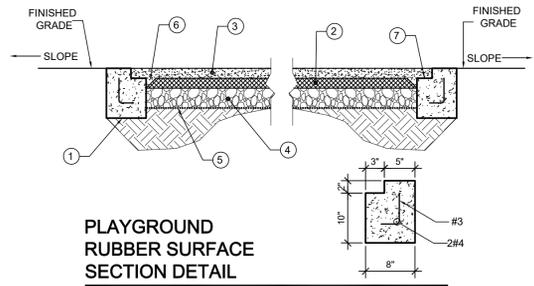
ASPHALT PAVEMENT SECTION
SCALE : NOT TO SCALE



VERTICAL CURB TYPE " E "
SCALE : N.T.S.

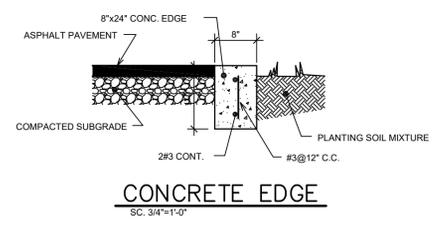


STANDARD CURB & GUTTER TYPE F.1
SCALE : N.T.S.

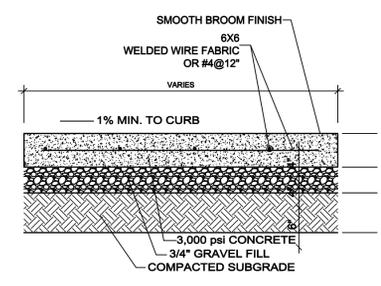


**PLAYGROUND
RUBBER SURFACE
SECTION DETAIL**
SCALE = NTS

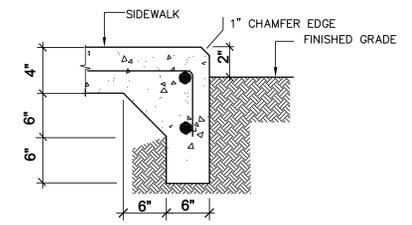
- NOTES:**
1. CONCRETE EDGE
 2. BASEMAT OF 100% RECYCLED SBR (STYRENE BUTADIENE RUBBER) AND POLYURETHANE POURED-IN-PLACE. LAYER DEPTH AS SPECIFIED.
 3. MONOLITHIC WEAR COURSE SURFACE CONSISTING OF RECYCLED POST-INDUSTRIAL EPDM (ETHYLENE PROPYLENE DIENE MONOMER), (2% MAX. SLOPE). TOTAL DEPTH BASED ON A CRITICAL FALL HEIGHT OF 5'-0".
 4. COMPACTED STONE AGGREGATE.
 5. COMPACTED SUBBASE, MARIFI 140N GEOTEXTILE.
 6. 2" BEVEL.
 7. 3" WIDE NOTCH.



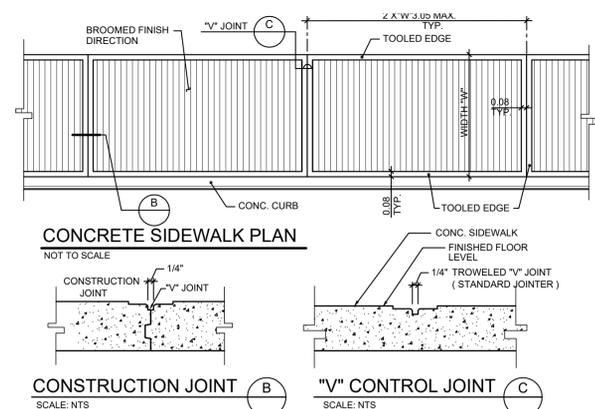
CONCRETE EDGE
SC. 3/4"=1'-0"



SIDEWALK DETAIL
SCALE : N.T.S.



DETAIL @ SIDEWALK EDGE
SCALE: N.T.S.



CONCRETE SIDEWALK PLAN
NOT TO SCALE

CONSTRUCTION JOINT SCALE: NTS

"V" CONTROL JOINT SCALE: NTS

SIDEWALK PAVEMENT NOTES

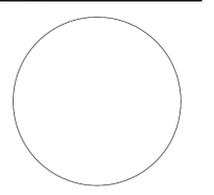
1. CONCRETE FOR SIDEWALK SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM W/C RATIO OF 0.72.
2. PROVIDE TOOLED CONTROL JOINTS @ 5'-0" ON CENTER. A MINIMUM DEPTH OF 1" AND 1/8" WIDTH.
3. PROVIDE 1/2" EXPANSION JOINTS @ 30'-0" ON CENTER WITH A PRE MOLDED JOINT FILLER AND JOINT SEALANT.
4. WHERE SIDEWALK ABUTS PROPOSED OR EXISTING FIXED OBJECTS PROVIDE A 1/2" EXPANSION JOINT WITH PRE MOLDED JOINT FILLER AND SEALANT.
5. WELDED WIRE MESH TO BE INTERRUPTED AT ALL EXPANSION OR CONSTRUCTION JOINTS LOCATIONS. WELDED WIRE MESH SHALL BE STARTED OR INTERRUPTED AT 2" FROM JOINT OR EDGE LOCATION.

ASPHALT PAVEMENT NOTES:

1. EXCAVATE ALL EXISTING FILL AND UNSUITABLE SOILS TO EXPOSE SUITABLE NATURAL VERY STIFF TO HARD CLAY SOILS. PROOFROLL EXPOSED NATURAL SOILS, STABILIZE AS NECESSARY AND THE PLACE ENGINEERED FILL TO SUBGRADE ELEVATION. IN CUT AREAS EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR SUBGRADE PREPARATION AND EVALUATION, AND PLACEMENT OF THE PAVEMENT SYSTEM.
2. COMPACT THE TOP 12 INCHES OF THE EXPOSED SUBGRADE AS WELL MAS INDIVIDUAL FILL LAYERS TO A MINIMUM 95 PERCENT OF THE MAXIMUM MODIFIED PROCTOR (ASTM 1557) DENSITY.
3. THOROUGHLY PROOFROLL THE FINAL SUBGRADE USING THE EQUIVALENT OF A FULLY LOADED TANDEM AXLE TRUCK UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. SOFT OR LOOSE YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REMOVED AND REPLACED WITH ENGINEERED FILL OR STABILIZED AS DICTATED BY FIELD CONDITIONS.
4. THE AGGREGATE BASE AND SUBBASE SHOULD BE COMPACTED TO A MINIMUM 95 PERCENT OF THE MAXIMUM MODIFIED PROCTOR (ASTM 1557) DENSITY.
5. A BOND COAT OF SS-1H EMULSION SHOULD BE REQUIRED BETWEEN THE LEVELING COURSE AND THE SURFACE COURSE WHEN EITHER 48 HOURS HAVE ELAPSED BETWEEN PLACEMENT OF THE BITUMINOUS COURSES OR THE SURFACE OF THE PAVEMENT HAS BEEN CONTAMINATED WITH DIRT, DUST OR FOREIGN MATERIAL. THE BOND COAT SHOULD BE APPLIED IN A UNIFORM MANNER OVER THE SURFACE AT A RATE OF 0.1 GALLONS/ S.Y. IN THE EVENT A BOND COAT IS NOT REQUIRED, THE LEVELING COURSE MAY REQUIRE LOCALIZED BROOM CLEANING.
6. PENETRATION GRADE PG 64-22 ASPHALT CEMENT SHALL BE USED IN THE PRODUCTION OF ALL BITUMINOUS MIXTURES. RECLAIMED ASPHALT PAVEMENT (RAP) SHOULD BE LIMITED TO 5% IN THE WEARING COURSE AND 10% IN THE LEVELING COURSE.
7. MIX DESIGN SHALL BE BASED ON 75 BLOWS OF THE MARSHALL HAMMER.

CONCRETE CURB TYP. NOTES

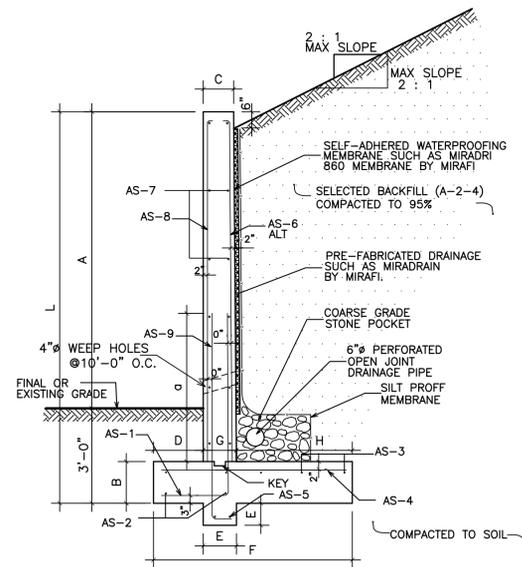
- 1-CONCRETE CURB SECTIONS SHALL BE OF UNIFORM LENGTHS OF 20 FEET OR LESS BUT NO SECTION TO BE LESS THAN SIX FEET.
- 2-PLACE 1/2" THICK PREFORMED EXPANSION JOINT FILLER TO FULL DEPTH, FLUSH WITH TOP AND FACE OF CURB, BETWEEN CURB SECTIONS.
- 3-PLACE PRIME COAT ON CURB SURFACES THAT ABUTTS BITUMINOUS PAVEMENT.
- 4-BETWEEN CONCRETE CURB AND CONCRETE PAVEMENT OR OTHER ABUTTING STRUCTURES, PLACE 1/2" PREFORMED EXPANSION JOINT FILLER AND SEALER.
- 5-CURB & GUTTER SURFACE SHALL HAVE A SMOOTH AND EVEN FINISH.
- 6-PORTLAND CEMENT CONCRETE SHALL BE CLASS "A".
- 7-CURBING SHALL BE CONSTRUCTED IN SECTIONS HAVING A UNIFORM LENGTH OF 3 METERS WITHOUT NEED OF ANY JOINT FILLER. SECTIONS SHALL BE SEPARATED BY OPEN JOINTS 0.003 WIDE WHERE THE CURBING IS CONSTRUCTED ADJACENT TO CONCRETE PAVEMENT, THE OPEN JOINTS IN THE CURBING SHALL MATCH THE CONTRACTION JOINTS IN THE PAVEMENT.
- 8-FORMS SHALL BE OF METAL AND SHALL EXTEND FOR THE FULL DEPTH OF THE CONCRETE. WOODEN FORMS MAY BE USED, WHEN AUTHORIZED BY THE ENGINEER, ON SHORT RADIUS CURVES SUCH AS AT STREET INTERSECTIONS AND AT SUCH OTHER LOCATIONS FOR WHICH CURVED METAL FORMS MAY NOT BE AVAILABLE. ALL FORMS SHALL BE FREE FORM WARP AND OF SUFFICIENT STRENGTH TO RESIST THE PRESSURE OF THE CONCRETE WITHOUT DISPLACEMENT. BRACING AND STACKING OF FORMS SHALL BE SUCH THAT THE FORMS REMAIN IN BOTH HORIZONTAL AND VERTICAL ALIGNMENT UNTIL THEIR REMOVAL. ALL FORMS SHALL BE CLEANED AND COATED WITH AN APPROVED FORM RELEASE AGENT OR FORM OIL BEFORE CONCRETE IS PLACED. DIVIDER PLATES SHALL BE OF METAL. FORMS SHALL CONFORM TO THE SPECIFIED RADIUS WHEN PLACED ON CURVES.



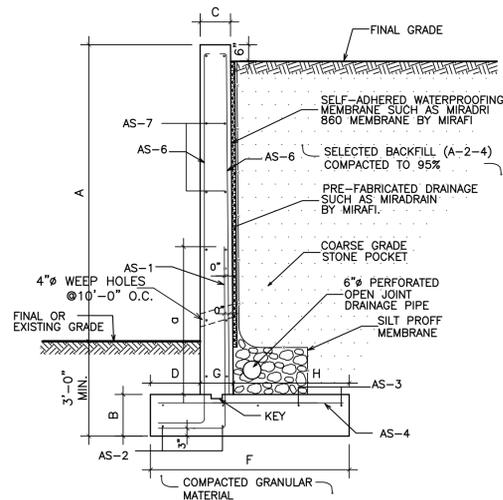
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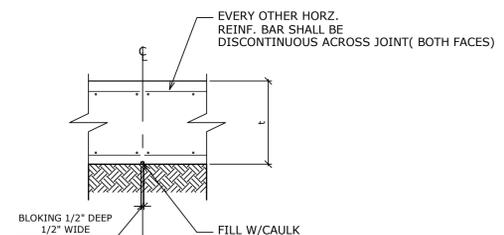
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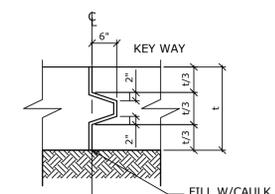
SECTION THROUGH RETAINING WALL A
SCALE: 1/2"=1'-0"



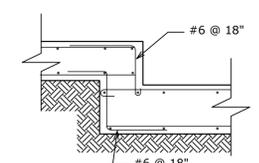
SECTION THROUGH RETAINING WALL B
SCALE: 1/2"=1'-0"



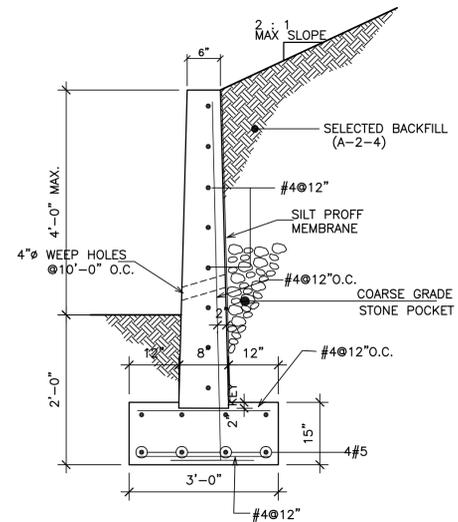
CONTROL JOINT DETAIL (C.J.)
SCALE: 1/2"=1'-0"



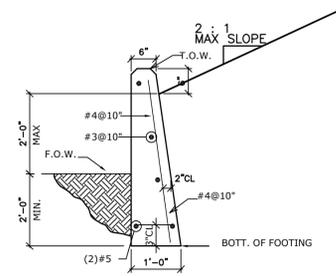
EXPANSION JOINT DETAIL (E.J.)
SCALE: 1/2"=1'-0"



FOOTING STEP DOWN DETAIL
SCALE: 1/2"=1'-0"

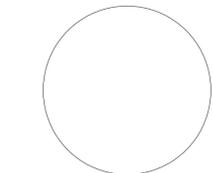


DETAIL FOR WALL TYPE C
SCALE: 1/2"=1'-0"



TYPICAL LOW WALL DETAIL
SCALE: 1/2"=1'-0"

RETAINING WALL SCHEDULE																		
RETAINING WALL	A	B	C	D	E	F	G	H	^a (0.40 L)	AS1	AS2	AS3	AS4	AS5	AS6	AS7	AS8	AS9
02	5'-0"	10"	6"	10"	N/A	2'-6"	6"	1'-2"	3'-2"	#4@12"x3'-2"	#4@12"	#4@12"	#4@12"	N/A	#4@12"	#4@12"	#4@12"	N/A
03	6'-0"	10"	6"	1'-0"	N/A	4'-2"	8"	2'-6"	3'-6"	#4@12"x3'-6"	#4@12"	#4@12"	#4@12"	N/A	#4@24"	#4@12"	#4@12"	N/A
04	7'-0"	12"	6"	1'-0"	N/A	4'-8"	8"	3'-0"	4'-0"	#5@10"x4'-0"	#4@9"	#4@9"	#4@12"	N/A	#5@20"	#4@12"	#4@12"	N/A
05	8'-0"	12"	6"	1'-6"	N/A	5'-8"	10"	3'-6"	4'-6"	#5@10"x4'-6"	#4@8"	#4@8"	#5@12"	N/A	#5@20"	#4@10"	#4@12"	N/A
06	9'-0"	12"	6"	1'-6"	N/A	6'-4"	12"	4'-0"	4'-10"	#5@8"x5'-0"	#4@8"	#4@8"	#6@12"	N/A	#5@16"	#4@8"	#4@12"	N/A
07	10'-0"	12"	6"	2'-0"	N/A	7'-6"	12"	4'-6"	5'-2"	#6@9"x6'-0"	#4@8"	#4@8"	#6@10"	2 # 6	#6@18"	#4@8"	#4@12"	#4@12"
08	11'-0"	15"	8"	3'-6"	1'-0"	9'-9"	15"	5'-0"	5'-6"	#6@9"x6'-0"	#5@10"	#5@10"	#7@10"	2 # 6	#6@18"	#5@10"	#4@10"	#4@10"
09	12'-0"	15"	8"	3'-6"	1'-0"	10'-3"	15"	5'-6"	6'-0"	#7@10"x6'-0"	#5@10"	#5@10"	#7@10"	2 # 6	#7@20"	#5@10"	#4@10"	#4@10"
10	13'-0"	18"	8"	3'-6"	1'-0"	10'-6"	18"	5'-6"	6'-6"	#7@10"x7'-0"	#5@8"	#5@8"	#7@10"	2 # 6	#7@20"	#5@8"	#4@10"	#4@10"
11	14'-0"	20"	8"	3'-6"	1'-0"	11'-2"	20"	6'-0"	6'-10"	#8@10"x7'-0"	#5@7"	#5@7"	#7@7"	2 # 6	#7@20"	#5@7"	#4@8"	#4@8"
12	15'-0"	20"	8"	4'-0"	1'-0"	12'-2"	20"	6'-6"	7'-2"	#9@10"x8'-0"	#5@7"	#5@7"	#9@8"	2 # 6	#9@20"	#5@7"	#4@8"	#4@8"



PROJECT: PR-CRP-000873
PARQUE PASIVO
CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

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8- SEESAW



2- TENOR TREE



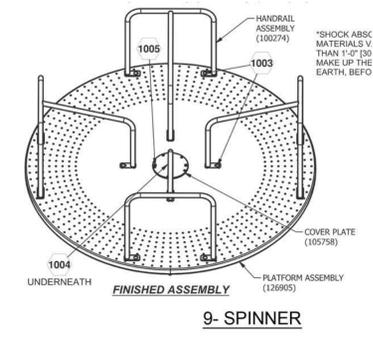
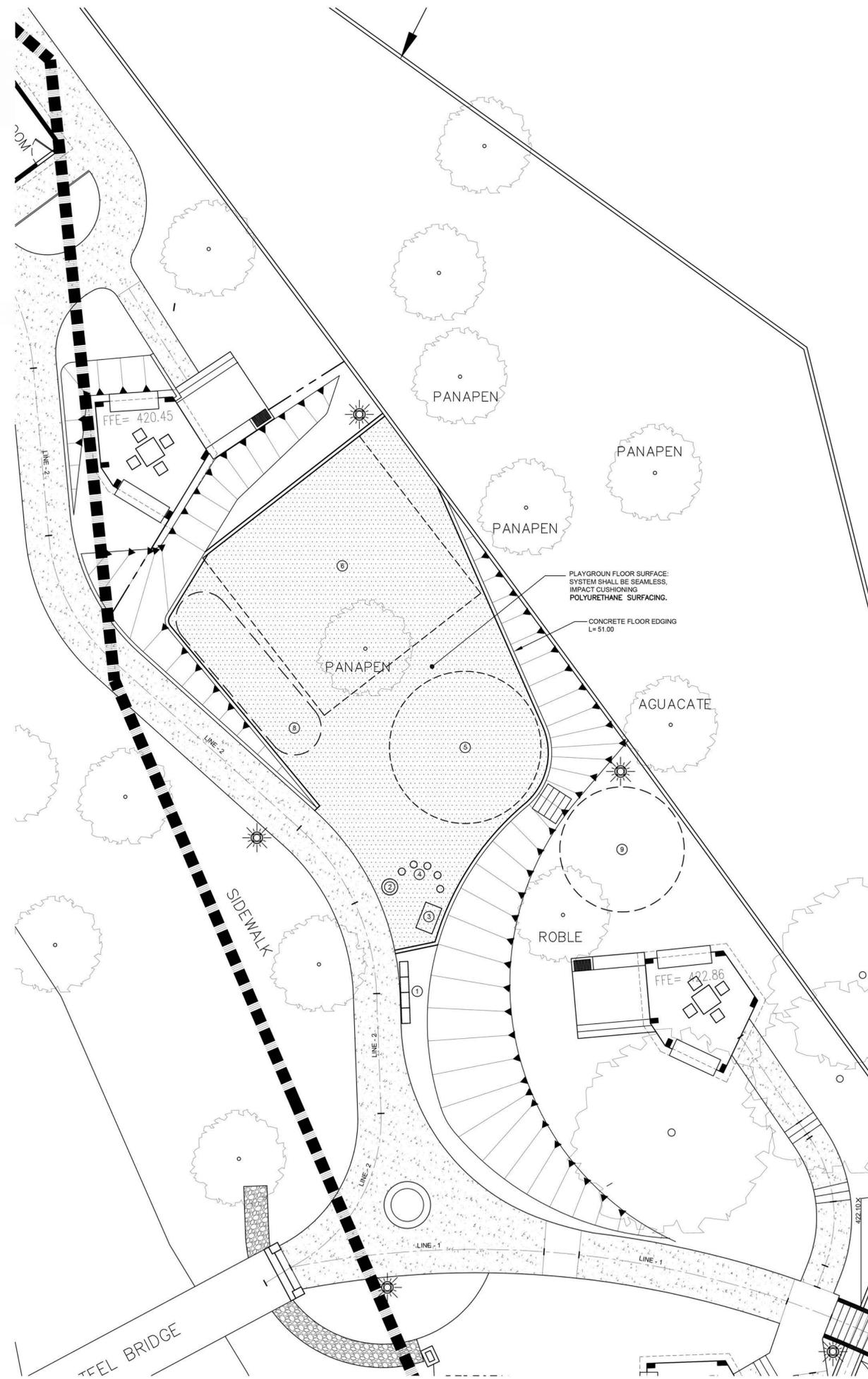
4- DRUMS



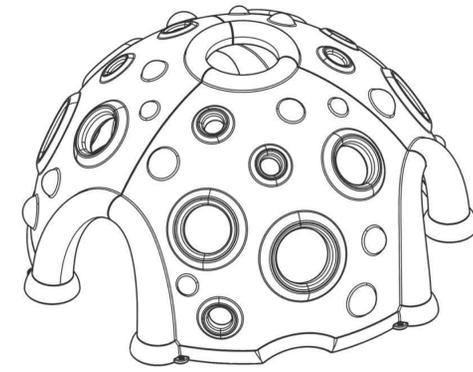
3- MARIMBA



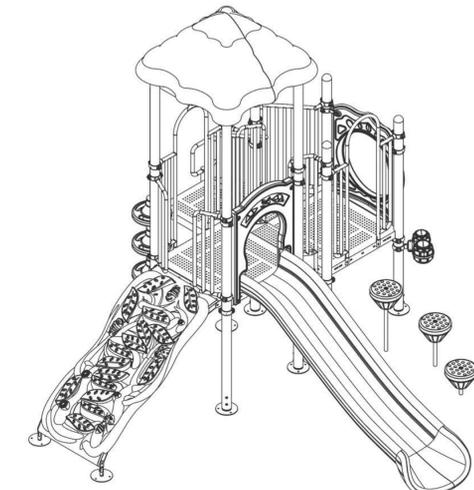
1- FLOWERS



9- SPINNER



5- CLIMBER

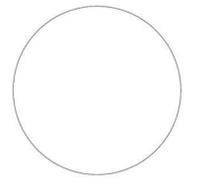


6- MULTI ACTIVITY

PLAYGROUND LEGEND

- 1 FLOWERS
- 2 TENOR TREE
- 3 MARIMBA
- 4 DRUMS
- 5 CLIMBER
- 6 MULTI ACTIVITY
- 7 SPARE
- 8 SEESAW
- 9 SPINNER

PLAYGROUND EQUIPMENT PLAN
scale= 1:100



PROJECT: PR-CRP-000873
PARQUE PASIVO
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DATE:
SHEET TITLE: PLAYGROUND EQUIPMENT PLAN
DRAWING NO.: C-700

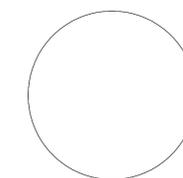
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C&G

JMCP +
JLGARCHITECTS
115 DEL PARQUE STREET SUITE 7
SAN JUAN, PR 00911
787.300.1837

MARICAO
CAPITAL DE LA MONTAÑA

90% PRE DESIGN SET
NOT FOR CONSTRUCTION



PROJECT: PR-CRP-000873

PARQUE PASIVO

CARRERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO

GOBIERNO MUNICIPAL DE MARICAO

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SHEET TITLE	DRAWING NO.
LANDSCAPE MASTER PLAN	LA-100

LEGEND EXISTING CONDITIONS

SYMBOL	DESCRIPTION
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	SIGN
	SIGN
	SIGN
	BAMBU
	TREE
	PALM

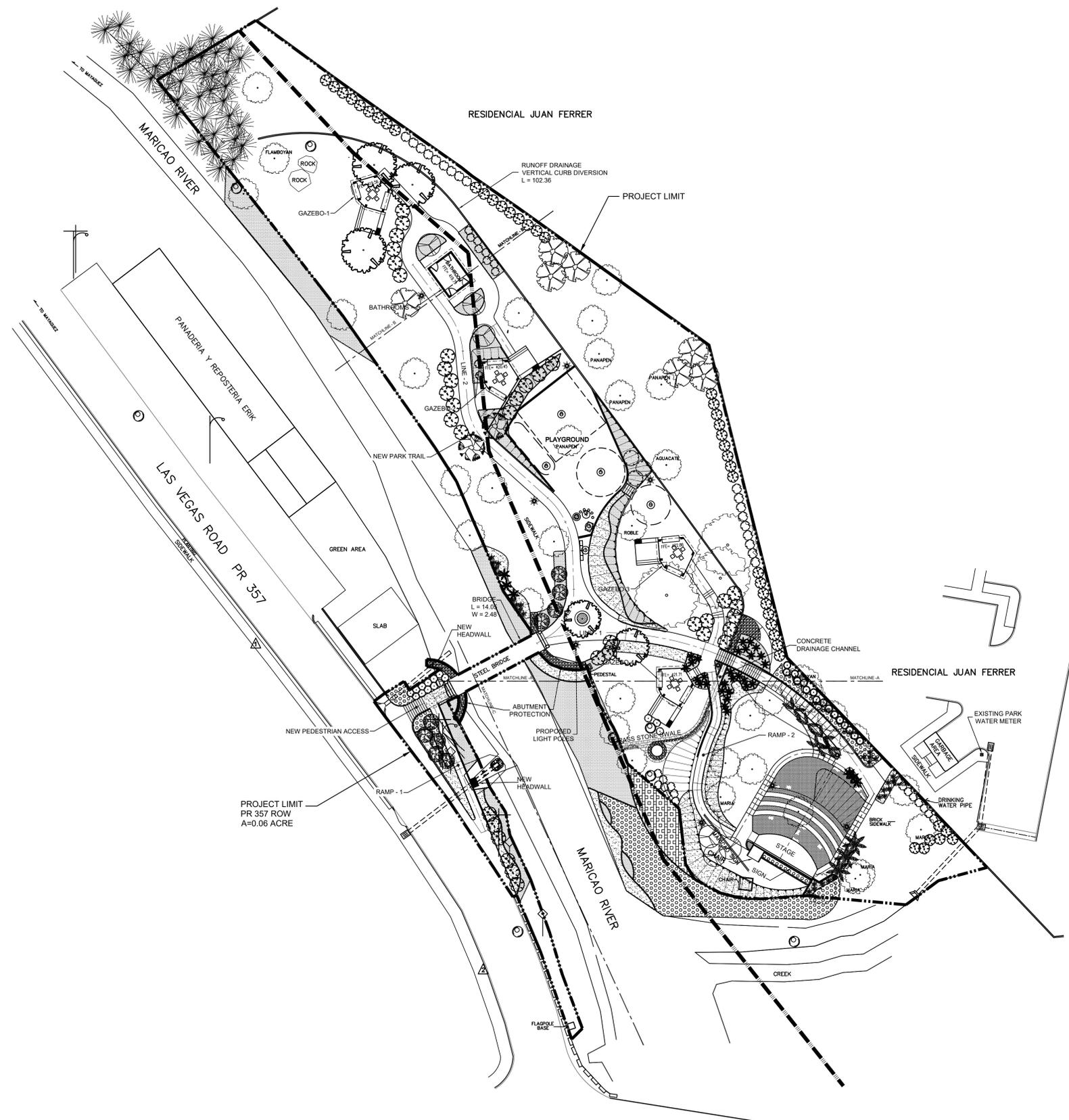
PLAYGROUND LEGEND

- 1 FLOWERS
- 2 TENOR TREE
- 3 MARIMBA
- 4 DRUMS
- 5 CLIMBER
- 6 MULTI ACTIVITY
- 7 SPARE
- 8 SEESAW
- 9 SPINNER

NOTES

- 1 FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
- 2 FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.

HORIZONTAL VERTICAL CONTROLS	
STATION # 01	STATION # 02
Y = 238,675.1010	Y = 238,631.5410
X = 142,037.0530	X = 142,067.5920
ELEV. = 418.903	ELEV. = 419.942
PK	PK



LANDSCAPE MASTER PLAN
scale= 1:300

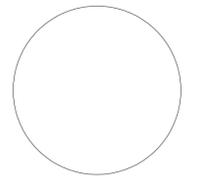


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SCALE = 1:300

SITE LANDSCAPE PLAN
Scale = 1:100



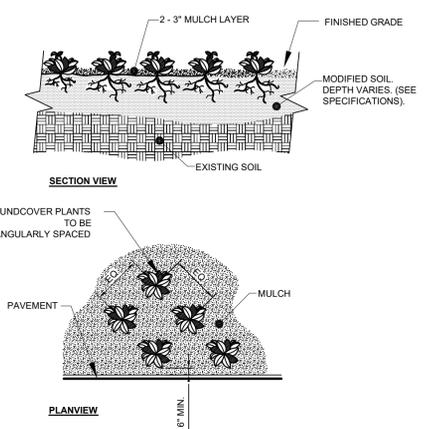
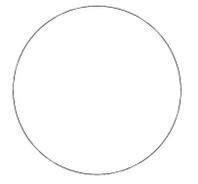
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PARQUE PASIVO
CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

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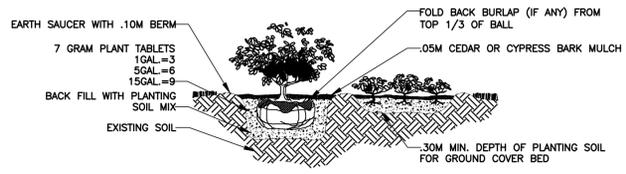
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DRAWING NO.
SITE LANDSCAPE PLAN
LA-102

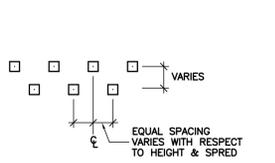
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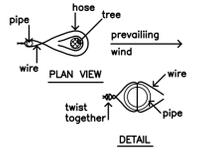
GROUNDCOVER PLANTING DETAIL



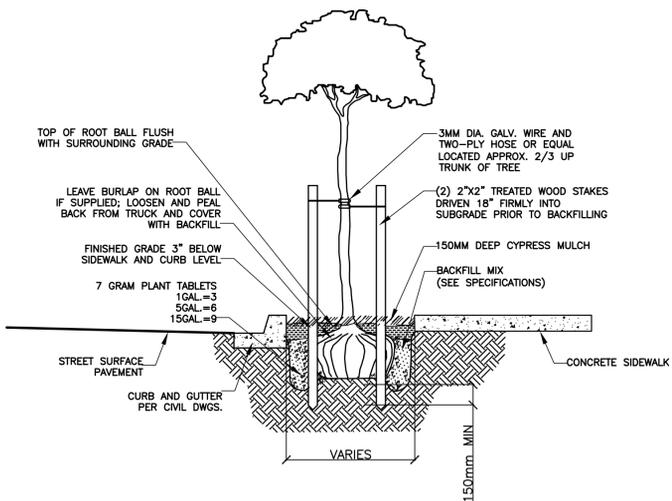
SHRUB & GROUND COVER PLANTING
 NOT TO SCALE



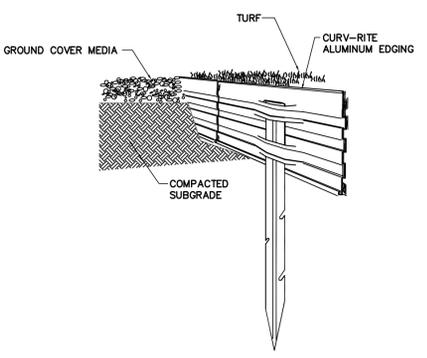
TYPICAL SHRUB LAYOUT
 NOT TO SCALE



STAKING DETAIL
 NOT TO SCALE



TREE IN PLANTING STRIP
 NOT TO SCALE



LANDSCAPE BORDER EDGING
 NOT TO SCALE

LANDSCAPE WORK NOTES:

- COSTS LANDSCAPING WORK CONSTRUCTION COSTS SHALL BE CLEARLY ITEMIZED, INCLUDING UNIT PRICES.
- WATER THE CONTRACTOR IS RESPONSIBLE FOR WATER TRANSPORTATION IN THE EVENT NO WATER IS AVAILABLE ON SITE.
- MAINTENANCE PERIOD BEGINS AFTER FINAL ACCEPTANCE AND EXTENDS FOR (12) MONTHS THEREAFTER. REFER TO WRITTEN SPECIFICATIONS.
- PALMS SPECIFIED HEIGHT OF PALM TREES DO NOT INCLUDE PALM FRONDS OR LEAVES. SPECIFIED HEIGHT IS FOR A CLEARLY DEFINED TRUNK.
- FERTILIZER FOR TREES AND PALMS, APPLY COMMERCIAL FERTILIZER PLANT FOOD TABLETS: "Agriform". TABLETS SHALL BE TIGHTLY COMPRESSED, LONG LASTING, TWO (2) YEARS, SLOW RELEASE FERTILIZER DELIVERED TO THE SITE ORIGINAL CONTAINERS BEARING THE MANUFACTURER'S GUARANTEED ANALYSIS OF 20-10-15. TABLETS SHALL WEIGH FIVE (5), TEN (10) OR TWENTY-ONE (21) GRAMS WITH A POTENTIAL ACIDITY OF NO MORE THAN 5% BY WEIGHT.
- PLANTING SOIL MIXTURE SHALL BE FREE OF EXTRANEUS MATTER AND WEEDS AND SHALL CONSIST OF THREE (3) PARTS TOPSOIL AND ONE (1) PART ORGANIC MATTER.
- LANDSCAPE CONTRACTOR SHALL COORDINATE WITH OWNER LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO START OF WORKS.
- TOPSOIL INSTALL 4 INCHES MINIMUM DEPTH AT PLANTING AND LAWN AREAS, 12 INCHES MINIMUM BELOW TREES.
- ROOT BARRIERS INSTALL ROOT BARRIERS ONLY IN PLANTING STRIPS WHERE INDICATED

NOTES

- SUPPLY PLANTING SOIL MIX AS MAY BE REQUIRED.
- ALL QUANTITIES IN THE PLANTING MATERIALS SCHEDULE CONSTITUTE AN APPROXIMATE ESTIMATE WHICH SHALL BE CONFIRMED BY CONTRACTOR AT ALL TIMES.

LA-110 TOTAL PLANTING MATERIALS SCHEDULE - PARQUE PASIVO					
TREES			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
TR-1	8	Each	Byrsonima Coriacea	Maricao	7 gal.
TR-2	2	Each	Lividia Ferrea	Arbol de Hierro	7 gal.
TR-3	3	Each	Tabebuia Heterophylla	Roble Rosado	7 gal.
TR-4	2	Each	Thespesia Grandiflora	Maga	7 gal.
TR-5		Each	Bauhinia Blackeana	Mariposa	7 gal.
TR-6	1	Each	Syzygium Malaccense	Pomarosa	7 gal.
TR-7		Each	Spore		7 gal.
TR-8		Each	Magnolia Portoricensis	Jaguilla	7 gal.

PALMS			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
P-1	3	Each	Cyathea Arborea	Helecho de Palma	7 gal.
P-2	16	Each	Rhapis Excelsa	Rhapis	1 gal. @ 0.914 m. o.c.

SHRUBS			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
SH1	6	Each	Alocasia Indica	Malanga Morada	3 gal. @ 0.60 m. o.c.
SH2	97	Each	Alpinia Purpurata	Ginger Rojo	3 gal. @ 0.60 m. o.c.
SH3	25	Each	Alpinia Sanderae	Ginger Rosado	3 gal. @ 0.60 m. o.c.
SH4	12	Each	Acalypha Wilkesiana	Califa	3 gal. @ 0.914 m. o.c.
SH5	8	Each	Brunfelsia Pauciflora	Ayer Hoy y Mañana	3 gal. @ 0.914 m. o.c.
SH6		Each	Calliandra Inaequilatera	Mota	3 gal. @ 0.914 m. o.c.
SH7		Each	Clusea Rosa	Cupey	3 gal. @ 0.914 m. o.c.
SH8		Each	Cordylone Terminalis	Cordiline	3 gal. @ 0.914 m. o.c.
SH9	11	Each	Dillenia Suffruticosa	Ojo de Pájaro	7 gal.
SH10		Each	Freycinetia Multiflora	Freicinetia	1 gal. @ 0.60 m. o.c.
SH11	24	Each	Hedychium Coronarium	Nardo	1 gal. @ 0.60 m. o.c.
SH12	20	Each	Heliconia Andraomeda Bihai	Heliconia Alta	3 gal. @ 0.60 m. o.c.
SH13		Each	Hydrangea Macrophylla	Hortensia	1 gal. @ 0.60 m. o.c.
SH14	9	Each	Jatropha Integerrima	Coralito	7 gal.
SH15	11	Each	Jatropha Multifida	Coral	7 gal.
SH16		Each	Clerodendron Quadriloculare	Clerodendron	7 gal.
SH17	24	Each	Murraya Exotica	Café de la India	7 gal.
SH18	14	Each	Mussa Sumatrana	Guineo Morado	3 gal. @ 0.914 m. o.c.
SH19		Each	Phaemia Speciosa	Flor de Cera	1 gal. @ 0.914 m. o.c.
SH20	24	Each	Philodendron Selloum	Monstera	1 gal. @ 0.914 m. o.c.
SH21	9	Each	Coffea Arabica	Cafeto	7 gals.
SH22	10	Each	Leea Coccinea	Lia	3 gal. @ 0.914 m. o.c.
SH23	5	Each	Strelitzia Nicolai	Ave de Paraiso Gigante	3 gal. @ 0.914 m. o.c.
SH24	18	Each	Bixa Orellana	Achiote	1 gal. @ 0.914 m. o.c.
SH25	18	Each	Cajanus Cajans	Gandul	1 gal. @ 0.914 m. o.c.
SH26	18	Each	Inga Vera	Guava	1 gal. @ 0.914 m. o.c.
SH27	30	Each	Tripsacum Dactylades	Liriope Verde Grande	3 gal. @ 0.914 m. o.c.

GROUND COVERS			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
GC1	43	Each	Anthurium Acaule	Anturio Nativo	1 gal. @ 0.60 m. o.c.
GC2		Each	Anthurium Andraeanum	Flamingo Flower	1 gal. @ 0.60 m. o.c.
GC3		Each	Canna Spp	Lirio Cana	1 gal. @ 0.60 m. o.c.
GC4		Each	Clusea Rosea	Cupey Enano	1 gal. @ 0.60 m. o.c.
GC5	50	Each	Commelina Diifusa - Cohitre	Cohitre	6" pot. @ 0.45 m. o.c.
GC6		Each	Browallia Americane	Margarita Morada	6" pot. @ 0.45 m. o.c.
GC7		Each	Callisia Monandra	Cohitre Morado	6" pot. @ 0.45 m. o.c.
GC8	33	Each	Dianella Tasmanica	Liriope Var. Grande	1 gal. @ 0.60 m. o.c.
GC9		Each	Heliconia Psitacorum	Golden Torch	1 gal. @ 0.45 m. o.c.
GC10	33	Each	Heliconia Caribae	Heliconia Nativa	1 gal. @ 0.45 m. o.c.
GC11	15	Each	Heliconia Bihai	Heliconia Nativa	1 gal. @ 0.45 m. o.c.
GC12		Each	Impatiens Walleriana	Miramelinda	6" pot. @ 0.30 m. o.c.
GC13		Each	Iris Amarillis	Iris	6" pot. @ 0.45 m. o.c.
GC14	687	Each	Nephrolepis Biserrata	Helecho Cola de Pescado	6" pot. @ 0.30 m. o.c.
GC15	5	Each	Philodendron Selloum	Monstera	1 gal. @ 0.60 m. o.c.
GC16	70	Each	Ophiopogon Japonicus	Gramma de Mono	6" pot. @ 0.30 m. o.c.
GC17	206	Each	Plumbago Auriculata	Isabel Segunda Azul	1 gal. @ 0.30 m. o.c.
GC18	20	Each	Plumbago Capensis	Isabel Segunda Blanca	1 gal. @ 0.30 m. o.c.
GC19		Each	Hymenocallis Keyensis	Lirio de Playa	6" pot. @ 0.45 m. o.c.
GC20	140	Each	Russelia Equisetiformis	Lluvia de Coral	1 gal. @ 0.45 m. o.c.
GC21	27	Each	Schizocentron Elegans	Mantilla Española	6" pot. @ 0.30 m. o.c.
GC22		Each	Setcreasea Purpurea	Cohitre Lila	6" pot. @ 0.45 m. o.c.
GC23		Each	Spathiphyllum Mauna Loa	Spathiphyllum	1 gal. @ 0.60 m. o.c.
GC24		Each	Spathoglottis	Orquidea Lila	6" pot. @ 0.45 m. o.c.
GC25	563	Each	Vetiveria Zizanoides	Pacholi	6" pot. @ 0.45 m. o.c.
GC26	444	sq. mt.	Arachys Hypogaea	Maní	1" pot. @ 0.30 m. o.c.
GC27		sq. mt.	Eremochloa ophiuroides	Gramma Clenpies	sod

OTHER MATERIALS		DESCRIPTION
KEY	QTY	UNIT
E-1		sq. mt.
E-2		mt.
S-1		sq. mt.
M		Mulch
F		Fertilizer

SPECIFICATION FOR LANDSCAPE BED EDGING

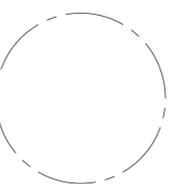
- LANDSCAPE BED EDGING SHALL BE EQUAL OR SIMILAR TO CURV-RITE DESIGN 2 (CRD2) AS MANUFACTURED BY CURV-RITE INC. WAYLAND, MICHIGAN 1 - 800 366 - 2878.
- THICKNESS, DEPTH, LENGTH AND FINISH SHALL BE: 1/8" X 5.5"
- EIGHT (8) OR SIXTEEN (16) FOOT SECTIONS SHALL BE USED WITH ONE STAKE PER (36) INCHES OF EDGING EDGING SHALL BE ALUMINUM ALLOY 6063 - T6 WITH STAKES BEING 6061 - T6
- STAKE SHALL SECURELY ENGAGE EDGING AND SHALL BE ENTIRELY BELOW TOP SURFACE OF EDGING. EDGING SHALL HAVE A MINIMUM OF (2) INCHES OF INTERLOCKING OVERLAP BETWEEN SECTIONS.
- INSTALL AS PER MANUFACTURER'S SPECIFICATIONS WITH TOP OF EDGING 1/4" TO 1/2" ABOVE COMPACTED FINISH GRADE. FINISH GRADE TO BE COMPACTED ON EITHER SIDE OF EDGING TO MAINTAIN STABILITY.

PLANT SCHEDULE & PLANTING DETAILS
 SCALE = AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
1	06.12.23	30% PROGRESS SET		
2	09.22.23	60% PROGRESS SET		
3	02.27.24	90% PROGRESS SET		

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 REVIEWED BY:
 DATE:
 SHEET TITLE: LA-110
 DRAWING NO.:

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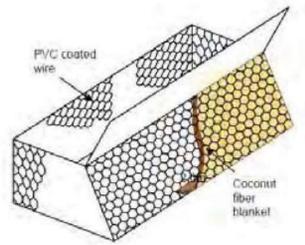


GREEN TERRAMESH

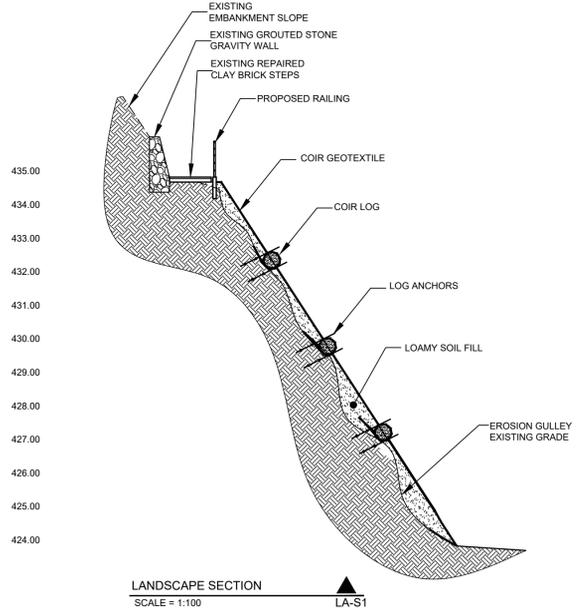
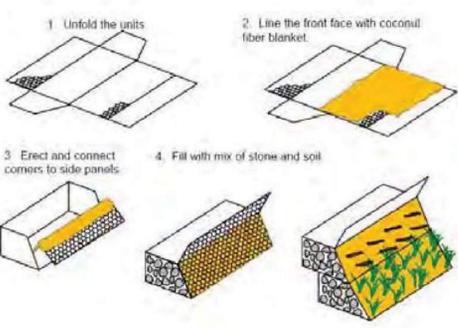


Soil Bioengineering - Green Gabion

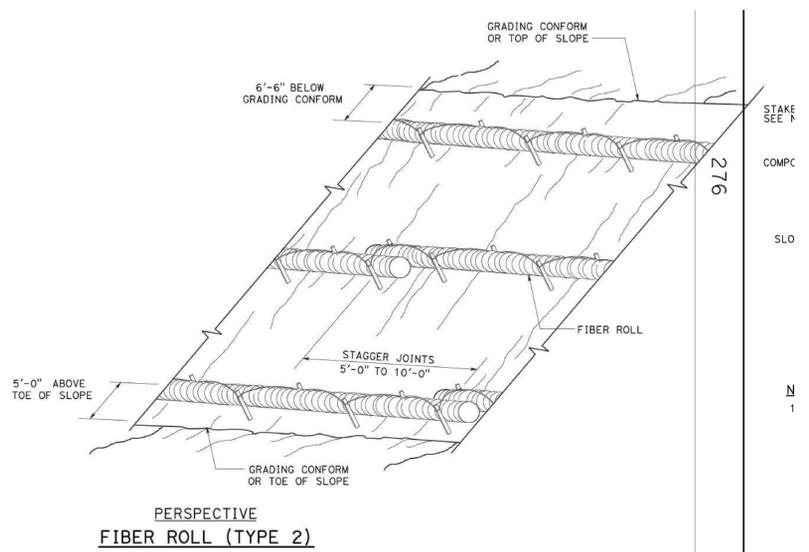
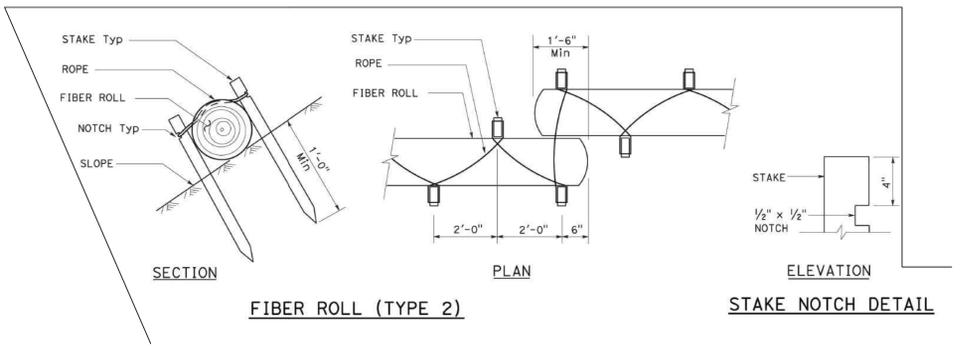
The Green Gabion is a PVC coated, trapezoidal gabion made with a 45 or 60 degrees inclined front face and lined with a coconut fiber blanket. The unit can be filled with stones or with a mix of stones and soil.



MACCAFERRI



LANDSCAPE SECTION
 SCALE = 1:100



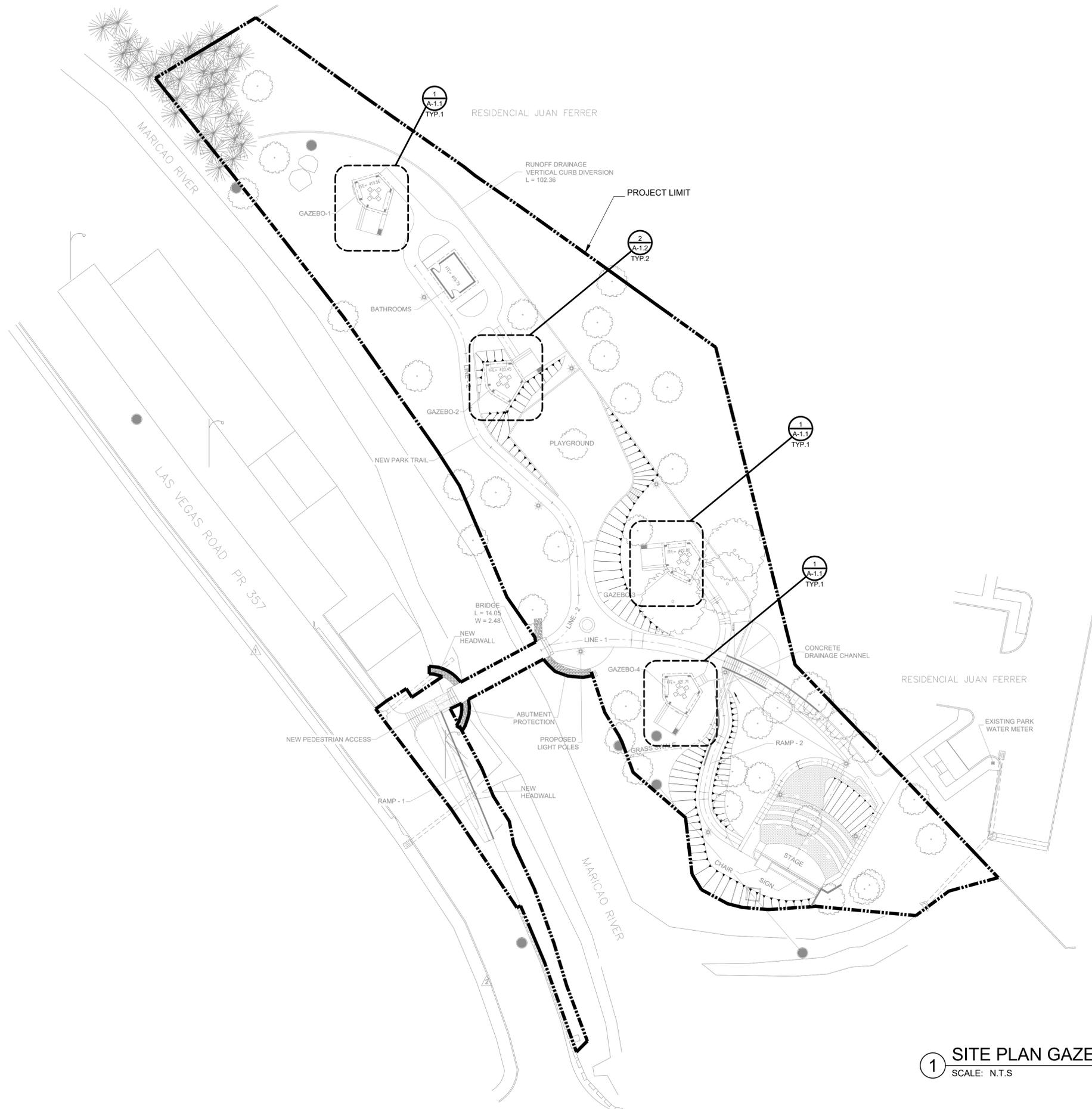
PERSPECTIVE
 FIBER ROLL (TYPE 2)

NO.	DATE	DRAWING ISSUE	BY	APP.
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	02.27.24	90% PROGRESS SET		

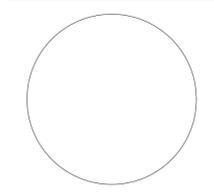
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 REVIEWED BY:
 DATE:

SHEET TITLE DRAWING NO.

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1 SITE PLAN GAZEBO LOCATION
SCALE: N.T.S.



PROJECT: PR-CRP-000873
PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR
GAZEBOS SITE LOCATION
SCALE: AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET	.	.
△	09.22.23	60% PROGRESS SET	.	.
△	02.27.24	90% PROGRESS SET	.	.
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DRAWN BY: .
REVIEWED BY: .

DATE: 09.22.23

SHEET TITLE: GAZEBOS SITE LOCATION
DRAWING NO.: A-1.0

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KEY NOTES:

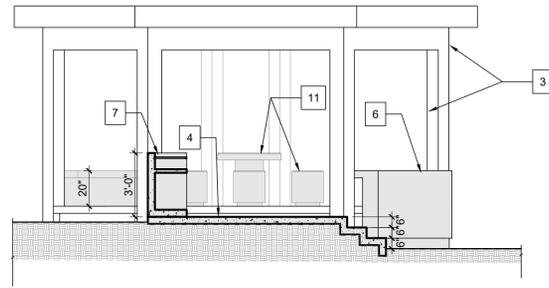
1. CONCRETE ROOF WATERPROOFING. APPLY A WATER BASED ACRYLIC ELASTOMERIC WATER PROOF SEALANT EQUAL TO CROSSCO 5500.(ROOF SURFACE & PARAPET WALLS)
2. DRAIN SCUPPER. SEE DETAIL XX
3. EXISTING CONCRETE WALLS, COLUMNS, PARAPET WALLS, CEILING, ETC... PATCH & REPAIR EXISTING CEMENT PLASTER FINISH TO AN EVEN SMOOTH SURFACE AS NEEDED, PRIME AND PAINT. (REFER TO FINISH SCHEDULE)
4. NEW REINFORCED CONCRETE SLAB. SEE STRUCTURAL DWGS FOR DETAILS.
5. NEW REINFORCED CONCRETE BENCH. SEE STRUCTURAL DWGS FOR DETAILS.
6. NEW REINFORCED CONCRETE TABLE. SEE STRUCTURAL DWGS FOR DETAILS.
7. NEW PRECAST CONCRETE BBO. SEE DETAIL 4/A-1.3.
8. NEW FLOOR FINISH. SEE DETAIL XX
9. SURFACE MOUNT LIGHT FIXTURES. (SEE ELEC. DWGS).
10. REFER TO STRUCTURAL DWGS. FOR CONC. SLAB, SUB BASE, ROOF, WALLS, & FOOTING DETAILS.
11. FIXED PRECAST AMENITIES. SEE DETAIL 1/A-1.3.

DRAWING LEGEND:

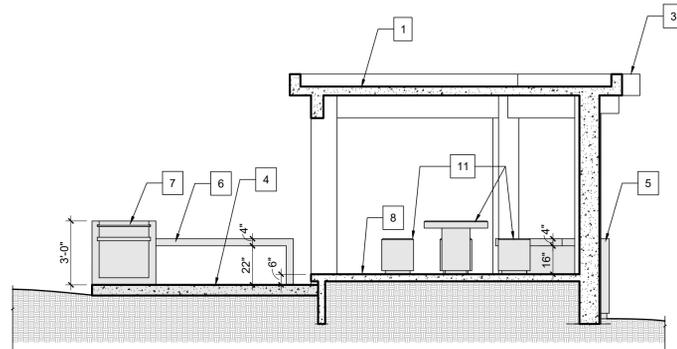
-  REINF. CONCRETE WALLS
-  NEW CMU WALLS
-  NEW CONSTRUCTION

ABBREVIATIONS LEGEND:

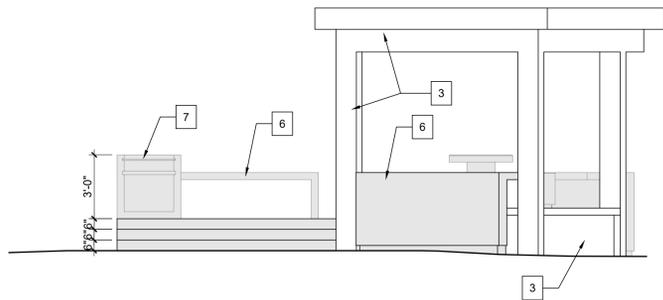
- T.O.W. = TOP OF WALL
- T.O.S. = TOP OF SLAB
- ALM. = ALUMINUM
- CONC. = CONCRETE
- CMU = CONCRETE MASONRY UNIT
- MECH = MECHANICAL
- MEP = MECHANICAL, ELECTRICAL, PLUMBING
- RM. = ROOM
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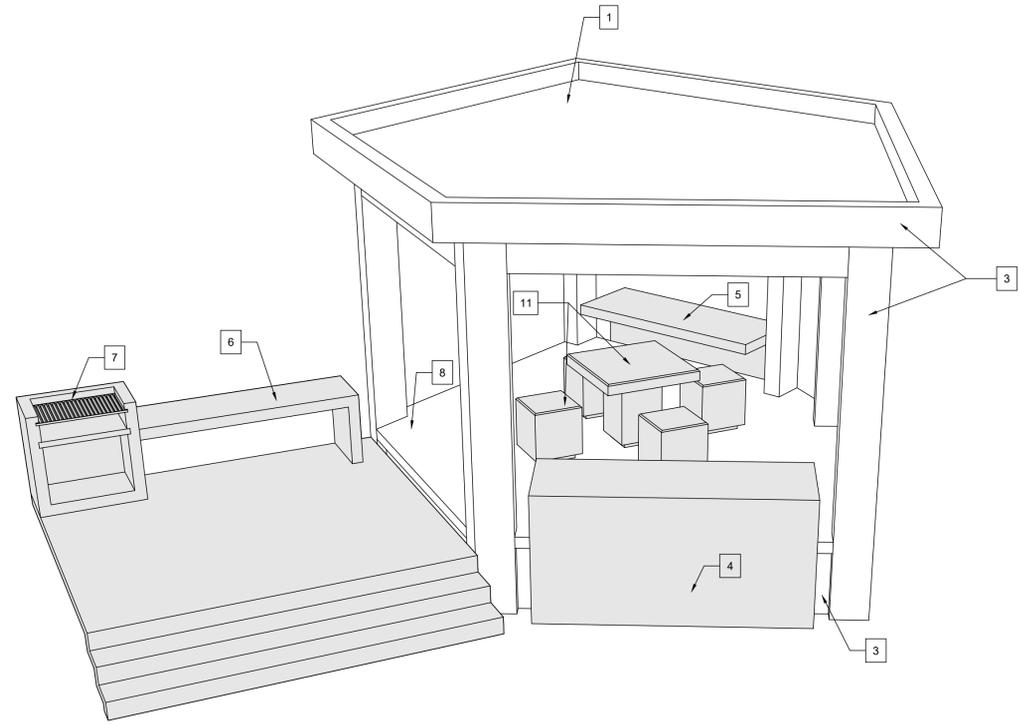
1 SECTION
SCALE: 1/4" = 1'-0"



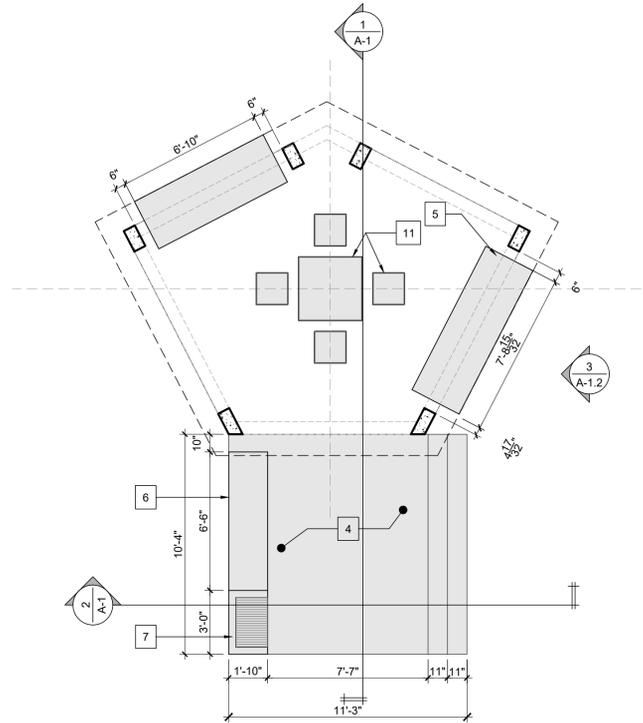
2 SECTION
SCALE: 1/4" = 1'-0"



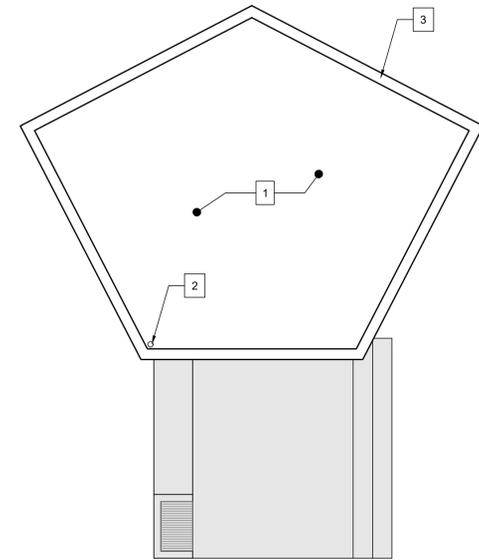
3 ELEVATION
SCALE: 1/4" = 1'-0"



4 3D REPRESENTATION
SCALE: N.T.S.



5 FLOOR PLAN
SCALE: 1/4" = 1'-0"



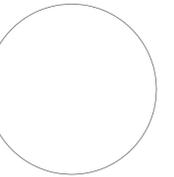
6 ROOF PLAN
SCALE: 1/4" = 1'-0"

C&G

JMCP +
JLGARCHITECTS
115 DEL PARQUE STREET SUITE 7
SAN JUAN, PR 00911
JMCP 787.409.1372 | JLG 787.309.1807

MARICAO
CAPITAL DE LA MONTAÑA

90% PRE DESIGN SET
NOT FOR CONSTRUCTION



PROJECT: PR-CRP-000873
PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR
GAZEBOS IMPROVEMENTS PLANS AND SECTIONS
SCALE: AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
1	06.12.23	30% PROGRESS SET		
2	09.22.23	60% PROGRESS SET		
3	02.27.24	90% PROGRESS SET		
4				
5				
6				

DRAWN BY: .
REVIEWED BY: .

DATE: 02.12.24

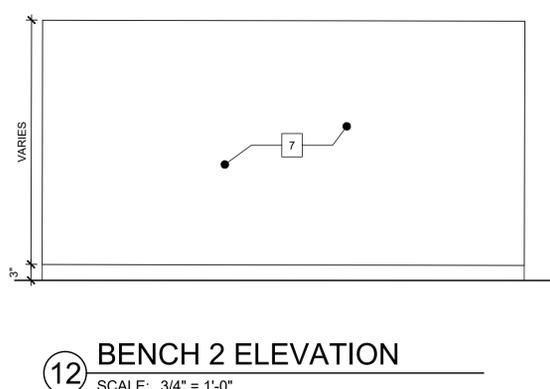
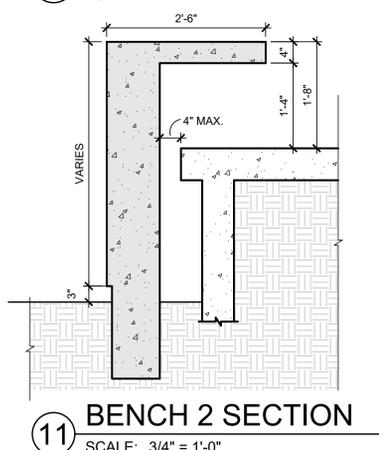
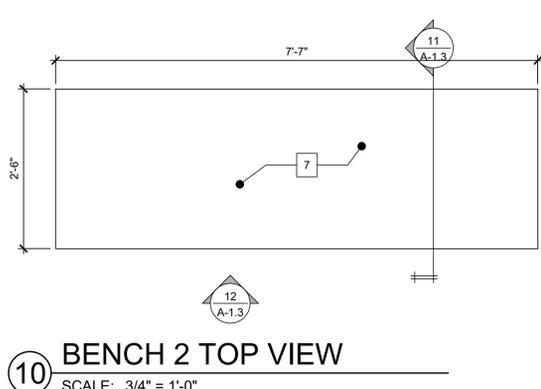
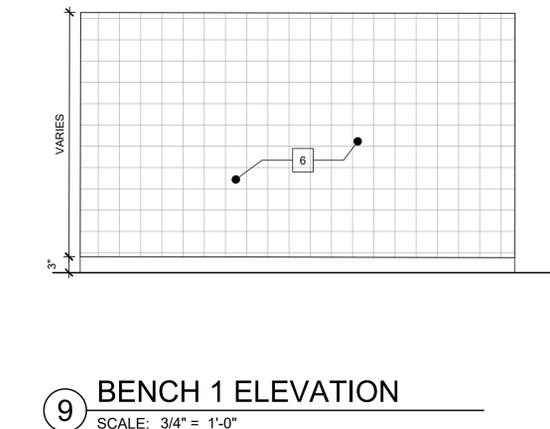
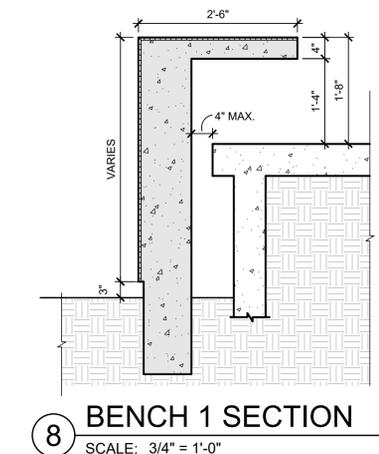
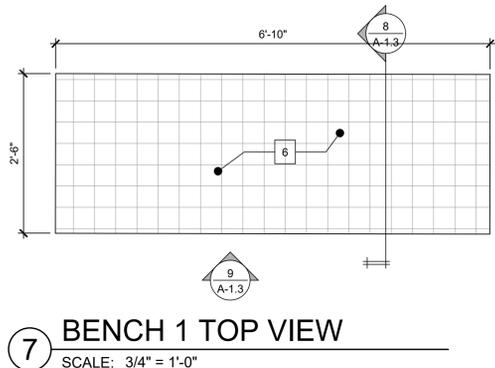
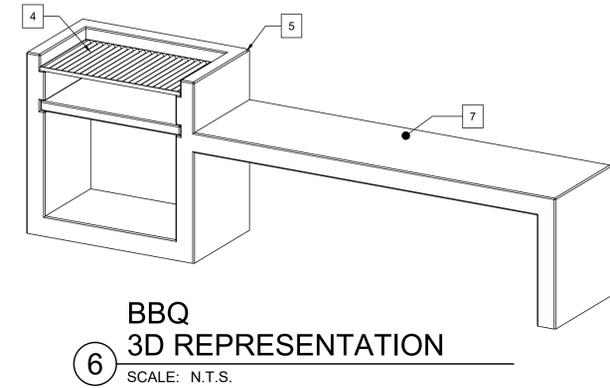
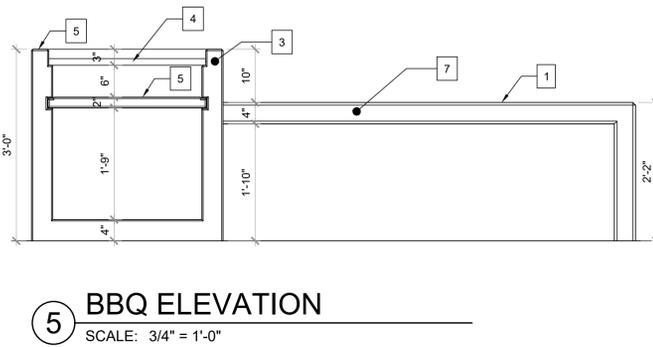
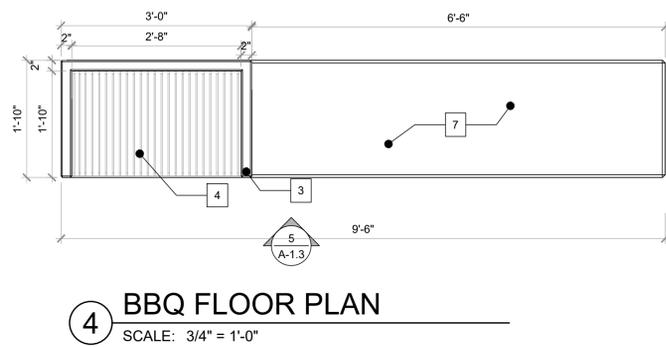
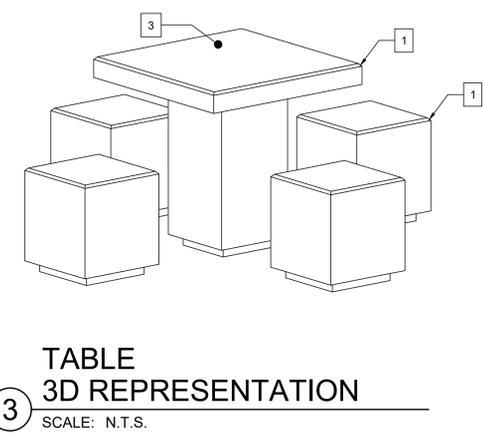
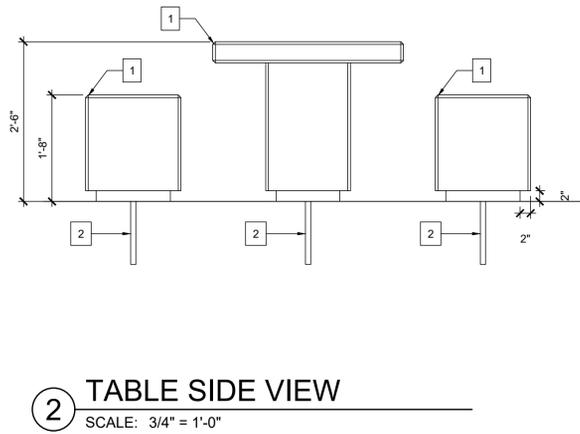
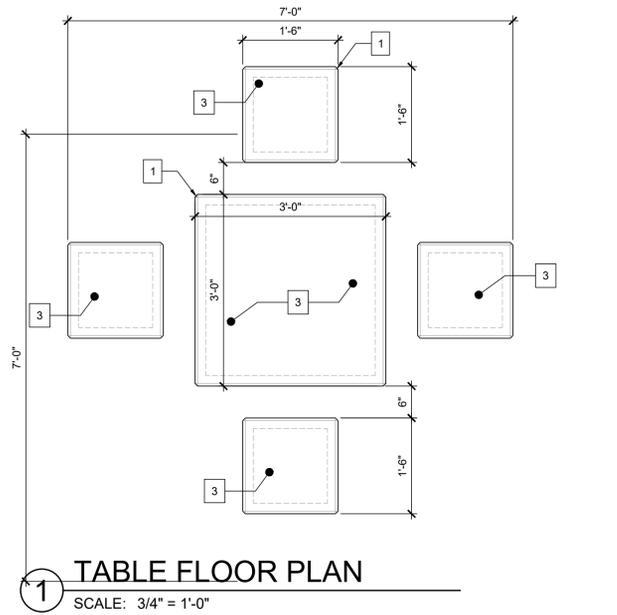
SHEET TITLE DRAWING NO.

GAZEBOS IMPROVEMENTS PLANS & SECS **A-1.2**

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KEY NOTES:

1. CHAMFER $\frac{1}{4}$ "
2. 1" DIAM DOWEL
3. PRE-FABRICATED PIECE WITH POLISHED CONCRETE FINISH
4. STAINLESS STEEL GRILL WITH S.S. HINGES
5. CHAMFER $\frac{1}{4}$ "
6. NEW 2X2 PORCELAIN TILE FINISH TO BE SELECTED BY ARCHITECT ONE COLOR FOR EACH GAZEBO (SEE FINISH SCHEDULE)
7. POLISHED CONCRETE FINISH

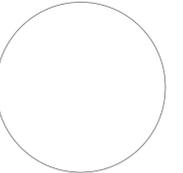


DRAWING LEGEND:

- FACE OF EXISTING WALLS
- REINF. CONCRETE WALLS
- NEW CMU WALLS
- NEW CONSTRUCTION

ABBREVIATIONS LEGEND:

- T.O.W. = TOP OF WALL
- T.O.S. = TOP OF SLAB
- ALM. = ALUMINUM
- CONC. = CONCRETE
- CMU = CONCRETE MASONRY UNIT
- MECH = MECHANICAL
- MEP = MECHANICAL, ELECTRICAL, PLUMBING
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△	06.12.23	30% PROGRESS SET		
△	09.22.23	60% PROGRESS SET		
△	02.27.24	90% PROGRESS SET		
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 REVIEWED BY: .

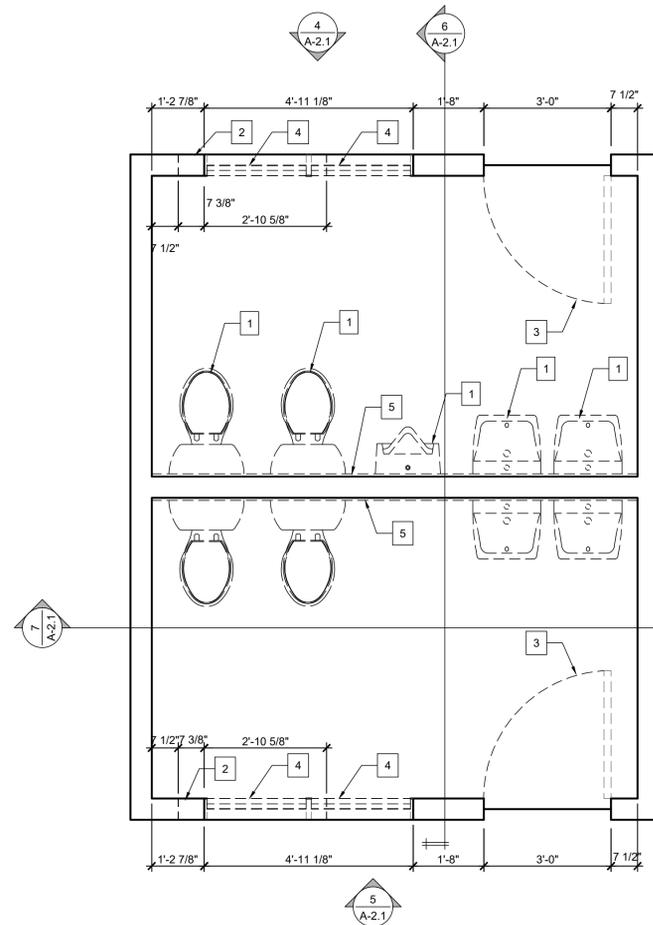
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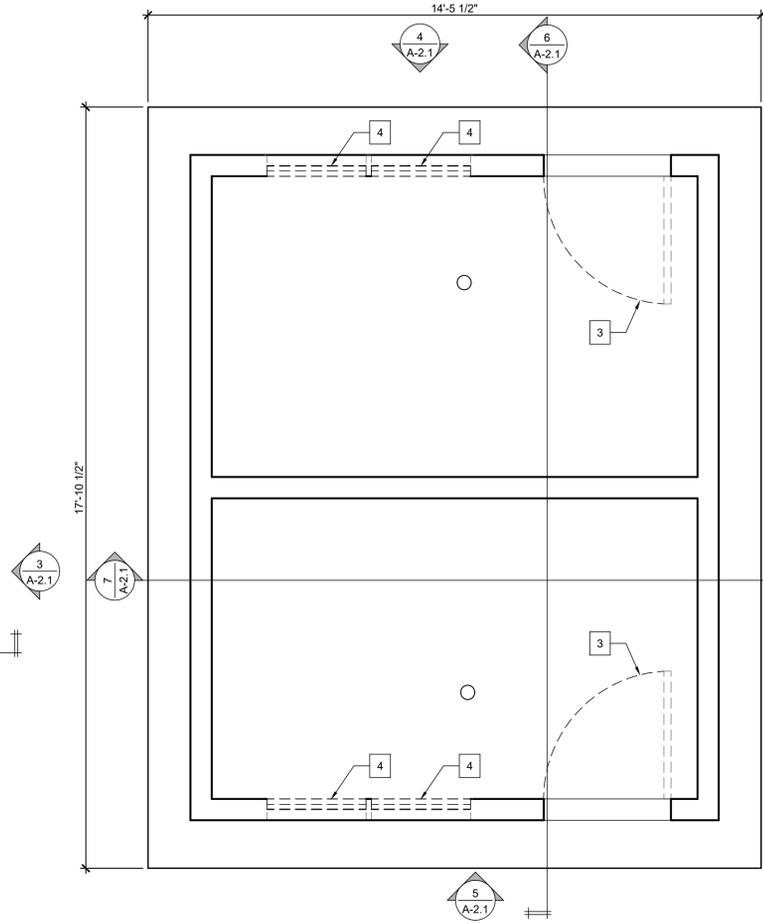
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KEY NOTES:

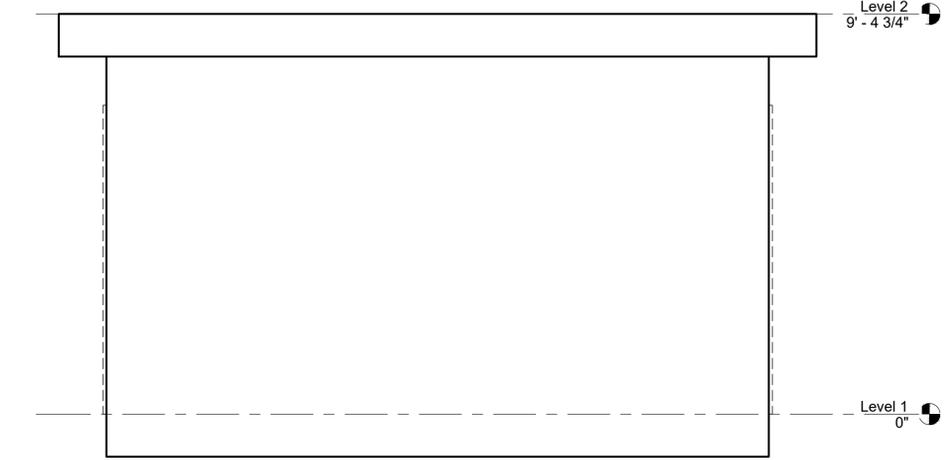
1. EXISTING PLUMBING FIXTURES TO BE REMOVED.
2. EXISTING WALL TO BE PARTIALLY DEMOLISHED FOR NEW DOOR.
3. EXISTING DOOR TO BE REMOVED.
4. EXISTING WINDOWS TO BE REMOVED.
5. EXISTING TILE FINISH TO BE REMOVED.



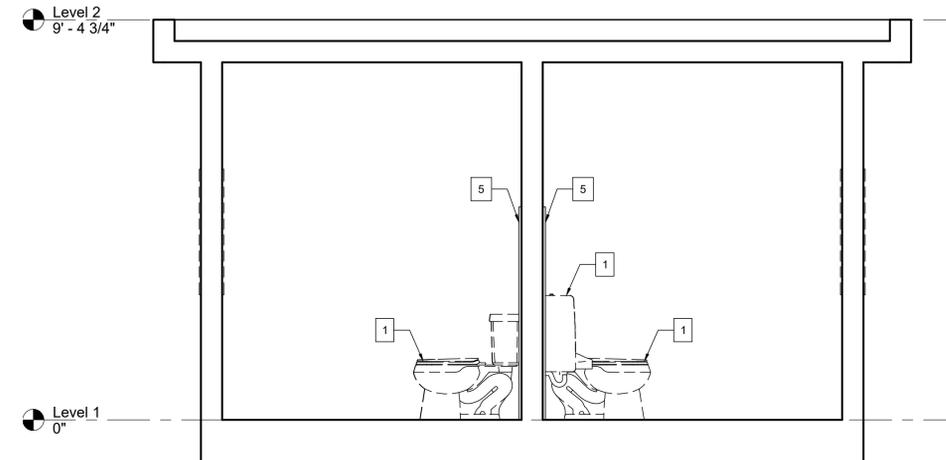
1 EXISTING FLOOR PLAN
SCALE: 1/2" = 1'-0"



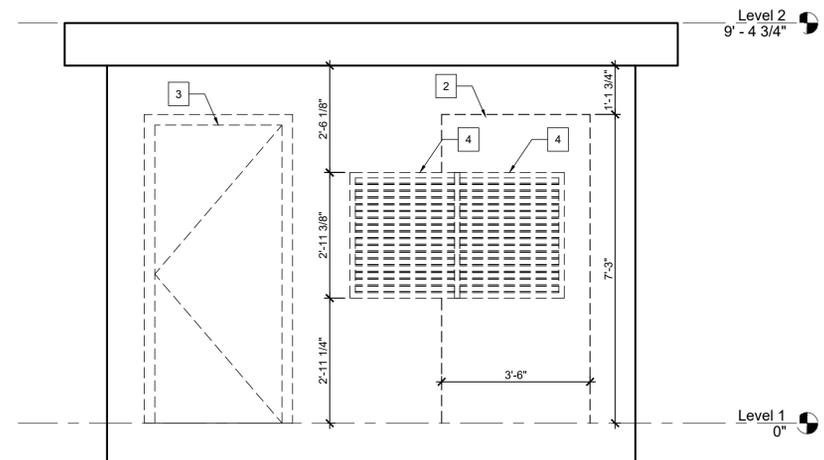
2 EXISTING RCP
SCALE: 1/2" = 1'-0"



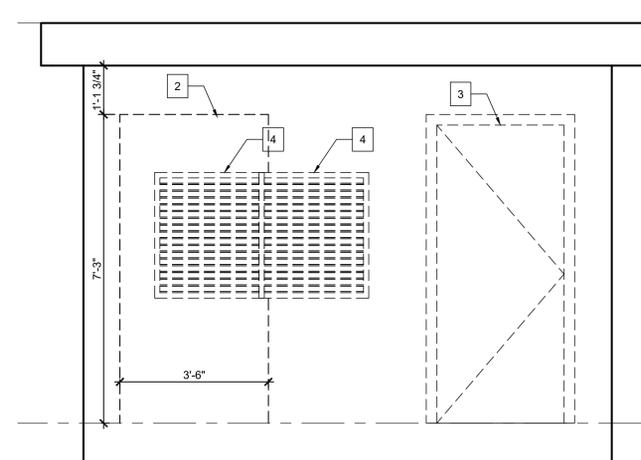
3 ELEVATION
SCALE: 1/2" = 1'-0"



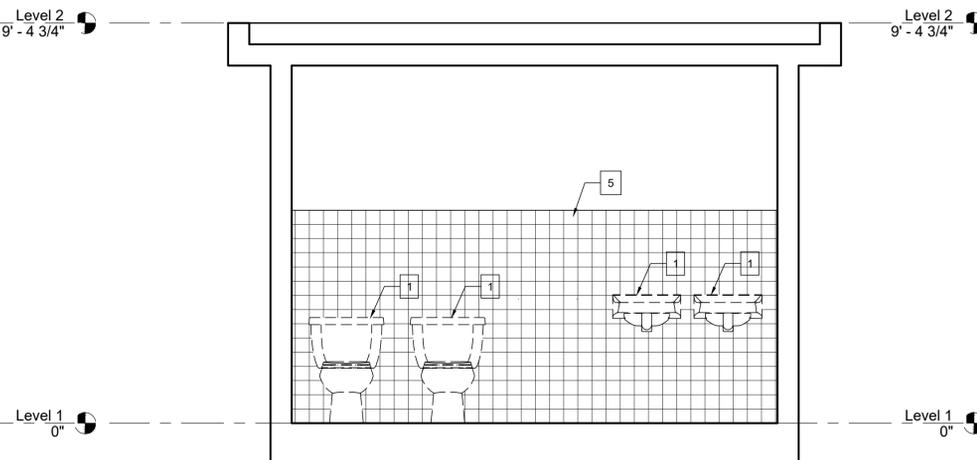
6 SECTION
SCALE: 1/2" = 1'-0"



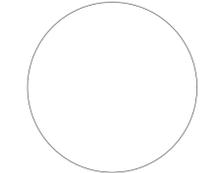
4 ELEVATION
SCALE: 1/2" = 1'-0"



5 ELEVATION
SCALE: 1/2" = 1'-0"

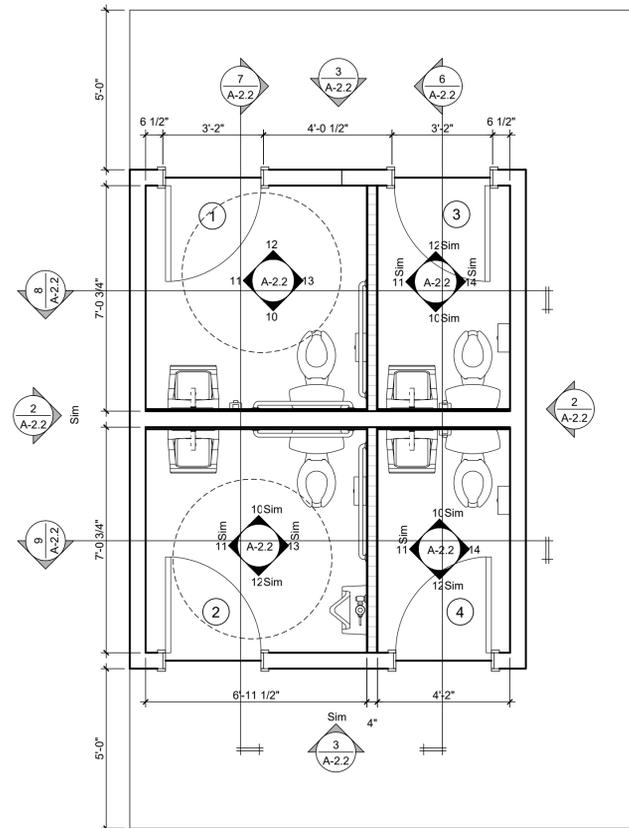


7 SECTION
SCALE: 1/2" = 1'-0"

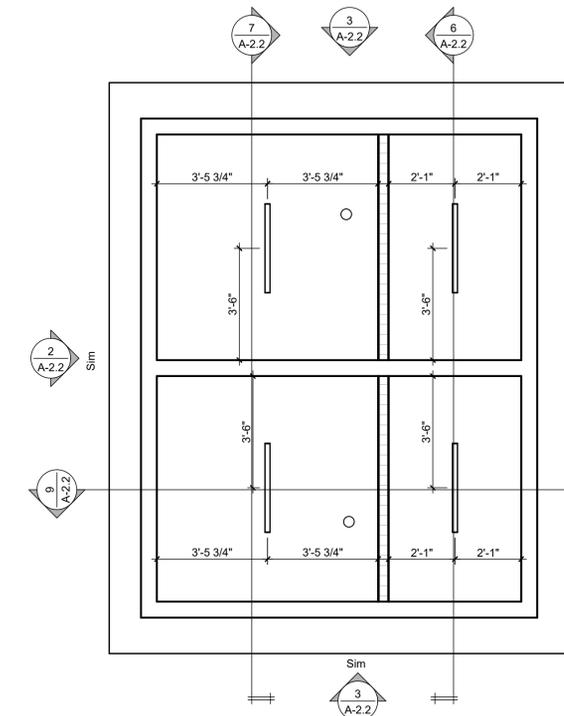


NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET	.	.
△	09.22.23	60% PROGRESS SET	.	.
△	02.27.24	90% PROGRESS SET	.	.
△				
△				

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1 LEVEL 1
SCALE: 3/8" = 1'-0"



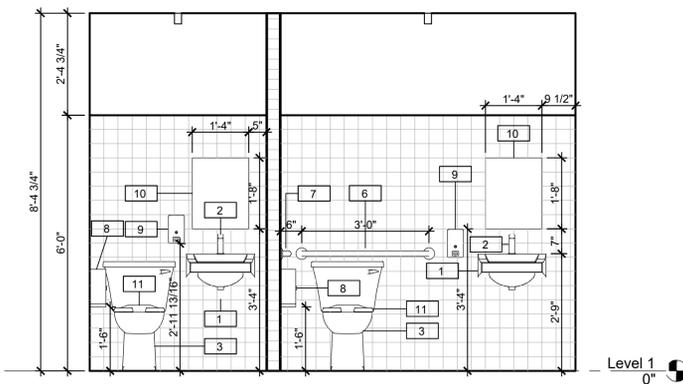
4 LEVEL 1 RCP
SCALE: 3/8" = 1'-0"

2 ELEVATION
SCALE: 1/4" = 1'-0"

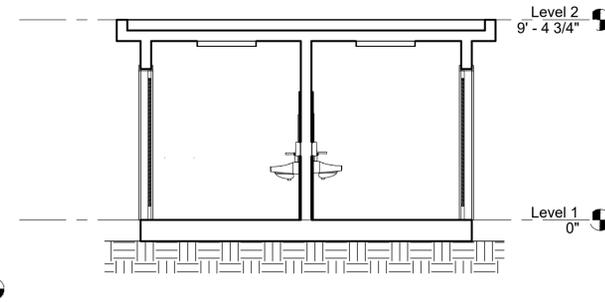
3 ELEVATION
SCALE: 1/4" = 1'-0"

8 SECTION
SCALE: 1/4" = 1'-0"

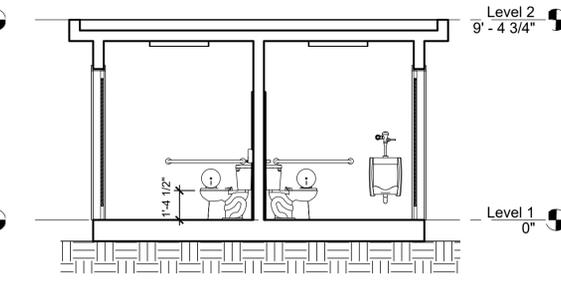
9 SECTION
SCALE: 1/4" = 1'-0"



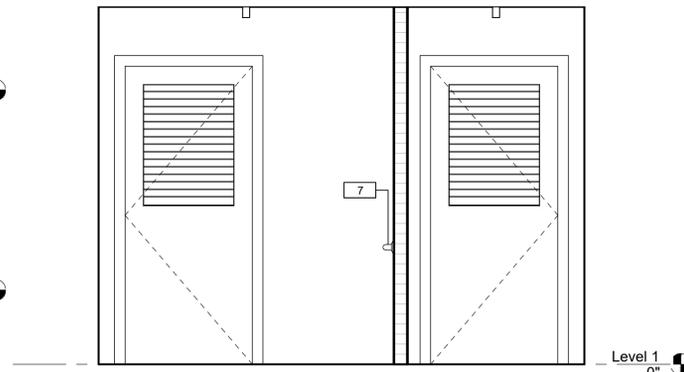
10 INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



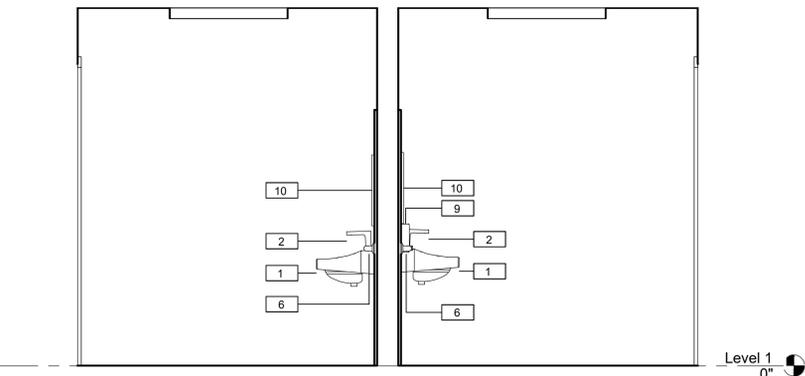
6 SECTION
SCALE: 1/4" = 1'-0"



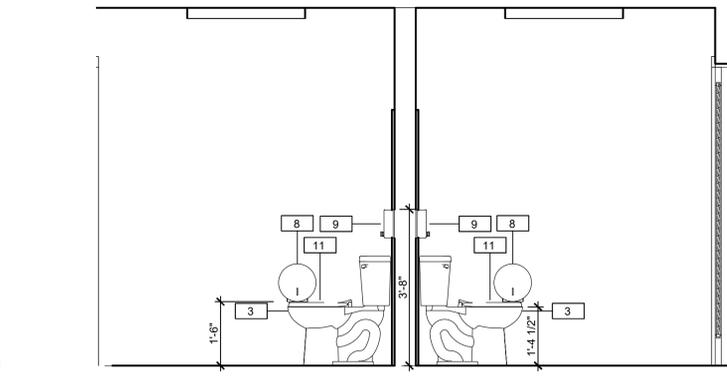
7 SECTION
SCALE: 1/4" = 1'-0"



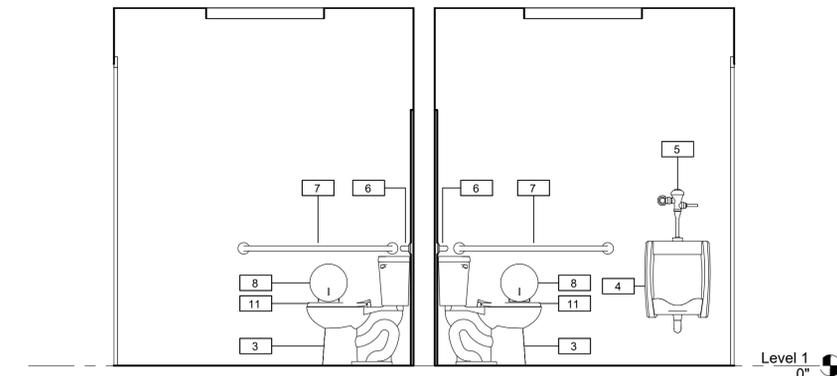
12 INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



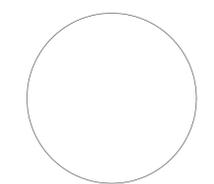
11 INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



14 INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"

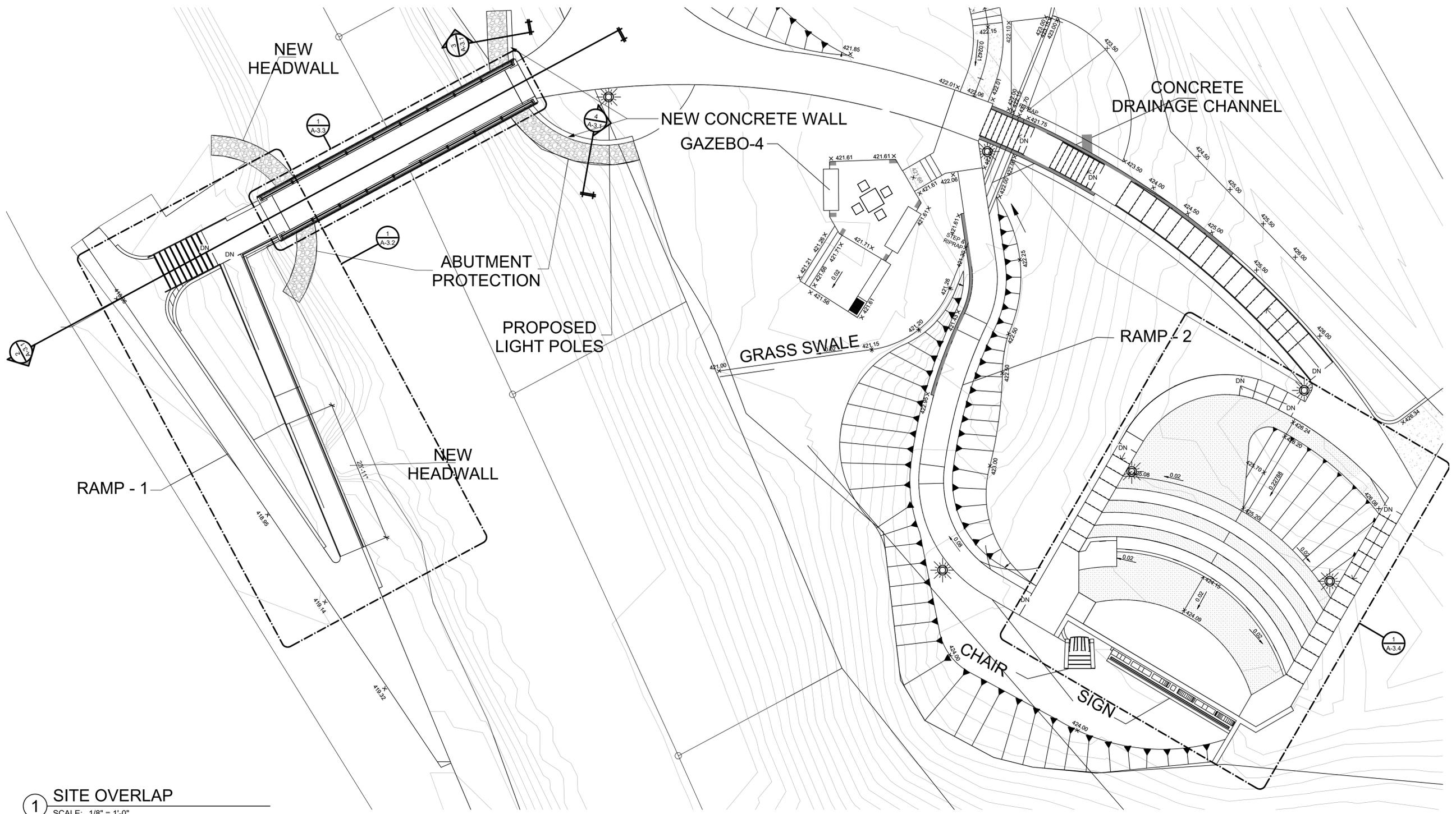


13 INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"

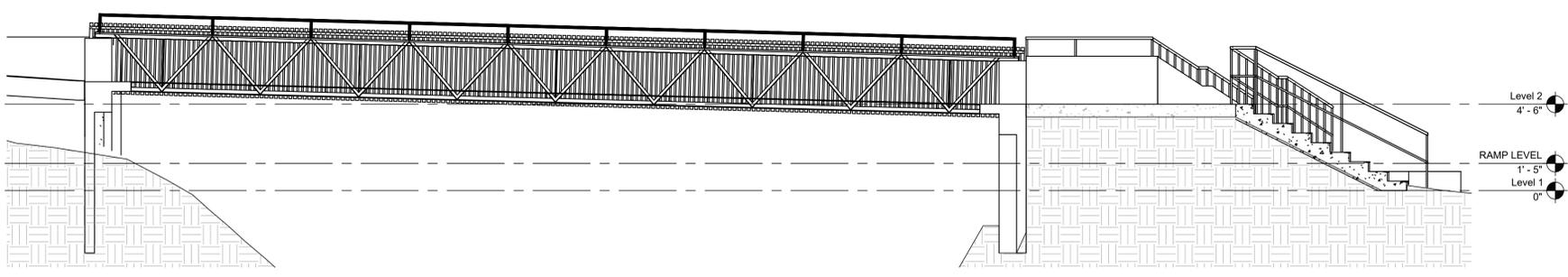


NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET		
△	09.22.23	60% PROGRESS SET		
△	02.27.24	90% PROGRESS SET		
△				
△				
△				

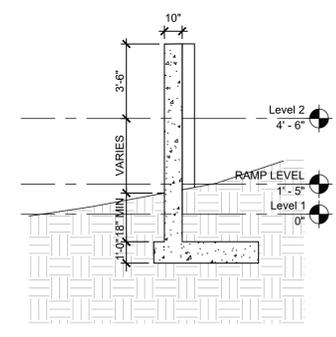
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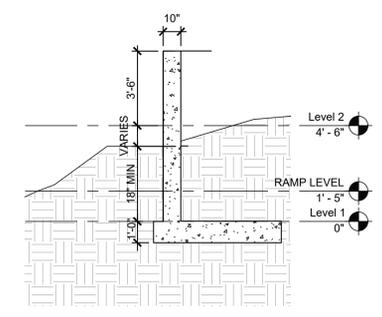
1 SITE OVERLAP
SCALE: 1/8" = 1'-0"



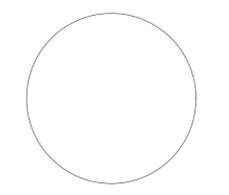
2 SECTION
SCALE: 1/4" = 1'-0"



3 SECTION
SCALE: 1/4" = 1'-0"



4 SECTION
SCALE: 1/4" = 1'-0"

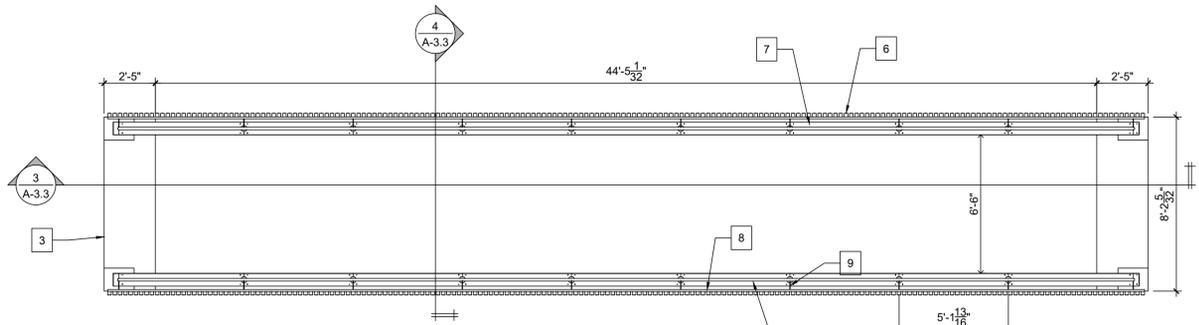


PROJECT: PR-CRP-000873
PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR
SITE OVERLAP PLANS & SECTIONS
SCALE: AS SHOWN

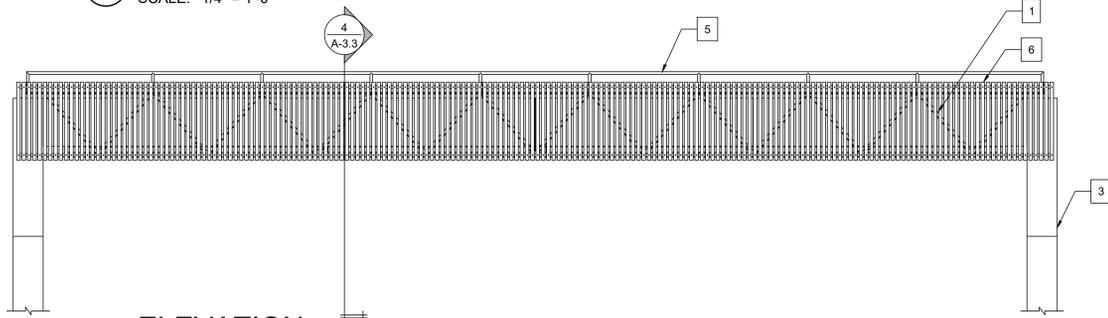
NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET		
△	09.22.23	60% PROGRESS SET		
△	02.27.24	90% PROGRESS SET		
△				
△				

DRAWN BY:
REVIEWED BY:
DATE: 09.22.23

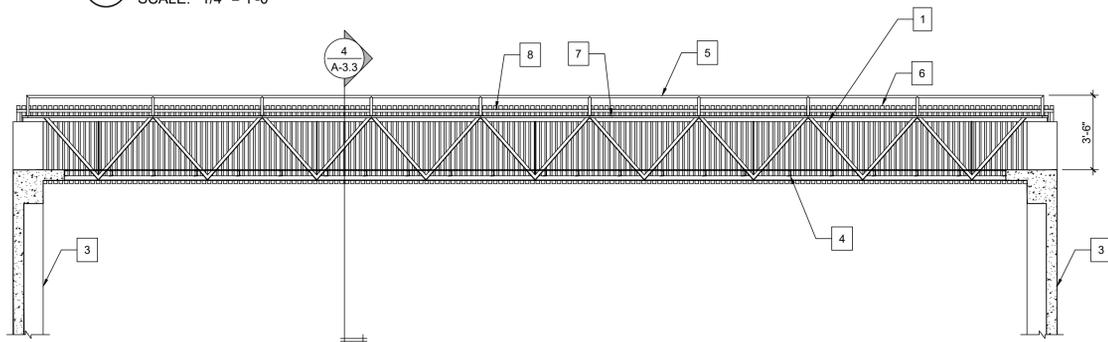
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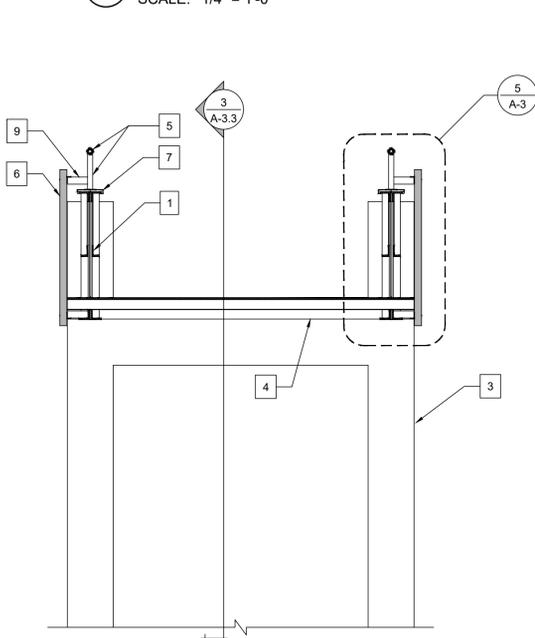
1 FLOOR PLAN
SCALE: 1/4" = 1'-0"



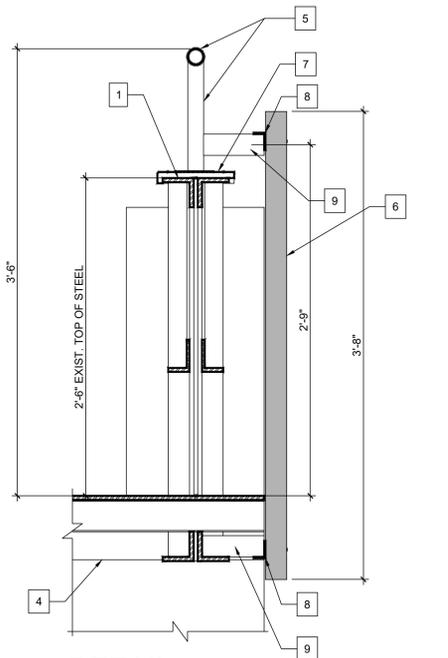
2 ELEVATION
SCALE: 1/4" = 1'-0"



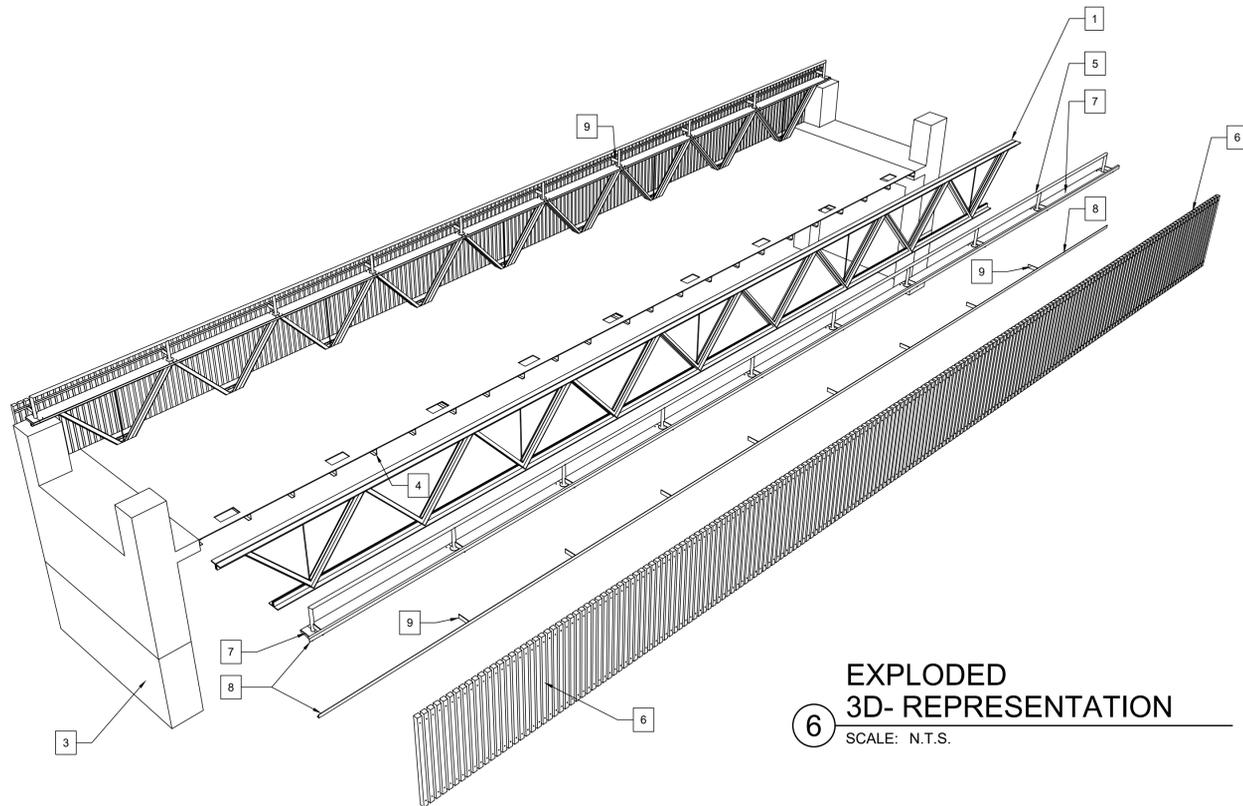
3 SECTION
SCALE: 1/4" = 1'-0"



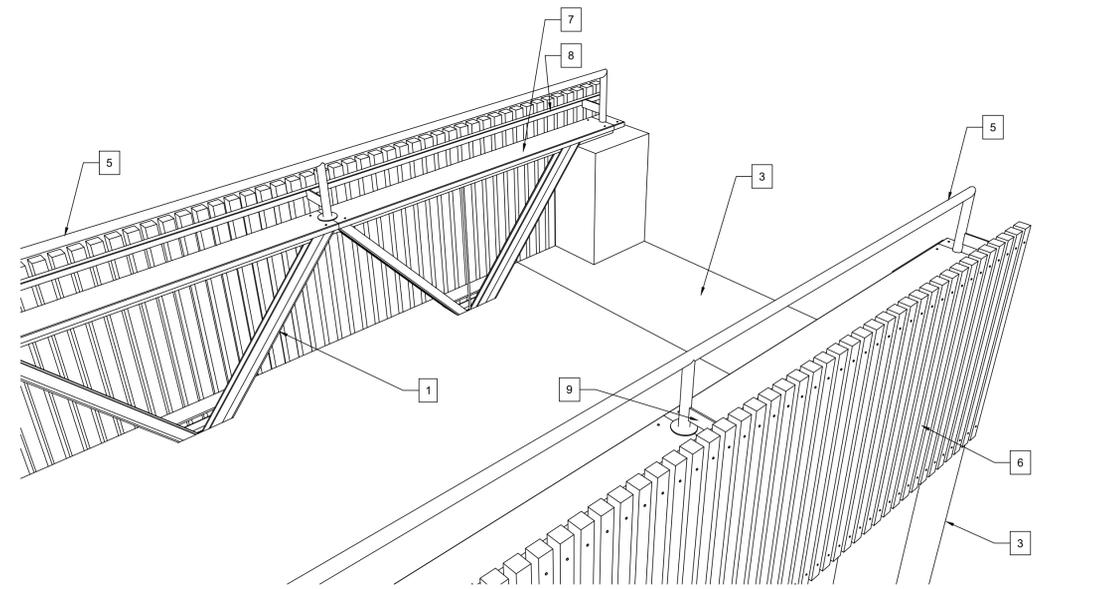
4 SECTION
SCALE: 1/2" = 1'-0"



5 DETAIL
SCALE: 1-1/2" = 1'-0"



6 EXPLODED 3D- REPRESENTATION
SCALE: N.T.S.



7 3D- REPRESENTATION
SCALE: N.T.S.

KEY NOTES:

1. EXISTING STEEL TRUSS.
2. EXISTING STEEL FLOOR PLATE.
3. EXISTING REINFORCED CONCRETE ABUTMENT.
4. EXISTING STEEL CHANNELS
5. NEW 1.5" DIAM. GALV. STEEL RAILING
6. NEW 1.5" X 1.5" COMPOSITE WOOD CLADDING CHANNEL EQUAL TO RESYSTA RESGC11211212.
7. NEW 13/16" X 7-7/8" COMPOSITE WOOD CLADDING CHANNEL EQUAL TO RESYSTA RESP340812.
8. NEW STEEL ANGLE (XX)
9. NEW STEEL 3/4" STEEL BAR

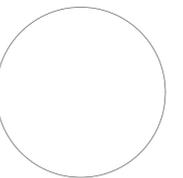
10. NEW BAR GRATING (XX).

C&G

JMCP +
JLGARCHITECTS
115 026 PARQUE STREET SUITE 7
SAN JUAN, PR 00911
JMCP 787.409.1372 | JGA 787.309.1807

MARICAO
CAPITAL DE LA MONTAÑA

90% PRE DESIGN SET
NOT FOR CONSTRUCTION



PROJECT: PR-CRP-000873
PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR
PEDESTRIAN BRIDGE IMPROVEMENTS
SCALE: AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET		
△	09.22.23	60% PROGRESS SET		
△	02.27.24	90% PROGRESS SET		
△				
△				
△				

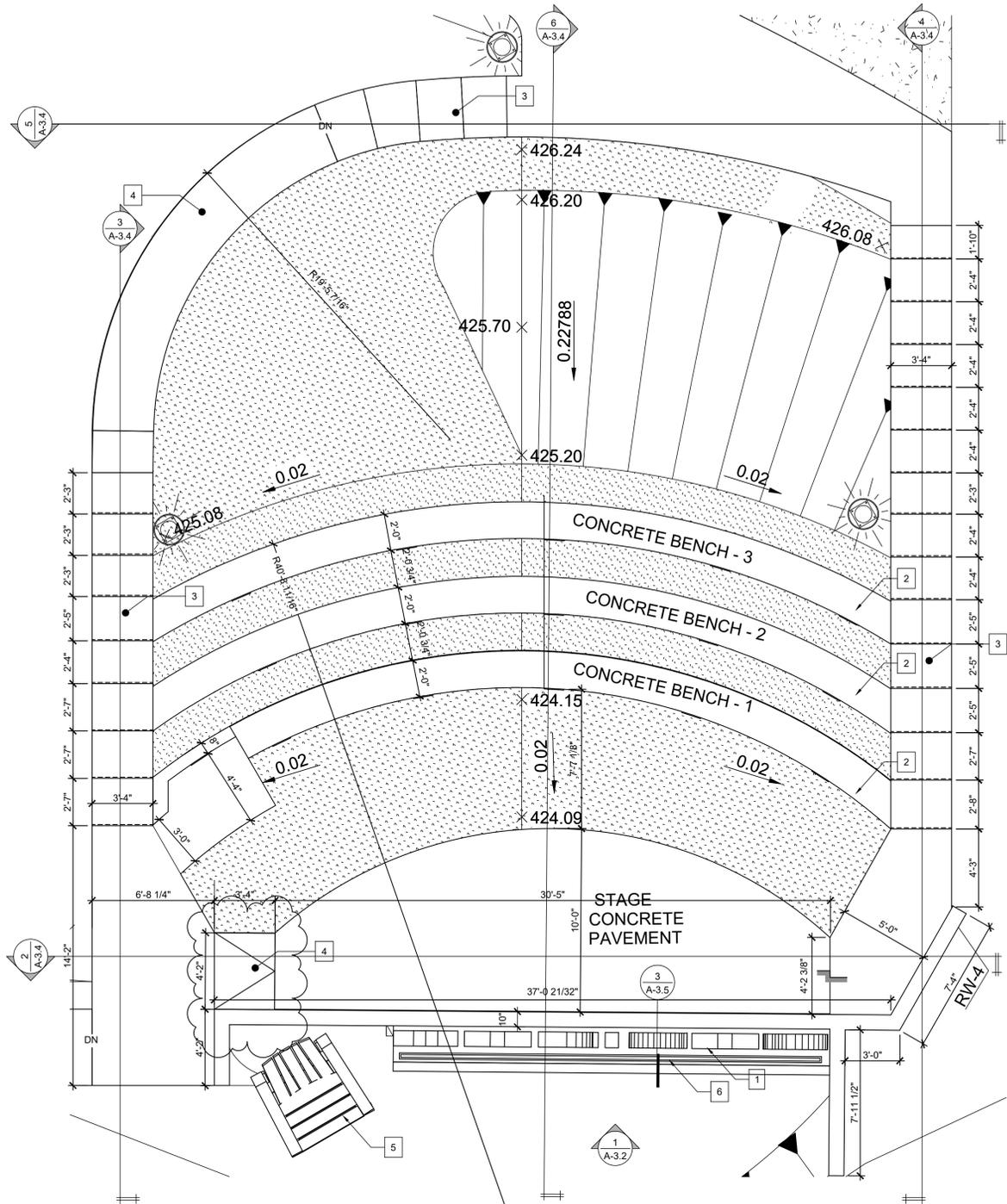
DRAWN BY: .
REVIEWED BY: .

DATE: 09.22.23

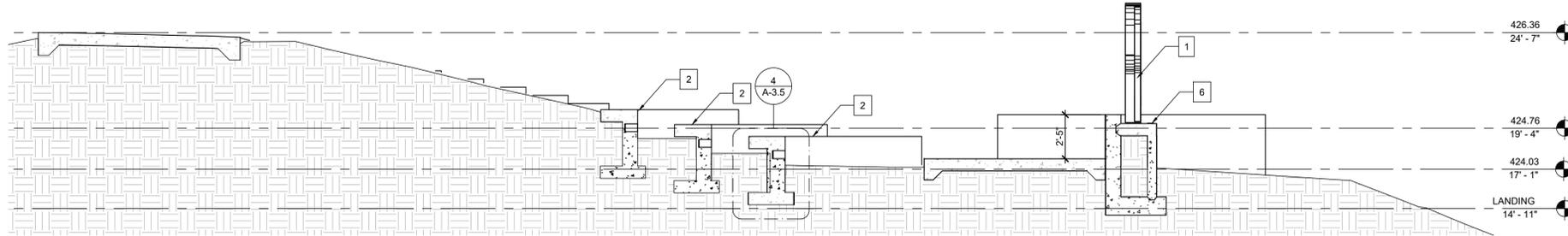
SHEET TITLE DRAWING NO.

PED-BRIDGE IMPROVEMENTS PLANS & SECS **A-3.3**

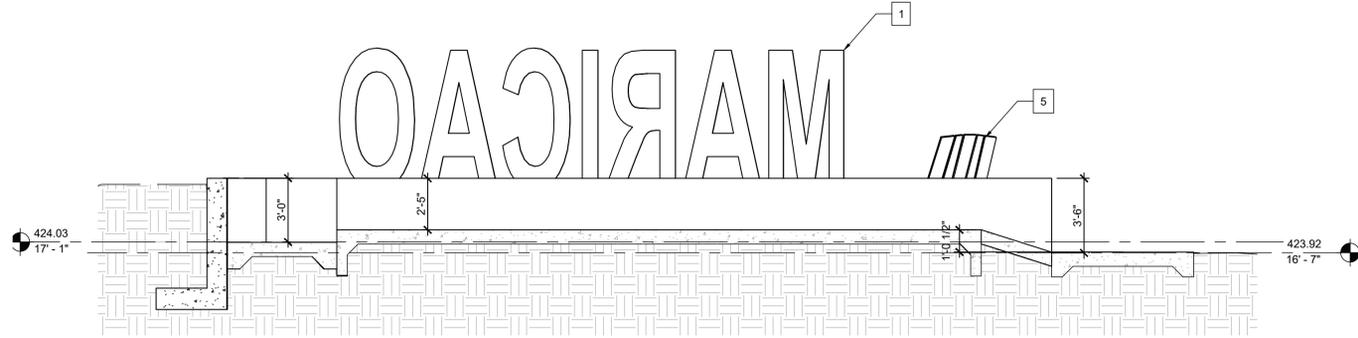
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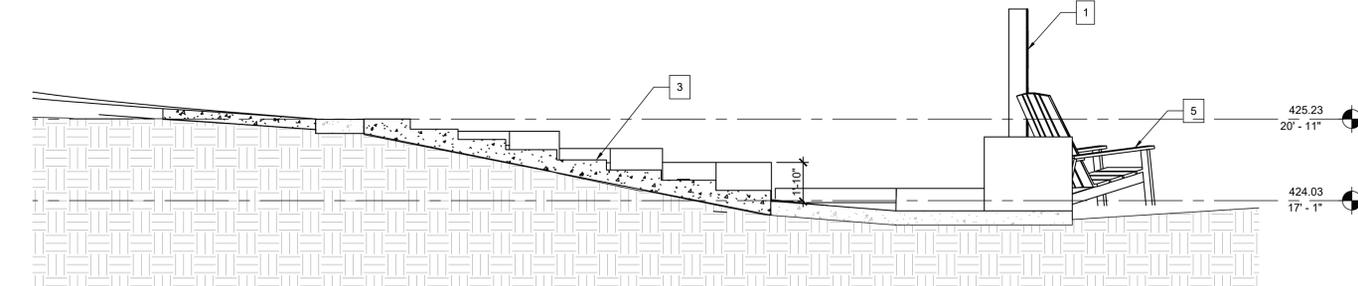
1 AMPHITHEATRE FLOOR PLAN
SCALE: 1/4" = 1'-0"



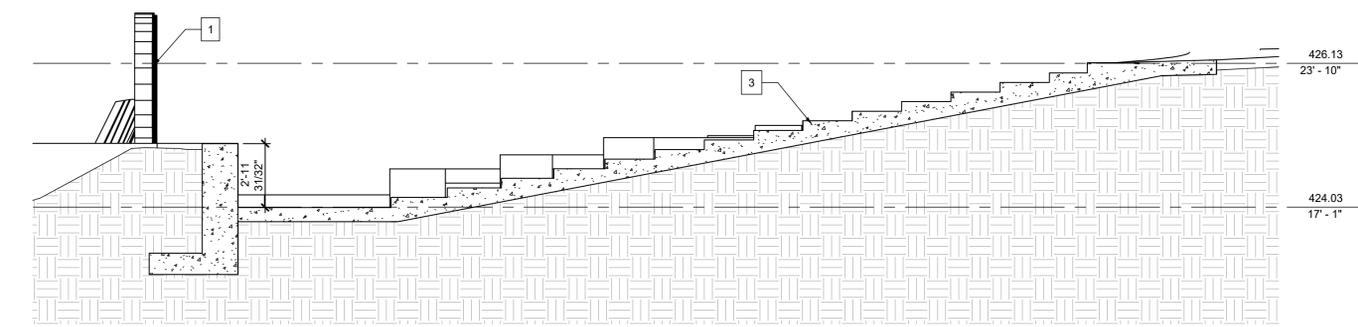
6 SECTION
SCALE: 1/4" = 1'-0"



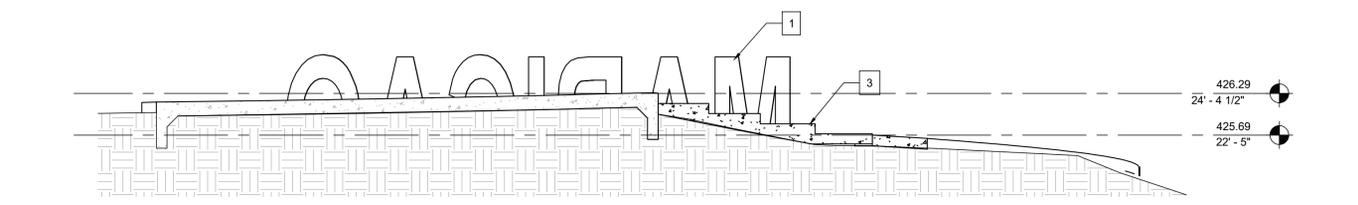
2 SECTION
SCALE: 1/4" = 1'-0"



3 SECTION
SCALE: 1/4" = 1'-0"



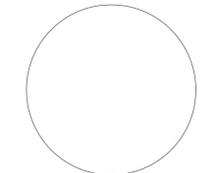
4 SECTION
SCALE: 1/4" = 1'-0"



5 SECTION
SCALE: 1/4" = 1'-0"

KEY NOTES:

1. NEW CORTEN "MARICAO" SIGN. SHOP DWG. TO SUBMITTED TO AND APPROVED BY ARCHITECT. SEE DETAIL 2/A-3.5.
2. NEW CONCRETE BENCH. SEE DETAIL 3/A-3.5. REFER TO STRUCT. DWG. FOR SLAB AND FOOTING DETAILS.
3. CONCRETE STEPS. FOR ELEVATION SEE GRADING PLAN.
4. CONCRETE RAMP. REFER TO CIVIL DWG. FOR SLOPE.
5. EXISTING CHAIR TO BE RELOCATED & PAINTED.
6. LIGHT FIXTURE SEE ELECTRICAL DWG.



NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET		
△	09.22.23	60% PROGRESS SET		
△	02.27.24	90% PROGRESS SET		
△				
△				

DRAWN BY:
REVIEWED BY:
DATE: 09.22.23
SHEET TITLE: ANPHITHEATRE PLANS & SECS
DRAWING NO. A-3.4

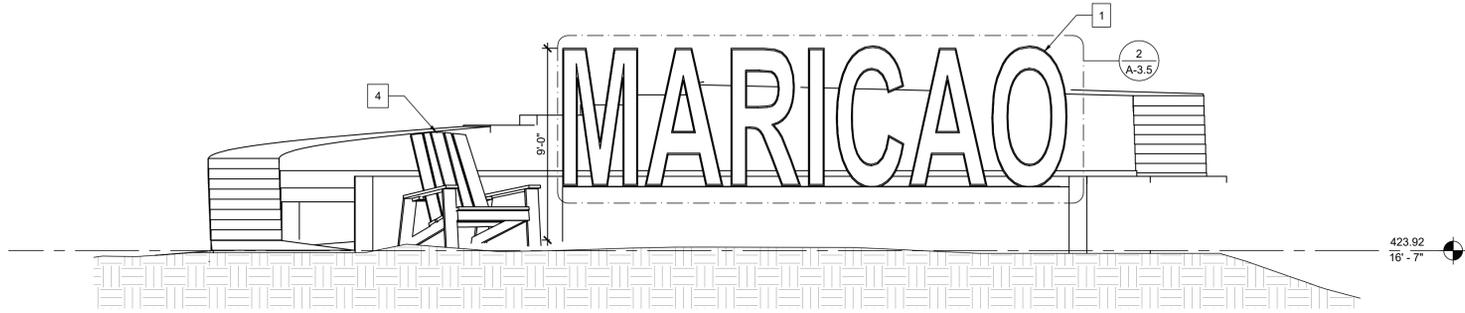
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C&G

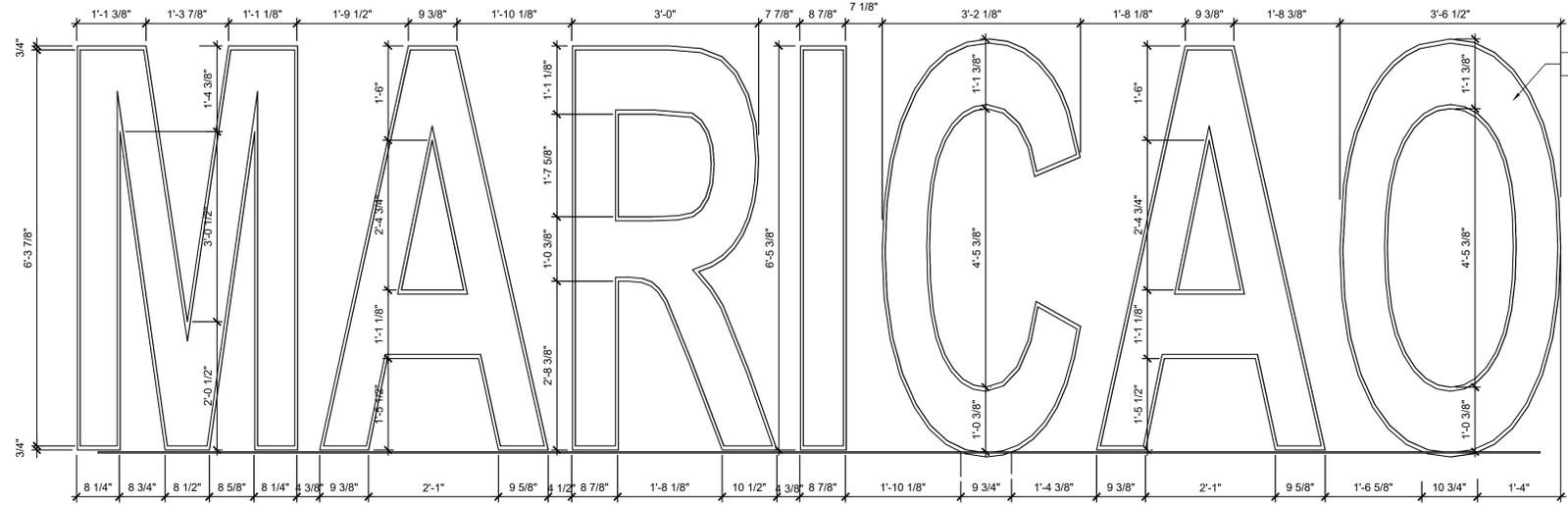
JMCP + JLGARCHITECTS
 115 DEL PARQUE STREET SUITE 7
 SAN JUAN, PR 00911
 JMCP 787.409.1372 | JGA 787.309.1837



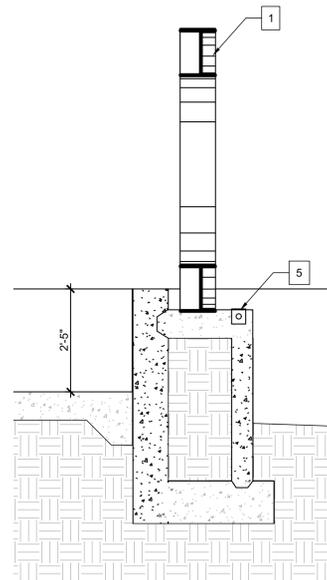
**90% PRE DESIGN SET
 NOT FOR CONSTRUCTION**



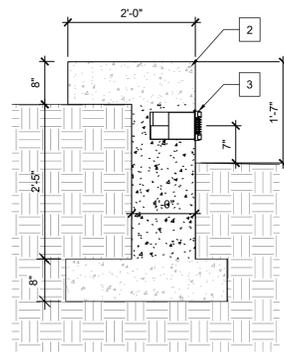
1 ELEVATION
 SCALE: 1/4" = 1'-0"



2 SIGN ELEVATION
 SCALE: 3/4" = 1'-0"



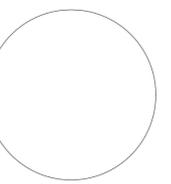
3 RAMP SECTION
 SCALE: 1/2" = 1'-0"



4 TYP. BECH SECTION
 SCALE: 3/4" = 1'-0"

KEY NOTES:

1. NEW CORTEN "MARICAO" SIGN. SHOP DWG. TO SUBMITTED TO AND APPROVED BY ARCHITECT. SEE DETAIL 2/A-3.5.
2. NEW CONCRETE BENCH WITH POLISHED CONCRETE FINISH. REFER TO STRUCT. DWG. FOR SLAB AND FOOTING DETAILS.
3. STEP LIGHT FIXTURE LOCATED IN CONCRETE BENCH AT 10 FT INTERVALS. SEE ELECTRICAL DWG.
4. EXISTING CHAIR TO BE RELOCATED & PAINTED.
5. LIGHT FIXTURE SEE ELECTRICAL DWG.



PARQUE PASIVO
 STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR

SIGN ELEVATION & DETAILS
 SCALE: AS SHOWN

PROJECT: PR-CRF-000873

NO.	DATE	DRAWING ISSUE	BY	APP.
△	06.12.23	30% PROGRESS SET		
△	09.22.23	60% PROGRESS SET		
△	02.27.24	90% PROGRESS SET		
△				
△				
△				

DRAWN BY: _____
 REVIEWED BY: _____
 DATE: 09.22.23
 SHEET TITLE: SIGN ELEV & DETAILS
 DRAWING NO.:

A-3.5

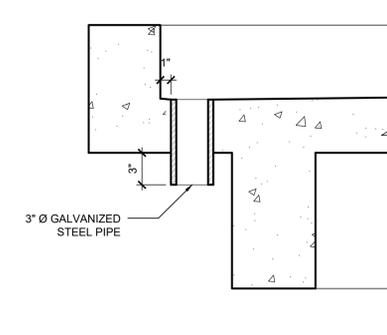
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Plumbing Fixture Schedule			
Type Mark	Description	Count	Comments
1	Chesapeake(TM) wall-mount lavatory with 8 inch centers	4	
2	Touchless bathroom sink faucet with Kinesis sensor, DC-powered	4	
3	Cadet Right Height Elongated Pressure-Assisted Toilet - 1.6 GPF, Seat Not Included	4	
4	Washbrook FloWise Washout Top Spud Urinal.	1	
5	Ultima Manual Urinal Flush Valve Diaphragm-Type	1	

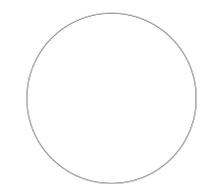
Door Schedule						
Mark	Type	Height	Width	Thickness	Finish	Description
1	36" x 84"	7' - 0"	3' - 0"	2"	Aluminum Painted	FLOOD PROOF DOOR WITH LOUVER LOCATED ABOVE 3 FT. HEIGHT.
2	36" x 84"	7' - 0"	3' - 0"	2"	Aluminum Painted	FLOOD PROOF DOOR WITH LOUVER LOCATED ABOVE 3 FT. HEIGHT.
3	36" x 84"	7' - 0"	3' - 0"	2"	Aluminum Painted	FLOOD PROOF DOOR WITH LOUVER LOCATED ABOVE 3 FT. HEIGHT.
4	36" x 84"	7' - 0"	3' - 0"	2"	Aluminum Painted	FLOOD PROOF DOOR WITH LOUVER LOCATED ABOVE 3 FT. HEIGHT.

Specialty Equipment Schedule					
Type Mark	Description	Manufacturer	Model	Count	Comments
6	Grab Bars	Bradley Corporation	8122-001360	2	
7	Grab Bars	Bradley Corporation	8122-001420	2	
8	Toilet Tissue Dispenser - Single 9" Roll, Round - Surface Mounted (0042)	American Specialties Inc.	0042	4	
9	Soap Dispenser - Liquid, Push Button Valve - 40 oz. - Surface Mounted (0347)	American Specialties Inc.	0347	3	
10	Non-Glass Security Bathroom Mirror 16" x 20"	Ketcham	SSF-1620	4	
11	Commercial Heavy Duty Open Front Elongated Toilet Seat	American Standard	5901.100.020	4	

Finishes Schedule							
Number	Name	Area	Perimeter	Floor Finish	Base Finish	Wall Finish	Ceiling Finish
1	Bathroom 1	49 SF	27' - 11"	F1	-	W1,W6	C1
2	Bathroom 2	49 SF	27' - 11"	F1	-	W1,W6	C1
3	Bathroom 3	29 SF	22' - 4"	F1	-	W1,W6	C1
4	Bathroom 4	29 SF	22' - 4"	F1	-	W1,W6	C1
5	Gazeboo 1	291 SF	83' - 6 7/32"	F2	-	W1,W2	C1
6	Gazeboo 2	291 SF	83' - 10 7/32"	F2	-	W1,W3	C1
7	Gazeboo 3	291 SF	83' - 6 1/32"	F2	-	W1,W4	C1
8	Gazeboo 4	291 SF	83' - 6 7/32"	F2	-	W1,W5	C1
9	Stage	248 SF	71' - 7 13/32"	F2	-	W1	-



1 DRAIN SCUPPER DETAIL
SCALE: 1 1/2" = 1'-0"

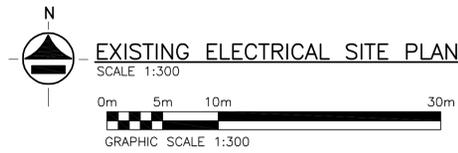
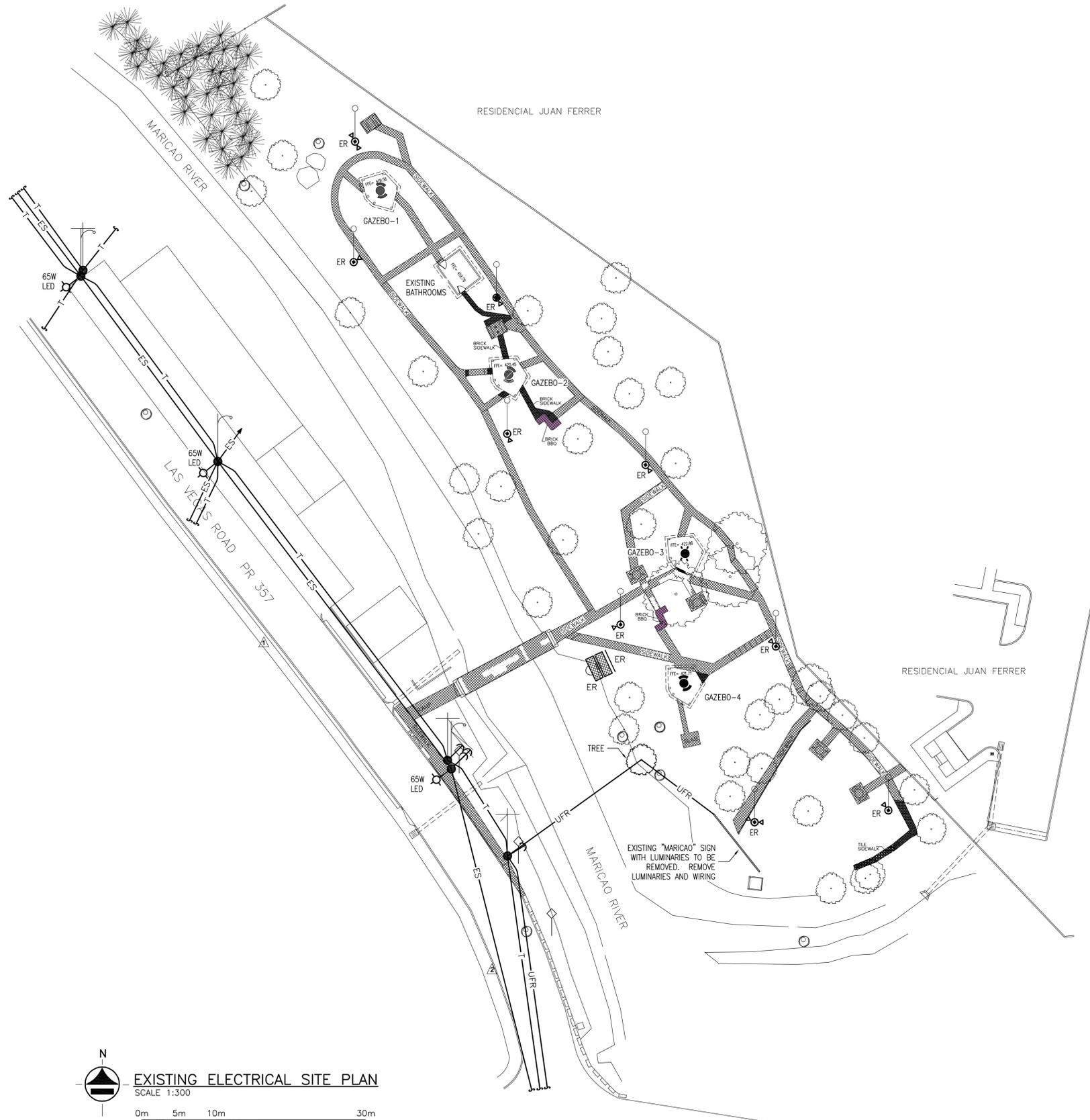


PROJECT: PR-CRP-000873
PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR
SCHEDULES & DETAILS
SCALE: AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
1	06.12.23	30% PROGRESS SET		
2	09.22.23	60% PROGRESS SET		
3	02.27.24	90% PROGRESS SET		

Finishes Schedule Legend						
	ID	MATERIAL	MANUF.	MODEL	NOTES	CONTACT INFO.
FLOORS	F1	PORCELAINE TILE	TO BE SELECTED BY ARCHITECT.	COLOR TO BE SELECTED BY ARCH	-	-
	F2	POLISHED CONCRETE FINISH		REFER TO SPECIFICATIONS	CONTRACTOR MUST PREPARE MOCK-UP SAMPLE	-
BASE	B1	PORCELAINE TILE	TO BE SELECTED BY ARCHITECT.	ULISSE COLLECTION - FORMAT: 4"X24" FINISH: GREY MT - ANTID (CLASE3-R11C)	USE MAPEI KERABOND/KERALASTIC, FLEXIBLE MORTAR, LATEX ADDITIVE: 1/16" KERAPOXY BY MAPEI, COLOR TO BE SELECTED BY ARCHITECT FROM ENTIRE MAPEI SELECTION	MADERAS ALFA INC. CLAUDIO ALONSO 787-757-5650 / 787-249-6616 prcanc@gmail.com
	B2	PORCELAINE STONWARE W/ MASS COLORING	TO BE SELECTED BY ARCHITECT.	ULISSE COLLECTION - FORMAT: 4"X24" FINISH: PEARL MT	USE MAPEI KERABOND/KERALASTIC, FLEXIBLE MORTAR, LATEX ADDITIVE: 1/16" KERAPOXY BY MAPEI, COLOR TO BE SELECTED BY ARCHITECT FROM ENTIRE MAPEI SELECTION	MADERAS ALFA INC. CLAUDIO ALONSO 787-757-5650 / 787-249-6616 prcanc@gmail.com
WALLS	W1	SMOOTH CEMENT PLASTER FINISH	TO BE SELECTED BY ARCHITECT.	REFER TO SPECIFICATIONS	APPLY SMOOTH CEMENT PLASTER FINISH AND PAINT. ALL COLORS TO BE SELECTED BY ARCHITECT. REFER TO SPECIFICATIONS FOR REQUIRED MPI SYSTEMS SURFACE PREPARATION AND COMPONENTS.	-
	W2	PORCELAINE TILE (FOR BENCHES)	TO BE SELECTED BY ARCHITECT.	COLOR TO BE SELECTED BY ARCH	-	-
	W3	PORCELAINE TILE (FOR BENCHES)	TO BE SELECTED BY ARCHITECT.	COLOR TO BE SELECTED BY ARCH	-	-
	W4	PORCELAINE TILE (FOR BENCHES)	TO BE SELECTED BY ARCHITECT.	TO BE SELECTED BY ARCHITECT.	-	-
	W5	PORCELAINE TILE (FOR BENCHES)	TO BE SELECTED BY ARCHITECT.	TO BE SELECTED BY ARCHITECT.	-	-
	W6	MOSAIC TILE (BATHROOMS)	TO BE SELECTED BY ARCHITECT.	TO BE SELECTED BY ARCHITECT.	-	-
CEILINGS	ID	MATERIAL	MANUF.	MODEL	NOTES	CONTACT INFO.
	C1	SMOOTH CEMENT PLASTER FINISH		REFER TO SPECIFICATIONS	APPLY SMOOTH CEMENT PLASTER FINISH AND PAINT. ALL COLORS TO BE SELECTED BY ARCHITECT. REFER TO SPECIFICATIONS FOR REQUIRED MPI SYSTEMS SURFACE PREPARATION AND COMPONENTS.	-

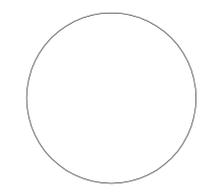
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EXISTING ELECTRICAL SITE PLAN
SCALE 1:300

ELECTRICAL SITE PLAN LEGEND:

- ES — EXISTING TRIPLEX 120/240V SECONDARY AERIAL LUMA LINE TO REMAIN.
- UFR — EXISTING AERIAL MULTICONDUCTOR TO BE REMOVED.
- ES —> EXISTING 120/240V SECONDARY AERIAL SERVICE ENTRANCE FEEDER TO REMAIN.
- T — EXISTING AERIAL TELECOMMUNICATIONS AERIAL LINE TO REMAIN.
- ER EXISTING SECONDARY METER BASE, INSTALLED IN A CONCRETE WALL, TO BE REMOVED. INCLUDE DEMOLITION OF CONCRETE WALL AND FOOTING. REFER TO ELECTRICAL ONELINE DIAGRAM ON DWG ES-___.
- ER EXISTING DISTRIBUTION PANELBOARD, INSTALLED IN A CONCRETE WALL, TO BE REMOVED. REMOVE INCOMING AND OUTGOING FEEDERS. REMOVE EXPOSED CONDUITS AND WIRES. FOR UNDERGROUND FEEDERS, REMOVE WIRES, CUT CONDUITS 6" BELOW FINISHED GRADE AND INSTALL A PVC END CAP. REFER TO ELECTRICAL ONELINE DIAGRAM ON DWG ES-___.
- EXISTING CREOSOTED WOOD POLE TO REMAIN.
- EXISTING SINGLE GUY WIRE TO REMAIN.
- EXISTING DOUBLE GUY WIRE TO REMAIN.
- EXISTING POLE MOUNTED LUMINARY TO REMAIN.
- ER EXISTING ROUND STEEL LIGHTING POLE WITH ONE FLOOD LIGHT TO BE REMOVED. DEMOLISH CONCRETE BASE AND FOOTING. REMOVE ALL FEEDERS RELATED TO THESE LIGHTING POLES. REMOVE WIRES AND CUT CONDUITS 6" BELOW FINISHED GRADE AND INSTALL A PVC END CAP.
- ER SAME AS ABOVE, BUT WITH TWO FLOOD LIGHTS.



PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR

EXISTING RESTROOMS DEMO PLANS & SECTIONS
SCALE: AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
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	09.22.23	60% PROGRESS SET	.	.
	02.27.24	90% PROGRESS SET	.	.

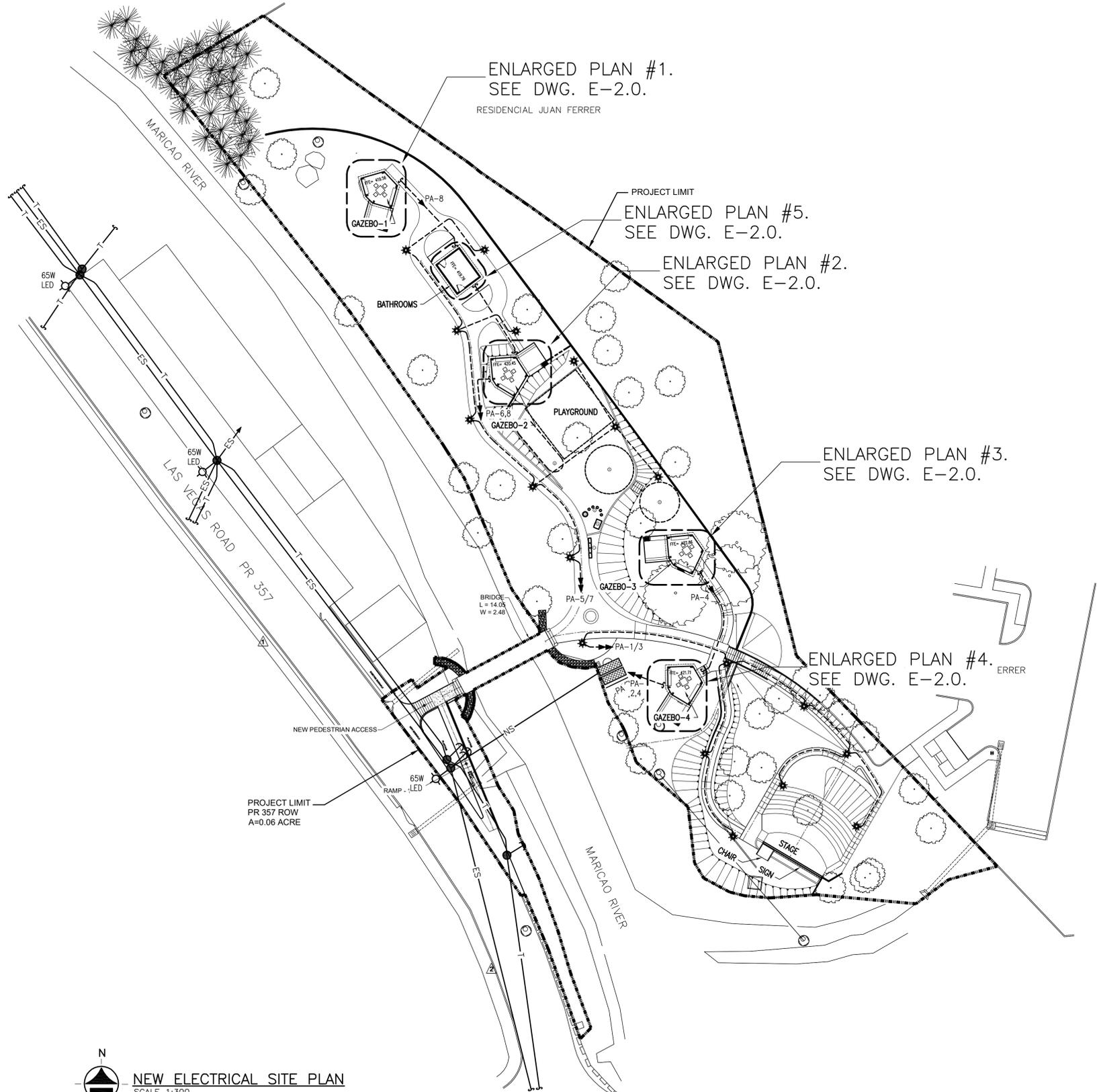
DRAWN BY: EMCB	REVIEWED BY: .
DATE: 01.16.24	SHEET TITLE: EXISTING ELECTRICAL SITE PLAN
DRAWING NO: ES-1.0	

YO, ELWOOD M. CASILLAS BOND, INGENIERO LICENCIADO, CON NUMERO DE LICENCIA 10697, CERTIFICO QUE SOY EL PROFESIONAL QUE CONFECCIONO Y/O DISEÑO Y/O PREPARO ESTOS PLANOS Y LAS ESPECIFICACIONES COMPLEMENTARIAS. TAMBIEN CERTIFICO QUE ENTENDO QUE DICHA PLANOS Y ESPECIFICACIONES CUMPLEN CON LAS DISPOSICIONES APPLICABLES DEL REGLAMENTO CONJUNTO Y DISPOSICIONES APPLICABLES DE LOS REGLAMENTOS Y CODIGOS DE CONSTRUCCION VIGENTES DE LAS AGENCIAS, JUNTAS REGULADORAS O CORPORACIONES REGULADAS CON JURISDICCION, CENTRADO, MENOS, QUE EN LA PREPARACION DE ESTOS PLANOS Y ESPECIFICACIONES SE HA CUMPLIDO CABALMENTE CON LO DISPUESTO EN LA LEY NOM. 319 14 DE 8 DE ENERO DE 2004, SEGUN EMENDACION CONOCIDA COMO LA Ley PARA LA INVERSION POR LA INDUSTRIA PUERTORRIQUENA Y CON LA LEY NOM. 98 DE 15 DE JULIO DE 1978, SESION EMENDADA, SEGUN PRADUE, RECONOCIDO QUE CUALQUIER DECLARACION FALSA O FALSIFICACION DE LOS HECHOS QUE SE HAYA PRODUCIDO POR DESCONOCIMIENTO O POR NEGLIGENCIA YA SEA POR MI, MIS AGENTES O EMPLEADOS, O POR OTRAS PERSONAS CON MI CONOCIMIENTO, ME HACEN RESPONSABLE DE CUALQUIER ACCION JUDICIAL Y DISCIPLINARIA POR LA OGC.

elwood m. casillas bond, pe
electrical consulting engineer
lic. no. 10697

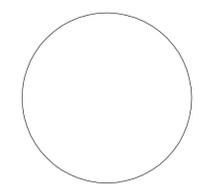
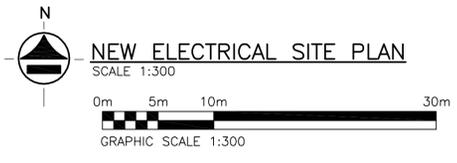
urto santa juana 3 u7 calle 10 caques pr. 00725
tel. (787) 617-7709 elwoodcasillas@aol.com

THESE PLANS ARE AN INSTRUMENT OF SERVICE AND THE PROPERTY OF THE ARCHITECTS. THEY MAY NOT BE COPIED OR REPRODUCED WITHOUT THEIR EXPRESS WRITTEN CONSENT.



ELECTRICAL SITE PLAN LEGEND:

- ES — EXISTING TRIPLEX 120/240V SECONDARY AERIAL LUMA LINE TO REMAIN.
- ES —> EXISTING 120/240V SECONDARY AERIAL SERVICE ENTRANCE FEEDER TO REMAIN.
- NS — NEW TRIPLEX #2 AWG AL 120/240V SECONDARY AERIAL PREPA SERVICE ENTRANCE LINE, TO BE PROVIDED AND INSTALLED BY CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND ACCESSORIES, AS APPLIES. FINAL CONNECTION TO EXISTING POLE TO BE PERFORMED BY LUMA AT CONTRACTOR'S EXPENSES.
- T — EXISTING AERIAL TELECOMMUNICATIONS AERIAL LINE TO REMAIN.
- - - - - NEW UNDERGROUND FEEDER, AS SPECIFIED.
- [Symbol] NEW SECONDARY METER BASE TO BE INSTALLED IN A CONCRETE WALL, AS PER LUMA (PREPA) STANDARDS. REFER TO ELECTRICAL ONELINE DIAGRAM ON DWG ES-___.
- [Symbol] P1 NEW MAIN DISTRIBUTION PANELBOARD P1, TO BE SEMI-FLUSH MOUNTED, INSTALLED BACK-TO-BACK WITH THE METER BASE IN THE SAME CONCRETE WALL. REFER TO ELECTRICAL ONELINE DIAGRAM ON DWG ES-___ AND PANELBOARD SCHEDULE.
- [Symbol] P2 NEW DISTRIBUTION PANELBOARD P2. REFER TO ELECTRICAL ONELINE DIAGRAM ON DWG ES-___ AND PANELBOARD SCHEDULE.
- EXISTING CREOSOTED WOOD POLE TO REMAIN.
- EXISTING SINGLE GUY WIRE TO REMAIN.
- ↔ EXISTING DOUBLE GUY WIRE TO REMAIN.
- EXISTING POLE MOUNTED LUMINARY TO REMAIN.
- * NEW LIGHTING POLE WITH ONE LUMINARY. REFER TO DETAILS.



PROJECT:
PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR

EXISTING RESTROOMS DEMO PLANS & SECTIONS
SCALE: AS SHOWN

NO.	DATE	DRAWING / ISSUE	BY	APP.
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2	09.22.23	60% PROGRESS SET		
3	02.27.24	90% PROGRESS SET		

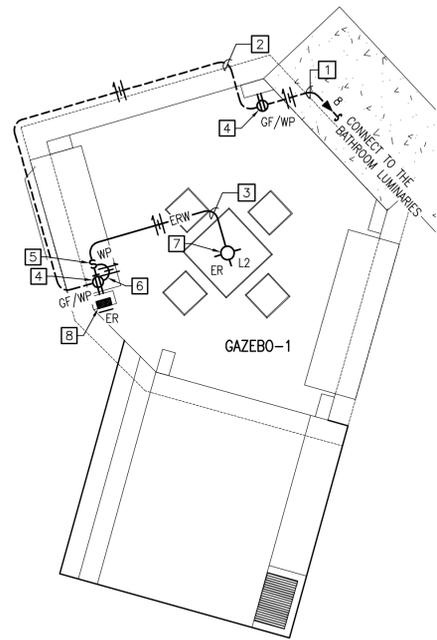
YO, ELWOOD M. CASILLAS BOND, INGENIERO LICENCIADO, CON NUMERO DE LICENCIA 15691, CERTIFICO QUE SOY EL PROFESIONAL QUE CONFECCIONO Y/O DISEÑO Y/O PREPARO ESTOS PLANOS Y LAS ESPECIFICACIONES COMPLEMENTARIAS. TAMBIEN CERTIFICO QUE ENTiendo QUE DICHS PLANOS Y ESPECIFICACIONES CUMPLEN CON LAS DISPOSICIONES APPLICABLES DEL REGLAMENTO CONJUNTO Y DISPOSICIONES APPLICABLES DE LOS REGLAMENTOS Y CODIGOS DE CONSTRUCCION VIGENTES DE LAS AGENCIAS, JUNTAS REGULATORIAS O CORPORACIONES PUBLICAS CON JURISDICCION. CERTIFICO, ASIMISMO, QUE EN LA PREPARACION DE ESTOS PLANOS Y ESPECIFICACIONES SE HA CUMPLIDO CABALMENTE CON LO DISPUESTO EN LA LEY NGM 319 14 DE 8 DE ENERO DE 2004, SEGUN EMENDADA, CONCORDA CON LA LEY PARA LA INVERSION POR LA INDUSTRIA PUERTORRIQUENA Y CON LA LEY NGM 96 DE 8 DE JULIO DE 1978, SEGUN EMENDADA, SEGUN APURADO, RECONOCIDO QUE CUALQUIER DECLARACION FALSA O FALSIFICACION DE LOS HECHOS QUE SE HAYA PRODUCIDO POR RECONOCIMIENTO O POR NEGLIGENCIA YA SEA POR MI, MIS AGENTES O EMPLEADOS, O POR OTRAS PERSONAS CON MI CONOCIMIENTO, ME HACEN RESPONSABLE DE CUALQUIER ACCION JUDICIAL Y DISCIPLINARIA POR LA OPCI.

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electrical consulting engineer
lic. no. 10697

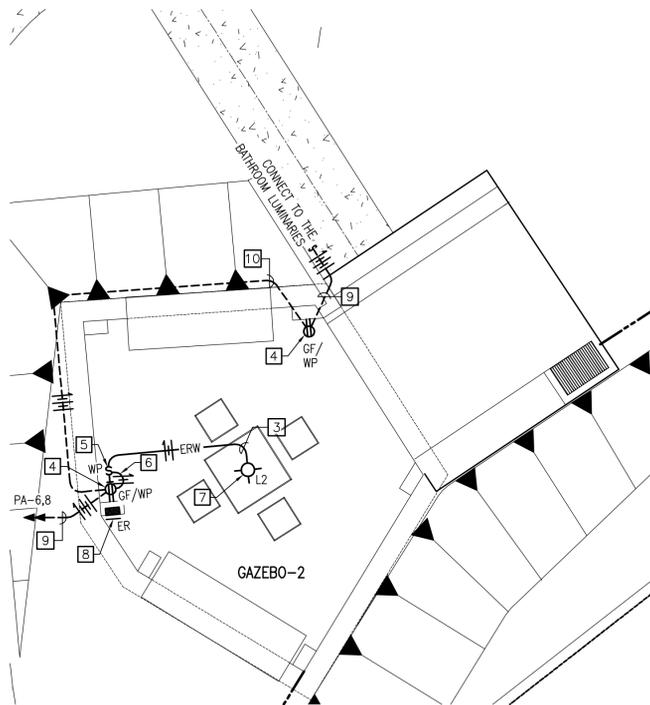
urb santa juana 3 u7 calle 10 caques pr 00725
tel. (787) 617-7708 elwoodcasellas@aol.com

DRAWN BY: .EMCB
REVIEWED BY: .
DATE: 01.16.24
SHEET TITLE: NEW ELECTRICAL SITE PLAN
DRAWING NO.: ES-1

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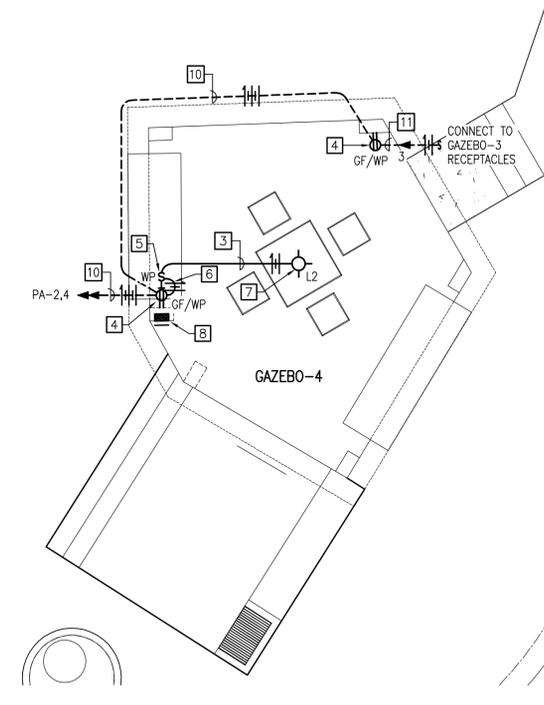
GAZEBO-1 ELECTRICAL PLAN
(ENLARGED PLAN #1)
SCALE: 1/4"=1'-0"



GAZEBO-2 ELECTRICAL PLAN
(ENLARGED PLAN #2)
SCALE: 1/4"=1'-0"



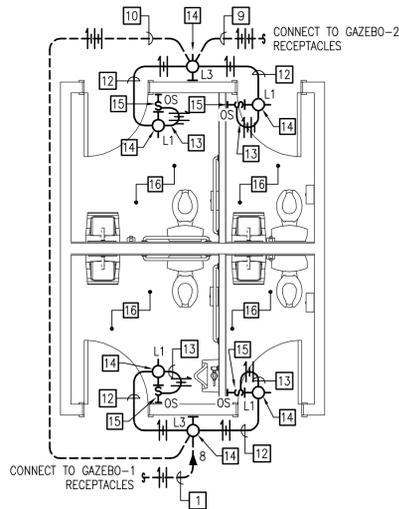
GAZEBO-3 ELECTRICAL PLAN
(ENLARGED PLAN #3)
SCALE: 1/4"=1'-0"



GAZEBO-4 ELECTRICAL PLAN
(ENLARGED PLAN #4)
SCALE: 1/4"=1'-0"

NUMBERED NOTES:

- NEW UNDERGROUND 120V FEEDER: 2#8 AWG THWN Cu & 1#10 AWG THWN Cu GREEN GROUND IN 3/4" PVC SCH 40 CONDUIT. RUN CONDUIT UNDER NEW SIDEWALK, 0.36" BELOW FINISHED GRADE. INSTALL A 6" WARNING RIBBON AT 12" BELOW FINISHED GRADE.
- NEW UNDERGROUND 120V FEEDER: 2#12 AWG THWN Cu & 1#12 AWG THWN Cu GREEN GROUND IN 3/4" PVC SCH 40 CONDUIT. INSTALL 0.36" BELOW FINISHED GRADE. INSTALL A 6" WARNING RIBBON AT 12" BELOW FINISHED GRADE.
- EXISTING CONDUIT TO BE REWIRED WITH 2#12 AWG THWN Cu & 1#12 AWG THWN Cu GREEN GROUND.
- EXISTING FLUSH MOUNTED OUTLET BOX TO BE REPLACED WITH A NEW ONE: 4"x4"x1 1/2". INSTALL A NEW GFCI RECEPTACLE, AS PER LEGEND.
- REUSE EXISTING WALL MOUNTED OUTLET BOX TO INSTALL A NEW TOGGLE SWITCH, AS PER LEGEND.
- EXISTING CONDUIT TO BE RELOCATED IN ORDER TO CONNECT THE RECEPTACLE TO THE TOGGLE SWITCH, AS APPLIES. REWIRE CONDUIT WITH 2#12 AWG THWN Cu & 1#12 AWG THWN Cu GREEN GROUND.
- APPROXIMATE LOCATION OF EXISTING CEILING MOUNTED OUTLET BOX, TO BE REUSED. INSTALL A NEW LUMINARY AS PER LIGHTING FIXTURE SCHEDULE.
- EXISTING UNUSED LOADCENTER TO BE REMOVED. REMOVE ENCLOSURE AND REPAIR WALL WITH PLASTER CONCRETE. SEAL CONDUITS WITH MORTAR CONCRETE.
- NEW UNDERGROUND 120/240V FEEDER: 4#8 AWG THWN Cu & 1#10 AWG THWN Cu GREEN GROUND IN 3/4" PVC SCH 40 CONDUIT. RUN CONDUIT UNDER NEW SIDEWALK, 0.36" BELOW FINISHED GRADE. INSTALL A 6" WARNING RIBBON AT 12" BELOW FINISHED GRADE.
- NEW UNDERGROUND 120/240V FEEDER: 4#10 AWG THWN Cu & 1#10 AWG THWN Cu GREEN GROUND IN 3/4" PVC SCH 40 CONDUIT. INSTALL 0.36" BELOW FINISHED GRADE. INSTALL A 6" WARNING RIBBON AT 12" BELOW FINISHED GRADE.
- NEW UNDERGROUND 120V FEEDER: 2#10 AWG THWN Cu & 1#10 AWG THWN Cu GREEN GROUND IN 3/4" PVC SCH 40 CONDUIT. RUN CONDUIT UNDER NEW SIDEWALK, 0.36" BELOW FINISHED GRADE. INSTALL A 6" WARNING RIBBON AT 12" BELOW FINISHED GRADE.
- NEW 120V FEEDER: 2#12 AWG THWN Cu & 1#12 AWG THWN Cu GREEN GROUND IN 3/4" PVC SCH 40 CONDUIT. INSTALL CONDUIT EMBEDDED IN WALL.
- NEW 120V FEEDER: 3#12 AWG THWN Cu & 1#12 AWG THWN Cu GREEN GROUND IN 3/4" PVC SCH 40 CONDUIT. INSTALL CONDUIT EMBEDDED IN WALL.
- NEW WALL MOUNTED LUMINARY. REFER TO LIGHTING FIXTURE SCHEDULE.
- NEW SWITCH WITH OCCUPANCY SENSOR, AS PER LEGEND.
- EXISTING ELECTRICAL INSTALLATIONS WITHIN THIS AREA SHALL BE DEMOLISHED. ALL WIRING SHALL BE REMOVED, IF ANY. SEAL EMBEDDED CONDUITS AND OUTLET BOXES WITH MORTAR CONCRETE.



BATHROOMS ELECTRICAL PLAN
(ENLARGED PLAN #5)
SCALE: 1/4"=1'-0"



10. ELWOOD M. CASSELLAS BOND, INGENIERO LICENCIADO, CON NUMERO DE LICENCIA 10087, CERTIFICADO QUE SOY EL PROFESIONAL QUE CONFECCIONO Y/O DISEÑO Y/O PREPARO ESTOS PLANOS Y LAS ESPECIFICACIONES COMPLEMENTARIAS. TAMBIEN CERTIFICO QUE ENTENDO QUE DICHS PLANOS Y ESPECIFICACIONES CUMPLEN CON LAS DISPOSICIONES APPLICABLES DEL REGLAMENTO COMUNIDAD Y DISPOSICIONES APPLICABLES DE LOS REGLAMENTOS Y CODIGOS DE CONSTRUCCION VIGENTES DE LAS AGENCIAS, JUNTAS REGULATORIAS O CORPORACIONES FIDELIAS CON JURISDICCION. CERTIFICO, ADICIONALMENTE, QUE EN LA PREPARACION DE ESTOS PLANOS Y ESPECIFICACIONES SE HA CUMPLIDO CABALMENTE CON LO DISPUESTO EN LA LEY N.º 14 DE 8 DE ENERO DE 2004, SEGUN ENMIENDADA, CONOCIDA COMO LA LEY PARA LA INVERSION POR LA INDUSTRIA PUERTORRIQUENA Y CON LA LEY N.º 98 DE 15 DE JULIO DE 1978, SESION ENMIENDADA, SEGUN PARAJE RECONOCIDO QUE CUALQUIER DECLARACION FALSA O FALSIFICACION DE LOS FIRMAS QUE SE HAYA PRODUCIDO POR DESCONOCIMIENTO O POR NEGLIGENCIA YA SEA POR MI, MIS AGENTES O EMPLEADOS, O POR OTRAS PERSONAS CON MI CONOCIMIENTO, ME HACEN RESPONSABLE DE CUALQUIER ACCION JUDICIAL Y DISCIPLINARIA POR LA OGC.

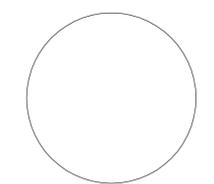
elwood m. casellas bond, pe
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tel. (787) 617-7709 elwoodcasellas@aol.com

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JLG ARCHITECTS
115 DEL PARQUE STREET SUITE 7
SAN JUAN, PR 00911
JMCP 787.409.1373 | JGA 787.309.1887

MARICAO
CAPITAL DE LA MONTAÑA

90% PRE DESIGN SET
NOT FOR CONSTRUCTION



PARQUE PASIVO
STATE ROAD PR 357, BARRIO PUEBLO, MARICAO, PR

EXISTING RESTROOMS DEMO PLANS & SECTIONS
SCALE: AS SHOWN

NO.	DATE	DRAWING ISSUE	BY	APP.
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	09.22.23	60% PROGRESS SET		
	02.27.24	90% PROGRESS SET		

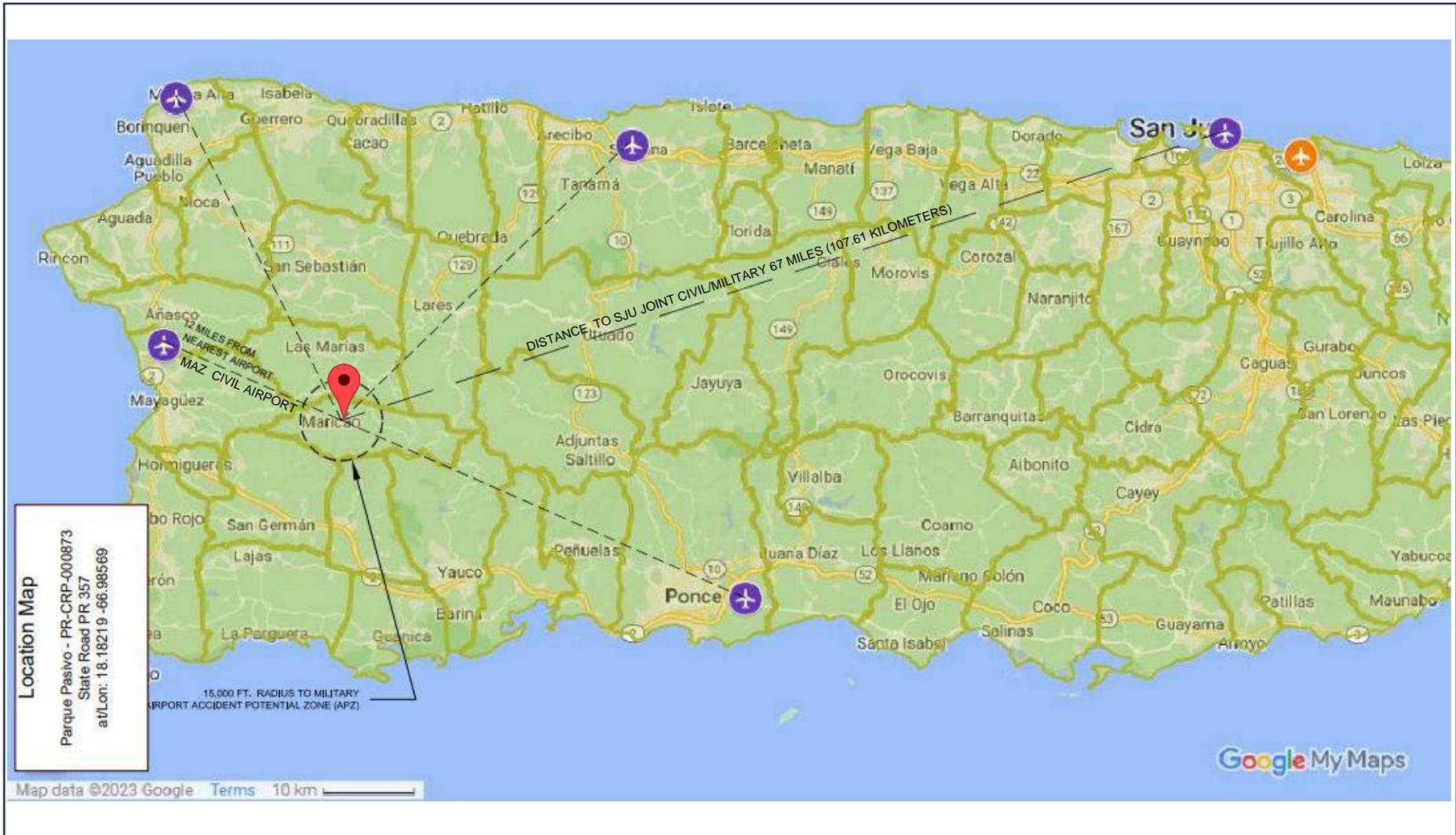
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REVIEWED BY:
DATE: 01.16.24
SHEET TITLE: ELECTRICAL ENLARGED PLANS
DRAWING NO.: E-2.0

EA Appendix B

PR-CRP-000873

Parque Pasivo

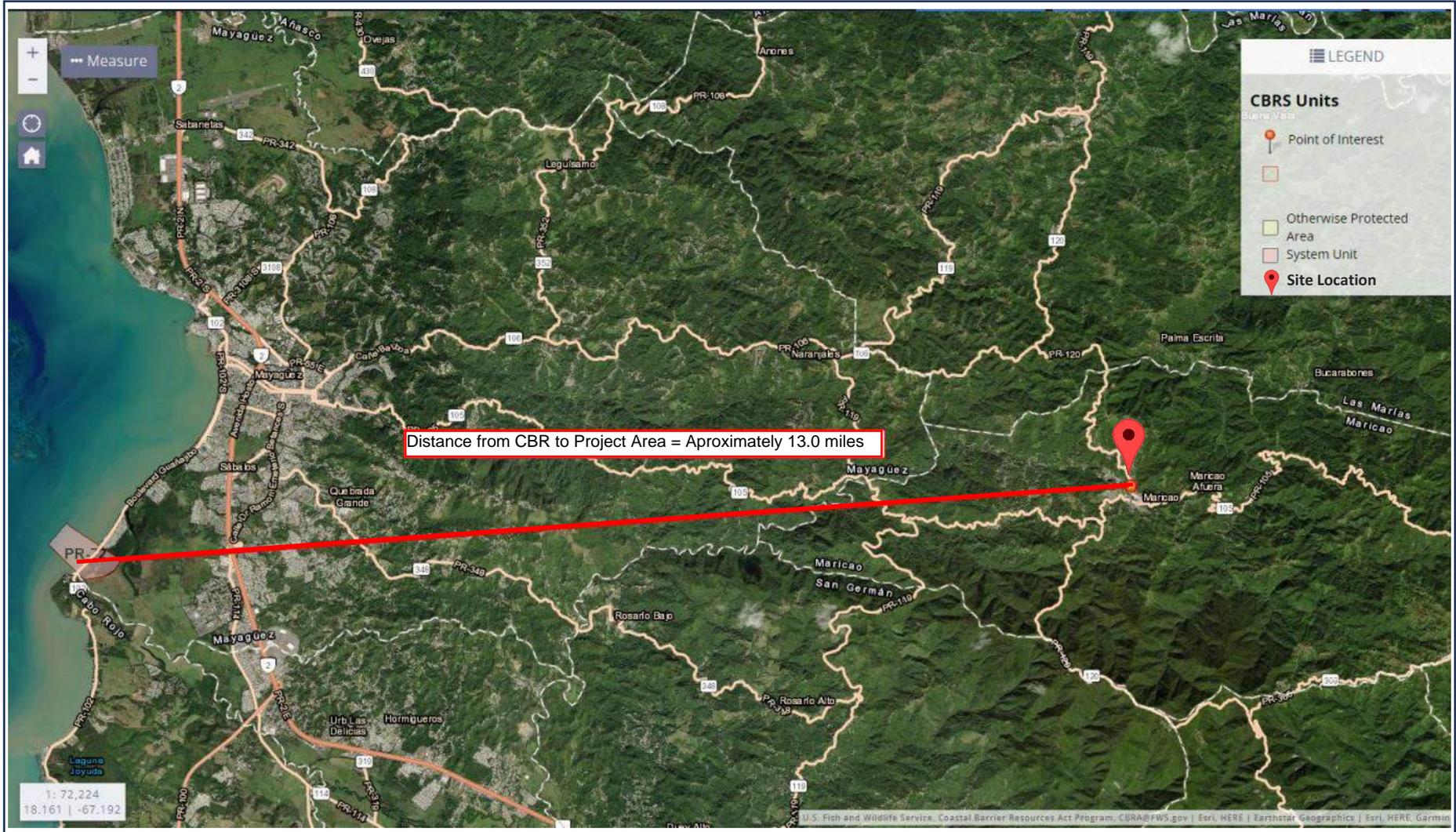
- B01.1 Airport Hazards Map
- B02.1 CBRS Map
- B02.2 CBRS Certification
- B03.1 Location Map
- B03.2 JP Determinación
- B03.3 72000C1040H
- B03.4 PR CRP 000873 FIRM Overlay & FIRMettes
- B03.5 FEMA ABFE
- B03.6 SFHA Floodway Limits
- B05.1 Coastal Zone Map
- B06.1 EPA Facilities Map
- B06.2 NEPAssist Report
- B07.1 Critical Habitat Map
- B07.2 USFWS protected areas
- B09 Farmland Classification Map
- B013.1 Sole Source Aquifers Map
- B014.1 USFWS National Wetlands Map
- B015.1 Inventory Map Wild Scenic Rivers



Location Map
Parque Pasivo - PR-CRP-000873
State Road PR 357
at/Lon: 18.18219 -66.98569

Legend:

-  Site Location
-  Airports
-  Airports



Project Location: State Road P.R. 357, Maricao, P.R.
Project Coordinates: X= 18.181943 Y= -66.980671
Data Source: <https://fwsprimary.wim.usgs.gov/cbrs-mapper-v2/>



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115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837

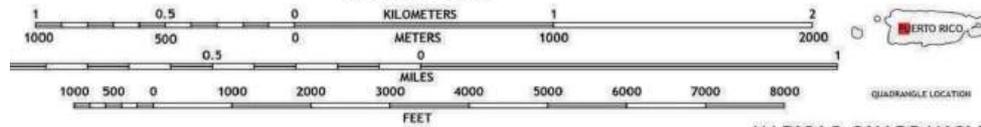


Parque Pasivo - PR-CRP-000873

State Road PR 357
Lat/Lon: 18.181943 -66.980671
Source of Data: USGS



SCALE 1:20 000



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

MARICAO QUADRANGLE
PUERTO RICO
7.5-MINUTE SERIES
MARICAO, PR
2018

Legend:

 Site Location



Gobierno de Puerto Rico
Junta De Planificación de Puerto Rico
Administrador Estatal de Valles Inundables
Oficina de Geología e Hidrogeología

Determinación Número
2023-00-JDI-1952

DETERMINACIÓN DE INUNDACIÓN

Determinación sobre la clasificación de una propiedad respecto a las Áreas Especiales de Riesgo a Inundación en Puerto Rico

Número de Catastro 262-000-002-39	Nombre de la Comunidad Participante Comunidad Participante de Puerto Rico	Número de la Comunidad Participante 720000#
--------------------------------------	--	--

Información de la Propiedad

Municipio Maricao	Barrio Barrio Pueblo	Carretera y Sector PR 357 Maricao	Plus Code 77CM52J9+VQ	Coordenadas X:142105.1 Y:238698
----------------------	-------------------------	--------------------------------------	--------------------------	---------------------------------------

Información sobre el Mapa de Tasas del Seguro de Inundación

(FIRM, por sus siglas en inglés)

Número del Mapa de Inundación, FIRM 72000C1040H	Vigencia 19/Apr/2005	Status de Panel Printed	Zona Inundable X (76.8%), A (23.2%)
Cauce Mayor (Sí, No, No determinado) No	¿La propiedad ubica en un área especial de riesgo a inundación del 1% de probabilidad? Sí	Nivel de Inundación Base (MSL) 89.1 m.	Profundidad de Inundación Base (Solo aplica a Zona AO) No Aplica
Sistema de Barreras Costeras (Sí o No)/Fecha de Designación No Aplica	Tipo de Barrera Costera No Aplica	Cuenca Hidrográfica (USGS) Cuenca del Río Guanajibo	
Nombre del Cuerpo de Agua Adyacente (cuando es VE es el mar, primera fase el cuerpo de agua mas cercano) Río Maricao (Quebradas) a 00.9 m.			¿Se propone depósito de relleno? No

Información sobre el Mapa de Niveles de Inundación Base Recomendados

(ABFE, por sus siglas en inglés)

Número del Mapa de Inundación 72000C1040H	Vigencia 13/Apr/2018	Zona Inundable Fuera mapa (ABFE) (74.9%), A (24.0%), X (0.2% ACE) (1.1%)
--	-------------------------	---

La Junta de Planificación de Puerto Rico, en su resolución JP-ABFE_01 del 23 de marzo de 2018, requiere que para toda nueva construcción o mejora sustancial, otorgación de permisos según aplique en su ámbito jurisdiccional cumpla con los Mapas de Niveles de Inundación Base Recomendados preparados por la Agencia Federal para el Manejo de Emergencias (FEMA, por sus siglas en inglés); excluyendo de su uso determinaciones o decisiones relacionadas al seguro de inundación NFIP, por sus siglas en inglés.

Determinación

Esta determinación está basada en datos de la Junta de Planificación y datos obtenidos de los Mapas de Tasas del Seguro de Inundación vigentes y no determina la localización exacta de una estructura dentro de una propiedad. Se advierte que una propiedad no localizada dentro del área inundable regulatoria (inundación del 1% de probabilidad o inundación con recurrencia de 100 años) pudiera ser afectada por inundaciones locales o inundaciones de otras recurrencias no reflejadas en estos mapas. Para propósitos del seguro de inundación, el mapa oficial es el DFIRM, adoptado por la Junta de Planificación de Puerto Rico. La clasificación parcial entre dos o más zonas, prevalecerá la más estricta.

Si la propiedad está en un Área Especial de Riesgo [Peligro] a Inundación, se requiere cumplir con las disposiciones del Reglamento de Planificación No. 13 vigente y será requerido cumplir con la Ley Federal de Protección a Desastres del año 1973. Para las zonas A, AE, AO, AH, A99 y VE es requisito obligatorio adquirir un seguro de inundación para propiedades con hipotecas respaldadas federalmente.

Solicitante
José M Castro Pavía

Contáctenos en avipr@jp.pr.gov

Fecha de Emisión
14/Sep/2023

Map Name: B03.3 - FIRM Flood Insurance Rate Map



Mapa sobre Tasas del Seguro de Inundación (Flood Insurance Rate Maps, FIRM)

NFIP PANEL 1040H

FIRM
FLOOD INSURANCE RATE MAP
COMMONWEALTH OF
PUERTO RICO
AND MUNICIPALITIES

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COUNTY	NUMBER	PANEL	SHEET
Puerto Rico	72000	1040	H

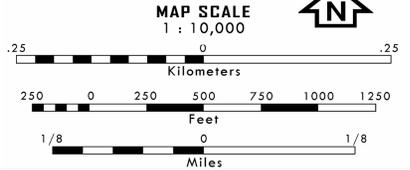
MAP NUMBER: 72000C1040H
EFFECTIVE DATE: 19/Apr/2005

Federal Emergency Management Agency

Leyenda

0.2% ACF	AE
A	AH
A99	AO
Cauce Mayor	VE
Coastal Barrier	X

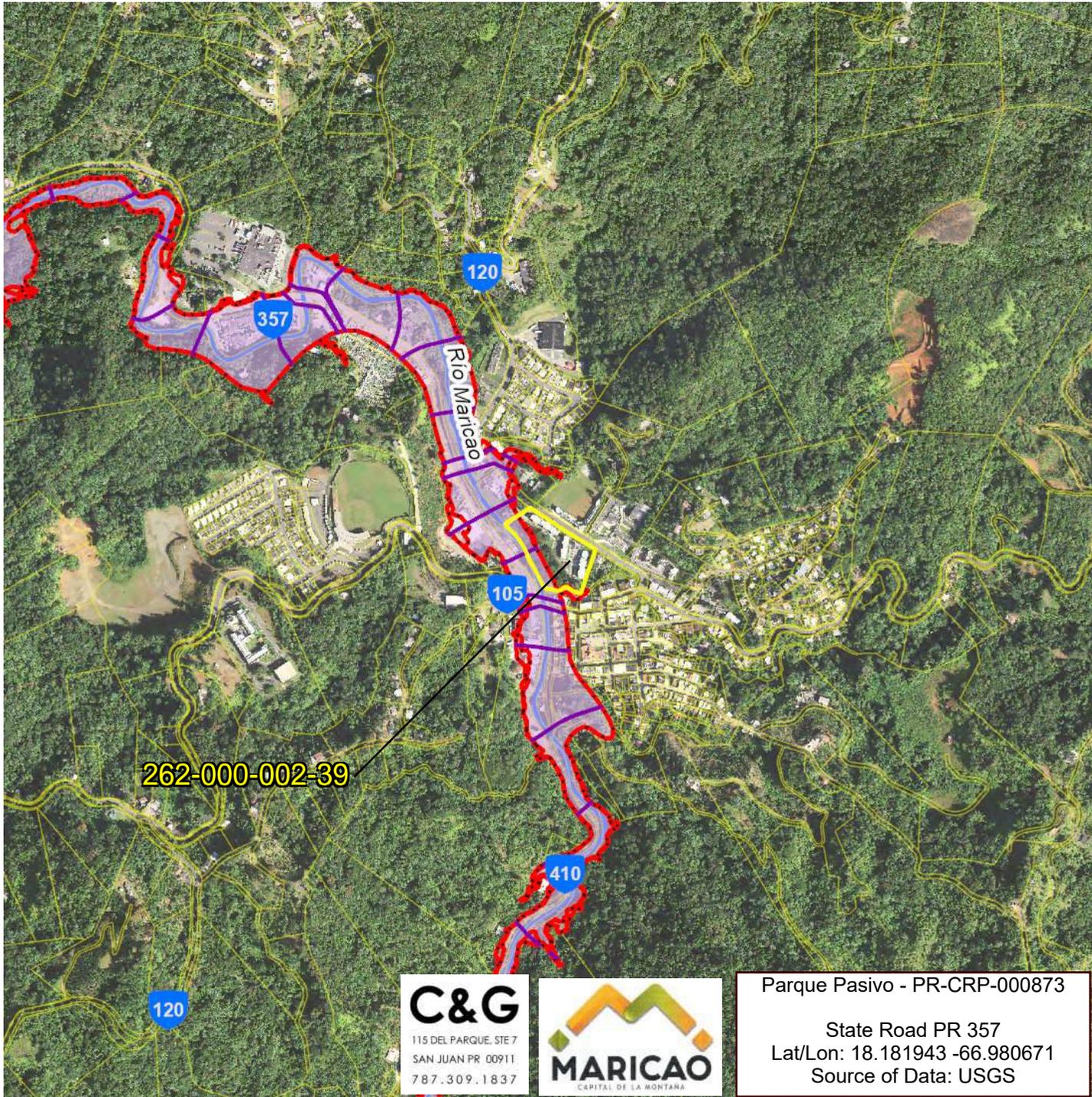
Notas:
Las elevaciones mostradas en estos mapas son consideradas la mejor información disponible hasta que se desarrollen Mapas de Tasas del Seguro de Inundación (FIRM, por sus siglas en inglés) actualizados.
Estos mapas NO han sido desarrollados para tomar determinaciones respecto al seguro de inundación del Programa Nacional del Seguro de Inundación (NFIP, por sus siglas en inglés). Para propósitos del seguro de inundación, se debe hacer referencia a los FIRMs vigentes para Puerto Rico y disponibles en <http://msc.fema.gov> o en la herramienta MiPR de la Junta de Planificación (<http://gis.pr.gov/mipr/>)



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115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837



Parque Pasivo - PR-CRP-000873
State Road PR 357
Lat/Lon: 18.181943 -66.980671
Source of Data: USGS



Mapa de Niveles de Inundación Base Recomendados Para propósitos de nueva construcción o mejora substancial.

Estos mapas desarrollados por la Agencia Federal para el Manejo de Emergencias (FEMA, por sus siglas en inglés) identifican cuales áreas se encuentran en las nuevas zonas inundables recomendadas del 1% y 2% de probabilidad, así como los niveles de inundación base recomendados (ABFE, por sus siglas en inglés) que pueden afectar las prácticas de construcción en Puerto Rico.

Zona Inundabilidad	Porcentaje
Fuera mapa (ABFE)	74.9
A	24.0
X (0.2% ACF)	1.1

Nivel de Inundación Base Recomendado: 420 m.

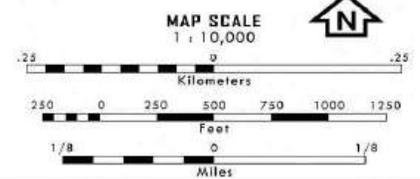
Panel Inundabilidad: 72000C1040H

Fecha de Efectividad: 18 de abril de 2018
Ver Resolución JP-ABFE_01 del 23 de marzo de 2018

Leyenda

Hidrografía	A
Límite ABFE	AE
Cauce Mayor	AO
	Coastal A Zone
	VE
	X (0.2% ACF)

Notas:
La elevación de inundación base que se muestra en este mapa utiliza el nivel medio del mar (MSL). Se advierte al usuario que toda información obtenida del mapa deberá corroborarse con el Estudio del Seguro de Inundación (FIS, por sus siglas en inglés) de Puerto Rico. Se deberá utilizar la tabla de niveles de inundación provista por dicho estudio que muestra la elevación para inundación, dichos datos deberán ser utilizados en proyectos de construcción o propósitos relacionados con la administración de Valles Inundables en Puerto Rico cuando estos sean mayores a las elevaciones que muestra el mapa de inundaciones (FIRM).



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MARICAO
CAPITAL DE LA MONTAÑA

Parque Pasivo - PR-CRP-000873
State Road PR 357
Lat/Lon: 18.181943 -66.980671
Source of Data: USGS

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles, Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent elevations rounded to the nearest 0.1 meter elevation. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only to landward of 0.0m Mean Sea Level (MSL). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 19. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to Mean Sea Level. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding vertical datums, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3181

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit their website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles (DOQs) produced at a scale of 1:10,000 from photography dated 1993 or later.

This map reflects more detailed and up-to-date **stream channel and shoreline configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel and shoreline configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the Commonwealth of Puerto Rico showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program, in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.



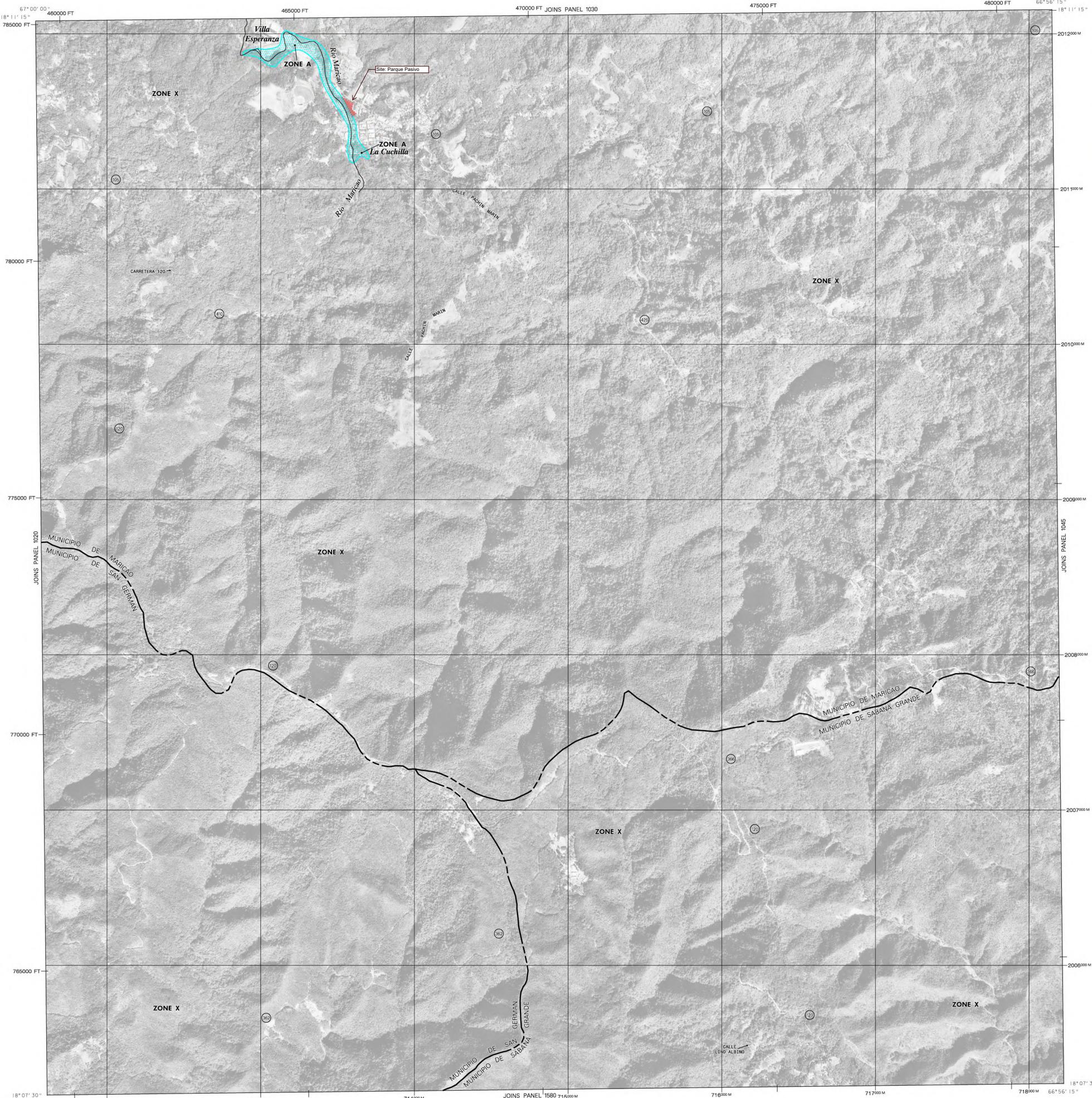
This digital Flood Insurance Rate Map (FIRM) was produced with the assistance of the Puerto Rico Planning Board (PRPB, Junta de Planificación), the National Flood Insurance Program administrator for the Commonwealth of Puerto Rico. As a part of this effort, PRPB, a Federal Emergency Management Agency Cooperating Technical Partner, will adopt this FIRM, once finalized, as the official flood map for the Commonwealth.

FIRM - Flood Insurance Rate Map

Parque Pasivo - PR-CRP-000873
State Road PR 357 - km. 0.0
Lat/Lon: 18.181943 -66.980671
Source of Data: FEMA



Map Name: B03.3 - FIRM Flood Insurance Rate Map 72000C1040H



LEGEND

- SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**
 - ZONE A** No Base Flood Elevations determined.
 - ZONE AE** Base Flood Elevations determined.
 - ZONE AH** Flood depths of 0.3 to 0.9 meter (usually areas of ponding); Base Flood Elevations determined.
 - ZONE AO** Flood depths of 0.3 to 0.9 meter (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
 - ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
 - ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
 - ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
 - ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
 - FLOODWAY AREAS IN ZONE AE**
 - OTHER FLOOD AREAS**
 - ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 0.3 meter or with drainage areas less than 2.6 square kilometers; and areas protected by levees from 1% annual chance flood.
 - OTHER AREAS**
 - ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
 - ZONE D** Areas in which flood hazards are undetermined, but possible.
 - COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
 - OTHERWISE PROTECTED AREAS (OPAs)**
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% annual chance floodplain boundary
 - 0.2% annual chance floodplain boundary
 - Floodway boundary
 - Zone D boundary
 - CBRS and OPA boundary
 - Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
 - Base Flood Elevation line and value; elevation in meters*
 - Base Flood Elevation value where uniform within zone; elevation in meters*
- *Referenced to Mean Sea Level
- ⊖ ⊕ Cross section line
 - ⊖ ⊕ Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
1000-meter Universal Transverse Mercator grid values, zone 19
5000-foot grid values: Puerto Rico State Plane coordinate system, FIPS ZONE 5200, Lambert Conformal Conic Projection
Bench mark (see explanation in Notes to Users section of this FIRM panel)

MAP REPOSITORY
Refer to Listing of Map Repositories on Map Index

EFFECTIVE DATE OF COMMONWEALTH OF PUERTO RICO AND MUNICIPALITIES FLOOD INSURANCE RATE MAP
April 19, 2005

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to Commonwealth of Puerto Rico and Municipalities mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE
1:10,000

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1040H

FIRM
FLOOD INSURANCE RATE MAP
COMMONWEALTH OF PUERTO RICO
AND MUNICIPALITIES

PANEL 1040 OF 2160
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY NUMBER SUFFIX
PUERTO RICO 72000 1040 H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 72000C1040H
EFFECTIVE DATE APRIL 19, 2005

Federal Emergency Management Agency

Figure B03.2

C&G

115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837



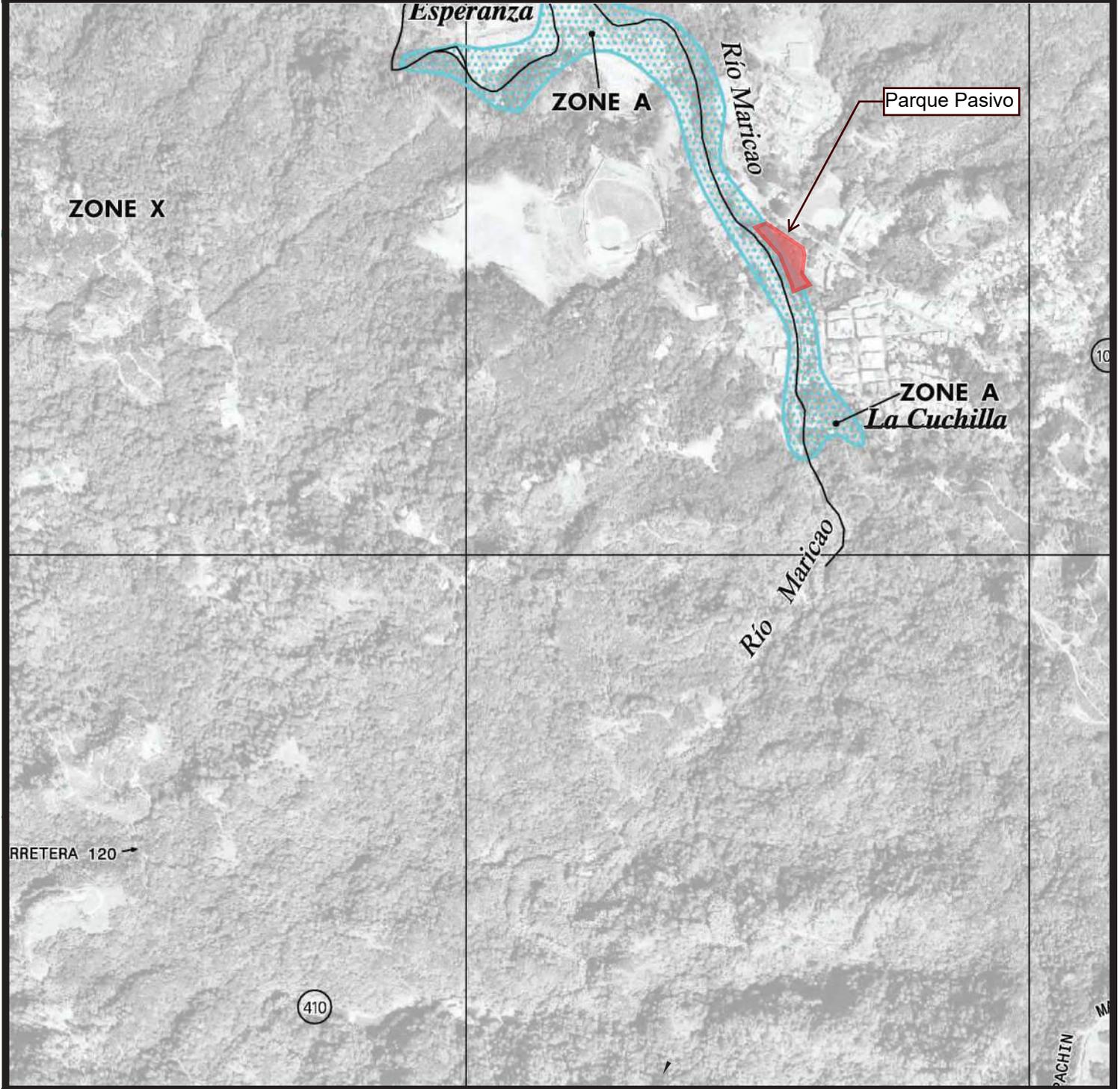
Map Name: BO3.4 PR CRP 000873
FIRM Overlay & FIRMettes
Parque Pasivo - PR-CRP-000873
State Road PR 357 - km. 0.0
Lat/Lon: 18.181943 -66.980671

Source of Data: FEMA-FIRM

FLOOD MAP

SCALE: 1:10,000

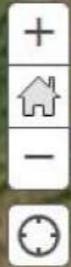
PANEL 72000C1040H
REV. 04/19/2005



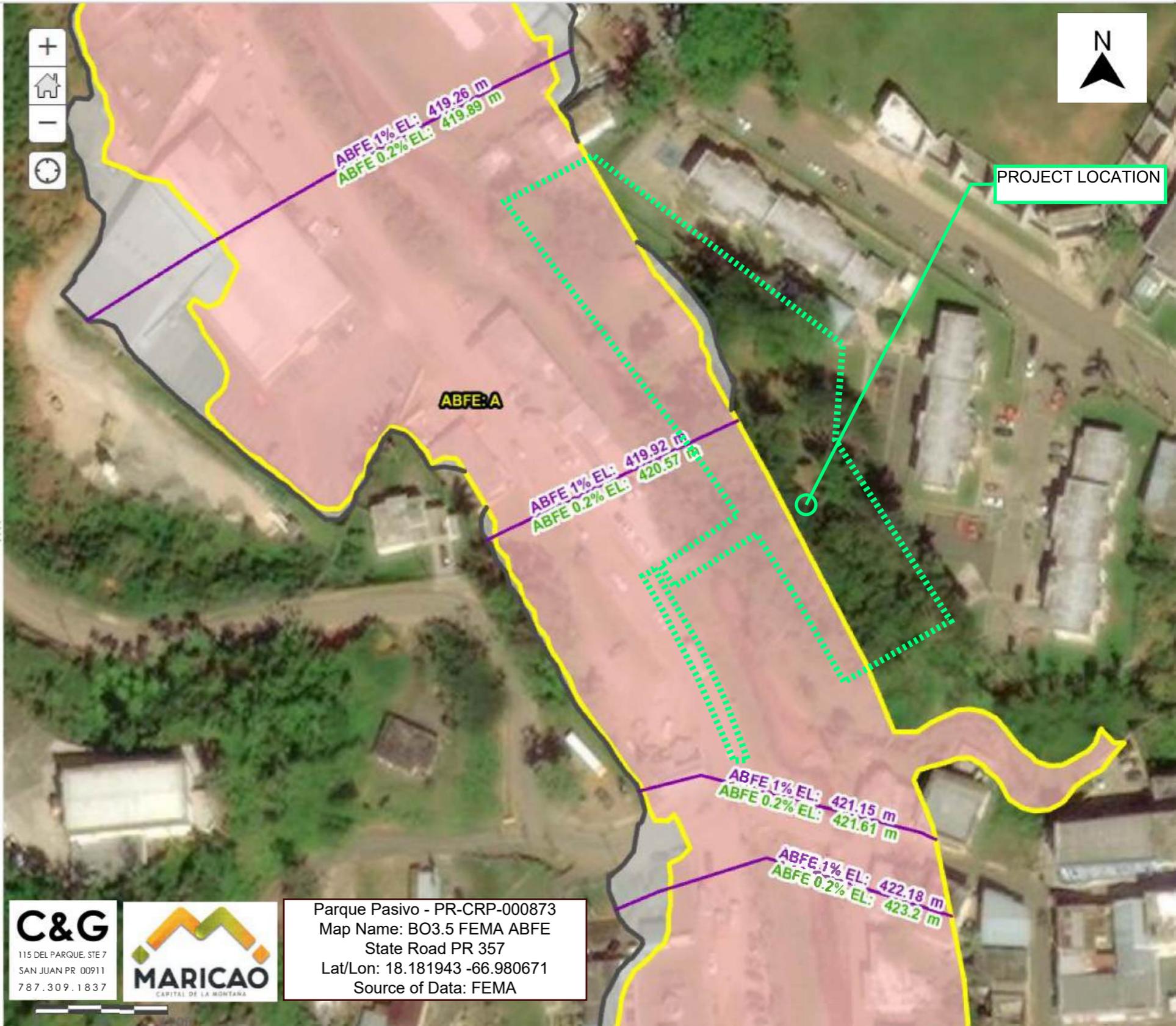
Overlay of Project Limits over FEMA Panel 72000C1040H.
Please refer to the attached FIRMettes generated at the beginning and at the end of the project extents.

- Municipios
- Flood Hazard Boundary (zoom in to make visible)
- Limit of Moderate Wave Action (LIMWA)
- Flood Hazard Extent
 - 1% Annual Chance Flood
 - 0.2% Annual Chance Flood
- Zone/BFE Boundary
- Flood Hazard Area (zoom in to make visible)
 - Floodway
 - Flood Hazard Zone

- A
- AO
- AE
- Coastal A Zone
- VE
- X 0.2% Annual Chance Flood
- A-Floodway
- AE-Floodway
- Coastal A Zone and Floodway



PROJECT LOCATION



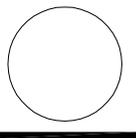
C&G
 115 DEL PARQUE, STE 7
 SAN JUAN PR 00911
 787.309.1837



Parque Pasivo - PR-CRP-000873
 Map Name: BO3.5 FEMA ABFE
 State Road PR 357
 Lat/Lon: 18.181943 -66.980671
 Source of Data: FEMA

THESE PLANS ARE AN INSTRUMENT OF SERVICE AND THE PROPERTY OF THE ARCHITECTS. THEY MAY NOT BE COPIED OR REPRODUCED WITHOUT THEIR EXPRESS WRITTEN CONSENT.

60% PRE DESIGN SET
NOT FOR CONSTRUCTION



PARQUE PASIVO
CABARETIN ESTATAL PR 367 - MARICAGO BARRO PUEBLO
GOBIERNO MUNICIPAL DE MARICAGO

PROJECT: PR-CRP-006673

NO.	DATE	DRAWING ISSUE	BY	APP.
1				

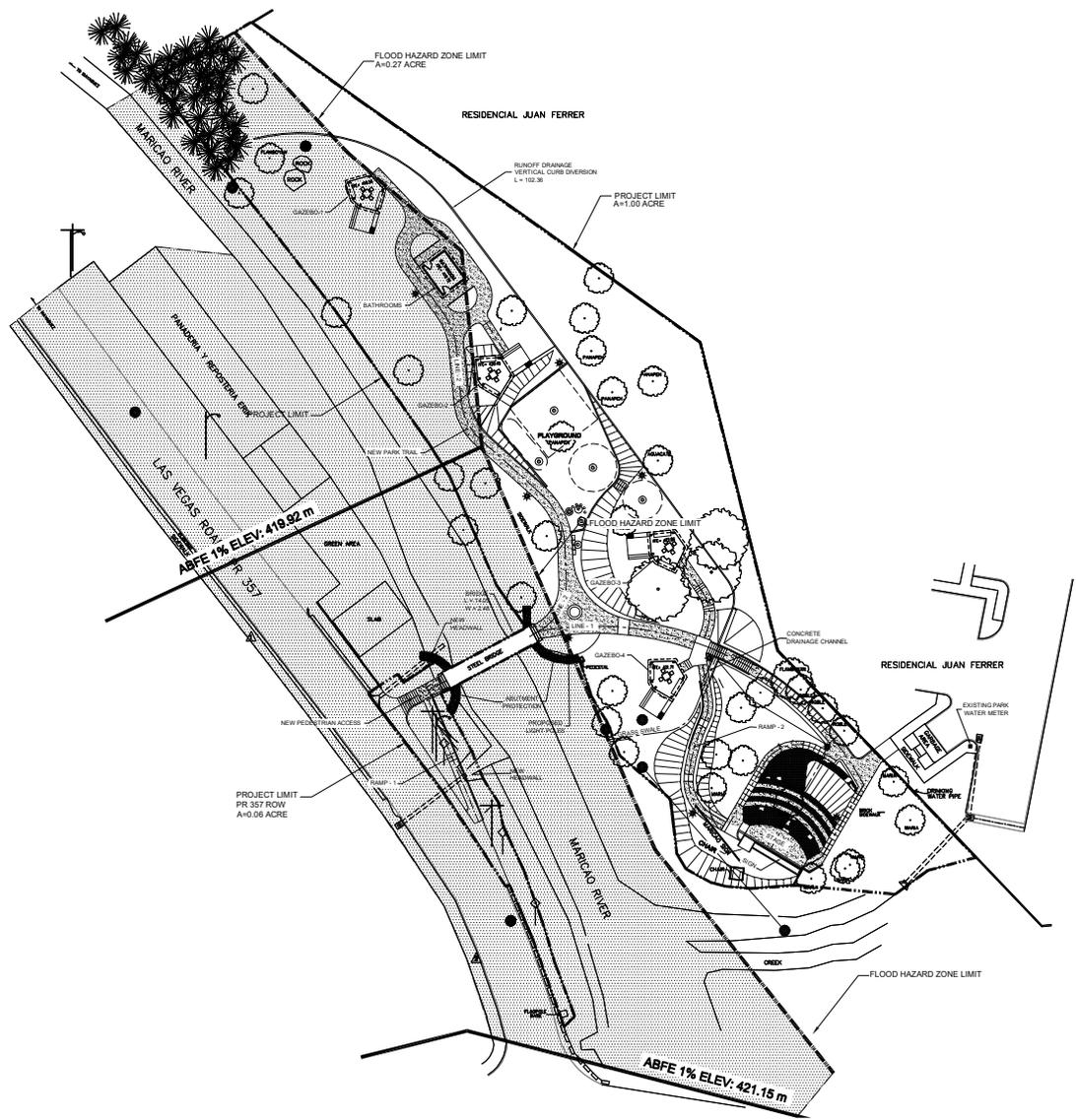
DRAWN BY: _____
REVIEWED BY: _____
DATE: _____

SHEET TITLE: _____
DRAWING NO: **C-305**

SYMBOL	DESCRIPTION
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	1 FLOWERS
	2 YACON TREE
	3 MARISSA
	4 DRUMS
	5 GUMBER
	6 MULTI ACTIVITY
	7 SPARE
	8 BUSHY
	9 SPINNER
	BAMBU
	TREE
	PALM

- 1 FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
- 2 FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.

HORIZONTAL VERTICAL CONTROLS	
STATION # 01 Y = 100.00 X = 142,267.00 ELEV. = 421.50 PK	STATION # 02 Y = 200.00 X = 142,267.00 ELEV. = 421.50 PK



SCALE = 1:300

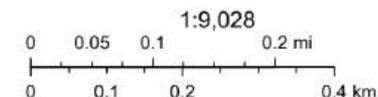
FLOOD HAZARD ZONE LIMITS
scale= 1:300





October 23, 2023

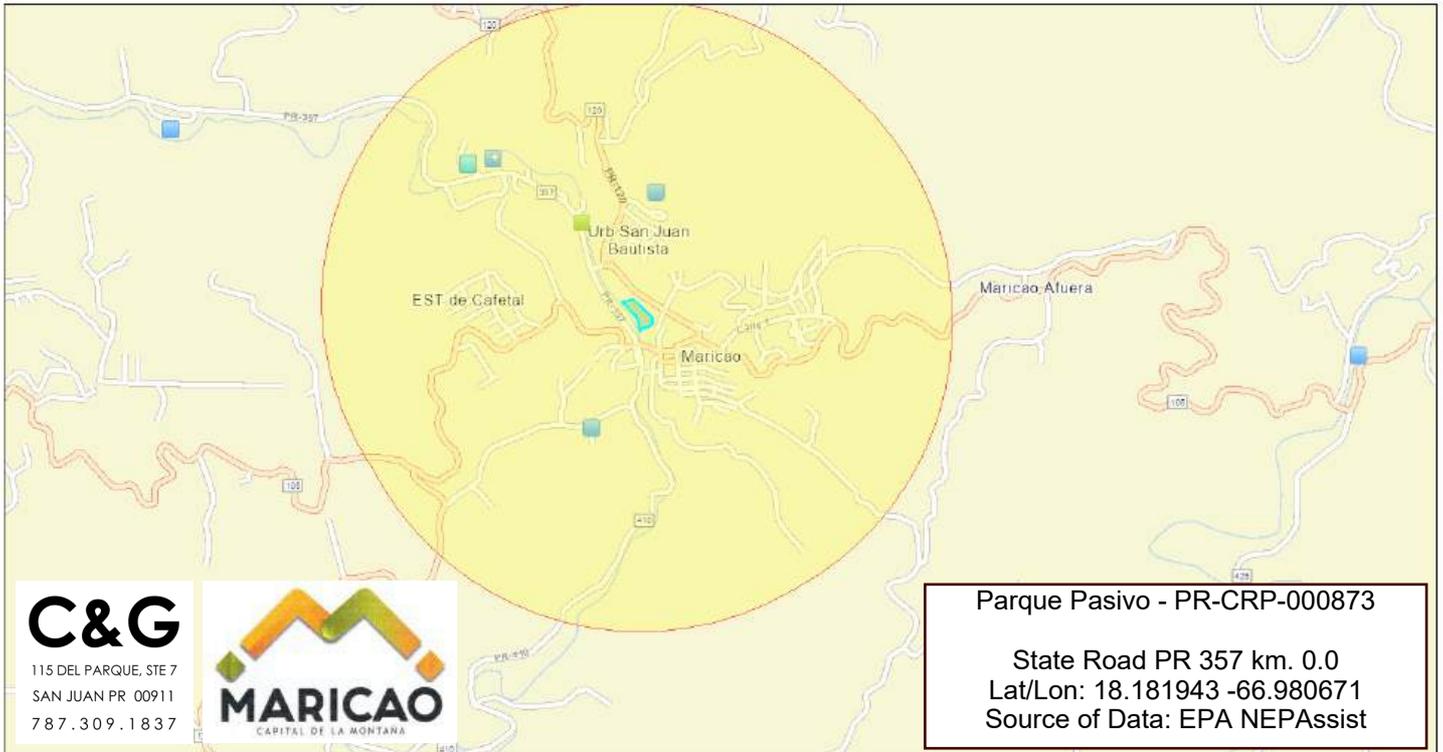
- Toxic Releases (TRI)
- + Water Dischargers (NPDES)
- Water Dischargers (NPDES)
- Air Pollution (ICIS-AIR)
- Hazardous Waste (RCRAInfo)
- Parque Pasivo
- 📍 Site Location



B06.2 NEPAssist Report

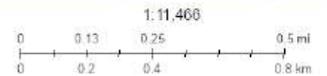
Parque Pasivo1

A3 Landscape



October 23, 2023

- Project Buffer
- Water Dischargers (NPDES)
- Hazardous Waste (RCRAInfo)
- Parque Pasivo1
- Water Dischargers (NPDES)
- Air Pollution (ICIS-AIR)
- Toxic Releases (TRI)



Env. Community Maps Contributors, Env. HERE, Garmin, Foursquare, GeoGraph, GeoTechnologies, Inc. METI, NASA, USGS, NPS, US Census Bureau

Input Coordinates: 18.182621,-66.981262,18.182682,-66.980941,18.182193,-66.980404,18.181969,-66.980404,18.181867,-66.980726,18.181847,-66.980726,18.181785,-66.980747,18.182173,-66.980833,18.182621,-66.981262

Project Area	0.00 sq mi
Within 3000 feet of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 3000 feet of a Federal Land?	no
Within 3000 feet of an impaired stream?	no
Within 3000 feet of an impaired waterbody?	yes
Within 3000 feet of a waterbody?	yes
Within 3000 feet of a stream?	yes
Within 3000 feet of an NWI wetland?	Available Online
Within 3000 feet of a Brownfields site?	no
Within 3000 feet of a Superfund site?	no
Within 3000 feet of a Toxic Release Inventory (TRI) site?	yes
Within 3000 feet of a water discharger (NPDES)?	yes

Within 3000 feet of a hazardous waste (RCRA) facility?	yes
Within 3000 feet of an air emission facility?	yes
Within 3000 feet of a school?	no
Within 3000 feet of an airport?	no
Within 3000 feet of a hospital?	no
Within 3000 feet of a designated sole source aquifer?	no
Within 3000 feet of a historic property on the National Register of Historic Places?	yes
Within 3000 feet of a Toxic Substances Control Act (TSCA) site?	no
Within 3000 feet of a Land Cession Boundary?	no
Within 3000 feet of a tribal area (lower 48 states)?	no
Within 3000 feet of the service area of a mitigation or conservation bank?	no
Within 3000 feet of the service area of an In-Lieu-Fee Program?	no
Within 3000 feet of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 3000 feet of a Munitions Response Site?	no
Within 3000 feet of an Essential Fish Habitat (EFH)?	no
Within 3000 feet of a Habitat Area of Particular Concern (HAPC)?	no
Within 3000 feet of an EFH Area Protected from Fishing (EFHA)?	yes
Within 3000 feet of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 3000 feet of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	yes
Within 3000 feet of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

Created on: 10/23/2023 5:19:31 PM



Critical Habitat for Threatened & Endangered Species [USFWS]

Final Polygon Features


Final Linear Features


Proposed Polygon Features


Proposed Linear Features




A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

esri
400ft

Maxar

Legend:

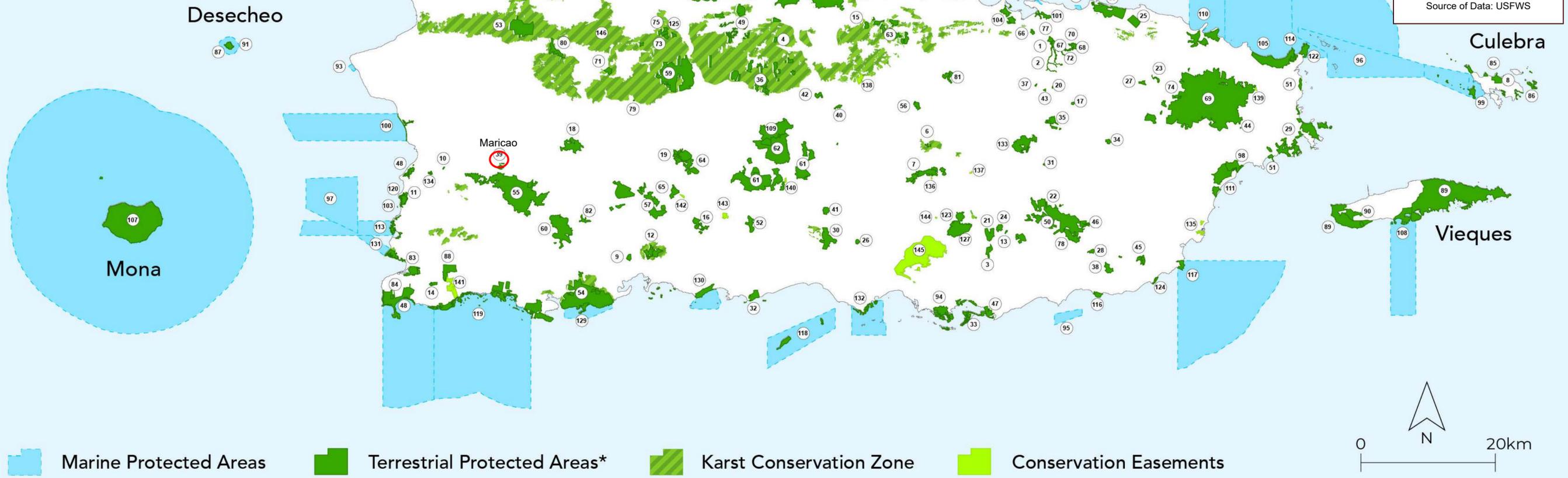
 Site Location

PROTECTED AREAS OF PUERTO RICO

2018



USFWS -Endangered Species
 Paseo Hatchery - PR-CRP-000873
 State Road PR 357 - km. 0.0
 Lat/Lon: 18.181943 -66.980671
 Source of Data: USFWS



* Terrestrial protected areas include: Nature Reserves, State Forests, Wildlife Refuges (state and federal), National Forest, Urban Forests, National Estuarine Research Reserve, among others. DNER lands acquired through the Forest Legacy Program and other mechanisms have been added to the management unit of the nearest Commonwealth Forest.

- | | | | | |
|--|---|--|--|---|
| <ol style="list-style-type: none"> 1. Antiguo Acueducto del río Piedras / SJEC 2. Cupey Arboretum/ SJEC 3. Guayama Research Area 4. Manatí Research Area 5. Bosque de Pterocarpus de Dorado Protected Natural Area 6. Cañón Las Bocas Protected Natural Area 7. Cañón San Cristóbal Protected Natural Area 8. Cerro Feliz Protected Natural Area 9. Cerro La Tuna Protected Natural Area 10. Cerro Las Mesas Protected Natural Area 11. Cordillera Sabana Alta Protected Natural Area 12. Cuevas El Convento Protected Natural Area 13. Culebras Protected Natural Area 14. El Conuco Protected Natural Area 15. Freddie Ramírez Protected Natural Area 16. Hacienda Buena Vista Protected Natural Area 17. Hacienda Lago Protected Natural Area 18. Hacienda Margarita Protected Natural Area 19. Hacienda Pellejas Protected Natural Area 20. Hermanas Sendra Protected Natural Area 21. Jájome Protected Natural Area 22. Jorge Sotomayor del Toro Protected Natural Area 23. La Pitahaya Protected Natural Area 24. La Robleda Protected Natural Area 25. Los Frailes Protected Natural Area 26. Los Llanos Protected Natural Area 27. Luz Martínez de Benítez Protected Natural Area 28. Marín Alto Protected Natural Area 29. Medio Mundo y Daguao Protected Natural Area 30. Ojo de Agua Protected Natural Area | <ol style="list-style-type: none"> 31. Paraíso de las Lunas Protected Natural Area 32. Punta Cabullones Protected Natural Area 33. Punta Pozuelo Protected Natural Area 34. Quebrada Janer Protected Natural Area 35. Río Bairoa Protected Natural Area 36. Río Encantado Protected Natural Area 37. Río Guaynabo Protected Natural Area 38. Río Jacaboa Protected Natural Area 39. Río Maricao Protected Natural Area 40. Río Sana Muerto Protected Natural Area 41. Río Toa Vaca Protected Natural Area 42. Río Toro Negro Protected Natural Area 43. San Juan Park Protected Natural Area 44. Shapiro Protected Natural Area 45. Sierra La Pandura Protected Natural Area 46. Ulpiano Casal Protected Natural Area 47. Aguirre Commonwealth Forest 48. Boquerón Commonwealth Forest 49. Cambalache Commonwealth Forest 50. Carite Commonwealth Forest 51. Ceiba Commonwealth Forest 52. Cerrillos Commonwealth Forest / Cerrillos Wildlife Refuge 53. Guajataca Commonwealth Forest 54. Guánica Commonwealth Forest 55. Maricao Commonwealth Forest 56. Monte Choca Commonwealth Forest 57. Monte Guilarte Commonwealth Forest 58. Piñones Commonwealth Forest 59. Río Abajo Commonwealth Forest 60. Susúa Commonwealth Forest | <ol style="list-style-type: none"> 61. Toro Negro Commonwealth Forest 62. Tres Picachos Commonwealth Forest 63. Vega Commonwealth Forest 64. Bosque del Pueblo de Adjuntas Commonwealth Forest 65. La Olimpia Commonwealth Forest 66. San Patricio Commonwealth Forest 67. Bosque Urbano del Nuevo Milenio Commonwealth Forest / SJEC 68. Los Capuchinos Forest 69. El Yunque National Forest 70. Doña Inés Mendoza Urban Forest / SJEC 71. Río Camuy Cave System 72. San Juan Ecological Corridor (SJEC) 73. El Tallonal 74. Finca El Verde 75. Finca José Santiago 76. Finca Nolla 77. Botanical Garden of the University of Puerto Rico 78. Las Casas de la Selva 79. Caguana Indigenous Ceremonial Park 80. Guajataca Wildlife Refuge 81. La Plata Wildlife Refuge 82. Luchetti Wildlife Refuge 83. Iris Alameda Wildlife Refuge in Boquerón 84. Cabo Rojo National Wildlife Refuge 85. Culebra National Wildlife Refuge 86. Culebra National Wildlife Refuge / Culebrita Lighthouse 87. Desecheo National Wildlife Refuge 88. Laguna Cartagena National Wildlife Refuge 89. Vieques National Wildlife Refuge | <ol style="list-style-type: none"> 90. El Buey Nature and Wildlife Refuge 91. Desecheo Coastal Waters Marine Reserve 92. Arrecife de Isla Verde Marine Reserve 93. Tres Palmas Marine Reserve 94. Jobos Bay National Estuarine Research Reserve 95. Arrecifes de Guayama Nature Reserve 96. Arrecifes de La Cordillera Nature Reserve 97. Arrecifes de Tourmaline Nature Reserve 98. Bosque Pterocarpus Nature Reserve 99. Canal Luis Peña Nature Reserve 100. Caño La Boquilla Nature Reserve 101. Caño Martín Peña Nature Reserve 102. Caño Tiburones Nature Reserve 103. Cayo Ratones Nature Reserve / Boquerón CF 104. Ciénaga Las Cucharillas Nature Reserve 105. Northeast Ecological Corridor Nature Reserve (NECNR) 106. Cueva del Indio Nature Reserve 107. Isla de Mona y Monito Nature Reserve 108. Vieques Bioluminescent Bays Nature Reserve 109. Río Cialitos Nature Reserve 110. Río Espíritu Santo Nature Reserve 111. Efraín Archilla Diez Nature Reserve in Humacao Pantano, Bosque de Pterocarpus, Lagunas Mandry y Santa Teresa 112. Laguna del Condado Estuarine Reserve 113. Finca Belverede Nature Reserve / Boquerón CF 114. Finca Seven Seas Nature Reserve / NECNR 115. Hacienda La Esperanza Nature Reserve 116. Humedal de Punta Vientos Nature Reserve 117. Inés María Mendoza (Punta Yeguas) Nature Reserve 118. Isla Caja de Muertos Nature Reserve 119. La Parguera Nature Reserve / Boquerón CF | <ol style="list-style-type: none"> 120. Laguna Joyuda Nature Reserve / Boquerón CF 121. Laguna Tortuguero Nature Reserve 122. Las Cabezas de San Juan Nature Reserve 123. Las Piedras del Collado Nature Reserve 124. Manglar de Punta Tuna Nature Reserve 125. Mata de Platanos Field Station and Nature Reserve 126. Pantano Cibuco Nature Reserve 127. Planadas - Yeyesa Nature Reserve 128. Playa Grande El Paraíso Nature Reserve 129. Punta Ballenas Nature Reserve / Guánica CF 130. Punta Cucharas Nature Reserve 131. Punta Guaniquilla Nature Reserve / Boquerón CF 132. Punta Petrona Nature Reserve 133. Aguas Buenas Cave System Nature Reserve 134. Río Hondo Community Forest 135. Tropical Forest at Palmas del Mar Conservation Easement 136. Centro Espíritu Santo Conservation Easement 137. El Rabanal Conservation Easement 138. El Tambor Conservation Easement 139. Finca Gulín Conservation Easement 140. Finca Ledesma Moulie Conservation Easement 141. Finca María Luisa Conservation Easement 142. Foreman Conservation Easement 143. Picaflo Conservation Easement 144. Siembra Tres Vidas Conservation Easement 145. Montes Oscuros Scenic Easement 146. Karst Conservation Zone |
|--|---|--|--|---|

Parque Pasivo

Farmland Classification—Mayaguez Area, Puerto Rico Western Part

State Road PR 357 km. 0.0

Lat/Lon: 18.181943 -66.980671

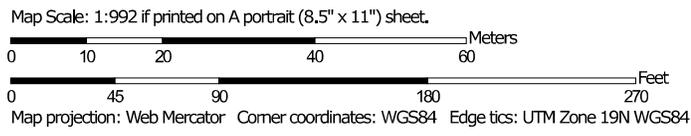
Source of Data: NRCS

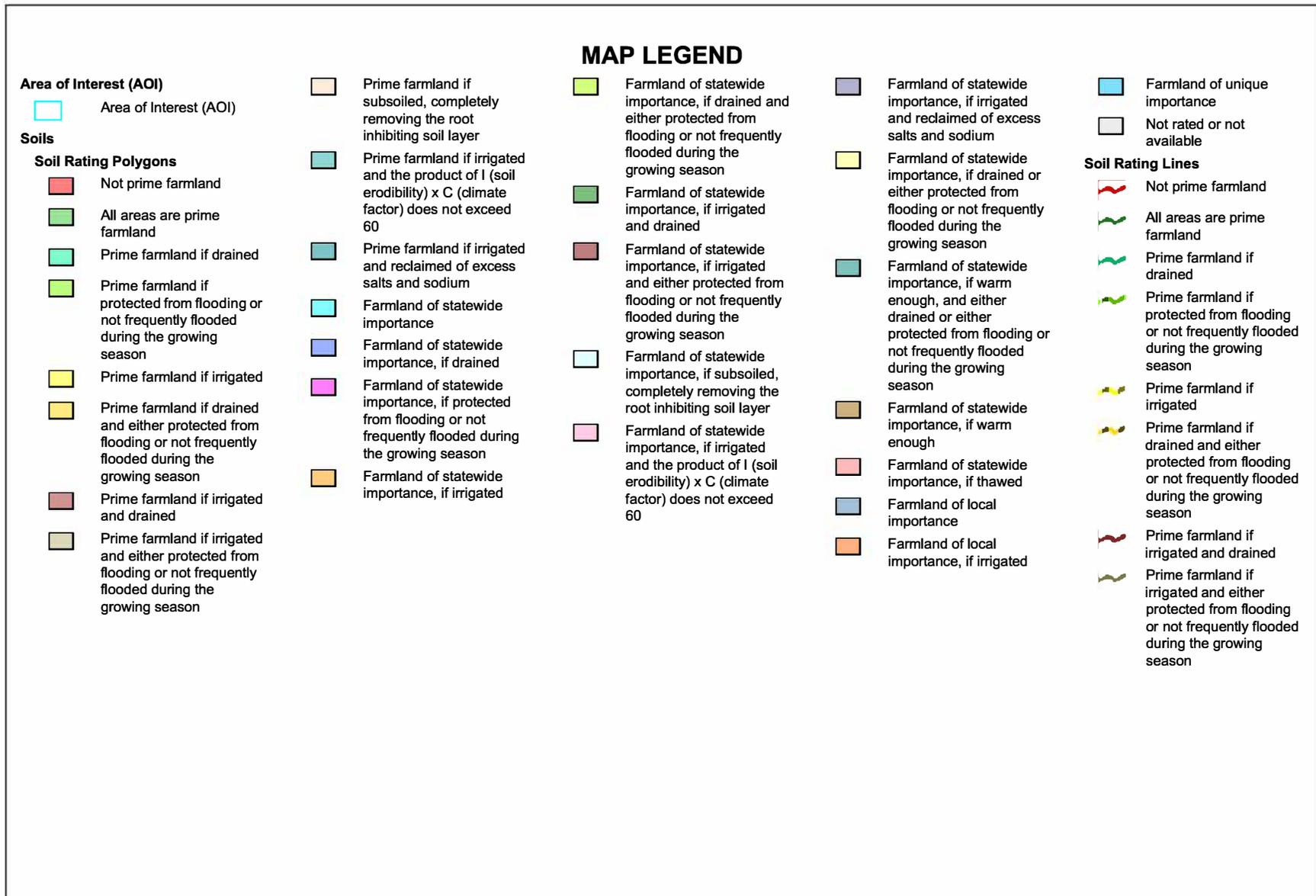
66° 58' 53" W 18° 10' 58" N 713500 713520 713540 713560 713580 713600 713620 713640 66° 58' 48" W 18° 10' 58" N



Soil Map may not be valid at this scale.

18° 10' 52" N 713500 713520 713540 713560 713580 713600 713620 713640 66° 58' 53" W 66° 58' 48" W





Farmland Classification—Mayaguez Area, Puerto Rico Western Part

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		All areas are prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Prime farmland if drained		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Prime farmland if irrigated		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated				Farmland of local importance		Prime farmland if irrigated and drained		Farmland of statewide importance, if irrigated
					Farmland of local importance, if irrigated		Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season		

Farmland Classification—Mayaguez Area, Puerto Rico Western Part

	Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance	<p>The soil surveys that comprise your AOI were mapped at 1:20,000.</p> <p>Warning: Soil Map may not be valid at this scale.</p> <p>Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.</p> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Mayaguez Area, Puerto Rico Western Part Survey Area Data: Version 20, Sep 10, 2024</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Jan 23, 2022—Mar 1, 2022</p> <p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>
	Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or flooded during the growing season		Streams and Canals	
	Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Rails	
	Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Interstate Highways	
	Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		US Routes	
			Farmland of local importance		Major Roads	
			Farmland of local importance, if irrigated		Local Roads	
					Aerial Photography	

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HmF2	Humatas clay, 40 to 60 percent slopes	Not prime farmland	1.5	76.3%
Uh	Urban land-Humatas complex, 20 to 40 percent slopes	Not prime farmland	0.5	23.7%
Totals for Area of Interest			2.0	100.0%

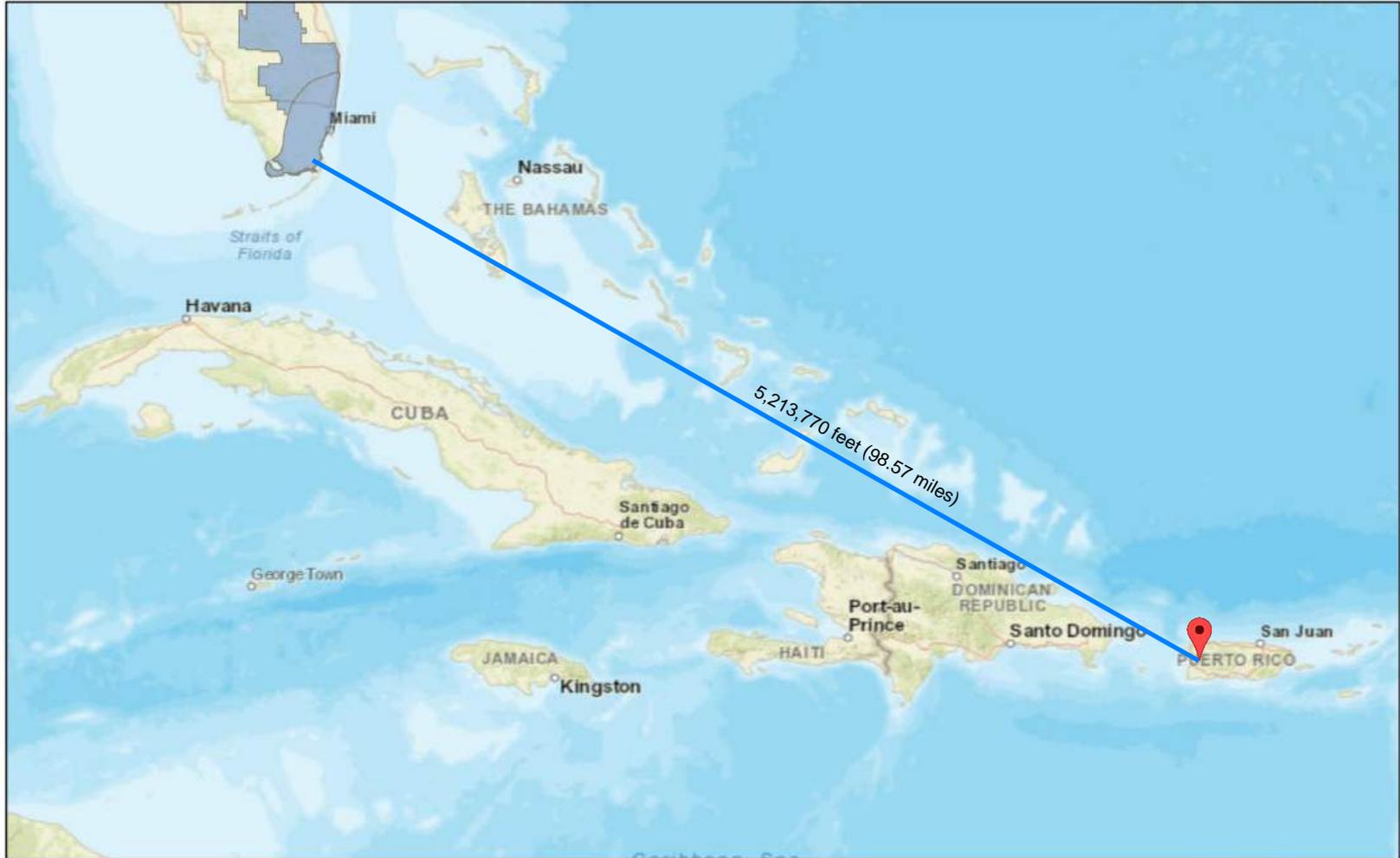
Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

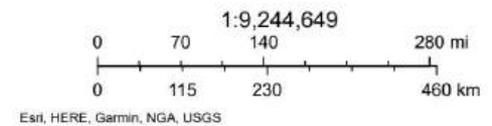
Aggregation Method: No Aggregation Necessary

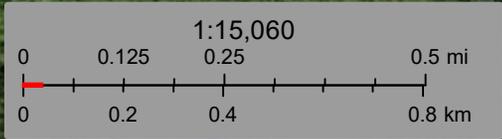
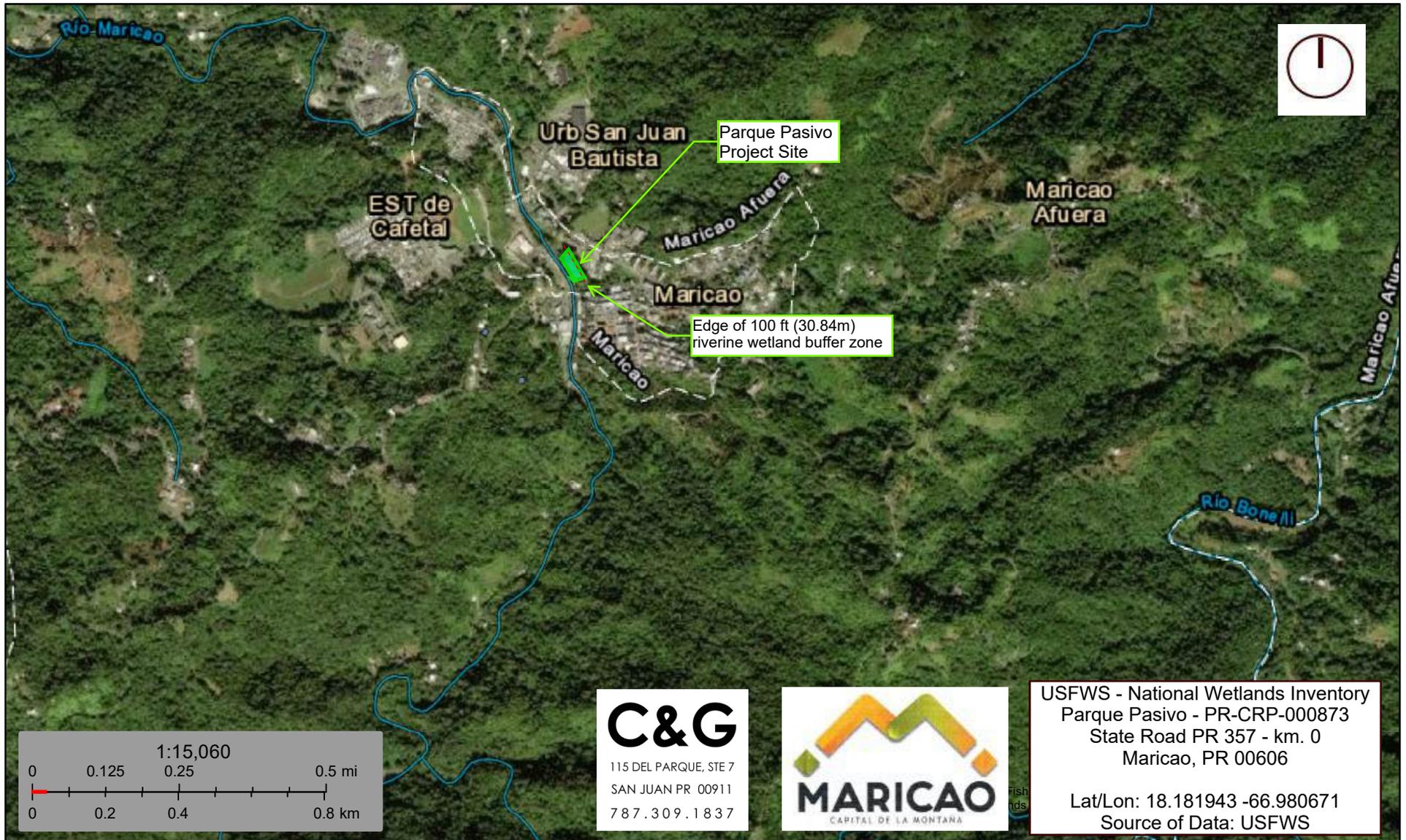
Tie-break Rule: Lower



8/14/2024, 11:38:52 AM

-  Sole_Source_Aquifers
-  Site Location





C&G
 115 DEL PARQUE, STE 7
 SAN JUAN PR 00911
 787.309.1837



USFWS - National Wetlands Inventory
 Parque Pasivo - PR-CRP-000873
 State Road PR 357 - km. 0
 Maricao, PR 00606

 Lat/Lon: 18.181943 -66.980671
 Source of Data: USFWS

August 23, 2023

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.

Figure B14.1

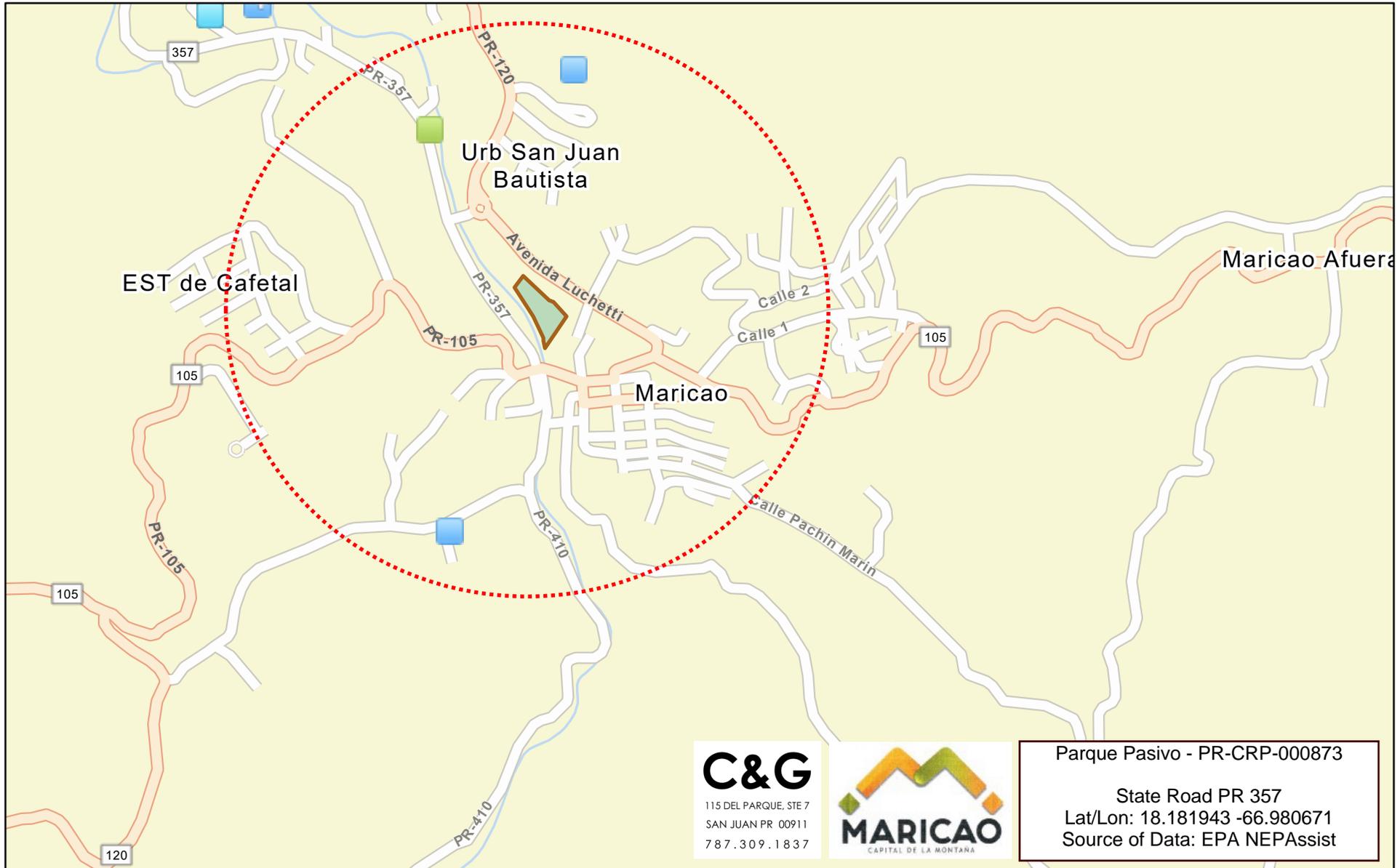
Appendix C

PR-CRP-000873 Parque Pasivo

C06 – Contamination and Toxics

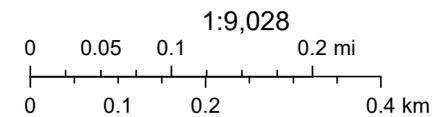
Parque Pasivo

Fig. C06.1-EPA Facilities Map



October 23, 2023

- Toxic Releases (TRI)
- Water Dischargers (NPDES)
- Air Pollution (ICIS-AIR)
- Hazardous Waste (RCRAInfo)
- Parque Pasivo



Esri Community Maps Contributors, Esri, HERE, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, US Census



You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information >Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of April 30, 2024

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 µg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:

Important Notes

[Download National Dataset: dbf](#) |
 [xls](#) |
 [Data dictionary \(PDF\)](#)

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
PUERTO RICO								
Arecibo Municipio	Lead (2008)	Arecibo, PR	1112131415161718192021222324	//		Part	32,185	72/013
Bayamon Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	22,921	72/021
Catano Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Whole	28,140	72/033
Guaynabo Municipio	PM-10 (1987)	Mun. of Guaynabo, PR	929394959697989900010203040506070809	02/11/2010	Moderate	Part	90,470	72/061
Guaynabo Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	23,802	72/061
Salinas Municipio	Sulfur Dioxide (2010)	Guayama-Salinas, PR	18192021222324	//		Part	23,401	72/123
San Juan Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	147,963	72/127
Toa Baja Municipio	Sulfur Dioxide (2010)	San Juan, PR	18192021222324	//		Part	52,441	72/137

Important Notes

Discover.

Connect.

Ask.

Follow.

2024-04-30

Detailed Facility Report



Figure C06.3



C&G
115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837

Detailed Facility Report

Facility Summary

TOTAL PETROLEUM PUERTO RICO CORP-SERVICE STATION 110238

CARR 357 KM 0.4, MARICAO, PR 00606

FRS (Facility Registry Service) ID: 110042422786
EPA Region: 02
Latitude: 18.1848
Longitude: -66.98243
Locational Data Source: RCRINFO
Industries: Gasoline Stations
Indian Country: N

Parque Pasivo - PR-CRP-000873
State Road PR 357 - km. 0
Lat/Lon: 18.18219 -66.98569

Enforcement and Compliance Summary

Table with 2 columns: Statute, RCRA. Rows include Compliance Monitoring Activities (5 years), Date of Last Compliance Monitoring Activity, Compliance Status (No Violation Identified), Qtrs in Noncompliance (of 12) (0), Qtrs with Significant Violation (0), Informal Enforcement Actions (5 years) (--), Formal Enforcement Actions (5 years) (--), Penalties from Formal Enforcement Actions (5 years) (--), EPA Cases (5 years) (--), Penalties from EPA Cases (5 years) (--).

Regulatory Information

Clean Air Act (CAA): No Information
Clean Water Act (CWA): No Information
Resource Conservation and Recovery Act (RCRA): Active VSQG, (PRR00023028)
Safe Drinking Water Act (SDWA): No Information
Go To Enforcement/Compliance Details
Known Data Problems

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information
Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

Table with 10 columns: System, Statute, Identifier, Universe, Status, Areas, Permit Expiration Date, Indian Country, Latitude, Longitude. Rows for FRS and RCRInfo.

Facility Address

Table with 5 columns: System, Statute, Identifier, Facility Name, Facility Address, Facility County. Rows for FRS and RCRInfo.

Facility SIC (Standard Industrial Classification) Codes

Table with 4 columns: System, Identifier, SIC Code, SIC Description. Note: No data records returned.

Facility NAICS (North American Industry Classification System) Codes

Table with 5 columns: System, Identifier, NAICS Code, NAICS Description. Rows for Gasoline Stations with Convenience Stores and Other Gasoline Stations.

Facility Tribe Information

Table with 4 columns: Reservation Name, Tribe Name, EPA Tribal ID, Distance to Tribe (miles). Note: No data records returned.

Enforcement and Compliance

Compliance Monitoring History [Last 5 Years]

Table with 8 columns: Statute, Source ID, System, Activity Type, Compliance Monitoring Type, Lead Agency, Date, Finding (if applicable). Note: No data records returned.

Entries in italics are not counted as EPA official inspections.

Compliance Summary Data

Table with 5 columns: Statute, Source ID, Current SNCL (Significant Noncompliance)/HEV (High Priority Violation), Current As Of, Qtrs with NC (Noncompliance) (of 12), Data Last Refreshed.

Three-Year Compliance History by Quarter

Table with 14 columns: Statute, Program/Pollutant/Violation Type, QTR 1-12. Rows for RCRA (Source ID: PRR00023028) showing No Violation Identified for all quarters.

Informal Enforcement Actions [Last 5 Years]

Table with 5 columns: Statute, System, Source ID, Type of Action, Lead Agency, Date. Note: No data records returned.

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions [Last 5 Years]

Table with 13 columns: Statute, System, Law/Section, Source ID, Type of Action, Case No., Lead Agency, Case Name, Issued/Filed Date, Settlements/Actions, Settlement/Action Date, Federal Penalty Assessed, State/Local Penalty Assessed, Penalty Amount Collected, SEP Value, Comp Action Cost. Note: No data records returned.

Environmental Conditions

Watersheds

Table with 8 columns: 12-Digit WBD (Watershed Boundary Dataset) HUC (Reach Address Database), WBD (Watershed Boundary Dataset) Subwatershed Name (Reach Address Database), State Water Body Name (CIS (Integrated Compliance Information System)), Beach Closures Within Last Year, Beach Closures Within Last Two Years, Pollutants Potentially Related to Impairment, Watershed with ESA (Endangered Species Act)-listed Aquatic Species?. Note: No data records returned.

Assessed Waters From Latest State Submission (ATTAINS)

Table with 10 columns: State, Report Cycle, Assessment Unit ID, Assessment Unit Name, Water Condition, Cause Groups Impaired, Drinking Water Use, Ecological Use, Fish Consumption Use, Recreation Use, Other Use.

No data records returned

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
No data records returned				

Pollutants

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-Site Releases	Total Off-Site Transfers
No data records returned								

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

[DMR and TRI Multi-Year Loading Report](#)

No data records returned

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the [EJScreen home page](#).

EJScreen Indexes Shown

Compare to US State

Index Type Environmental Justice Supplemental

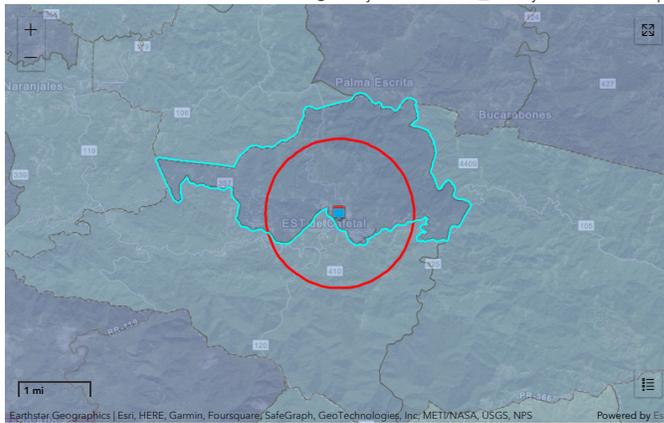
Related Reports

[EJScreen Community Report](#)

Download Data

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Count of Indexes At or Above 80th Percentile	6	6
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	5	5
Air Toxics Cancer Risk	36	36
Air Toxics Respiratory Hazard Index	38	38
Toxic Releases to Air	88	88
Traffic Proximity	77	77
Lead Paint	98	98
Risk Management Plan (RMP) Facility Proximity	83	83
Hazardous Waste Proximity	68	69
Superfund Proximity	99	99
Underground Storage Tanks (UST)	95	95
Wastewater Discharge	98	98

Facility 1-mile Radius Facility Census Block Group



Demographic Profile of Surrounding Area (1 mile)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the [DER Data Dictionary](#).

General Statistics (U.S. Census)	
Total Persons	1,971
Population Density	607/sq.mi.
Housing Units in Area	974

General Statistics (ACS (American Community Survey))	
Total Persons	1,081
Percent People of Color	98%
Households in Area	404
Households on Public Assistance	17
Persons With Low Income	921
Percent With Low Income	85%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.1848
Center Longitude	-66.96243
Land Area	100%
Water Area	0%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	160 (39.6%)
\$15,000 - \$25,000	90 (22.28%)
\$25,000 - \$50,000	110 (27.23%)
\$50,000 - \$75,000	35 (8.64%)
Greater than \$75,000	9 (2.23%)

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	131 (7%)
Minors 17 years and younger	446 (23%)
Adults 18 years and older	1,524 (77%)
Seniors 65 years and older	335 (17%)

Race Breakdown (U.S. Census) - Persons (%)	
White	1,748 (90%)
African-American	83 (4%)
Hispanic-Origin	1,960 (99%)
Asian/Pacific Islander	0 (0%)
American Indian	4 (0%)
Other/Multiracial	116 (6%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	230 (27.25%)
9th through 12th Grade	88 (10.43%)
High School Diploma	245 (29.03%)
Some College/2 year	108 (12.8%)
B.S./B.A./Bachelor of Science/Bachelor of Arts) or More	110 (13.03%)

LAST UPDATED ON SEPTEMBER 21, 2022

[DATA REFRESH INFORMATION](#)

Detailed Facility Report



Figure C06.4



C&G
115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837

Detailed Facility Report

Facility Summary

PRASA WTP MARICAO FILTER PLANT

PR-105 KM 24.4, MARICAO, PR 00606

FRS (Facility Registry Service) ID: 110009815165

EPA Region: 02

Latitude: 18.179148

Longitude: -66.982138

Locational Data Source: NPDES

Industries: --

Indian Country: N

Parque Pasivo - PR-CRP-000873
State Road PR 357 - km. 0
Lat/Lon: 18.18219 -66.98569

Enforcement and Compliance Summary

Table with 2 columns: Statute, CWA. Rows include Compliance Monitoring Activities (5 years), Date of Last Compliance Monitoring Activity, Compliance Status, Qtrs in Noncompliance (of 12), Qtrs with Significant Violation, Informal Enforcement Actions (5 years), Formal Enforcement Actions (5 years), Penalties from Formal Enforcement Actions (5 years), EPA Cases (5 years), Penalties from EPA Cases (5 years).

Regulatory Information

Clean Air Act (CAA): No Information
Clean Water Act (CWA): Non-Major, Permit Effective (PR0022969)
Resource Conservation and Recovery Act (RCRA): No Information
Safe Drinking Water Act (SDWA): No Information
Go To Enforcement/Compliance Details
Known Data Problems

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information
Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

Table with 11 columns: System, Statute, Identifier, Universe, Status, Areas, Permit Expiration Date, Indian Country, Latitude, Longitude. Rows include FRS, ICIS, ICIS-NPDES.

Facility Address

Table with 7 columns: System, Statute, Identifier, Facility Name, Facility Address, Facility County. Rows include FRS, ICIS, ICIS-NPDES.

Facility SIC (Standard Industrial Classification) Codes

Table with 4 columns: System, Identifier, SIC Code, SIC Description. Row includes ICIS-NPDES, PR0022969, 4941, Water Supply.

Facility NAICS (North American Industry Classification System) Codes

Table with 4 columns: System, Identifier, NAICS Code, NAICS Description. Row includes No data records returned.

Facility Industrial Effluent Guidelines

Table with 3 columns: Identifier, Effluent Guideline (40 CFR Part), Effluent Guideline Description. Row includes PR0022969, 000, No Applicable Effluent Guidelines.

Facility Tribe Information

Table with 4 columns: Reservation Name, Tribe Name, EPA Tribal ID, Distance to Tribe (miles). Row includes No data records returned.

Enforcement and Compliance

Compliance Monitoring History [Last 5 Years]

Table with 9 columns: Statute, Source ID, System, Activity Type, Compliance Monitoring Type, Lead Agency, Date, Finding (if applicable). Rows include CWA, PR0022969, ICIS-NPDES, Inspection/Evaluation, Base Program - Evaluation, EPA, 06/01/2023, 07/23/2019.

Entries in italics are not counted as EPA official inspections.

Compliance Summary Data

Table with 5 columns: Statute, Source ID, Current SNC (Significant Noncompliance)/RPV (High Priority Violation), Current As Of, Qtrs with NC (Noncompliance) (of 12), Data Last Refreshed. Row includes CWA, PR0022969, No, 06/30/2023, 4, 09/22/2023.

Three-Year Compliance History by Quarter

Table with 15 columns: Statute, Program/Pollutant/Violation Type, QTR 1-13. Rows include CWA (Source ID: PR0022969) with quarterly compliance percentages for various pollutants like BOD, Copper, Phosphorus, Turbidity.

Informal Enforcement Actions [Last 5 Years]

Table with 5 columns: Statute, System, Source ID, Type of Action, Lead Agency, Date. Row includes No data records returned.

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions Last 5 Years

State	System	Law/Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/File Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
No data records returned															

Environmental Conditions

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD/Beach Address Database)	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD/Beach Address Database)	State Water Body Name (IGIS, Integrated Compliance Information System)	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
210100030204	Rio Prieto below Dam	MARICAO RIVER	No	No	--	Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
PR	2020	PRWB31	RIO PRIETO	Impaired - 303(d) Listed - With Restoration Plan	PATHOGENS PESTICIDES	Not Supporting	Not Supporting	--	Not Supporting	--

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
No data records returned				

Pollutants

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-Site Releases	Total Off-Site Transfers
No data records returned								

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

[DMR and TRI Multi-Year Loading Report](#)

CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

NPDES ID	Description	2019	2020	2021	2022	2023
PR0022969	DMR Pollutant Loadings (lb/year)	5,075	2,072	2,488	5,345	745
PR0022969	DMR Pollutant Loadings - Load Over Limit (lb/year)	659	215	651	3,428	0.5759
PR0022969	DMR Conventional Loadings (lb/year)	--	--	--	5,287	--
PR0022969	DMR Conventional Loadings - Load Over Limit (lb/year)	--	--	--	3,428	--
PR0022969	DMR Toxic-Weighted Loadings (lb-eq/year)	113	5.99	16.09	7.61	1.10
PR0022969	DMR Toxic-Weighted Loadings - Load Over Limit (lb-eq/year)	0	0	0.6356	0	0

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the [EJScreen home page](#).

EJScreen Indexes Shown

Compare to US State

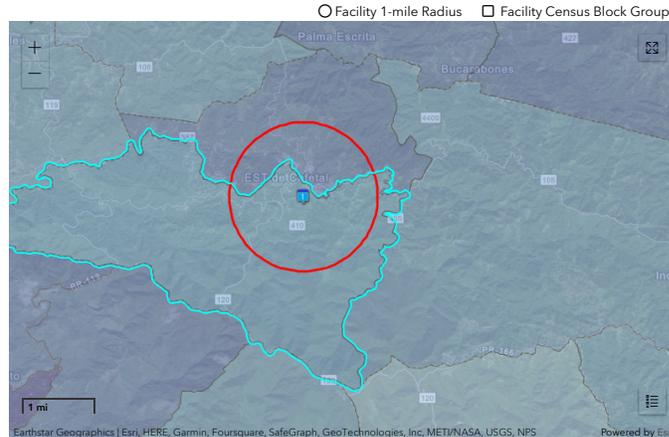
Index Type Environmental Justice Supplemental

Related Reports

[EJScreen Community Report](#)

Download Data

Census Block Group ID: 720939601003	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Count of Indexes At or Above 80th Percentile	5	6
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	0	5
Air Toxics Cancer Risk	36	36
Air Toxics Respiratory Hazard Index	20	38
Toxic Releases to Air	88	88
Traffic Proximity	70	77
Lead Paint	88	98
Risk Management Plan (RMP) Facility Proximity	77	83
Hazardous Waste Proximity	69	69
Superfund Proximity	99	99
Underground Storage Tanks (UST)	91	95
Wastewater Discharge	96	98



Demographic Profile of Surrounding Area (1 mile)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the [DPR Data Dictionary](#).

General Statistics (U.S. Census)	
Total Persons	1,864
Population Density	645/sq. mi.
Housing Units in Area	932
General Statistics (ACS (American Community Survey))	
Total Persons	841
Percent People of Color	99%
Households in Area	316
Households on Public Assistance	11
Persons With Low Income	715
Percent With Low Income	85%
Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.179124
Center Longitude	-66.982123
Land Area	100%
Water Area	0%
Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	115 (36.39%)
\$15,000 - \$25,000	69 (21.84%)
\$25,000 - \$50,000	94 (29.75%)
\$50,000 - \$75,000	33 (10.44%)
Greater than \$75,000	5 (1.58%)

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	126 (7%)
Minors 17 years and younger	426 (23%)
Adults 18 years and older	1,438 (77%)
Seniors 65 years and older	315 (17%)
Race Breakdown (U.S. Census) - Persons (%)	
White	1,674 (90%)
African-American	76 (4%)
Hispanic-Origin	1,854 (99%)
Asian/Pacific Islander	0 (0%)
American Indian	3 (0%)
Other/Multiracial	112 (6%)
Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	166 (25.74%)
9th through 12th Grade	58 (8.99%)
High School Diploma	195 (30.23%)
Some College/2-year	90 (13.95%)
B.S./B.A./Bachelor of Science/Bachelor of Arts) or More	92 (14.26%)

LAST UPDATED ON SEPTEMBER 21, 2022

[DATA REFRESH INFORMATION](#)

Detailed Facility Report



Figure C06.5



C&G
115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837

Detailed Facility Report

Facility Summary

FENWAL, A FRESINIUS KABI COMPANY, EXTERNAL WAREHOUSE - PUEBLO

357 KM 0.8, MARICAO, PR 00606

FRS (Facility Registry Service) ID: 110067023660
EPA Region: 02
Latitude: 18.185647
Longitude: -66.980297
Locational Data Source: NPDES
Industries: --
Indian Country: N

Parque Pasivo - PR-CRP-000873
State Road PR 357 - km. 0
Lat/Lon: 18.18219 -66.98569

Enforcement and Compliance Summary

Table with 2 columns: Statute, CWA. Rows include Compliance Monitoring Activities, Date of Last Compliance Monitoring Activity, Compliance Status, Qtrs in Noncompliance, Qtrs with Significant Violation, Informal Enforcement Actions, Formal Enforcement Actions, Penalties from Formal Enforcement Actions, EPA Cases, Penalties from EPA Cases.

Regulatory Information

Clean Air Act (CAA): No Information
Clean Water Act (CWA): Non-Major, Permit Terminated; Compliance Tracking Off (PRR053229)
Resource Conservation and Recovery Act (RCRA): No Information
Safe Drinking Water Act (SDWA): No Information
Go To Enforcement/Compliance Details
Known Data Problems

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information
Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

Table with 10 columns: System, Statute, Identifier, Universe, Status, Areas, Permit Expiration Date, Indian Country, Latitude, Longitude. Rows for FRS and ICIS-NPDES.

Facility Address

Table with 6 columns: System, Statute, Identifier, Facility Name, Facility Address, Facility County. Rows for FRS and ICIS-NPDES.

Facility SIC (Standard Industrial Classification) Codes

Table with 4 columns: System, Identifier, SIC Code, SIC Description. Row for ICIS-NPDES.

Facility NAICS (North American Industry Classification System) Codes

Table with 5 columns: System, Identifier, NAICS Code, NAICS Description. Row for ICIS-NPDES.

Facility Industrial Effluent Guidelines

Table with 3 columns: Identifier, Effluent Guideline (40 CFR Part), Effluent Guideline Description. Row for ICIS-NPDES.

Facility Tribe Information

Table with 5 columns: Reservation Name, Tribe Name, EPA Tribal ID, Distance to Tribe (miles). Row for ICIS-NPDES.

Enforcement and Compliance

Compliance Monitoring History

Table with 8 columns: Statute, Source ID, System, Activity Type, Compliance Monitoring Type, Lead Agency, Date, Finding (if applicable). Row for ICIS-NPDES.

Entries in italics are not counted as EPA official inspections.

Compliance Summary Data

Table with 5 columns: Statute, Source ID, Current SNC (Significant Noncompliance)/MPLV (High Priority Violation), Current As Of, Qtrs with NC (Noncompliance) (of 12), Data Last Refreshed.

Three-Year Compliance History by Quarter

Table with 14 columns: Statute, Program/Pollutant/Violation Type, QTR 1-13+. Rows for CWA and Facility Level Status.

Informal Enforcement Actions

Table with 5 columns: Statute, System, Source ID, Type of Action, Lead Agency, Date. Row for ICIS-NPDES.

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Table with 13 columns: Statute, System, Law/Section, Source ID, Type of Action, Case No., Lead Agency, Case Name, Issued/Filed Date, Settlements/Actions, Settlement/Action Date, Federal Penalty Assessed, State/Local Penalty Assessed, Penalty Amount Collected, SEP Value, Comp Action Cost. Row for ICIS-NPDES.

Environmental Conditions

Watersheds

Table with 7 columns: 12-Digit WBD, HUC, WBD Subwatershed Name, State Water Body Name, Beach Closures Within Last Year, Beach Closures Within Last Two Years, Pollutants Potentially Related to Impairment, Watershed with ESA-listed Aquatic Species? Rows for Rio Rosario and Rio Maricao.

Assessed Waters From Latest State Submission (ATTAINS)

Table with 11 columns: State, Report Cycle, Assessment Unit ID, Assessment Unit Name, Water Condition, Cause Groups Impaired, Drinking Water Use, Ecological Use, Fish Consumption Use, Recreation Use, Other Use. Row for PR 2020.

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
No data records returned				

Pollutants

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-Site Releases	Total Off-Site Transfers
No data records returned								

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

No data records returned		DMR and TRI Multi-Year Loading Report
--------------------------	--	---

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the [EJScreen home page](#).

EJScreen Indexes Shown

Compare to US State

Index Type Environmental Justice Supplemental

Related Reports

[EJScreen Community Report](#)

Census Block Group ID: 720939602001	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Count of Indexes At or Above 80th Percentile	6	6
Particulate Matter 2.5	0	--
Ozone	0	--
Diesel Particulate Matter	5	5
Air Toxics Cancer Risk	36	36
Air Toxics Respiratory Hazard Index	38	38
Toxic Releases to Air	88	88
Traffic Proximity	77	77
Lead Paint	98	98
Risk Management Plan (RMP) Facility Proximity	83	83
Hazardous Waste Proximity	68	69
Superfund Proximity	99	99
Underground Storage Tanks (UST)	95	95
Wastewater Discharge	98	98



Demographic Profile of Surrounding Area (1 mile)

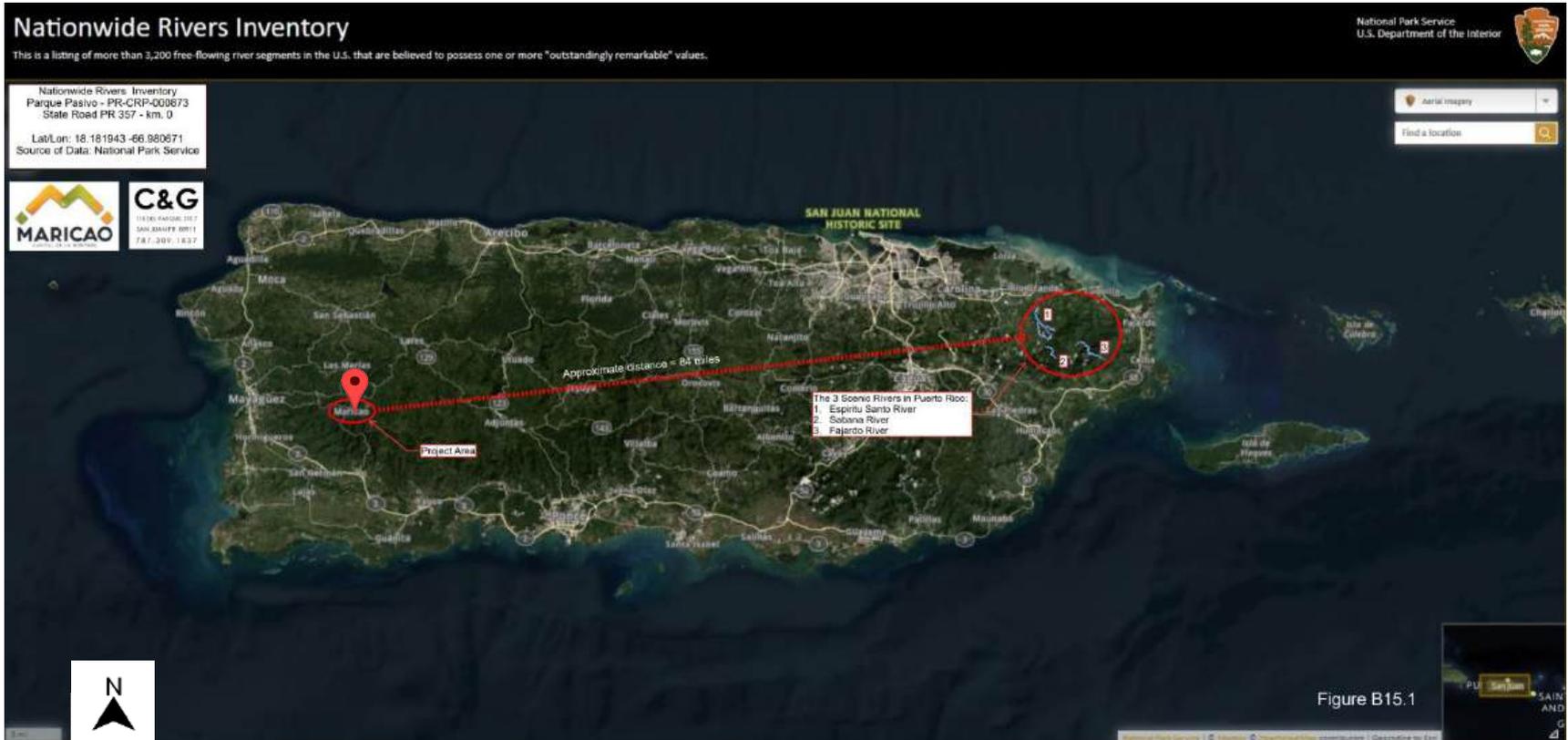
This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the [DFR Data Dictionary](#).

General Statistics (U.S. Census)	
Total Persons	1,897
Population Density	582/sq. mi.
Housing Units in Area	939
General Statistics (ACS (American Community Survey))	
Total Persons	1,104
Percent People of Color	98%
Households in Area	413
Households on Public Assistance	18
Persons With Low Income	941
Percent With Low Income	85%
Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.185647
Center Longitude	-66.980297
Land Area	100%
Water Area	0%
Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	165 (39.95%)
\$15,000 - \$25,000	93 (22.52%)
\$25,000 - \$50,000	111 (26.88%)
\$50,000 - \$75,000	35 (8.47%)
Greater than \$75,000	9 (2.18%)

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	128 (7%)
Minors 17 years and younger	431 (23%)
Adults 18 years and older	1,445 (77%)
Seniors 65 years and older	326 (17%)
Race Breakdown (U.S. Census) - Persons (%)	
White	1,706 (90%)
African-American	75 (4%)
Hispanic-Origin	1,886 (99%)
Asian/Pacific Islander	0 (0%)
American Indian	2 (0%)
Other/Multiracial	113 (6%)
Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	236 (27.35%)
9th through 12th Grade	91 (10.54%)
High School Diploma	250 (28.97%)
Some College/2-year	111 (12.86%)
B.S./B.A./Bachelor of Science/Bachelor of Arts or More	112 (12.98%)

LAST UPDATED ON SEPTEMBER 21, 2022

[DATA REFRESH INFORMATION](#)



Project Location: State Road P.R. 357, Maricao, P.R.
 Project Coordinates: X= 18.181943 Y= -66.980671
 Data Source: <https://www.nps.gov/maps/full.html?mapid=8adbe798-0d7e-40fb-bd48-225513d64977>

Legend:

-  Site Location
-  Rivers

Appendix D

PR-CRP-000873 Parque Pasivo

D07 - Endangered Species



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Bayamón | Mayagüez | Maricao | Río Grande | St Croix
P.O. Box 491
Boquerón, Puerto Rico 00622



In Reply Refer to:
FWS/R4/CESFO/72093-Gen

Submitted Via Electronic Mail: jcperez@vivienda.pr.gov

Juan Carlos Pérez-Bofill, PE, MEng.
Director – Disaster Recovery CDBG-DR Program
Puerto Rico Department of Housing
P.O. Box 21365
San Juan, P.R 00928-1365

Re: PR-CRP-000873 Parque Pasivo,
Maricao, Puerto Rico

Dear Mr. Pérez-Bofill

Thank you for your letter dated April 05, 2024, requesting informal consultation on the above referenced project. As per your request, our comments are provided under the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Puerto Rico Department of Housing (PRDOH) is proposing the construction of a pedestrian path, playground, park furniture, outdoor amphitheater, Americans with Disabilities Act (ADA) compliant sidewalk improvements along PR-357, and stormwater management. Landscape planting will be incorporated as soil erosion control techniques. Also, rehabilitation and improvements will be conducted to the existing recreational facilities such as gazebos, bathroom, lighting, and steel pedestrian bridge. The proposed project will be located at State Road PR-357, Km. 0.2 (18°10'55.0"N 66°58'50.4"W) in the municipality of Maricao.

Using the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system, the PRDOH has determined that the proposed project site is located within the range of Puerto Rican boa (*Epicrates inornatus* now known as *Chilabothrus inornatus*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), Puerto Rican parrot (*Amazona vittata*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*) and Puerto Rican harlequin butterfly (*Atlantea tulita*).

Based on the nature of the project, scope of work and information available, the PRDOH has determined that the proposed project may affect, but is not likely to adversely affect (NLAA) the Puerto Rican parrot, Puerto Rican harlequin butterfly, Puerto Rican boa, Puerto Rican broad-winged

hawk and Puerto Rican sharp-shinned hawk. Conservation measures previously provided by the Service for these species will be implemented in case an encounter occurs.

We have reviewed the information provided and our files, and concur with PRDOH's determination that the proposed actions may affect but is not likely to adversely affect the above mentioned species with the implementation of the conservation measures.

As per the conservation measures (updated conservation measures enclosed), please note that if a Puerto Rican boa is encountered during the project activities, it should not be captured. If a boa needs to be moved out of harm's way, the Puerto Rico Department of Natural and Environmental Resources (PRDNER) should be contacted for safe capture and relocation of the animal. If immediate relocation is not an option, project-related activities in the area where the boa is found must stop until it moves out of harm's way on its own.

Also, please be aware that the Puerto Rican harlequin butterfly measures were amended to clarify how they are appropriately applied. Therefore, the Service recommends the applicant to adopt the implementation of the below updated conservation measures for the proposed actions.

1. The contractor must inform all personnel about the potential presence of the Puerto Rican harlequin butterfly or its occupied host plant "prickly bush" (*Oplonia spinosa*) in the project areas. A pre-work meeting should inform all project personnel about the need to avoid harming this butterfly and its occupied host plant. Educational material (e.g., posters, flyers or signs with photos or illustrations of all the life stages of the Puerto Rican harlequin butterfly (i.e., eggs, caterpillar, chrysalids and adult, and its host plant) should be prepared and available to all personnel for reference.
2. Before starting any project activity, including removal of vegetation and earth movement, the contractor must clearly delineate the boundaries of the working area in the field to avoid unnecessary habitat impacts. Once the project areas are clearly marked, and before any work activity, including site preparation, personnel with knowledge and ability to identify the Puerto Rican harlequin butterfly (all life stages) and the "prickly bush" must survey the areas where the work will be performed for the presence of the species and its host plant. It is important to note that the Puerto Rican harlequin butterfly can be observed year-round in all its life stages; thus, oviposition (egg-laying) may occur at any time during the year.
3. If the "prickly bush" is present on the project site, try to avoid cutting it off, even if no eggs, caterpillars, or chrysalids are present.
4. If there is no prickly bush within the project area, and the butterfly is observed flying within the project area, do not harass, harm, pursue, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, the species.
5. Adult butterflies are often observed flying near the host plant as part of their mating behavior and laying eggs. Project-related activities must stop if the prickly bush is found in the project area and the Puerto Rican harlequin butterfly is observed flying in that same area. A temporary 50-meter (164 feet) buffer zone of no activity or human

disturbance should be established and clearly marked around that prickly bush until the butterfly moves out on its own.

6. Once the Puerto Rican harlequin butterfly has moved away, within a period of 24 to 36 hours, a search of the prickly bush that has been buffered should be conducted to determine the presence of any eggs, caterpillars, or chrysalids of the butterfly on the plant. The contractor or the Applicant should send a report of the observation and its findings to caribbean_es@fws.gov after the 36-hour search is concluded.
7. If, after the initial search or after the 24 to 36-hour search, any life stage of the Puerto Rican harlequin butterfly is found in the prickly bush, take the following actions:
 - Clearly mark the host plant with flagging tape.
 - Establish a 10-meter (32-foot) buffer zone around the bush to protect it.
 - Eggs are typically found on the prickly bush's newly grown, tender branches. Once an egg hatches, the caterpillar moves and feeds throughout the bush. Therefore, avoid cutting off the prickly bush within the project site even if no eggs, caterpillars, or chrysalids are present.
 - Work within the 10-meter buffered area may resume when no signs of any live life stage of the butterfly are detected, which usually takes approximately 60 to 120 days.
8. For all Puerto Rican harlequin butterfly sightings (all life stages), the time and date of the sighting and the specific location where the butterfly was found must be recorded. Data should also include a photo of the butterfly (if possible) and the habitat where it was observed, site GPS coordinates, and comments on how the butterfly was detected and its behavior. All Puerto Rican harlequin butterfly sighting reports should be sent to the USFWS Caribbean Ecological Service Field Office at caribbean_es@fws.gov.
9. For questions regarding the Puerto Rican harlequin butterfly, the Point of Contacts are:
 - José Cruz-Burgos, Endangered Species Coordinator:
 - Mobile: 305-304-1386
 - Office phone: 786-244-0081
 - Office Direct Line: 939-320-3120
 - Email: jose_cruz-burgos@fws.gov

In view of this, we believe that requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner that was not previously considered; (2) this action is subsequently modified in a manner not previously considered in this assessment; or, (3) a new species is listed, or critical habitat determined that may be affected by the identified action.

Mr. Pérez-Bofill

4

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact us via email at caribbean_es@fws.gov or by phone at (786) 244-0081.

Sincerely,

**ROBERT
TAWES**

Digitally signed by
ROBERT TAWES
Date: 2024.05.15
19:40:35 -04'00'

Robert Tawes
Acting Field Supervisor

drr

Enclosure: Puerto Rican boa Conservation measures_2024



April 5, 2024

Robert Tawes
Division Supervisor, Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
Email: Caribbean_es@fws.gov; robert_tawes@fws.gov

**RE: Puerto Rico Department of Housing / CRP Program
PR-CRP-000873 – Parque Pasivo (Maricao)
Endangered Species Concurrence for NLAA Determination**

Dear Mr. Tawes:

The Puerto Rico Department of Housing (PRDOH) is requesting an informal consultation under Section 7 (a)(2) of the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and in accordance with the Fish and Wildlife Coordination Act (47 Stat. 401, as amended; 16 U.S.C. 661 et seq.) for the proposed project PR-CRP-000873, located at PR-357 Road Km 0.2, Maricao, PR 00606; coordinates 18.181943, -66.980671, see Appendix B: Figure 1.

The proposed project is part of the City Revitalization Program (CRP) that established a fund for municipalities to enable a variety of critical recovery activities aimed at reinvigorating urban centers and key community corridors to focus investments, reduce sprawl, and create a symbiotic environment to nurture complimentary investments from the private sector.

The proposed activities for PR-CRP-000873 consist in the rehabilitation and improvements to the existing recreational facilities such as gazebos, bathroom, lighting, and steel pedestrian bridge. New construction includes a pedestrian path, playground, park furniture, outdoor amphitheater, Americans with Disabilities Act (ADA) complaint sidewalk improvements along PR-357, and stormwater management. Landscape planting will incorporate soil erosion control techniques.

Using the Information for Planning and Consultation (IPaC) system, we have determined that the proposed project lies within the range of the following federally listed species and critical habitats:

Name of the Species	Threatened/Endangered/Candidate
Puerto Rican Broad-winged Hawk (<i>Buteo platypterus brunnescens</i>)	Endangered
Puerto Rican Parrot (<i>Amazona vittata</i>)	Endangered
Puerto Rican Sharp-shinned Hawk (<i>Accipiter striatus venator</i>)	Endangered
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	Endangered
Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>)	Threatened
Critical Habitat	
There are no critical habitats at this location.	

Based on the nature of the project, scope of work, information available, and a careful analysis of the Information for Planning and Consultation (IPaC) system we have made the following effects determinations:

Name of the Species	Effect Determination	Conservation Measures that will be implemented
Puerto Rican Broad-winged Hawk (<i>Buteo platypterus Brunnescens</i>)	Not Likely to Adversely Affect (NLAA)	USFWS Puerto Rican Broad-winged Hawk Conservation measures
Puerto Rican Parrot (<i>Amazona vittata</i>)	Not Likely to Adversely Affect (NLAA)	USFWS Puerto Rican Parrot Conservation Measures
Puerto Rican Sharp-shinned Hawk (<i>Accipiter striatus venator</i>)	Not Likely to Adversely Affect (NLAA)	USFWS Puerto Rican Sharp-shinned Hawk Conservation measures
Puerto Rican Boa (<i>Chilabothrus inornatus</i>)	Not Likely to Adversely Affect (NLAA)	USFWS Puerto Rican Boa Conservation Measures
Puerto Rican Harlequin Butterfly (<i>Atlantea tulita</i>)	Not Likely to Adversely Affect (NLAA)	Preservation of existing <i>Odontonema cuspidatum</i>

In order to complete the informal consultation process, we are requesting your concurrence for the NLAA determination for the Puerto Rican Broad-winged Hawk, Puerto Rican Parrot, Puerto Rican Sharp-shinned Hawk, Puerto Rican Boa and Puerto Rican Harlequin Butterfly included in this letter. Attached to this letter, we are including the documents used to reach our effect determinations for the listed species. For any questions or clarifications, please do not hesitate to contact us at the information below.

Thank you in advance for your consideration of this issue.

Sincerely,



Juan Carlos Pérez Bofill, PE, MEng.
Director – Disaster Recovery, CDBG-DR Program
environmentcdbg@vivienda.pr.gov | 787.274.2527 ext. 4320

Attachments:

Appendix A: Effect Determinations

Appendix B:

- Figure 1 – Location Map
- Figure 2 – Study Area Map
- Figure 3 – Study Area Location Map
- Figure 4 – Critical Habitats Map
- Figure 5 – Wetlands Map

Appendix C: IPaC Resource List

Appendix D: Flora and Fauna Survey

Appendix E: Proposed Project Drawings

Appendix F: Site Photos

Appendix G: Soil Report

Appendix H: USFWS Conservation Measures for the Puerto Rican Broad-winged Hawk

Appendix I: USFWS Conservation Measures for the Puerto Rican Parrot

Appendix J: USFWS Conservation Measures for the Sharp-shinned Hawk

Appendix K: USFWS Conservation Measures for the Puerto Rican Boa

C: Angel G. López-Guzmán, MSEM
Deputy Director
Permits and Environmental Compliance Division

Appendix A: Effect Determinations

FEDERALLY LISTED SPECIES
NOT LIKELY TO ADVERSELY AFFECT (NLAA) DETERMINATION
PR-CRP-000873 _ PARQUE PASIVO

The list of protected species was reviewed based on the nature of the project, scope of work, information available, and a careful analysis of the Project Site, IPaC species data and Flora and Fauna study for the project location. It was determined that project activities will **“not likely adversely affect” (NLAA)** all of the listed species. Below is the result of our Effects Determination.

Endangered Birds

1 - Puerto Rican Broad-winged Hawk *Buteo platypterus brunnescens*

According to the Recovery Plan of 1997, Puerto Rican BWHAs are found primarily in limestone forests of the karst region in north-central Puerto Rico, and mature closed canopy forests including elfin woodlands, sierra palm, caimitillo-granadillo, and tabonuco forests found in the Central Mountain Range (Cordillera Central) region of the Island (USFWS 1997, 2010). At the time of the last 5-year review, the BWAH island-wide population was estimated at approximately 125 individuals (USFWS 2010). It was not found in the Maricao Commonwealth Forest (MCF) or Toro Negro Commonwealth Forest (TNCF).

Surveys in 2016-2017 (Vilella and Gallardo 2018) re-emphasized the geographic hub of this species is the karst region of the Rio Abajo Commonwealth Forest and surrounding private land.

The project is located at the intersection of State Roads PR 357 and PR 105, within the urbanized area of Maricao. No critical habitat was identified for this location by IPaC. The Flora and Fauna study also did not identify the presence of the listed species or its Critical Habitat. Proposed activities will exert minimum impact upon existing tree cover because they are considered as a resource and amenity to the project. Only one existing Papaya tree will be removed.

However the species has been identified by IPaC to be potentially affected by activities in this location. Conservation Measures for the listed species under Section 7 of the Endangered Species Act (ESA) are to be included within the contract documents in case the hawk is determined to be present.

“Not likely to adversely affect” (NLAA) determination.

2 - Puerto Rican Parrot *Amazona vittata*

The project is located at the intersection of State Roads PR 357 and PR 105, within the urbanized area of Maricao. No critical habitat was identified for this location by IPaC. The Flora and Fauna study also did not identify the presence of the listed species or its Critical Habitat. Proposed

activities will exert minimum impact upon existing tree cover because they are considered as a resource and amenity to the project. Only one existing Papaya tree will be removed.

However the species has been identified by IPaC to be potentially affected by activities in this location. A small population of wild parrots were released in the Maricao State Forest. Considering the close proximity to the Maricao Forest edge, Conservation Measures for the listed species under Section 7 of the Endangered Species Act (ESA) are to be included within the contract documents, in case the parrot is determined to be present.

“Not likely to adversely affect” (NLAA) determination.

3 - Puerto Rican Sharp-shinned Hawk *Accipiter striatus venator*

The distribution of the sharp-shinned hawk is limited to mature, dense-canopied, montane forests of Puerto Rico. The Maricao Forest harbors a population of this species.

The project is located at the intersection of State Roads PR 357 and PR 105, within the urbanized area of Maricao. No critical habitat was identified for this location by IPaC. The Flora and Fauna study also did not identify the presence of the listed species or its Critical Habitat. Proposed activities will exert minimum impact upon existing tree cover because they are considered as a resource and amenity to the project. Only one existing Papaya tree will be removed.

However the species has been identified by IPaC to be potentially affected by activities in this location. Considering the close proximity to the Maricao Forest edge, Conservation Measures for the listed species under Section 7 of the Endangered Species Act (ESA) are to be included within the contract documents in case the shinned hawk is determined to be present.

“Not likely to adversely affect” (NLAA) determination.

Endangered Reptiles

4 - Puerto Rican Boa *Chilabothrus inornatus*

The Puerto Rican boa has proven to be adaptable to a large variety of habitats and its population has spread throughout the island. If a Puerto Rico Boa is encountered, work will cease until it moves off the site or, failing that, the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers will be notified for safe capture and relocation of the reptile, in accordance with the USFW Puerto Rican Boa Conservation Measures guidelines and the July 27, 2023 Amended Programmatic Biological Opinion. These are to be included within the contract documents.

“Not likely to adversely affect” (NLAA) determination.

Threatened Insects

5 - Puerto Rican Harlequin Butterfly *Atlantea tulita*

The project is located at the intersection of State Roads PR 357 and PR 105, within the urbanized area of Maricao. No critical habitat was identified for this location by IPaC. The Flora and Fauna study also did not identify the presence of the listed species or its Critical Habitat. Proposed activities will exert minimum impact upon existing tree cover because they are considered as a resource and amenity to the project. Only one existing Papaya tree will be removed.

Odontonema cuspidatum is one of the documented species which provides food for the caterpillar. The presence of this species has been identified within the project limits by the Flora and Fauna study. The location will be identified and incorporated into the landscape plan to guarantee its preservation.

“Not likely to adversely affect” (NLAA) determination.

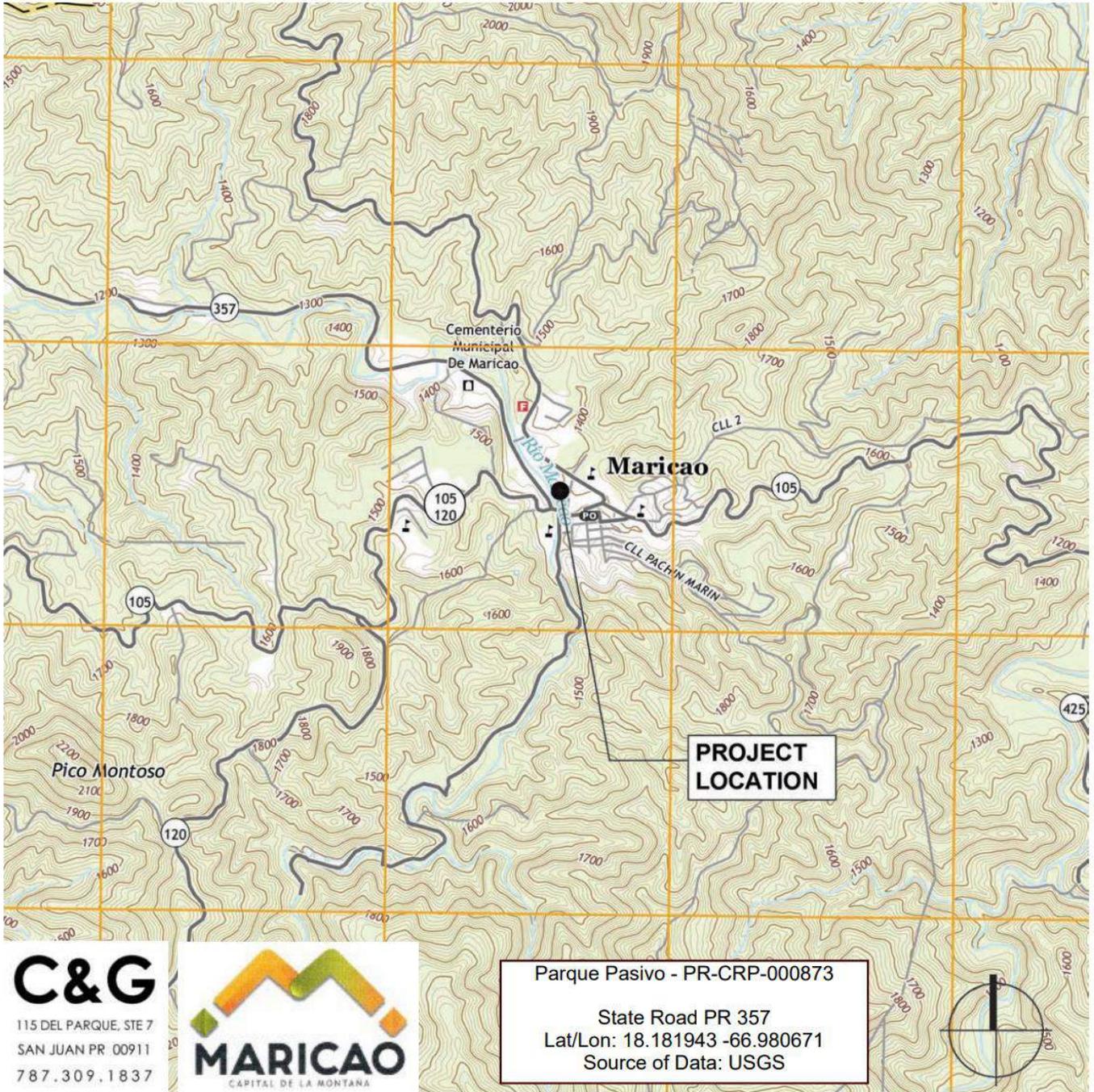
Revised by:

A handwritten signature in black ink, appearing to read 'Alejandro Cubiñá', is positioned above the printed name.

Alejandro Cubiñá

Appendix B: Figures

LOCATION MAP
PARQUE PASIVO PR-CRP-000873



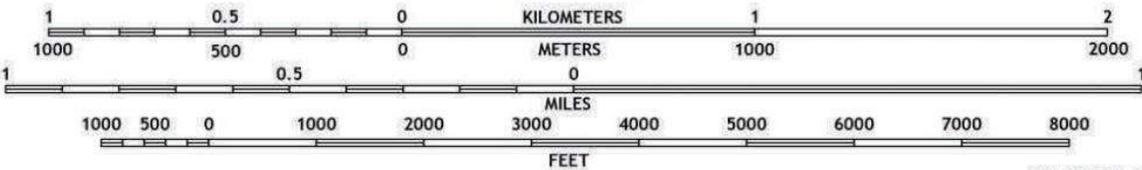
C&G
 115 DEL PARQUE, STE 7
 SAN JUAN PR 00911
 787.309.1837



Parque Pasivo - PR-CRP-000873
 State Road PR 357
 Lat/Lon: 18.181943 -66.980671
 Source of Data: USGS



SCALE 1:20 000



QUADRANGLE LOCATION



U.S. DEPARTMENT OF THE INTERIOR
 U.S. GEOLOGICAL SURVEY

MARICAO QUADRANGLE
 PUERTO RICO
 7.5-MINUTE SERIES
MARICAO, PR
 2018



USFWS - Project Study Area
Parque Pasivo - PR-CRP-000873
State Road PR 357 - km. 0
Maricao, PR 00606

Lat/Lon: 18.181943 -66.980671

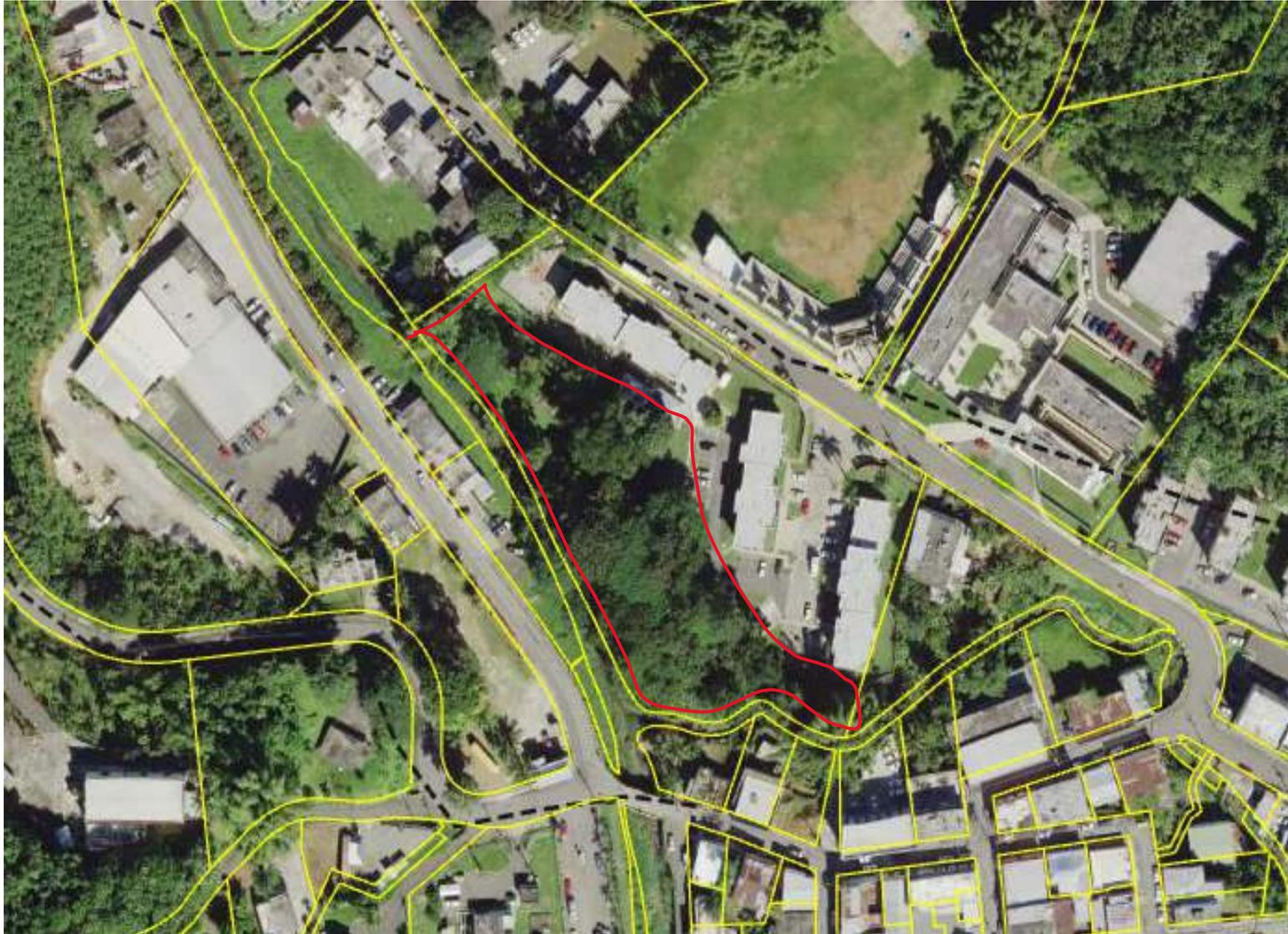


C&G

115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837



Appendix 1 -Study Area Location



Final Polygon Features



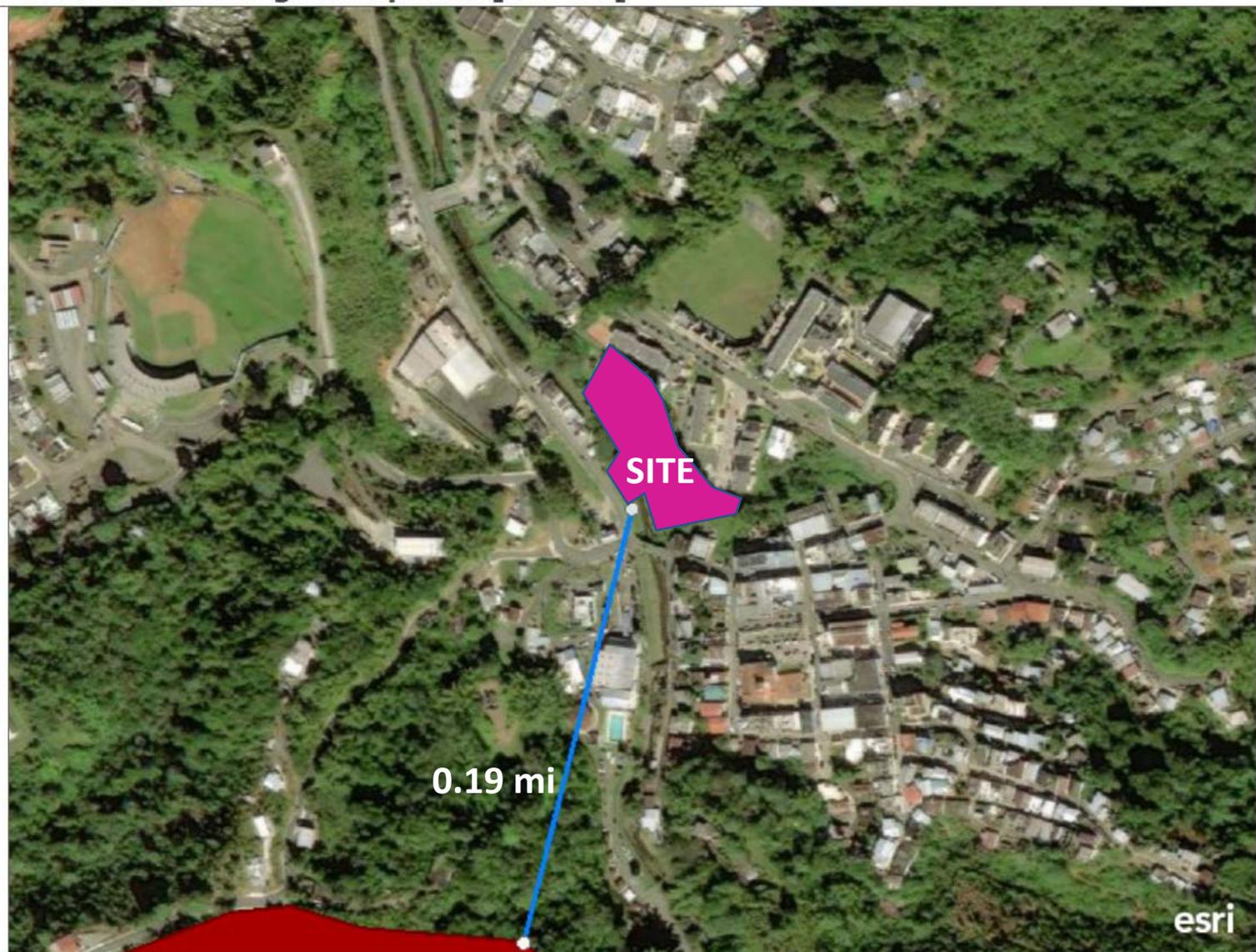
Final Linear Features



Proposed Polygon Features



Proposed Linear Features



esri

A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.



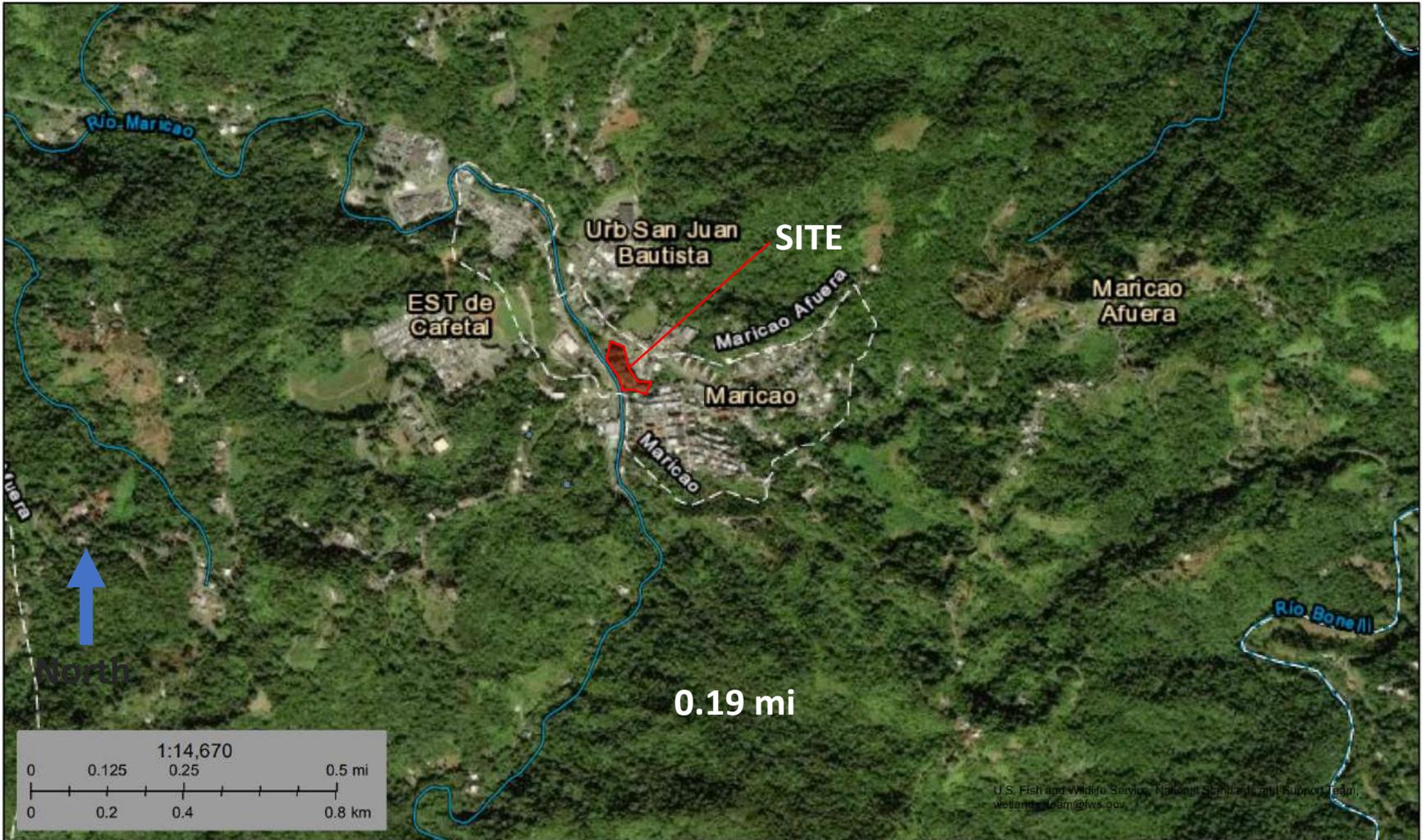
C&G
115 DEL PARQUE, STE 7
SAN JUAN, PR 00911
787.309.1837



USFWS - Protected Areas Map
Parque Pasivo - PR-CRP-000873
State Road PR 357 - km. 0.0
Lat/Lon: 18.181943 -66.980671
Source of Data: USFWS



Maxar



March 25, 2024

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 : IPaC Resource List

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources* under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Maricao County, Puerto Rico



Local office

Caribbean Ecological Services Field Office

(787) 834-1600
 (787) 851-7440
CARIBBEAN_ES@FWS.GOV

MAILING ADDRESS
 Post Office Box 491
 Maricao, PR 00622-0491

PHYSICAL ADDRESS
 Maricao Park I
 State Road #2 Km 156.5, Suite 303
 Maricao, PR 00680

Fig. D07.4 - ECOS Endangered Species List



USFWS - Endangered Species List
 Parque Pasivo - PR-CRP-000873
 State Road PR 357 - km. 0.0

Lat/Lon: 18.181943 -66.980671

Source of Data: USFWS

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Puerto Rican Broad-winged Hawk <i>Buteo platypterus brunnescens</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5512	Endangered
Puerto Rican Parrot <i>Amazona vittata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3067	Endangered
Puerto Rican Sharp-shinned Hawk <i>Accipiter striatus venator</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/604	Endangered

Reptiles

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6628	Endangered

Insects

NAME	STATUS
Puerto Rican Harlequin Butterfly <i>Atlantea tulita</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9005	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The [data](#) in this location indicates there are no migratory [birds of conservation concern](#) expected to occur in this area.

There may be migratory birds in your project area, but we don't have any survey data available to provide further direction. For additional information, please refer to the links above for recommendations to minimize impacts to migratory birds or contact your local FWS office.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiege](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



U.S. Fish & Wildlife Service

ECOS Environmental Conservation Online System

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Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*)

[Range Information](#) | [Candidate Info](#) | [Federal Register](#) | [Recovery](#) | [Critical Habitat](#) | [SSA](#) | [Conservation Plans](#) | [Petitions](#) | [Biological Opinions](#) | [Life History](#)



Taxonomy: [View taxonomy in ITIS](#)

Listing Status: Endangered

Where Listed: WHEREVER FOUND

General Information

The Puerto Rican broad-winged hawk is a dark chocolate brown, small hawk that measures approximately 39 centimeters (15.5 inches). It is smaller than the *Buteo platypterus platypterus* but larger than the Lesser Antillean subspecies. This is the darkest subspecies of the broad-winged hawk. In adults, the tail, broadly banded with black and white, and the rufous breast are characteristic. Immature birds have dark bars on the breast and lack the distinctive tail bands of the adult. Broadwings flap more than the similar but larger red-tailed hawk (Raffaele 1989). Knowledge of the biology of the Puerto Rican broad-winged hawk is limited. Snyder et al. (1987) conducted food-habit studies on one of the three nests found in the Caribbean National Forest in 1976 and one nest found in R  jo Abajo in 1978. The prey types taken included centipedes, frogs, lizards, mice, rats and birds (as large as 200 grams).

Current Listing Status Summary

Show entries

Status	Date Listed	Lead Region
Endangered	09 09 1994	Southeast Region (Region 4)



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Puerto Rican parrot (*Amazona vittata*)



[Range Information](#) | [Candidate Info](#) | [Federal Register](#) | [Recovery](#) | [Critical Habitat](#) | [SSA](#) | [Conservation Plans](#) | [Petitions](#) | [Biological Opinions](#) | [Life History](#)

Taxonomy: [View taxonomy in ITIS](#)

Listing Status: Endangered

Where Listed: WHEREVER FOUND

General Information

The Puerto Rican parrot is bright green, about a foot in length, with red forehead, blue primary wing feathers, and flesh-colored bill and feet. This bird feeds chiefly on wild fruits, particularly the sierra palm (*Prestoria montana*), but may also consume flowers and tender shoots. During October, when other fruits are scarce, the tabonuco fruit (*Dacryodes excelsa*) becomes an important food item. Rodriguez-Vidal (1959) lists over 50 different plants whose fruits are eaten by the parrots

Current Listing Status Summary

Show entries

Status	Date Listed	Lead Region
Endangered	03-11-1967	Southeast Region (Region 1)

Showing 1 to 1 of 1 entries

< Previous 1 Next >

» Range Information

Current Range



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Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*)



[Range Information](#) | [Candidate Info](#) | [Federal Register](#) | [Recovery](#) | [Critical Habitat](#) | [SSA](#) | [Conservation Plans](#) | [Petitions](#) | [Biological Opinions](#) | [Life History](#)

Taxonomy: [View taxonomy in ITIS](#)

Listing Status: Endangered

Where Listed: WHEREVER FOUND

General Information

The Puerto Rican sharp-shinned hawk is a small hawk measuring approximately 28 to 33 centimeters (11 to 13 inches). The dark slate gray upper parts and heavily barred rufous underparts of the adults are distinctive. Immatures are brown above and heavily streaked below. It has short, squared tail, often appearing notched when folded, and small head and neck. In flight, the short, rounded wings and long, narrow tail are characteristic (Raffaele 1989).

Current Listing Status Summary

Show entries

Status	Date Listed	Lead Region
Endangered	09-09-1994	Southeast Region (Region 4)

Showing 1 to 1 of 1 entries

< Previous 1 Next >

» Range Information



U.S. Fish & Wildlife Service

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[ECOS](#) /

Puerto Rican boa (*Chilabothrus inornatus*)



[Range Information](#) | [Candidate Info](#) | [Federal Register](#) | [Recovery](#) | [Critical Habitat](#) | [SSA](#) | [Conservation Plans](#) | [Petitions](#) | [Biological Opinions](#) | [Life History](#)

Taxonomy: [View taxonomy in ITIS](#)

Listing Status: Endangered

Where Listed: WHEREVER FOUND

General Information

The color is somewhat variable but usually ranges from pale to dark brown, sometimes grayish, with 70 to 80 darker colored blotches along the back from neck to vent. These dorsal blotches are generally dark-bordered with the centers of a lighter hue. Maximum size is approximately 6 and a half feet. Observations of captive specimens suggest that under natural conditions the diet of sub-adults and adults consists of birds, small mammals, and lizards. Rodríguez and Reagan (1984) report bat predation by the Puerto Rican boa. The boa feeds by seizing the prey in its jaws, wrapping several coils around the victim, and then constricting until the prey has suffocated. The prey is then swallowed head first. The feeding habits of the very young are unknown.

Current Listing Status Summary

Show entries

Status	Date Listed	Lead Region
Endangered	10/13/1970	Southeast Region (Region 4)



U.S. Fish & Wildlife Service

ECOS Environmental Conservation Online System

Conserving the Nature of America

[ECOS](#) /

Puerto Rican harlequin butterfly (*Atlantea tulita*)



[Range Information](#) | [Candidate Info](#) | [Federal Register](#) | [Recovery](#) | [Critical Habitat](#) | [SSA](#) | [Conservation Plans](#) | [Petitions](#) | [Biological Opinions](#) | [Life History](#)

Taxonomy: [View taxonomy in ITIS](#)

Listing Status: Threatened

Where Listed: **WHEREVER FOUND**

General Information

The PRHB is a medium size butterfly. The species has a wingspan of about 5.1 to 6 centimeters (cm) (2 to 2.5 inches (in)) wide and is characterized by its orange, brownish-black and beige coloration patterns. The male's abdomen is brownish-black on the dorsal side and has orange and brown bands on the ventral side. The female's abdomen is brownish-black with white bands. The chrysalis (pupa from which the butterfly (adult, or imago) emerges) of the PRHB is black, with orange and white dashes, and yellow pimples. Chrysalis size is around 3 cm (1.2 in). The PRHB caterpillar (larva) is dark orange with a brownish-black to black, thin sub-lateral line, over a thin line of white intermittent dots crossing the body from the head to anal plate. The larva is less than 4.76 millimeter (mm) (0.19 in) in first instar (growth stage between molts) and about 55.8 mm (2 in) in the fifth instar. The eggs of the PRHB are greenish oily spheres, with a yellowish incipient crown.

Current Listing Status Summary

Show entries

Status	Date Listed	Lead Region
Threatened	01-03-2023	Southeast Region (Region 4)

Appendix D: Flora and Fauna Survey

FLORA
AND
FAUNA SURVEY for
PARQUE PASIVO IMPROVEMENTS
Maricao, Puerto Rico
FEBRUARY-2024

Prepared for::

C + G JMCP +
JLGARCHITECTS

Prepared by:



alejandro@reforesta.com

PR-CRP-000873 Parque Pasivo, PR 357 km. 0.0, Maricao, PR 00606

Coordinates: 18.181943 -66.980671

Introduction and Study Area - As part of the Municipality of Maricao's city rehabilitation program following the Hurricanes of 2017, a landscape engineering company will be conducting improvements for the rehabilitation of the town's Parque Pasivo. The aim is for the Parque Pasivo to be a place of recreation for residents and visitors alike, while providing a pedestrian connection corridor to help reinvigorate downtown Maricao. Part of the environmental evaluation of the site requires a flora and fauna survey. The present document presents and discusses the results of such survey, along with some recommendations for the landscape architect.

The "Parque Pasivo" is in the central part of downtown Maricao, wedged between roads PR-120 to the East and PR-357 (Camino Las Vegas) to the West (Appendix 1). The park is a narrow polygon of roughly rectangular shape with the long side running almost North to South and limited on the West by the Maricao River (appears as Rio Rosario in Google Earth). The park is contiguous to the Residencial Juan Ferrer on its Eastern side. Both Northern and Southern limits of the park are narrow; the Southern limit is a stream affluent to the Maricao River while the Northern limit has a vegetated fence separating the park from a constructed lot of unknown use. The park is accessible from the sidewalk along Camino Las Vegas, through a metal bridge which crosses over the river; it is also potentially accessible from the Residencial Juan Ferrer

Methodology - To conduct the flora and fauna survey I visited the Parque Pasivo as early as I could on Wednesday January 24th. I arrived to downtown Maricao just before 8am, parked by the police station, and walked to the Parque Pasivo. It was a relatively warm morning, reaching the 80 Fahrenheit well before Noon. The following day would be New Moon. When I left downtown Maricao shortly after 1:00 PM it had started raining lightly.

To access the park, I walked south along the sidewalk next to PR-357 and crossed the Maricao River using the metal bridge part of the park. All areas of the park were visited, and all trees and vegetated areas were inspected for wildlife and for species identification. Initially I walked the existing sidewalk of the park and visited its structures, gazebos and restroom as a normal tourist would. Next, I walked the actual boundaries and limits of the park as best as possible, including the water edges associated to the Maricao River. Throughout the park most rocks, logs and other debris were inspected for wildlife and fungi. Tree trunks and branches were inspected with binoculars for epiphytes and wildlife. Birds were identified by sight and sound. The walking and exploring part of the survey was completed in two and a half hours. Afterwards I chose four spots spread throughout the park and sat for 30 minutes on each to look for birds and wildlife, for an additional two hours of monitoring.

All species of plants found except *Odontonema cuspidatum* were photographed and uploaded to iNaturalist for record keeping and peer examination. The data was uploaded publicly so a visit to iNaturalist in the locality of the Parque Pasivo will demonstrate the location and identification of the species considered in this report. Not all plant individuals were photographed and included to iNaturalist. I was constantly surveying for wildlife, but this report is very limited with regards to animals because of the nature of the visit, and particularly due to the environmental conditions (i.e., too dry,

particularly for amphibians, fungi and epiphytes). The only wildlife included into iNaturalist were those with photographic evidence.

Floral Survey – The survey identified a total of sixty-six species of plants present in the Parque Pasivo. At least thirty-one of these were cultivated in the park for ornamental purposes, and four of these should bear edible fruit: Indian Almond, Avocado, Breadfruit, and Banana. Interestingly another thirty-one species (almost half of the total) are present due to natural dispersal in most cases mediated by birds and/or bats. This is a testament to the proximity of the park to forested coffee fincas and protected natural areas. It also evidences that more wildlife than was observed that day visits the park. Twenty-three species of trees are present in the park along with the arborescent bamboo (present at both Northern and Southern boundaries of the park and associated to the edges of the streams). Thirteen of the species represent old, cultivated trees part of the original park's landscaping; of these ten species are exotics of little importance to native wildlife. Three of these exotics are recruiting naturally within the park: Indian Almond, Indian Padauk, and Flamboyant, while two (Queen of the Flowers and Kamani) may be sending fruits and seeds downstream. Of the cultivated trees there is only three native species represented: one Maga, one young/resprouting Maricao, and various Maria trees—the most numerous and conspicuous of the natives. Throughout the park and particularly within and between herbaceous covers and vegetation aggregations there are young saplings of at least seven native tree species. All these native tree species represent resources and habitat for native wildlife. Living up on the trees are at least seven species of herbaceous epiphytes (bromeliads, orchids, cacti, ferns, etc.) and one hemi epiphytic native tree (i.e., Cupey). All these epiphytes were dispersed naturally into the park. There three other conspicuous exotic epiphytes (Devil's Ivy, Arrowhead Vine and a Bromelia); of these the bromelia was certainly cultivated as an ornamental while the other two could have arrived naturally. Aside from trees, there are seventeen species of shrubs present: twelve of these are cultivated ornamentals while five species are natives brought in by wildlife. A native shrub (red hot peppers) and an herb (PR Coriander) dispersed naturally into the site. Hot peppers are common food of Red Legged Thrushes and PR Spindalis for example. Five species of ferns were identified in the park and all of them were dispersed naturally into the park. The only grass/groundcover identified was the Broadleaf Carpet Grass and it is only doing well in part of the park. Most areas of the park have almost barren ground devoid of vegetated cover.

Following is a table with all the plant species identified at the Maricao Parque Pasivo:

Botanical Family	Scientific Name	Common Name	Life Form	Species Origin	Plant Proccedence
Araceae	<i>Synonium podophyllum</i>	Arrowhead Vine / Malanga Trepadora	Vine-Epiphyte	Exotic	
	<i>Alocasia macrorrhizos</i>	Giant Alocasia / Panama	Herb	Exotic	Cultivated
	<i>Epipremnum aureum</i>	Golden Pothos, Devil's Ivy	Vine-Epiphyte	Exotic	Cultivated
Asparagaceae	<i>Anthurium scandens</i>	Guinda	Herbaceous-Epiphyte	Native	Natural Dispersal
	<i>Cordyline fruticosa</i>	Common Dracaena / Bayoneta	Herbaceous Shrub	Exotic	Cultivated
	<i>Dracaena fragrans</i>	Indian Cane / Cocomacaco	Herbaceous Shrub	Exotic	Cultivated
Hypoxidaceae	<i>Molineria capitulata</i>	Palmglass	Herbaceous Shrub	Exotic	Cultivated
Orchidaceae	<i>Polystachya concreta</i>	Greater Yellospike Orchid	Herbaceous Epiphyte	Native	Natural Dispersal
Bromeliaceae	<i>Billbergia pyramidalis</i>	Bromelia Santa Teresa	Groundcover/Epiphyte	Exotic	Cultivated
	<i>Guzmania monostachia</i>	Variiegated Tufted Airplant / Bromelia	Herbaceous Epiphyte	Native	Natural Dispersal
	<i>Tillandsia fasciculata</i>	Giant Airplant / Bromelia	Herbaceous Epiphyte	Native	Natural Dispersal
	<i>Tillandsia utriculata</i>	Spreading Airplant / Bromelia	Herbaceous Epiphyte	Native	Natural Dispersal
Cyperaceae	<i>Cyperus alternifolius</i>	Sedge / Junco	Herb	Native	Natural Dispersal
	<i>Cyperus odoratus</i>	Fragrant Flatsedge / Junco	Herb	Native	Natural Dispersal
Poaceae	<i>Bambusa vulgaris</i>	Bamboo / Bambu	Arborescent Grass	Exotic	Cultivated
	<i>Axonopus compressus</i>	Broadleaf Carpet Grass / Yerba Alfombra	Herb (grass)	Exotic	Cultivated
Costaceae	<i>Costus pictus</i>	Spiral Flag / Caña Agria	Herbaceous Shrub	Exotic	Cultivated
Heliconiaceae	<i>Heliconia bihai</i>	Heliconia Bihai	Herbaceous Shrub	Native	Cultivated
	<i>Heliconia psittacorum</i> × <i>spathocircinata</i>	Heliconia	Herbaceous Shrub	Exotic	Cultivated
Musaceae	<i>Musa acuminata</i>	Banana / Guineo	Herbaceous Shrub	Exotic	Cultivated
Zingiberaceae	<i>Alpinia vittata</i>	Variiegated Ginger	Herbaceous Shrub	Exotic	Cultivated
Apiaceae	<i>Eryngium foetidum</i>	PR Coriander / Recao	Herb	Native	Natural Dispersal
Araliaceae	<i>Dendropanax arboreus</i>	Palo de Cachimba	Tree	Native	Natural Dispersal
	<i>Didymopanax morototoni</i>	Yagrumo Macho	Tree	Native	Natural Dispersal
Asteraceae	<i>Mikania micrantha</i>	Guaco Falso	Vine	Native	Natural Dispersal
Boraginaceae	<i>Cordia sulcata</i>	White Manjac / Moral	Tree	Native	Natural Dispersal
Cactaceae	<i>Rhipsalis baccifera</i>	Mistletoe Cactus / Barbas de Palo	Herbaceous Epiphyte	Native	Natural Dispersal
Begoniaceae	<i>Begonia nelumbifolia</i>	Lilypad Begonia	Herb	Exotic	Cultivated
Fabaceae	<i>Delonix regia</i>	Flamboyant	Tree	Exotic	Cultivated & ND
	<i>Bauhinia purpurea</i>	Palo de Orquideas	Tree	Exotic	Cultivated
	<i>Andira inermis</i>	Angelin Tree / Moca	Tree	Native	Natural Dispersal
	<i>Pterocarpus indicus</i>	Indian Padauk / Terocarpo	Tree	Exotic	Cultivated & ND
	<i>Inga laurina</i>	Sackysac Bean / Guama	Tree	Native	Natural Dispersal
	<i>Inga vera</i>	Guaba	Tree	Native	Natural Dispersal
Apocynaceae	<i>Allamanda cathartica</i>	Canario	Herb	Exotic	Cultivated
Acanthaceae	<i>Sanchezia parvibracteata</i>	Variiegated Sanchezia	Herbaceous Shrub	Exotic	Cultivated
	<i>Odontonema cuspidatum</i>	Firespike / Coral de Jardin	Herbaceous Shrub	Exotic	Cultivated?
Bignoniaceae	<i>Spathodea campanulata</i>	African Tulip Tree / Meaito	Tree	Exotic	Cultivated & ND
Lamiaceae	<i>Clerodendrum quadriloculare</i>	Starburst Bush / Lluvia de Estrellas	Shrub	Exotic	Cultivated
Lauraceae	<i>Persea americana</i>	Avocado / Aguacate	Tree	Exotic	Cultivated
Calophyllaceae	<i>Calophyllum brasiliense</i>	Palo de Maria	Tree	Native?	Cultivated
	<i>Calophyllum inophyllum</i>	Kamani / Santa Maria	Tree	Exotic	Cultivated
Cusiaceae	<i>Cusia rosea</i>	Pitch Apple / Cupey	Hemi-Epiphyte Tree	Native	Natural Dispersal
Euphorbiaceae	<i>Codiaeum variegatum</i>	Garden Croton / Croton de Jardin	Shrub	Exotic	Cultivated
Malpighiaceae	<i>Byrsonima spicata</i>	Maricao	Tree	Native	Cultivated
Passifloraceae	<i>Passiflora suberosa</i>	Passionflower / Fior de Pasion	Vine	Native	Natural Dispersal
Malvaceae	<i>Thespesia grandiflora</i>	Maga	Tree	Endemic	Cultivated
Combretaceae	<i>Terminalia catappa</i>	Indian Almond Tree / Almendro	Tree	Exotic	Cultivated & ND
Lythraceae	<i>Lagerstroemia speciosa</i>	Queen of Flowers / Reina de las Flores	Tree	Exotic	Cultivated
Melastomataceae	<i>Miconia laevigata</i>	Camasey de Paloma	Shrub	Native	Natural Dispersal
	<i>Miconia umbellata</i>	Camasey Terciopelo	Shrub	Native	Natural Dispersal
Myrtaceae	<i>Psidium guajava</i>	Guava / Guayaba	Shrub	Exotic	Cultivated?
Piperaceae	<i>Piper amalago</i>	Sootsoot / Higuillo de Limon	Shrub	Native	Natural Dispersal
Moraceae	<i>Artocarpus altilis</i>	Breadfruit Tree / Pana	Tree	Exotic	Cultivated
	<i>Ficus kurzii</i>	Ficus	Tree	Exotic	Cultivated
Urticaceae	<i>Cecropia schreberiana</i>	Trumpet Tree / Yagrumo Hembra	Tree	Native	Natural Dispersal
Meliaceae	<i>Guarea guidonia</i>	American Muskwood / Guaraguao	Tree	Native	Natural Dispersal
Rutaceae	<i>Zanthoxylum martinicense</i>	Prickly Ash / Cenizo	Tree	Native	Natural Dispersal
Sapindaceae	<i>Cupania americana</i>	Guara	Tree	Native	Natural Dispersal
Solanaceae	<i>Capsicum frutescens</i>	Red Pepper / Aji Picante	Shrub	Native	Natural Dispersal
	<i>Solanum torvum</i>	Turkey Berry / Berenjena Cimarrona	Shrub	Native	Natural Dispersal
Aspleniaceae	<i>Nephrolepis brownii</i>	Asian Swordfern	Herbaceous Fern	Exotic	Cultivated?
	<i>Campylopusium phyllitidis</i>	Long Strapfern / Helecho	Epiphytic Fern	Native	Natural Dispersal
	<i>Pleopeltis polypodioides</i>	Resurrection Fern / Doradilla	Epiphytic Fern	Native	Natural Dispersal
	<i>Adiantum latifolium</i>	Broadleaf Maidenhair	Herbaceous Fern	Native	Natural Dispersal
	<i>Adiantum pyramidale</i>	Pyramid Maidenhair / Helecho de Pozo	Herbaceous Fern	Native	Natural Dispersal

Faunal Survey – As mentioned before, the survey was limited due to the time of monitoring and to the weather conditions prior to the visit. The weather had been unusually dry, and this forces amphibians and reptiles into deep hiding. Few of the plants had open flowers and/or fruit at the time of the visit. Of thirteen species of birds identified most were native species, with two endemics (Emerald Hummingbird and PR Woodpecker) a resident migrant (Black whiskered Vireo). Even though the survey was conducted during migratory bird season, no nonnative migratory species were identified. Four bird species present are considered exotic (Venezuelan Troupial, Bronze Mannikin, Rock Pigeon, and Red Junglefowl); the last species is becoming a feral problem around the island and is also a menace to native reptiles, amphibians and arthropods living on the ground and in the leaf litter. Another species with feral potential seen within the park is the house cat. These are known predators of various native wildlife and may also represent a public health issue due to their excretions and potential diseases.

Following is a table with all animal species identified at Parque Pasivo:

Animal Group	Scientific Name	Common Name	Origin	Comments
Mammals	<i>Felis catus</i>	Cat	Exotic	Seems to be stray from neigh
Birds	<i>Coereba flaveola</i>	Bananaquit / Reinita	Native	
	<i>Vireo altiloquus</i>	Black Whiskered Vireo / Julian Chivi	Native-migratory	Heard nearby
	<i>Quiscalus niger</i>	West Indian Grackle / Chango	Native	
	<i>Icterus icterus</i>	Turpial	Exotic	
	<i>Tyrannus dominicensis</i>	Kingbird / Pitirre	Native	
	<i>Patagioenas squamosa</i>	Paloma Turca	Native	Seen nearby
	<i>Zenaida asiatica</i>	Tortola Aliblanca	Native	
	<i>Columba livia</i>	Rock Pigeon	Exotic	
	<i>Spermestes cucullata</i>	Bronze Mannikin / Pandillerito	Exotic	
	<i>Riccordia maugaeus</i>	PREmerald Hummingbird / Zumbadorcito	Endemic	
	<i>Melanerpes portoricensis</i>	Carpintero	Endemic	Heard nearby
	<i>Turdus plumbeus</i>	Red Legged Thrush / Zorzal Patas Coloradas		
	<i>Gallus gallus</i>	Red Junglefowl / Gallinas	Exotic	
Reptiles	<i>Anolis cristatellus</i>	Lagartijo Crestado	Native	
	<i>Anolis stratulus</i>	Lagartijo Manchado	Native	
	<i>Pholidoscelis exsul</i>	Sguana Comun	Native	
Amphibians	<i>Eleutherodactylus antillensis</i>	Coqui Churi	Native	Under log
	<i>Eleutherodactylus coqui</i>	Coqui Comun		Inside bromelia
	<i>Leptodactylus albilabris</i>	Ranita de Labio Blanco	Native	Under cement slab
	<i>Rhinella marina</i>	Sapo Comun	Exotic	Tadpoles by stream
Arthropods	<i>Cyrtopholis portoricae</i>	PR Ground Tarantula / Arana Pelua	Endemic	Many burrows particularly we
Gastropods	<i>Caracollus caracola</i>	Giant Snail	Endemic	Only one seen
	<i>Bulimulus guadalupensis</i>		Native?	

Discussion and Recommendations – One of the main goals of the park is to provide a place for recreation for people. However, we should also consider the parks importance for the local and native wildlife and biodiversity. The town of Maricao is located within a river valley surrounded by forested coffee fincas, parks and protected natural areas. The nearby reserves harbor a special local biodiversity associated to serpentine soils. Maricao is least populated municipality in mainland Puerto Rico with less than 6,500 people according to the 2000 census. Nature is certainly important in Maricao. For this reason, we believe that the Parque Pasivo’s new landscaping should be ecological, that is, focusing on native species of trees, shrubs, and herbs to provide resources and habitat for native wildlife. Native species are better suited and adapted to the local environment and prove to be more resistant and resilient to natural disasters such as storms and hurricanes. Another conservation aspect to consider is the recent introduction of the PR Parrot to the Maricao area. At this moment Protectores de Cuencas is leading a reforestation program in private lands to provide native foods for the PR Parrot population. The Parque Pasivo’s new landscaping can be part of this conservation effort by planting trees and shrubs that attract and feed the PR parrot. Aside from reforestation and wildlife resource support, the landscaping must assist in soil protection, erosion control, and flood protection. The border of the Maricao River should be planted with a riparian vegetation buffer; this may require the placement of rocks or stabilizing/supporting structures for the tree’s roots. Big patches of the park’s ground are barren or almost so. Only one exotic grass was identified in the area; we recommend that other grasses should be considered as well potential native ground covers such as *Callisia repens*. An important aspect to consider while conducting improvements in the park is that most ground dwelling wildlife in the form of reptiles, amphibians, and arthropods, lives underneath and within sidewalks, rocks, logs, and vegetative debris. We recommend to move/remove such elements with caution and preferably in presence of a person willing and able to rescue displaced animals.

Resources Used for Species Names and IDs –

Online Resource from Institute of Regional Conservation: Gann GD, Trejo-Torres JC & Stocking CG. (2015-2020). Plantas de la Isla de Puerto Rico. The Institute for Regional Conservation. Delray Beach, Florida, USA

Online Application iNaturalist

Online Application from Cornell University Merlin Bird ID

Prepared by:

Roberto Bello and Alejandro Cubiñá



February 14, 2024

Appendix E: Proposed Project Drawings

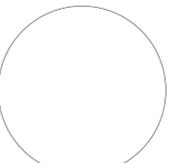
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C&G

JMCP +
JLGARCHITECTS
115 DEL PARQUE STREET SUITE 7
SAN JUAN, PR 00911
787.309.1837

BAIGES GEOTECHNICAL ENGINEERS, LLC
44 PASEO DE LA ALHAMBRA, LRES TORRENAS, QUINTANA ROO, MEXICO
JAMES.BAIGES@GMAIL.COM - (987) 3962077

90% PRE DESIGN SET
NOT FOR CONSTRUCTION



PROJECT: PR-CRP-000873
PARQUE PASIVO
CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

NO.	DATE	DRAWING ISSUE	BY	APP.

DRAWN BY:
REVIEWED BY:
DATE:
SHEET TITLE

DRAWING NO.
LA-100

LEGEND EXISTING CONDITIONS

SYMBOL	DESCRIPTION
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	BAMBU
	TREE
	PALM

PLAYGROUND LEGEND

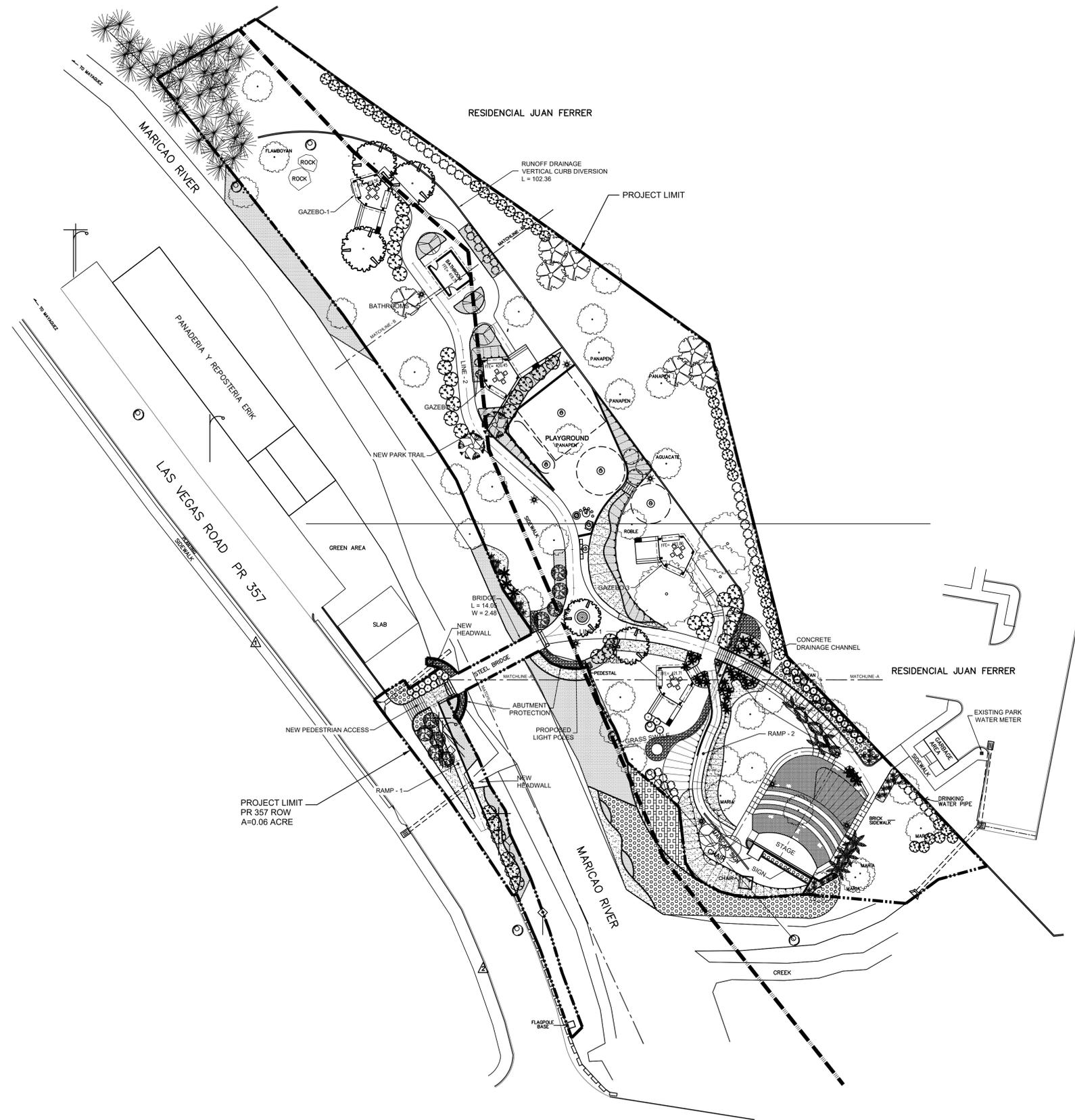
- 1 FLOWERS
- 2 TENOR TREE
- 3 MARIMBA
- 4 DRUMS
- 5 CLIMBER
- 6 MULTI ACTIVITY
- 7 SPARE
- 8 SEESAW
- 9 SPINNER

NOTES

- 1 FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
- 2 FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.

HORIZONTAL VERTICAL CONTROLS

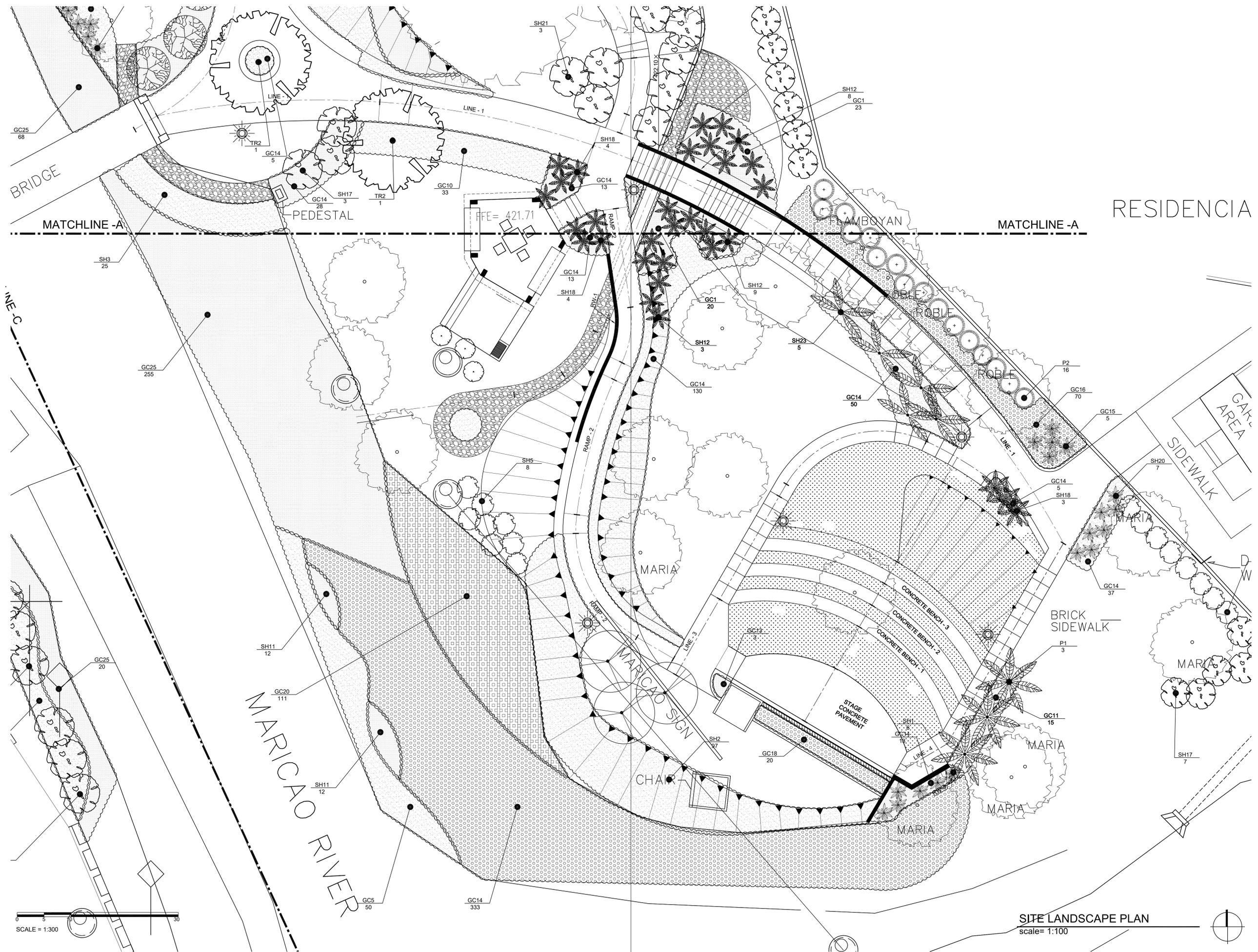
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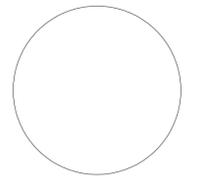
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RESIDENCIA



SITE LANDSCAPE PLAN
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PARQUE PASIVO
 CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO

GOBIERNO MUNICIPAL DE MARICAO

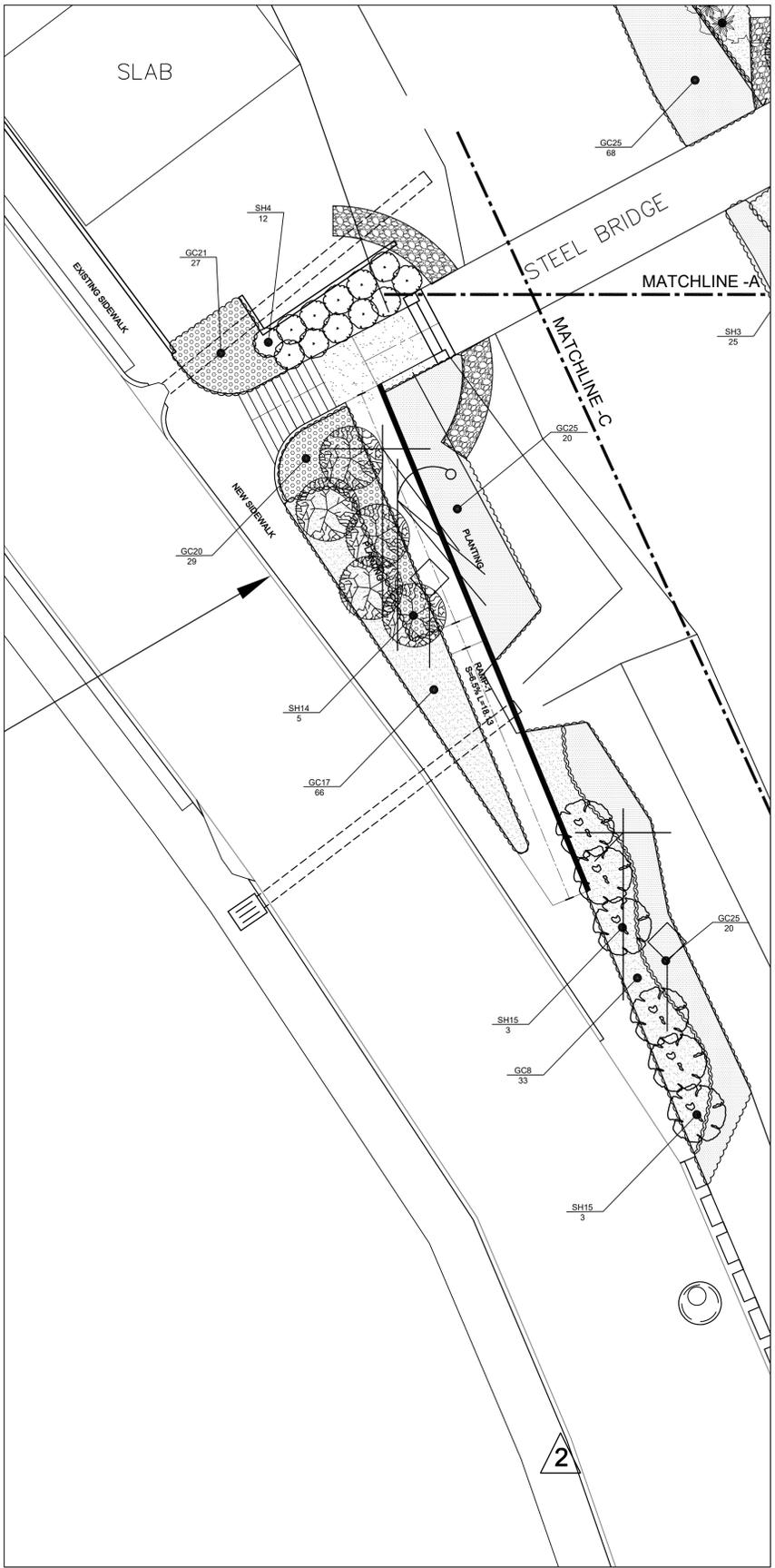
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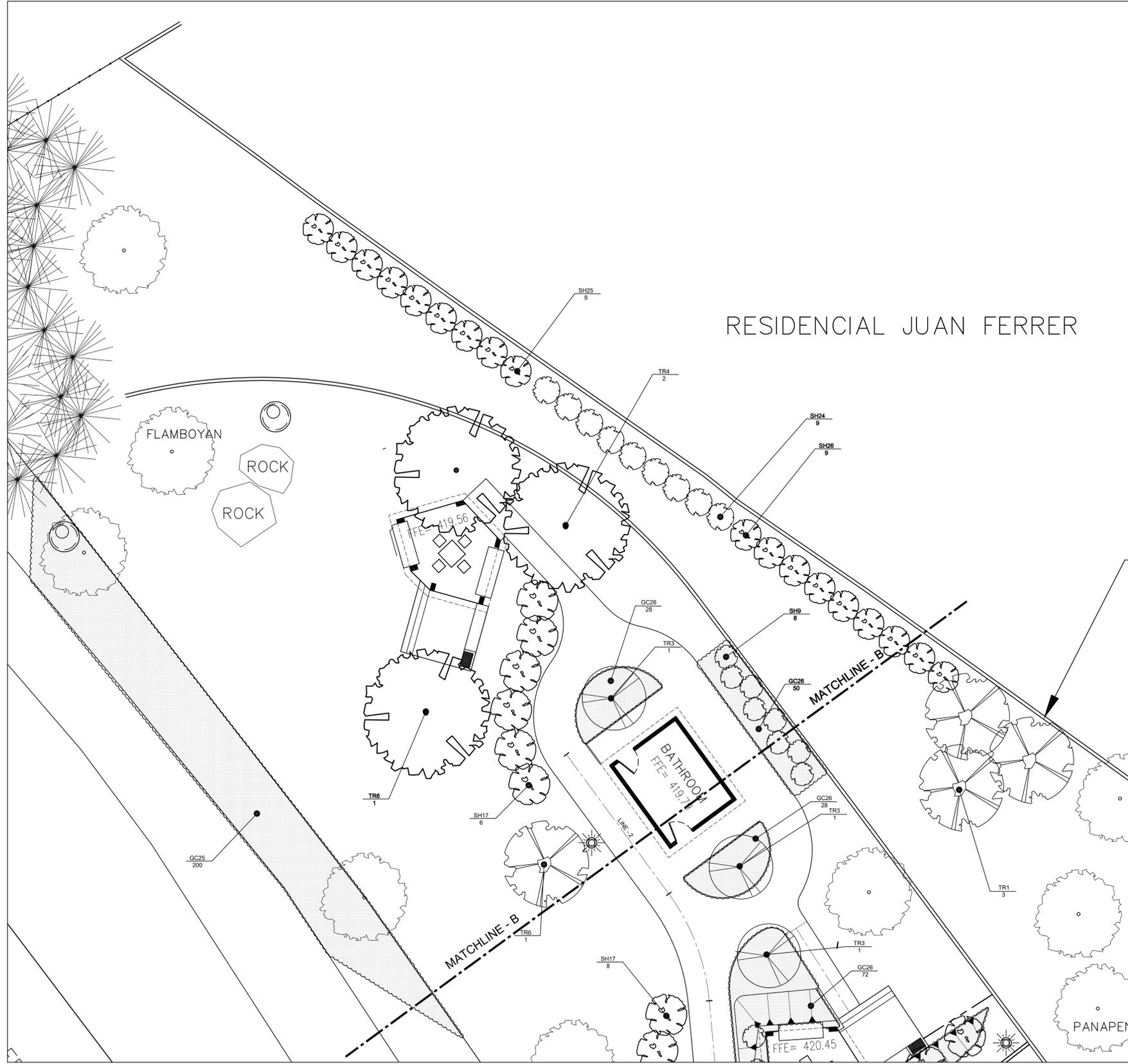
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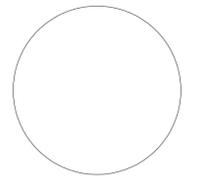
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SITE LAYOUT PLAN
scale= 1:100



SITE LAYOUT PLAN
scale= 1:100

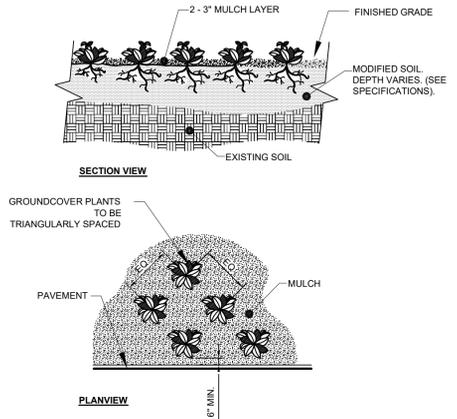
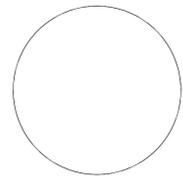


PROJECT: PR-CRP-000873
PARQUE PASIVO
CARRETERA ESTATAL PR 357 - MARICAO BARRIO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

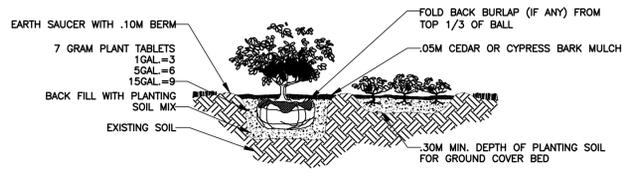
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DATE:
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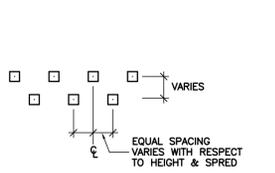
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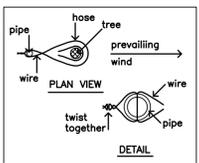
GROUNDCOVER PLANTING DETAIL



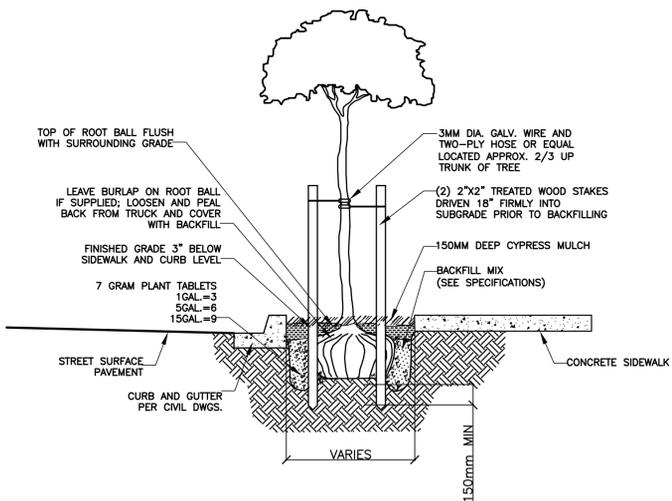
SHRUB & GROUND COVER PLANTING
 NOT TO SCALE



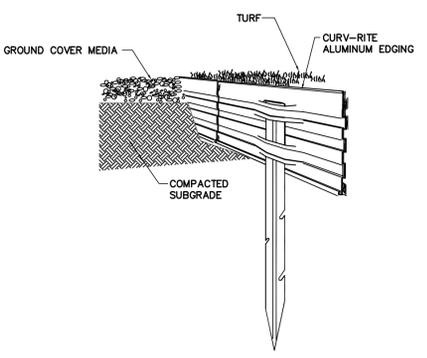
TYPICAL SHRUB LAYOUT
 NOT TO SCALE



STAKING DETAIL
 NOT TO SCALE



TREE IN PLANTING STRIP
 NOT TO SCALE



LANDSCAPE BORDER EDGING
 NOT TO SCALE

LANDSCAPE WORK NOTES:

- COSTS LANDSCAPING WORK CONSTRUCTION COSTS SHALL BE CLEARLY ITEMIZED, INCLUDING UNIT PRICES.
- WATER THE CONTRACTOR IS RESPONSIBLE FOR WATER TRANSPORTATION IN THE EVENT NO WATER IS AVAILABLE ON SITE.
- MAINTENANCE MAINTENANCE PERIOD BEGINS AFTER FINAL ACCEPTANCE AND EXTENDS FOR (12) MONTHS THEREAFTER. REFER TO WRITTEN SPECIFICATIONS.
- PALMS SPECIFIED HEIGHT OF PALM TREES DO NOT INCLUDE PALM FRONDS OR LEAVES. SPECIFIED HEIGHT IS FOR A CLEARLY DEFINED TRUNK.
- FERTILIZER FOR TREES AND PALMS, APPLY COMMERCIAL FERTILIZER PLANT FOOD TABLETS: "Agriform". TABLETS SHALL BE TIGHTLY COMPRESSED, LONG LASTING, TWO (2) YEARS, SLOW RELEASE FERTILIZER DELIVERED TO THE SITE ORIGINAL CONTAINERS BEARING THE MANUFACTURER'S GUARANTEED ANALYSIS OF 20-10-15. TABLETS SHALL WEIGH FIVE (5), TEN (10) OR TWENTY-ONE (21) GRAMS WITH A POTENTIAL ACIDITY OF NO MORE THAN 5% BY WEIGHT.
- PLANTING SOIL MIXTURE SHALL BE FREE OF EXTRANEUS MATTER AND WEEDS AND SHALL CONSIST OF THREE (3) PARTS TOPSOIL AND ONE (1) PART ORGANIC MATTER.
- LANDSCAPE CONTRACTOR SHALL COORDINATE WITH OWNER LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO START OF WORKS.
- TOPSOIL INSTALL 4 INCHES MINIMUM DEPTH AT PLANTING AND LAWN AREAS, 12 INCHES MINIMUM BELOW TREES.
- ROOT BARRIERS INSTALL ROOT BARRIERS ONLY IN PLANTING STRIPS WHERE INDICATED

NOTES

- SUPPLY PLANTING SOIL MIX AS MAY BE REQUIRED.
- ALL QUANTITIES IN THE PLANTING MATERIALS SCHEDULE CONSTITUTE AN APPROXIMATE ESTIMATE WHICH SHALL BE CONFIRMED BY CONTRACTOR AT ALL TIMES.

SPECIFICATION FOR LANDSCAPE BED EDGING

- LANDSCAPE BED EDGING SHALL BE EQUAL OR SIMILAR TO CURV-RITE DESIGN 2 (CRD2) AS MANUFACTURED BY CURV-RITE INC. WAYLAND, MICHIGAN 1 - 800 366 - 2878.
- THICKNESS, DEPTH, LENGTH AND FINISH SHALL BE: 1/8" X 5.5"
- EIGHT (8) OR SIXTEEN (16) FOOT SECTIONS SHALL BE USED WITH ONE STAKE PER (36) INCHES OF EDGING EDGING SHALL BE ALUMINUM ALLOY 6063 - T6 WITH STAKES BEING 6061 - T6
- STAKE SHALL SECURELY ENGAGE EDGING AND SHALL BE ENTIRELY BELOW TOP SURFACE OF EDGING. EDGING SHALL HAVE A MINIMUM OF (2) INCHES OF INTERLOCKING OVERLAP BETWEEN SECTIONS.
- INSTALL AS PER MANUFACTURER'S SPECIFICATIONS WITH TOP OF EDGING 1/4" TO 1/2" ABOVE COMPACTED FINISH GRADE. FINISH GRADE TO BE COMPACTED ON EITHER SIDE OF EDGING TO MAINTAIN STABILITY.

LA-110 TOTAL PLANTING MATERIALS SCHEDULE - PARQUE PASIVO					
TREES			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
TR-1	8	Each	Byrsonima Coriacea	Maricao	7 gal.
TR-2	2	Each	Lividia Ferrea	Arbol de Hierro	7 gal.
TR-3	3	Each	Tabebuia Heterophylla	Roble Rosado	7 gal.
TR-4	2	Each	Thespesia Grandiflora	Maga	7 gal.
TR-5		Each	Bauhinia Blackeana	Mariposa	7 gal.
TR-6	1	Each	Syzygium Malaccense	Pomaroosa	7 gal.
TR-7		Each	Spare		7 gal.
TR-8		Each	Magnolia Portoricensis	Jaguilla	7 gal.

PALMS			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
P-1	3	Each	Cyathea Arborea	Helecho de Palma	7 gal.
P-2	16	Each	Rhapis Excelsa	Rhapis	1 gal. @ 0.914 m. o.c.

SHRUBS			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
SH1	6	Each	Alocasia Indica	Malanga Morada	3 gal. @ 0.60 m. o.c.
SH2	97	Each	Alpinia Purpurata	Ginger Rojo	3 gal. @ 0.60 m. o.c.
SH3	25	Each	Alpinia Sanderae	Ginger Rosado	3 gal. @ 0.60 m. o.c.
SH4	12	Each	Acalypha Wilkesiana	Califa	3 gal. @ 0.914 m. o.c.
SH5	8	Each	Brunfelsia Pauciflora	Ayer Hoy y Mañana	3 gal. @ 0.914 m. o.c.
SH6		Each	Calliandra Inaequilatera	Mota	3 gal. @ 0.914 m. o.c.
SH7		Each	Clusea Rosa	Cupey	3 gal. @ 0.914 m. o.c.
SH8		Each	Cordylone Terminalis	Cordiline	3 gal. @ 0.914 m. o.c.
SH9	11	Each	Dillenia Suffruticosa	Ojo de Pájaro	7 gal.
SH10		Each	Freycinetia Multiflora	Freicinnetia	1 gal. @ 0.60 m. o.c.
SH11	24	Each	Hedychium Coronarium	Nardo	1 gal. @ 0.60 m. o.c.
SH12	20	Each	Heliconia Andraomeda Bihai	Heliconia Alta	3 gal. @ 0.60 m. o.c.
SH13		Each	Hydrangea Macrophylla	Hortensia	1 gal. @ 0.60 m. o.c.
SH14	9	Each	Jatropha Integerrima	Coralito	7 gal.
SH15	11	Each	Jatropha Multifida	Coral	7 gal.
SH16		Each	Clerodendron Quadriloculare	Clerodendron	7 gal.
SH17	24	Each	Murraya Exotica	Café de la India	7 gal.
SH18	14	Each	Mussa Sumatrana	Guineo Morado	3 gal. @ 0.914 m. o.c.
SH19		Each	Phaomeria Speciosa	Flor de Cera	1 gal. @ 0.914 m. o.c.
SH20	24	Each	Philodendron Selloum	Monstera	1 gal. @ 0.914 m. o.c.
SH21	9	Each	Coffea Arabica	Cafeto	7 gals.
SH22	10	Each	Leea Coccinea	Lia	3 gal. @ 0.914 m. o.c.
SH23	5	Each	Strelitzia Nicolai	Ave de Paraiso Gigante	3 gal. @ 0.914 m. o.c.
SH24	18	Each	Bixa Orellana	Achiote	1 gal. @ 0.914 m. o.c.
SH25	18	Each	Cajanus Cajans	Gandul	1 gal. @ 0.914 m. o.c.
SH26	18	Each	Inga Vera	Guava	1 gal. @ 0.914 m. o.c.
SH27	30	Each	Tripsacum Dactylades	Liriope Verde Grande	3 gal. @ 0.914 m. o.c.

GROUND COVERS			BOTANICAL NAME	COMMON NAME	REMARKS
KEY	QTY	UNIT			
GC1	43	Each	Anthurium Acaule	Anturio Nativo	1 gal. @ 0.60 m. o.c.
GC2		Each	Anthurium Andraeanum	Flamingo Flower	1 gal. @ 0.60 m. o.c.
GC3		Each	Canna Spp	Lirio Cana	1 gal. @ 0.60 m. o.c.
GC4		Each	Clusea Rosea	Cupey Enano	1 gal. @ 0.60 m. o.c.
GC5	50	Each	Commelina Diifusa - Cohitre	Cohitre	6" pot. @ 0.45 m. o.c.
GC6		Each	Browallia Americane	Margarita Morada	6" pot. @ 0.45 m. o.c.
GC7		Each	Callisia Monandra	Cohitre Morado	6" pot. @ 0.45 m. o.c.
GC8	33	Each	Dianella Tasmanica	Liriope Var. Grande	1 gal. @ 0.60 m. o.c.
GC9		Each	Heliconia Psitacorum	Golden Torch	1 gal. @ 0.45 m. o.c.
GC10	33	Each	Heliconia Caribae	Heliconia Nativa	1 gal. @ 0.45 m. o.c.
GC11	15	Each	Heliconia Bihai	Heliconia Nativa	1 gal. @ 0.45 m. o.c.
GC12		Each	Impatiens Walleriana	Miramelinda	6" pot. @ 0.30 m. o.c.
GC13		Each	Iris Amarillis	Iris	6" pot. @ 0.45 m. o.c.
GC14	687	Each	Nephrolepis Biserrata	Helecho Cola de Pescado	6" pot. @ 0.30 m. o.c.
GC15	5	Each	Philodendron Selloum	Monstera	1 gal. @ 0.60 m. o.c.
GC16	70	Each	Ophiopogon Japonicus	Gramma de Mono	6" pot. @ 0.30 m. o.c.
GC17	206	Each	Plumbago Auriculata	Isabel Segunda Azul	1 gal. @ 0.30 m. o.c.
GC18	20	Each	Plumbago Capensis	Isabel Segunda Blanca	1 gal. @ 0.30 m. o.c.
GC19		Each	Hymenocallis Keyensis	Lirio de Playa	6" pot. @ 0.45 m. o.c.
GC20	140	Each	Russelia Equisetiformis	Lluvia de Coral	1 gal. @ 0.45 m. o.c.
GC21	27	Each	Schizocentron Elegans	Mantilla Española	6" pot. @ 0.30 m. o.c.
GC22		Each	Setcreasea Purpurea	Cohitre Lila	6" pot. @ 0.45 m. o.c.
GC23		Each	Spathiphyllum Mauna Loa	Spathiphyllum	1 gal. @ 0.60 m. o.c.
GC24		Each	Spathoglottis	Orquidea Lila	6" pot. @ 0.45 m. o.c.
GC25	563	Each	Vetiveria Zizanoides	Pacholi	6" pot. @ 0.45 m. o.c.
GC26	444	sq. mt.	Arachys Hypogaea	Maní	1" pot. @ 0.30 m. o.c.
GC27		sq. mt.	Eremochloa ophiuroides	Gramma Clenpies	sod

OTHER MATERIALS		DESCRIPTION
KEY	QTY	UNIT
E-1		sq. mt.
E-2		mt.
S-1		sq. mt.
M		
F		

NO.	DATE	DRAWING ISSUE	BY	APP.

DRAWN BY:	
REVIEWED BY:	
DATE:	
SHEET TITLE	
DRAWING NO.	

Appendix F: Site Photos

C&G

115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837



Parque Pasivo - PR-CRP-000873
Site Photos

State Road PR 357
Lat/Lon: 18.181943 -66.980671
Source of Data: USGS



Appendix G: Soil Report



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Mayaguez Area, Puerto Rico Western Part



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Custom Soil Resource Report Soil Map (Parque Pasivo, Maricao)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mayaguez Area, Puerto Rico Western Part
 Survey Area Data: Version 19, Sep 13, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 23, 2022—Mar 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Parque Pasivo, Maricao)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HmF2	Humatas clay, 40 to 60 percent slopes	0.7	75.4%
Uh	Urban land-Humatas complex, 20 to 40 percent slopes	0.2	24.6%
Totals for Area of Interest		0.9	100.0%

Map Unit Descriptions (Parque Pasivo, Maricao)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

Custom Soil Resource Report

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Mayaguez Area, Puerto Rico Western Part

HmF2—Humatas clay, 40 to 60 percent slopes

Map Unit Setting

National map unit symbol: 2tgwr
Elevation: 100 to 2,460 feet
Mean annual precipitation: 54 to 96 inches
Mean annual air temperature: 65 to 90 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Humatas and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Humatas

Setting

Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Clayey residuum weathered from volcanic rock

Typical profile

A - 0 to 4 inches: clay
BC - 19 to 38 inches: clay
C - 38 to 80 inches: clay

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Consumo

Percent of map unit: 10 percent
Landform: Hills on mountains, hillslopes on mountains

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Landform position (three-dimensional): Mountainflank, mountaintop, interfluve, side slope

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Other vegetative classification: Unnamed (G270XZ000PR)

Hydric soil rating: No

Alonso

Percent of map unit: 5 percent

Landform: Ridges

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountaintop, mountainflank

Down-slope shape: Convex

Across-slope shape: Linear, convex

Hydric soil rating: No

Uh—Urban land-Humatas complex, 20 to 40 percent slopes

Map Unit Setting

National map unit symbol: 2yg2n

Elevation: 100 to 2,000 feet

Mean annual precipitation: 54 to 96 inches

Mean annual air temperature: 65 to 90 degrees F

Frost-free period: 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 46 percent

Humatas and similar soils: 44 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydric soil rating: No

Description of Humatas

Setting

Landform: Hillslopes, mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex, linear

Across-slope shape: Linear, convex

Parent material: Clayey residuum weathered from volcanic rock

Typical profile

Ap - 0 to 4 inches: clay

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Bt1 - 4 to 12 inches: clay
Bt2 - 12 to 19 inches: clay
BC - 19 to 38 inches: clay
C - 38 to 80 inches: clay

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Daguey

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, mountaintop
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Consumo

Percent of map unit: 5 percent
Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, mountaintop, interfluve, side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Other vegetative classification: Unnamed (G270XZ000PR)
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Prime and other Important Farmlands (Parque Pasivo, Maricao)

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

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Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

Report—Prime and other Important Farmlands (Parque Pasivo, Maricao)

Prime and other Important Farmlands—Mayaguez Area, Puerto Rico Western Part		
Map Symbol	Map Unit Name	Farmland Classification
HmF2	Humatas clay, 40 to 60 percent slopes	Not prime farmland
Uh	Urban land-Humatas complex, 20 to 40 percent slopes	Not prime farmland

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties (Parque Pasivo, Maricao)

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Custom Soil Resource Report

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves,

Custom Soil Resource Report

numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Custom Soil Resource Report

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Mayaguez Area, Puerto Rico Western Part														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
HmF2—Humatas clay, 40 to 60 percent slopes														
Humatas	85	C	0-4	Clay, silty clay	—	—	0- 0- 0	0- 2- 2	94-98-100	88-96-100	80-94-100	65-80-100	50-52-65	20-21-30
			4-12		—	—	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-94-100	79-85-100	61-63-75	28-34-38
			12-19		—	—	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-95-100	80-86-100	61-73-75	28-37-38
			19-38	Silty clay, clay, silty clay loam	—	—	0- 0- 0	0- 0- 0	98-98-100	96-96-100	84-94-100	67-82-97	52-55-60	20-23-25
			38-80	Silty clay loam, clay, silty clay	—	—	0- 0- 0	0- 0- 0	98-98-100	94-94-100	83-92-100	66-78-96	36-51-60	14-20-25

Custom Soil Resource Report

Engineering Properties—Mayaguez Area, Puerto Rico Western Part														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Uh—Urban land-Humatas complex, 20 to 40 percent slopes														
Humatas	44	C	0-4	Clay, silty clay	ML, CH	A-6, A-4, A-7-6	0- 0- 0	0- 2- 2	94-98-100	88-96-100	80-94-100	65-80-100	38-40-58	9-11-29
			4-12	Clay, silty clay	CH, CL	A-7-6	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-94-100	79-85-100	39-52-68	14-24-36
			12-19	Clay, silty clay	CH, CL	A-7-6	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-95-100	80-86-100	41-54-68	16-26-36
			19-38	Silty clay, clay, silty clay loam, clay loam	CL, CH	A-7-6	0- 0- 0	0- 0- 0	98-98-100	96-96-100	84-94-100	67-82-97	33-42-56	11-18-28
			38-80	Silty clay loam, silty clay, clay, clay loam	CL	A-6, A-7-6, A-4	0- 0- 0	0- 0- 0	98-98-100	94-94-100	83-92-100	66-78-96	29-40-42	8-16-18

Appendix H:
USFWS Conservation Measures for the Puerto Rican
Broad-winged Hawk

Conservation Measures for the Broad-winged hawk (*Buteo platypterus brunnescens*)

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rico broad-winged hawk is subject to penalties under the ESA. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

The Puerto Rican broad-winged hawk is a small hawk with dark chocolate-brown upperparts, heavily streaked rufous breast, and a broadly banded black and white tail. Adult male and female are similar in appearance, but the female is slightly larger. This species occurs in elfin woodland, sierra palm, caimitillo-granadillo, and tabonuco forest types of the Río Abajo Commonwealth Forest, Carite Commonwealth Forest, and El Yunque National Forest as well as within hardwood plantations, shade coffee plantations, and mature secondary forests. The Puerto Rican broad-winged hawk population is estimated at about 125 individuals island-wide.



The broad-winged hawk was federally listed in 1994. The broad-wing prefers to hunt from a perch under the forest canopy for a better view of potential prey in a forest clearing, trail or river below. Each hunting pair requires a range of 40 hectares (98 acres). The Broad-wing builds a nest of sticks in February and March, laying 2 to 4 white/brown-spotted eggs. The female incubates the eggs for almost a month while the male searches for food. The young fledge around April or May about 1 month after hatching and can fly about 6 weeks after hatching. The parents feed the young for a few weeks after they leave the nest. The voice is a high-pitched whistle.

The hawk is an uncommon and local resident in the El Yunque National Forest, the Río Abajo State Forest, and the Toro Negro State Forest.

The US Fish and Wildlife Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the hawk and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented here.

1. For any project activity that involves construction or tree-disturbing activities, all construction workers will be required to participate in environmental awareness training. The training will educate workers on: (a) special-status species that may occur in the work area, (b) procedures

to follow in the event a species is observed, and (c) other environmental BMPs and emergency spill response protocols.

2. All non-emergency work activities will be confined to daylight hours (i.e., sunrise to sunset), unless necessary for assessing or protecting biological resources.
3. Whenever possible, impacts to native nesting birds will be avoided by not conducting Project activities that involve clearing of vegetation, generation of mechanical noise, or tree disturbance during the typical breeding season for this hawk (February and March), if the hawk is determined to be present.
4. If Project activities must be conducted during the nesting bird season, the Contractor will conduct surveys for nesting birds within a 1,000-ft radius of the construction area. If nests are detected, the Contractor will notify the USFWS and establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted by construction. Buffers around active nests will be a minimum of 250 feet, unless a qualified biologist determines that smaller buffers would be sufficient to avoid impacts to nesting birds. Factors to be considered for determining buffer size will include: the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers will be maintained until young have fledged or the nests become inactive.
5. If a broad-winged hawk is found within any of the working or construction areas, activities should stop at that area and information recorded. Designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for additional directions (PRDNER phone #s: ((787) 724-5700, (787) 230-5550, (787) 771-1124).
6. Designated critical habitat within the vicinity of project activities will be identified. All Proposed Project actions will be designed to avoid direct and indirect adverse modifications to these areas. Minimization measures, such as establishing and maintaining buffers around areas of designated critical habitat will be implemented in the event that avoidance is not feasible.
7. If critical habitat may be adversely modified by the implementation of Proposed Project actions, the area to be modified will be evaluated by a qualified biologist to determine the potential magnitude of the project effects (e.g., description of primary constituent elements present and quantification of those affected) at a level of detail necessary to satisfy applicable environmental compliance and permitting requirements. This information shall be submitted to the PRDNER as shown in Number 5 above.
8. Projects must comply with all state laws and regulations. Please contact PRDNER for further guidance.

If you have any questions regarding the above conservation measures, please contact the Service:

- Marelisa Rivera, Deputy Field Supervisor
Email: marelisa_rivera@fws.gov
Office phone (786) 244-0081 or mobile (305) 304-1814
- José Cruz-Burgos, Endangered Species Coordinator
Email: jose_cruz-burgos@fws.gov
Office phone (786) 244-0081 or mobile (305) 304-1386

Appendix I:
USFWS Conservation Measures for the Puerto Rican Parrot

Conservation Measures for the Puerto Rican Amazon (Parrot) (*Amazona vittata*)

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rican Parrot is subject to penalties under the ESA. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

The Puerto Rican amazon (*Amazona vittata*), also known as the Puerto Rican parrot (Puerto Rican Spanish: cotorra puertorriqueña) or iguaca, is the only extant parrot endemic to the archipelago of Puerto Rico and belongs to the Neotropical genus *Amazona*. Measuring 28–30 cm (11.0–11.8 in), the bird is a predominantly green parrot with a red forehead and white rings around the eyes.



The parrot was federally listed as endangered in 1967. The parrot reaches sexual maturity at between three and four years of age. It reproduces once a year (between the months of February to June) and is a cavity nester. Once the female lays eggs, she will remain in the nest and continuously incubate them until hatching (about 24 to 28 days). The chicks are fed by both parents and will fledge 60 to 65 days after hatching. This parrot's diet is varied and consists of flowers, fruits, leaves, bark and nectar obtained from the forest canopy.

The species is the only remaining native parrot to Puerto Rico and has been listed as critically endangered by the World Conservation Union since 1994. Once widespread and abundant, the population declined drastically in the 19th and early 20th centuries with the removal of most of its native habitat; the species has completely vanished from Vieques and Mona Island. Conservation efforts commenced in 1968 to save the bird from extinction. The habitat of the parrot is generally identified as

the Palo Colorado, Palma de Sierra, and Tabonuco forests types of the upper zones of the Luquillo Mountains within the El Yunque National Forest.

The US Fish and Wildlife Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the hawk and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented here.

1. For any project activity that involves construction or tree-disturbing activities, all construction workers will be required to participate in environmental awareness training. The training will educate workers on: (a) special-status species that may occur in the work area, (b) procedures to follow in the event a species is observed, and (c) other environmental BMPs and emergency spill response protocols.
2. All non-emergency work activities will be confined to daylight hours (i.e., sunrise to sunset), unless necessary for assessing or protecting biological resources.
3. Whenever possible, impacts to native nesting birds will be avoided by not conducting Project activities that involve clearing of vegetation, generation of mechanical noise, or tree disturbance during the typical breeding season for this parrot (January to July), if the parrot is determined to be present. The parrot selects a large, deep tree cavity, usually in a Palo Colorado tree. The parrot normally does not build its own nest but, many times, parrot biologists do build artificial cavities that are accepted by the parrot. A check with DNER should occur if large Palo Colorado trees are in the general construction area.
4. If Project activities must be conducted during the nesting bird season, the Contractor will conduct surveys for nesting birds within a 1,000-ft radius of the construction area. If nests are detected, the Contractor will notify the DNER and establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted by construction. Buffers around active nests will be a minimum of 250 feet, unless a qualified biologist determines that smaller buffers would be sufficient to avoid impacts to nesting birds. Factors to be considered for determining buffer size will include: the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers will be maintained until young have fledged or the nests become inactive.
5. If a parrot is found within any of the working or construction areas, activities should stop at that area and information recorded. Designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for additional directions (PRDNER phone #s: ((787) 724-5700, (787) 230-5550, (787) 771-1124).
6. Designated critical habitat within the vicinity of project activities will be identified. All Proposed Project actions will be designed to avoid direct and indirect adverse modifications to these

areas. Minimization measures, such as establishing and maintaining buffers around areas of designated critical habitat will be implemented in the event that avoidance is not feasible.

7. If critical habitat may be adversely modified by the implementation of Proposed Project actions, the area to be modified will be evaluated by a qualified biologist to determine the potential magnitude of the project effects (e.g., description of primary constituent elements present and quantification of those affected) at a level of detail necessary to satisfy applicable environmental compliance and permitting requirements. This information shall be submitted to the PRDNER as shown in Number 5 above.
8. Projects must comply with all state laws and regulations. Please contact PRDNER for further guidance.

If you have any questions regarding the above conservation measures, please contact the Service:

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Email: marelisa_rivera@fws.gov
Office phone (786) 244-0081 or mobile (305) 304-1814
- José Cruz-Burgos, Endangered Species Coordinator
Email: jose_cruz-burgos@fws.gov
Office phone (786) 244-0081 or mobile (305) 304-1386

Appendix J:
USFWS Conservation Measures for the Sharp-shinned Hawk

Conservation Measures for the Sharp-shinned hawk (*Accipiter striatus venator*)

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rico sharp-shinned hawk is subject to penalties under the ESA. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

The Puerto Rican sharp-shinned hawk is a small hawk measuring approximately 28 to 33 centimeters (11 to 13 inches). The dark slate gray upper parts and heavily barred rufous underparts of the adults are distinctive. Immatures are brown above and heavily streaked below. It has short, squared tail, often appearing notched when folded, and small head and neck. In flight, the short, rounded wings and long, narrow tail is characteristic. Adult males and females are similar in appearance, but the female is larger. The SSHA in Puerto Rico exhibits insular population traits, including small clutches, low productivity, and extended breeding periods. Historic information described this species as rare, uncommon, and occurring in restricted habitats in small numbers.



The sharp-shinned hawk was federally listed as endangered in 1994. The results of comprehensive population surveys suggest a decline of the island-wide population from 150 individuals in 1992 to about 100 individuals in 2016. In addition, a significant decline of this species have been reported in the Toro Negro Commonwealth Forest (TNCF) and Maricao Commonwealth Forest (MCF), which were previously considered the center of distribution of this species in Puerto Rico. Studies estimated the population of MCF as just 8 individuals and the population in TNCF as 26 individuals indicating a population decline of 53% and 86% in TNCF and MCF, respectively.

The US Fish and Wildlife Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the hawk and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented here.

1. For any project activity that involves construction or tree-disturbing activities, all construction workers will be required to participate in environmental awareness training. The training will educate workers on: (a) special-status species that may occur in the work area, (b) procedures to follow in the event a species is observed, and (c) other environmental BMPs and emergency spill response protocols.
2. All non-emergency work activities will be confined to daylight hours (i.e., sunrise to sunset), unless necessary for assessing or protecting biological resources.
3. Whenever possible, impacts to native nesting birds will be avoided by not conducting Project activities that involve clearing of vegetation, generation of mechanical noise, or tree disturbance during the typical breeding season for this hawk (March and April), if the hawk is determined to be present.
4. If Project activities must be conducted during the nesting bird season, the Contractor will conduct surveys for nesting birds within a 1,000-ft radius of the construction area. If nests are detected, the Contractor will notify the USFWS and establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted by construction. Buffers around active nests will be a minimum of 250 feet, unless a qualified biologist determines that smaller buffers would be sufficient to avoid impacts to nesting birds. Factors to be considered for determining buffer size will include: the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers will be maintained until young have fledged or the nests become inactive.
5. If a sharp-shinned hawk is found within any of the working or construction areas, activities should stop at that area and information recorded. Designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for additional directions (PRDNER phone #: ((787) 724-5700, (787) 230-5550, (787) 771-1124).
6. Designated critical habitat within the vicinity of project activities will be identified. All Proposed Project actions will be designed to avoid direct and indirect adverse modifications to these areas. Minimization measures, such as establishing and maintaining buffers around areas of designated critical habitat will be implemented in the event that avoidance is not feasible.
7. If critical habitat may be adversely modified by the implementation of Proposed Project actions, the area to be modified will be evaluated by a qualified biologist to determine the potential magnitude of the project effects (e.g., description of primary constituent elements present and quantification of those affected) at a level of detail necessary to satisfy applicable

environmental compliance and permitting requirements. This information shall be submitted to the PRDNER as shown in Number 5 above.

8. Projects must comply with all state laws and regulations. Please contact PRDNER for further guidance.

If you have any questions regarding the above conservation measures, please contact the Service:

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Email: marelisa_rivera@fws.gov
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- José Cruz-Burgos, Endangered Species Coordinator
Email: jose_cruz-burgos@fws.gov
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Appendix K:
USFWS Conservation Measures for the Puerto Rican Boa

U.S. Fish & Wildlife Service

General Project Design Guidelines (1 Species)

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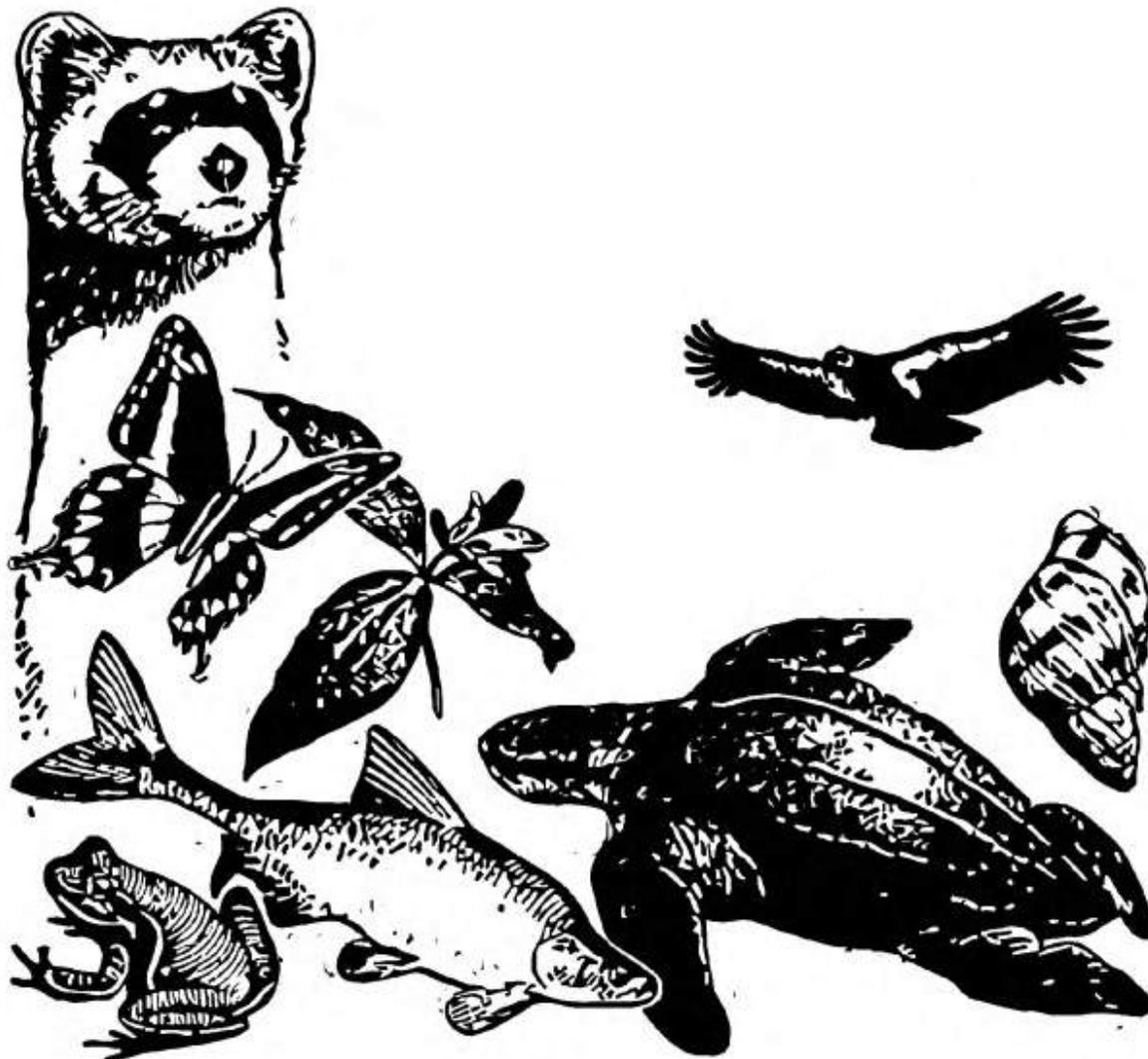


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Species Document Availability

Species with general design guidelines

Puerto Rican Boa *Chilabothrus inornatus*

Species without general design guidelines available

Cordia alliodora

Elfin-woods Warbler *Setophaga angelae*

Gesneria pauciflora

Higuero De Sierra *Crescentia portoricensis*

Puerto Rican Broad-winged Hawk *Buteo platypterus brunnescens*

Puerto Rican Harlequin Butterfly *Atlantea tulita*

Puerto Rican Nightjar *Antrostomus noctitherus*

Puerto Rican Parrot *Amazona vittata*

Puerto Rican Sharp-shinned Hawk *Accipiter striatus venator*

General Project Design Guidelines - Puerto Rican Sharp-shinned Hawk and 9 more species

Published by Caribbean Ecological Services Field Office for the following species included in your project

Puerto Rican Sharp-shinned Hawk *Accipiter striatus venator*

Gesneria pauciflora

Cordia alliodora

Elfin-woods Warbler *Setophaga angelae*

Puerto Rican Nightjar *Antrostomus noctitherus*

Puerto Rican Parrot *Amazona vittata*

Higuero De Sierra *Crescentia portoricensis*

Puerto Rican Harlequin Butterfly *Atlantea tulita*

Puerto Rican Boa *Chilabothrus inornatus*

Puerto Rican Broad-winged Hawk *Buteo platypterus brunnescens*

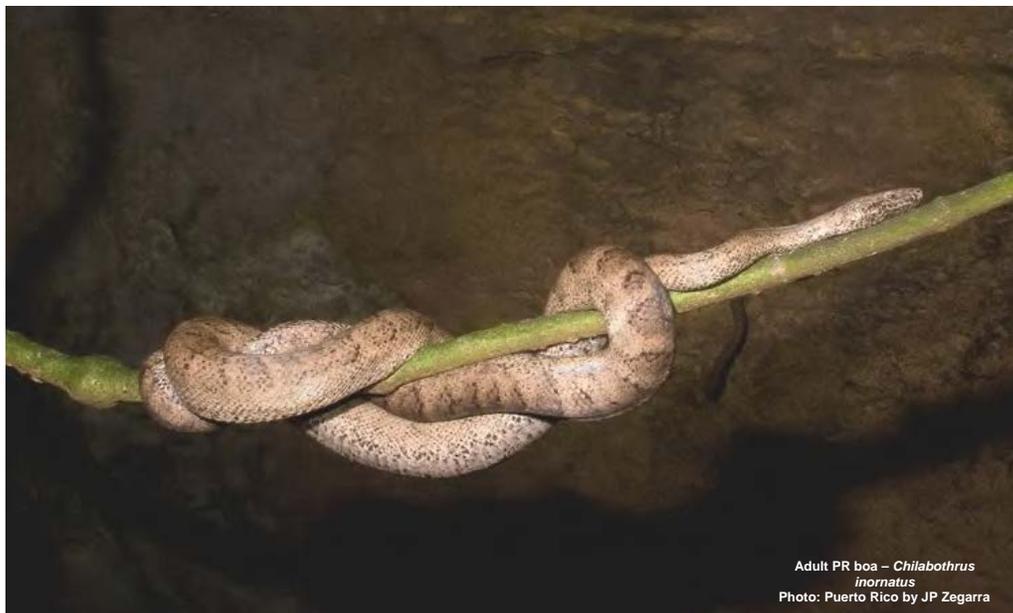


U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

Conservation Measures for the Puerto Rican boa (*Chilabothrus inornatus*)

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rico boa is subject to penalties under the ESA. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

The endangered Puerto Rican (PR) boa (*Chilabothrus inornatus*, formerly *Epicrates inornatus*) is the largest endemic snake species that inhabits Puerto Rico. The PR boa is non-venomous and does not pose any life threatening danger to humans, but some individuals may try to bite if disturbed or during capture or handling. Its body color ranges from tan to dark brown with irregular diffuse marking on the dorsum, but some individuals lack marking and are uniformly dark. Juveniles may have a reddish color with more pronounced markings. In general, as they mature, their body color tends to darken.



The Puerto Rican boa was federally listed in 1970. Currently, the species has an island-wide distribution and occurs in a wide variety of habitat types ranging from wet montane to subtropical dry forest, and can be found from mature forest to areas with different degrees of human disturbance like roadsides or houses, especially if near their habitat in rural areas. This boa is considered mostly nocturnal, remaining less active, concealed or basking under the sun during the day.

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the PR boa and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented in this document.

Conservation Measures:

1. Inform all project personnel about the potential presence of the PR boa in areas where the proposed work will be conducted. A pre-construction meeting should be conducted to inform all project personnel about the need to avoid harming the species as well as penalties for harassing or harming PR boas. An educational poster or sign with photo or illustration of the species should be displayed at the project site.
2. Prior to any construction activity, including removal of vegetation and earth movements, the boundaries of the project and areas to be excluded and protected should be clearly marked in the project plan and in the field in order to avoid further habitat degradation into forested and conservation areas.
3. Once areas are clearly marked, and prior to the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), a biologist or personnel with experience on this species should survey the areas to be cleared to verify the presence of any PR boa within the work area.
4. The PR boa is considered more active at night. Thus, in order to maximize its detection, the species should be searched at nights prior to habitat disturbance.
5. Once the area has been searched for PR boas, vegetation should first be cleared by hand to the maximum extent possible. Vegetation should be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow boas present on site to move away on their own to adjacent available habitat. Any stone walls or naturally occurring rock piles must be carefully dismantled by hand as these are refuges for the snake. This will allow any boas present to vacate the site without injury.
6. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. PR boa data should also include a photo of the animal (dead or alive), site GPS coordinates, the time and date, and comments on how the animal was detected and its behavior.

7. If a PR boa is found within any of the working or construction areas, activities should stop at that area and information recorded (see #6). **Do not capture the boa.** If boas need to be moved out of harm's way, designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: ((787) 724-5700, (787) 230-5550, (787) 771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue.
8. If a PR boa is captured by the PRDNER, record the name of the PRDNER staff and information on where the PR boa will be taken. This information should be reported to the Service.
9. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal (see #7). If not possible, the animal should be left alone until it leaves the vehicle on its own.
10. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future.
11. If a dead PR boa is found, immediately cease all work in that area and record the information accordingly (see #6). If the PR boa was accidentally? killed as part of the project actions, please include information on what conservation measures had been implemented and what actions that will be taken to avoid further killings. A dead boa report should be sent by email (see contacts below) to the Service within 48 hours of the event.
12. Projects must comply with all state laws and regulations. Please contact the PRDNER for further guidance.

If you have any questions regarding the above conservation measures, please contact the Service:

- Marelisa Rivera, Deputy Field Supervisor
 - Email: marelisa_rivera@fws.gov
 - Office phone (786) 244-0081 or mobile (305) 304-1814
- José Cruz-Burgos, Endangered Species Coordinator
 - Email: jose_cruz-burgos@fws.gov
 - Office phone (786) 244-0081 or mobile (305) 304-1386

Appendix L:

Flora and Fauna Parque Pasivo de Maricao

FLORA
AND
FAUNA SURVEY for
PARQUE PASIVO IMPROVEMENTS
Maricao, Puerto Rico
FEBRUARY-2024

Prepared for::

C + G JMCP +
JLGARCHITECTS

Prepared by:



alejandro@reforesta.com

PR-CRP-000873 Parque Pasivo, PR 357 km. 0.0, Maricao, PR 00606

Coordinates: 18.181943 -66.980671

Introduction and Study Area - As part of the Municipality of Maricao's city rehabilitation program following the Hurricanes of 2017, a landscape engineering company will be conducting improvements for the rehabilitation of the town's Parque Pasivo. The aim is for the Parque Pasivo to be a place of recreation for residents and visitors alike, while providing a pedestrian connection corridor to help reinvigorate downtown Maricao. Part of the environmental evaluation of the site requires a flora and fauna survey. The present document presents and discusses the results of such survey, along with some recommendations for the landscape architect.

The "Parque Pasivo" is in the central part of downtown Maricao, wedged between roads PR-120 to the East and PR-357 (Camino Las Vegas) to the West (Appendix 1). The park is a narrow polygon of roughly rectangular shape with the long side running almost North to South and limited on the West by the Maricao River (appears as Rio Rosario in Google Earth). The park is contiguous to the Residencial Juan Ferrer on its Eastern side. Both Northern and Southern limits of the park are narrow; the Southern limit is a stream affluent to the Maricao River while the Northern limit has a vegetated fence separating the park from a constructed lot of unknown use. The park is accessible from the sidewalk along Camino Las Vegas, through a metal bridge which crosses over the river; it is also potentially accessible from the Residencial Juan Ferrer

Methodology - To conduct the flora and fauna survey I visited the Parque Pasivo as early as I could on Wednesday January 24th. I arrived to downtown Maricao just before 8am, parked by the police station, and walked to the Parque Pasivo. It was a relatively warm morning, reaching the 80 Fahrenheit well before Noon. The following day would be New Moon. When I left downtown Maricao shortly after 1:00 PM it had started raining lightly.

To access the park, I walked south along the sidewalk next to PR-357 and crossed the Maricao River using the metal bridge part of the park. All areas of the park were visited, and all trees and vegetated areas were inspected for wildlife and for species identification. Initially I walked the existing sidewalk of the park and visited its structures, gazebos and restroom as a normal tourist would. Next, I walked the actual boundaries and limits of the park as best as possible, including the water edges associated to the Maricao River. Throughout the park most rocks, logs and other debris were inspected for wildlife and fungi. Tree trunks and branches were inspected with binoculars for epiphytes and wildlife. Birds were identified by sight and sound. The walking and exploring part of the survey was completed in two and a half hours. Afterwards I chose four spots spread throughout the park and sat for 30 minutes on each to look for birds and wildlife, for an additional two hours of monitoring.

All species of plants found except *Odontonema cuspidatum* were photographed and uploaded to iNaturalist for record keeping and peer examination. The data was uploaded publicly so a visit to iNaturalist in the locality of the Parque Pasivo will demonstrate the location and identification of the species considered in this report. Not all plant individuals were photographed and included to iNaturalist. I was constantly surveying for wildlife, but this report is very limited with regards to animals because of the nature of the visit, and particularly due to the environmental conditions (i.e., too dry,

particularly for amphibians, fungi and epiphytes). The only wildlife included into iNaturalist were those with photographic evidence.

Floral Survey – The survey identified a total of sixty-six species of plants present in the Parque Pasivo. At least thirty-one of these were cultivated in the park for ornamental purposes, and four of these should bear edible fruit: Indian Almond, Avocado, Breadfruit, and Banana. Interestingly another thirty-one species (almost half of the total) are present due to natural dispersal in most cases mediated by birds and/or bats. This is a testament to the proximity of the park to forested coffee fincas and protected natural areas. It also evidences that more wildlife than was observed that day visits the park. Twenty-three species of trees are present in the park along with the arborescent bamboo (present at both Northern and Southern boundaries of the park and associated to the edges of the streams). Thirteen of the species represent old, cultivated trees part of the original park's landscaping; of these ten species are exotics of little importance to native wildlife. Three of these exotics are recruiting naturally within the park: Indian Almond, Indian Padauk, and Flamboyant, while two (Queen of the Flowers and Kamani) may be sending fruits and seeds downstream. Of the cultivated trees there is only three native species represented: one Maga, one young/resprouting Maricao, and various Maria trees—the most numerous and conspicuous of the natives. Throughout the park and particularly within and between herbaceous covers and vegetation aggregations there are young saplings of at least seven native tree species. All these native tree species represent resources and habitat for native wildlife. Living up on the trees are at least seven species of herbaceous epiphytes (bromeliads, orchids, cacti, ferns, etc.) and one hemi epiphytic native tree (i.e., Cupey). All these epiphytes were dispersed naturally into the park. There three other conspicuous exotic epiphytes (Devil's Ivy, Arrowhead Vine and a Bromelia); of these the bromelia was certainly cultivated as an ornamental while the other two could have arrived naturally. Aside from trees, there are seventeen species of shrubs present: twelve of these are cultivated ornamentals while five species are natives brought in by wildlife. A native shrub (red hot peppers) and an herb (PR Coriander) dispersed naturally into the site. Hot peppers are common food of Red Legged Thrushes and PR Spindalis for example. Five species of ferns were identified in the park and all of them were dispersed naturally into the park. The only grass/groundcover identified was the Broadleaf Carpet Grass and it is only doing well in part of the park. Most areas of the park have almost barren ground devoid of vegetated cover.

Following is a table with all the plant species identified at the Maricao Parque Pasivo:

Botanical Family	Scientific Name	Common Name	Life Form	Species Origin	Plant Proccedence
Araceae	<i>Synonium podophyllum</i>	Arrowhead Vine / Malanga Trepadora	Vine-Epiphyte	Exotic	
	<i>Alocasia macrorrhizos</i>	Giant Alocasia / Panama	Herb	Exotic	Cultivated
	<i>Epipremnum aureum</i>	Golden Pothos, Devil's Ivy	Vine-Epiphyte	Exotic	Cultivated
Asparagaceae	<i>Anthurium scandens</i>	Guinda	Herbaceous-Epiphyte	Native	Natural Dispersal
	<i>Cordyline fruticosa</i>	Common Dracaena / Bayoneta	Herbaceous Shrub	Exotic	Cultivated
	<i>Dracaena fragrans</i>	Indian Cane / Cocomacaco	Herbaceous Shrub	Exotic	Cultivated
Hypoxidaceae	<i>Molineria capitulata</i>	Palmgrass	Herbaceous Shrub	Exotic	Cultivated
Orchidaceae	<i>Polystachya concreta</i>	Greater Yellospike Orchid	Herbaceous Epiphyte	Native	Natural Dispersal
Bromeliaceae	<i>Bilbergia pyramidalis</i>	Bromelia Santa Teresa	Groundcover/Epiphyte	Exotic	Cultivated
	<i>Guzmania monostachia</i>	Variiegated Tufted Airplant / Bromelia	Herbaceous Epiphyte	Native	Natural Dispersal
	<i>Tillandsia fasciculata</i>	Giant Airplant / Bromelia	Herbaceous Epiphyte	Native	Natural Dispersal
Cyperaceae	<i>Tillandsia utriculata</i>	Spreading Airplant / Bromelia	Herbaceous Epiphyte	Native	Natural Dispersal
	<i>Cyperus alternifolius</i>	Sedge / Junco	Herb	Native	Natural Dispersal
Poaceae	<i>Cyperus odoratus</i>	Fragrant Flatsedge / Junco	Herb	Native	Natural Dispersal
	<i>Bambusa vulgaris</i>	Bamboo / Bambu	Arborescent Grass	Exotic	Cultivated
Costaceae	<i>Axonopus compressus</i>	Broadleaf Carpet Grass / Yerba Alfombra	Herb (grass)	Exotic	Cultivated
	<i>Costus pictus</i>	Spiral Flag / Caña Agria	Herbaceous Shrub	Exotic	Cultivated
Heliconiaceae	<i>Heliconia bihai</i>	Heliconia Bihai	Herbaceous Shrub	Native	Cultivated
	<i>Heliconia psittacorum</i> × <i>spathocircinata</i>	Heliconia	Herbaceous Shrub	Exotic	Cultivated
Musaceae	<i>Musa acuminata</i>	Banana / Guineo	Herbaceous Shrub	Exotic	Cultivated
Zingiberaceae	<i>Alpinia vittata</i>	Variiegated Ginger	Herbaceous Shrub	Exotic	Cultivated
Apiaceae	<i>Eryngium foetidum</i>	PRCoriander / Recao	Herb	Native	Natural Dispersal
Araliaceae	<i>Dendropanax arboreus</i>	Palo de Cachimba	Tree	Native	Natural Dispersal
	<i>Didymopanax morototoni</i>	Yagrumo Macho	Tree	Native	Natural Dispersal
Asteraceae	<i>Mikania micrantha</i>	Guaco Falso	Vine	Native	Natural Dispersal
Boraginaceae	<i>Cordia sulcata</i>	White Manjac / Moral	Tree	Native	Natural Dispersal
Cactaceae	<i>Rhipsalis baccifera</i>	Mistletoe Cactus / Barbas de Palo	Herbaceous Epiphyte	Native	Natural Dispersal
Begoniaceae	<i>Begonia nelumbifolia</i>	Lilypad Begonia	Herb	Exotic	Cultivated
Fabaceae	<i>Delonix regia</i>	Flamboyant	Tree	Exotic	Cultivated & ND
	<i>Bauhinia purpurea</i>	Palo de Orquideas	Tree	Exotic	Cultivated
	<i>Andira inermis</i>	Angelin Tree / Moca	Tree	Native	Natural Dispersal
	<i>Pterocarpus indicus</i>	Indian Padauk / Terocarpo	Tree	Exotic	Cultivated & ND
	<i>Inga laurina</i>	Sackysac Bean / Guama	Tree	Native	Natural Dispersal
	<i>Inga vera</i>	Guaba	Tree	Native	Natural Dispersal
Apocynaceae	<i>Allamanda cathartica</i>	Canario	Herb	Exotic	Cultivated
Acanthaceae	<i>Sanchezia parvibracteata</i>	Variiegated Sanchezia	Herbaceous Shrub	Exotic	Cultivated
	<i>Odontonema cuspidatum</i>	Firespike / Coral de Jardin	Herbaceous Shrub	Exotic	Cultivated?
Bignoniaceae	<i>Spathodea campanulata</i>	African Tulip Tree / Meaito	Tree	Exotic	Cultivated & ND
Lamiaceae	<i>Clerodendrum quadriloculare</i>	Starburst Bush / Lluvia de Estrellas	Shrub	Exotic	Cultivated
Lauraceae	<i>Persea americana</i>	Avocado / Aguacate	Tree	Exotic	Cultivated
Calophyllaceae	<i>Calophyllum brasiliense</i>	Palo de Maria	Tree	Native?	Cultivated
	<i>Calophyllum inophyllum</i>	Kamani / Santa Maria	Tree	Exotic	Cultivated
Clusiaceae	<i>Clusia rosea</i>	Pitch Apple / Cupey	Hemi-Epiphyte Tree	Native	Natural Dispersal
Euphorbiaceae	<i>Codiaeum variegatum</i>	Garden Croton / Croton de Jardin	Shrub	Exotic	Cultivated
Malpighiaceae	<i>Byrsonima spicata</i>	Maricao	Tree	Native	Cultivated
Passifloraceae	<i>Passiflora suberosa</i>	Passionflower / Fior de Pasion	Vine	Native	Natural Dispersal
Malvaceae	<i>Thespesia grandiflora</i>	Maga	Tree	Endemic	Cultivated
Combretaceae	<i>Terminalia catappa</i>	Indian Almond Tree / Almendro	Tree	Exotic	Cultivated & ND
Lythraceae	<i>Lagerstroemia speciosa</i>	Queen of Flowers / Reina de las Flores	Tree	Exotic	Cultivated
Melastomataceae	<i>Miconia laevigata</i>	Camasey de Paloma	Shrub	Native	Natural Dispersal
	<i>Miconia umbellata</i>	Camasey Terciopelo	Shrub	Native	Natural Dispersal
Myrtaceae	<i>Psidium guajava</i>	Guava / Guayaba	Shrub	Exotic	Cultivated?
Piperaceae	<i>Piper amalago</i>	Sootsoot / Higuillo de Limon	Shrub	Native	Natural Dispersal
Moraceae	<i>Artocarpus altilis</i>	Breadfruit Tree / Pana	Tree	Exotic	Cultivated
	<i>Ficus kurzii</i>	Ficus	Tree	Exotic	Cultivated
Urticaceae	<i>Cecropia schreberiana</i>	Trumpet Tree / Yagrumo Hembra	Tree	Native	Natural Dispersal
Meliaceae	<i>Guarea guidonia</i>	American Muskwood / Guaraguao	Tree	Native	Natural Dispersal
Rutaceae	<i>Zanthoxylum martinicense</i>	Prickly Ash / Cenizo	Tree	Native	Natural Dispersal
Sapindaceae	<i>Cupania americana</i>	Guara	Tree	Native	Natural Dispersal
Solanaceae	<i>Capsicum frutescens</i>	Ped Pepper / Aji Picante	Shrub	Native	Natural Dispersal
	<i>Solanum torvum</i>	Turkey Berry / Berenjena Cimarrona	Shrub	Native	Natural Dispersal
Aspleniaceae	<i>Nephrolepis brownii</i>	Asian Swordfern	Herbaceous Fern	Exotic	Cultivated?
	<i>Campyloneurum phyllitidis</i>	Long Strapfern / Helecho	Epiphytic Fern	Native	Natural Dispersal
	<i>Pleopeltis polypodioides</i>	Resurrection Fern / Doradilla	Epiphytic Fern	Native	Natural Dispersal
	<i>Adiantum latifolium</i>	Broadleaf Maidenhair	Herbaceous Fern	Native	Natural Dispersal
	<i>Adiantum pyramidale</i>	Pyramid Maidenhair / Helecho de Pozo	Herbaceous Fern	Native	Natural Dispersal

Faunal Survey – As mentioned before, the survey was limited due to the time of monitoring and to the weather conditions prior to the visit. The weather had been unusually dry, and this forces amphibians and reptiles into deep hiding. Few of the plants had open flowers and/or fruit at the time of the visit. Of thirteen species of birds identified most were native species, with two endemics (Emerald Hummingbird and PR Woodpecker) a resident migrant (Black whiskered Vireo). Even though the survey was conducted during migratory bird season, no nonnative migratory species were identified. Four bird species present are considered exotic (Venezuelan Troupial, Bronze Mannikin, Rock Pigeon, and Red Junglefowl); the last species is becoming a feral problem around the island and is also a menace to native reptiles, amphibians and arthropods living on the ground and in the leaf litter. Another species with feral potential seen within the park is the house cat. These are known predators of various native wildlife and may also represent a public health issue due to their excretions and potential diseases.

Following is a table with all animal species identified at Parque Pasivo:

Animal Group	Scientific Name	Common Name	Origin	Comments
Mammals	<i>Felis catus</i>	Cat	Exotic	Seems to be stray from neighbor
Birds	<i>Coereba flaveola</i>	Bananaquit / Peinita	Native	
	<i>Vireo altiloquus</i>	Black Whiskered Vireo / Julian Chivi	Native-migratory	Heard nearby
	<i>Quiscalus niger</i>	West Indian Grackle / Chango	Native	
	<i>Icterus icterus</i>	Turpial	Exotic	
	<i>Tyrannus dominicensis</i>	Kingbird / Pitirre	Native	
	<i>Patagioenas squamosa</i>	Paloma Turca	Native	Seen nearby
	<i>Zenaida asiatica</i>	Tortola Aliblanca	Native	
	<i>Columba livia</i>	Rock Pigeon	Exotic	
	<i>Spermestes cucullata</i>	Bronze Mannikin / Pandillerito	Exotic	
	<i>Piccordia maugaeus</i>	PREmerald Hummingbird / Zumbadorcito	Endemic	
	<i>Melanerpes portoricensis</i>	Carpintero	Endemic	Heard nearby
	<i>Turdus plumbeus</i>	Red Legged Thrush / Zorzal Patas Coloradas		
	<i>Gallus gallus</i>	Red Junglefowl / Gallinas	Exotic	
Reptiles	<i>Anolis cristatellus</i>	Lagartijo Crestado	Native	
	<i>Anolis stratulus</i>	Lagartijo Manchado	Native	
	<i>Pholidoscelis exsul</i>	Sguana Comun	Native	
Amphibians	<i>Eleutherodactylus antillensis</i>	Coqui Churi	Native	Under log
	<i>Eleutherodactylus coqui</i>	Coqui Comun		Inside bromelia
	<i>Leptodactylus albilabris</i>	Panita de Labio Blanco	Native	Under cement slab
	<i>Rhinella marina</i>	Sapo Comun	Exotic	Tadpoles by stream
Arthropods	<i>Cyrtopholis portoricae</i>	PR Ground Tarantula / Arana Pelua	Endemic	Many burrows particularly we
Gastropods	<i>Caracollus caracola</i>	Giant Snail	Endemic	Only one seen
	<i>Bulimulus guadalupensis</i>		Native?	

Discussion and Recommendations – One of the main goals of the park is to provide a place for recreation for people. However, we should also consider the parks importance for the local and native wildlife and biodiversity. The town of Maricao is located within a river valley surrounded by forested coffee fincas, parks and protected natural areas. The nearby reserves harbor a special local biodiversity associated to serpentine soils. Maricao is least populated municipality in mainland Puerto Rico with less than 6,500 people according to the 2000 census. Nature is certainly important in Maricao. For this reason, we believe that the Parque Pasivo’s new landscaping should be ecological, that is, focusing on native species of trees, shrubs, and herbs to provide resources and habitat for native wildlife. Native species are better suited and adapted to the local environment and prove to be more resistant and resilient to natural disasters such as storms and hurricanes. Another conservation aspect to consider is the recent introduction of the PR Parrot to the Maricao area. At this moment Protectores de Cuencas is leading a reforestation program in private lands to provide native foods for the PR Parrot population. The Parque Pasivo’s new landscaping can be part of this conservation effort by planting trees and shrubs that attract and feed the PR parrot. Aside from reforestation and wildlife resource support, the landscaping must assist in soil protection, erosion control, and flood protection. The border of the Maricao River should be planted with a riparian vegetation buffer; this may require the placement of rocks or stabilizing/supporting structures for the tree’s roots. Big patches of the park’s ground are barren or almost so. Only one exotic grass was identified in the area; we recommend that other grasses should be considered as well potential native ground covers such as *Callisia repens*. An important aspect to consider while conducting improvements in the park is that most ground dwelling wildlife in the form of reptiles, amphibians, and arthropods, lives underneath and within sidewalks, rocks, logs, and vegetative debris. We recommend to move/remove such elements with caution and preferably in presence of a person willing and able to rescue displaced animals.

Resources Used for Species Names and IDs –

Online Resource from Institute of Regional Conservation: Gann GD, Trejo-Torres JC & Stocking CG. (2015-2020). Plantas de la Isla de Puerto Rico. The Institute for Regional Conservation. Delray Beach, Florida, USA

Online Application iNaturalist

Online Application from Cornell University Merlin Bird ID

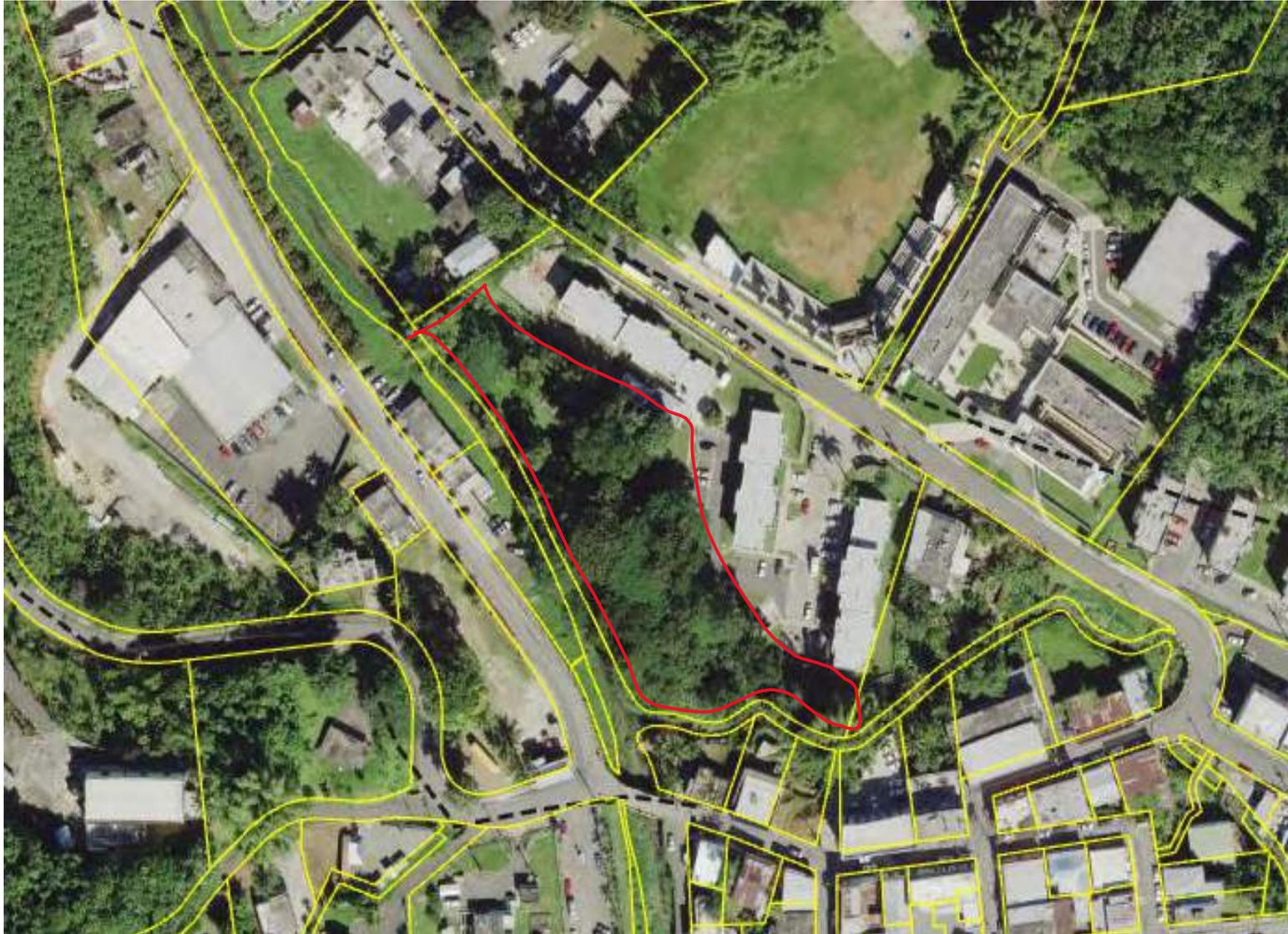
Prepared by:

Roberto Bello and Alejandro Cubiñá



February 14, 2024

Appendix 1 -Study Area Location



(1)



Western Boundary of Park

Created: Wed, 2/7/2024

Pictures from sidewalk along PR-357

(2)



Eastern Boundary with Residencial Juan Ferrer

Created: Wed, 2/7/2024

This side is cyclone fenced. Notice there's a Caribbean Pine planted on the Residencial parking lot next to the fence. Needles and acorns are present on the park floor and part of leaf litter. On the North part of the park and next to the fence there's vegetative debris dumped from the Residencial.

(3)



Southern Side of the Park

Created: Wed, 2/7/2024

Notice the barren and exposed terrain which needs to be stabilized and/or planted. Also notice the drainage from the Residencial into the affluent stream

(4)



Northern Side of the Park

Created: Wed, 2/7/2024

There relatively dense vegetation, with bamboo as normally associated with stream and river banks. Some trees here are resprouts of trees affected by Hurricane Maria. There are also young tree tecruitment of some of the park's cultivated species such as Padauk, Flamboyan and Almond Tree. Other young trees and seedlings are native species naturally dispersed into the site.

(5)



Entrance to Bridge

Created: Wed, 2/7/2024

Notice barren edge to the river. This riparian area can be improved for planting proper native trees to help support the banks during flood events. Notice drainage from the street and associated vegetation.

(6)



Internal Sidewalks and Steps

Created: Wed, 2/7/2024

(7)

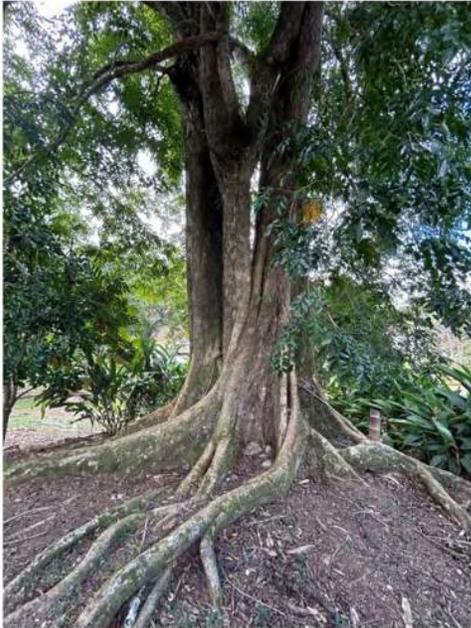


Hurricane Tree Damage on Northern Part

Created: Wed, 2/7/2024

Notice the logs on the ground represent habitat for wildlife. Caution is advised when moving logs, rocks and vegetative debris. There may be reptiles, amphibians and arthropods in these habitats.

(8)



Big Cultivated Trees

Created: Wed, 2/7/2024

The park has some large specimens of planted trees. The largest are Padauk, Flamboyant, African Tulip and Calophyllum sps.

(9)



Sparse Groundcover Grasses

Created: Wed, 2/7/2024

Only one main grass was identified. A native groundcover as *Callisia repens* may be used in various areas, particularly near root systems.

(10)



Maricao River Edges

Created: Wed, 2/7/2024

Riparian zone needs stabilization/supports for planting of appropriate native vegetation

(11)



Maricao River

Created: Wed, 2/7/2024

The Parque Pasivo lies by the edge of the river but it's located relatively near the origin of the hydrologic basin. The river at this point flows clear with relatively little water. However in this area the river receives affluent streams and drainages and this can flood considerably during heavy rain events. On the day of the visit there little wildlife visible.

(12)



It Was Very Dry the Day of the Visit

Created: Wed, 2/7/2024

This most affected the wildlife survey

(13)



Young Native Trees Naturally Dispersed into the Park

Created: Wed, 2/7/2024

Guaraguao, Guara, Guaba, Guama, Cenizo, María, Yagrumo Hembra, Yagrumo Macho, Palo de Cachimba are all species brought to the site by wildlife, particularly birds and bats. These species give an indication of appropriate species to plant on the site. These and other native species will improve the biodiversity component in the park.

(14)



Native Shrubs Naturally Dispersed into the Park

Created: Wed, 2/7/2024

Miconia and Piper sps. are important foods for wildlife, particularly birds and bats. Miconia are also cherished by the PR Parrot, a possible future visitor.

Landscaping must consider native species in order to attract pollinators and other wildlife.

(15)



Edible Species Present

Created: Wed, 2/7/2024

There are at least four species cultivated in the park which bear fruit: Indian Almond tree, Avocados, Breadfruit trees and Bananas. There's also a small Guava tree of unknown procedence, and two native species which seem to have dispersed naturally: there's PR coriander and red hot peppers (at least five bushes probably "planted" by Red Legged Thrushes or PR Spindalis).

(16)



Stray Cats and Chickens are Present in the Area

Created: Wed, 2/7/2024

This is a menace to local wildlife

(17)



Cupey: a Hemiepiphyte Growing on a Indian Padauk

Created: Wed, 2/7/2024

This native species dispersed here naturally by wildlife. If the rootvines are allowed to root the tree can grow and develop into an ornamental beauty good for wildlife. This species is also recommended for controlling soil erosion by stabilizing banks. More of this species should be planted on site.

(18)



Native Epiphytes Have Dispersed Naturally to the Park

Created: Wed, 2/7/2024

This is evidence of the park's proximity to protected natural areas and coffee fincas. These epiphytes are food and habitat for wildlife

EA Appendix E

PR-CRP-000873

Parque Pasivo

- E03 CRP000873 FEMA Elevation Certificate
- E09 Soil Report
- E10 8 Step Process

E03 CRP000873 FEMA Elevation Certificate

National Flood Insurance Program

Elevation Certificate

and Instructions

2022 EDITION



FEMA

ELEVATION CERTIFICATE AND INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

PRIVACY ACT STATEMENT

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of documenting compliance with National Flood Insurance Program (NFIP) floodplain management ordinances for new or substantially improved structures in designated Special Flood Hazard Areas. This form may also be used as an optional tool for a Letter of Map Amendment (LOMA), Conditional LOMA (CLOMA), Letter of Map Revision Based on Fill (LOMR-F), or Conditional LOMR-F (CLOMR-F), or for flood insurance rating purposes in any flood zone.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974 as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/ FEMA-003 – *National Flood Insurance Program Files System of Records Notice 79 Fed. Reg. 28747 (May 19 2014)* and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may impact the flood insurance premium through the NFIP. Information will only be released as permitted by law.

PURPOSE OF THE ELEVATION CERTIFICATE

The Elevation Certificate is an important administrative tool of the NFIP. It can be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to inform the proper insurance premium, and to support a request for a LOMA, CLOMA, LOMR-F, or CLOMR-F.

The Elevation Certificate is used to document floodplain management compliance for Post-Flood Insurance Rate Map (FIRM) buildings, which are buildings constructed after publication of the FIRM, located in flood Zones A1–A30, AE, AH, AO, A (with Base Flood Elevation (BFE)), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, and A99. It may also be used to provide elevation information for Pre-FIRM buildings or buildings in any flood zone.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request. Lowest Adjacent Grade (LAG) elevations certified by a land surveyor, engineer, or architect, as authorized by state law, will be required if the certificate is used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request. A LOMA, CLOMA, LOMR-F, or CLOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 application package, whichever is appropriate. If the certificate will only be completed to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request, there is an option to document the certified LAG elevation on the Elevation Form included in the MT-EZ and MT-1 application.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the BFE. A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

The expiration date on the form herein does not apply to certified and completed Elevation Certificates, as a completed Elevation Certificate does not expire, unless there is a physical change to the building that invalidates information in Section A Items A8 or A9, Section C, Section E, or Section H. In addition, this form is intended for the specific building referenced in Section A and is not invalidated by the transfer of building ownership.

Additional guidance can be found in FEMA Publication 467-1, *Floodplain Management Bulletin: Elevation Certificate*.

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company and (3) building owner.

SECTION A – PROPERTY INFORMATION	FOR INSURANCE COMPANY USE
A1. Building Owner's Name <u>Puerto Rico Department of Housing</u>	Policy Number: _____
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <u>PR 357 km 0.0</u>	Company NAIC Number: _____
City: <u>Maricao</u> State: <u>PR</u> ZIP Code: <u>00606</u>	
A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Number: <u># Catastro: 262-000-002-39</u>	
A4. Building Use (e.g. Residential, Non-Residential, Addition, Accessory, etc.): <u>Non-Residential</u>	
A5. Latitude/Longitude: <u>18.182427 -66.980962</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983 <input type="checkbox"/> WGS 84	
A6. Attach at least two and when possible four clear photographs (one for each side) of the building (see Form pages 7 and 8).	
A7. Building Diagram Number: <u>1A</u>	
A8. For a building with a crawlspace or enclosure(s): a) Square footage of crawlspace or enclosure(s): <u>NA</u> sq. ft. b) Is there at least one permanent flood opening on two different sides of each enclosed area? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade Non-engineered flood openings: <u>NA</u> Engineered flood openings: <u>NA</u> d) Total net open area of non-engineered flood openings in A8.c: <u>NA</u> sq. in. e) Total rated area of engineered flood openings in A8.c (attach documentation – see Instructions): <u>NA</u> sq. ft. f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): <u>NA</u> sq. ft.	
A9. For a building with an attached garage: a) Square footage of attached garage <u>NA</u> sq. ft. b) Is there at least one permanent flood opening on two different sides of the attached garage? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A c) Enter number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade Non-engineered flood openings: <u>NA</u> Engineered flood openings: <u>NA</u> d) Total net open area of non-engineered flood openings in A9.c: <u>NA</u> sq. in. e) Total rated area of engineered flood openings in A9.c (attach documentation – see Instructions): <u>NA</u> sq. ft. f) Sum of A9.d and A9.e rated area (if applicable – see Instructions): <u>NA</u> sq. ft.	

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1.a. NFIP Community Name: <u>Commonwealth of Puerto Rico and Municipalities</u>	B1.b. NFIP Community Identification Number: <u>720000</u>		
B2. County Name: <u>Maricao</u>	B3. State: <u>PR</u>	B4. Map/Panel No.: <u>72000C1040H</u>	B5. Suffix: <u>H</u>
B6. FIRM Index Date: _____	B7. FIRM Panel Effective/Revised Date: <u>April 19, 2005</u>		
B8. Flood Zone(s): <u>A</u>	B9. Base Flood Elevation(s) (BFE) (Zone AO, use Base Flood Depth): <u>BFE=419.95 m</u>		
B10. Indicate the source of the BFE data or Base Flood Depth entered in Item B9: <input type="checkbox"/> FIS <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input checked="" type="checkbox"/> Other: <u>FEMA ABFE</u>			
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input checked="" type="checkbox"/> Other/Source: <u>PRVD02</u>			
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA			
B13. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:

PR 357 km 0.0

City: Maricao State: PR ZIP Code: 00606

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: NAD 83 Vertical Datum: PRVD 2002

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929 NAVD 1988 Other: PRVD 2002

Datum used for building elevations must be the same as that used for the BFE. Conversion factor used? Yes No

If Yes, describe the source of the conversion factor in the Section D Comments area.

Check the measurement used:

a) Top of bottom floor (including basement, crawlspace, or enclosure floor): 419.79 feet meters

b) Top of the next higher floor (see Instructions): NA feet meters

c) Bottom of the lowest horizontal structural member (see Instructions): NA feet meters

d) Attached garage (top of slab): NA feet meters

e) Lowest elevation of Machinery and Equipment (M&E) servicing the building (describe type of M&E and location in Section D Comments area): NA feet meters

f) Lowest Adjacent Grade (LAG) next to building: Natural Finished 419.40 feet meters

g) Highest Adjacent Grade (HAG) next to building: Natural Finished 419.72 feet meters

h) Finished LAG at lowest elevation of attached deck or stairs, including structural support: NA feet meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by state law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No

Check here if attachments and describe in the Comments area.

Certifier's Name: Juan A. Torres Berrios License Number: 8765

Title: Engineer

Company Name: Ing. Juan A. Torres Berrios, DBA

Address: PO Box 128

City: Barranquitas State: P.R. ZIP Code: 00794

Signature: _____ Date: 2/9/2024

Telephone: 787-450-6868 Ext. _____ Email: ingetorres01@gmail.com



Place Seal Here

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including source of conversion factor in C2; type of equipment and location per C2.e; and description of any attachments):

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:

PR 357 km 0.0

City: Maricao

State: PR

ZIP Code: 00606

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION E – BUILDING MEASUREMENT

(SURVEY NOT REQUIRED)

FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)

For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.

Building measurements are based on: Construction Drawings* Building Under Construction* Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

E1. Provide measurements (C.2.a in applicable Building Diagram) for the following and check the appropriate boxes to show whether the measurement is above or below the natural HAG and the LAG.

a) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ 0.02 feet meters above or below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ 0.39 feet meters above or below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (C2.b in applicable Building Diagram) of the building is: _____ NA feet meters above or below the HAG.

E3. Attached garage (top of slab) is: _____ NA feet meters above or below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is: _____ NA feet meters above or below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? Yes No Unknown The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge*

Check here if attachments and describe in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Telephone: _____ Ext.: _____ Email: _____

Comments:

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:

PR 357 km 0.0

City: Maricao

State: PR

ZIP Code: 00606

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applicable item(s) and sign below when

- G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by state law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2.a. A local official completed Section E for a building located in Zone A (without a BFE), Zone AO, or Zone AR/AO, or when item E5 is completed for a building located in Zone AO.
- G2.b. A local official completed Section H for insurance purposes.
- G3. In the Comments area of Section G, the local official describes specific corrections to the information in Sections A, B, E and H.
- G4. The following information (Items G5–G11) is provided for community floodplain management purposes.
- G5. Permit Number: _____ G6. Date Permit Issued: _____
- G7. Date Certificate of Compliance/Occupancy Issued: _____
- G8. This permit has been issued for: New Construction Substantial Improvement
- G9.a. Elevation of as-built lowest floor (including basement) of the building: _____ feet meters Datum: _____
- G9.b. Elevation of bottom of as-built lowest horizontal structural member: _____ feet meters Datum: _____
- G10.a. BFE (or depth in Zone AO) of flooding at the building site: _____ feet meters Datum: _____
- G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member: _____ feet meters Datum: _____
- G11. Variance issued? Yes No If yes, attach documentation and describe in the Comments area.

The local official who provides information in Section G must sign here. *I have completed the information in Section G and certify that it is correct to the best of my knowledge. If applicable, I have also provided specific corrections in the Comments area of this section.*

Local Official's Name: _____ Title: _____

NFIP Community Name: _____

Telephone: _____ Ext. _____ Email: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Comments (including type of equipment and location, per C2.e; description of any attachments; and corrections to specific information in Sections A, B, D, E, or H)

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:

PR 357 km 0.0

City: Maricao State: PR ZIP Code: 00606

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION FOR ALL ZONES (SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES ONLY)

The property owner, owner's authorized representative, or local floodplain management official may complete Section H for all flood zones to determine the building's first floor height for insurance purposes. Sections A, B, and I must also be completed. Enter heights to the nearest tenth of a foot (nearest tenth of a meter in Puerto Rico). **Reference the Foundation Type Diagrams (at the end of Section H Instructions) and the appropriate Building Diagrams (at the end of Section I Instructions) to complete this section.**

H1. Provide the height of the top of the floor (as indicated in Foundation Type Diagrams) above the Lowest Adjacent Grade (LAG):

a) For Building Diagrams 1A, 1B, 3, and 5–9. Top of bottom _____ feet meters above the LAG floor (include above-grade floors only for buildings with subgrade crawlspaces or enclosure floors) is:

b) For Building Diagrams 2A, 2B, 4, and 6–9. Top of next higher floor (i.e., the floor above basement, crawlspace, or enclosure floor) is: _____ feet meters above the LAG

H2. Is **all** Machinery and Equipment servicing the building (as listed in Item H2 instructions) elevated to or above the floor indicated by the H2 arrow (shown in the Foundation Type Diagrams at end of Section H instructions) for the appropriate Building Diagram?

Yes No

SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and H must sign here. *The statements in Sections A, B, and H are correct to the best of my knowledge.* Note: If the local floodplain management official completed Section H, they should indicate in Item G2.b and sign Section G.

Check here if attachments are provided (including required photos) and describe each attachment in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Telephone: _____ Ext.: _____ Email: _____

Comments:

ELEVATION CERTIFICATE
IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19
BUILDING PHOTOGRAPHS

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
 PR 357 km 0.0

City: Maricao State: PR ZIP Code: 00606

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

Instructions: Insert below at least two and when possible four photographs showing each side of the building (for example, may only be able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." Photographs must show the foundation. When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.



Photo One

Photo One Caption: Front East View - (05-17-2023)

Clear Photo One



Photo Two

Photo Two Caption: Rear East View - (05-17-2023)

Clear Photo Two

ELEVATION CERTIFICATE
IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19
BUILDING PHOTOGRAPHS

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
PR 357 km 0.0

City: Maricao State: PR ZIP Code: 00606

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

Insert the third and fourth photographs below. Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.



Photo Three

Photo Three Caption: Left Side View - (05-17-2023)

Clear Photo Three



Photo Four

Photo Four Caption: Right Side View - (05-17-2023)

Clear Photo Four

DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency

INSTRUCTIONS FOR COMPLETING THE ELEVATION CERTIFICATE

The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by state law to certify elevation information when elevation information is required or used for Zones A1–A30, AE, AH, AO, A (with Base Flood Elevation (BFE)), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, or A99.

Community officials who are authorized by law or ordinance to provide floodplain management information (herein referred to as "local floodplain management official") may also complete this form. For Zones AO, AR/AO, and A (without BFE), a local floodplain management official, a property owner, or an owner's authorized representative may provide floodplain management compliance information on this certificate in Section E, unless the elevations are intended for use in supporting a request for a LOMA, CLOMA, LOMR-F, or CLOMR-F. Certified elevations must be included if the purpose of completing the Elevation Certificate is to obtain a LOMA, CLOMA, LOMR-F, or CLOMR-F.

The property owner, the owner's authorized representative, or local floodplain management official can complete Section A and Section B. The partially completed form can then be given to the land surveyor, engineer, or architect to complete Section C. The land surveyor, engineer, or architect should verify the information provided by the property owner or owner's representative to ensure that this certificate is complete.

For insurance purposes only, a local floodplain management official, a property owner, or an owner's authorized representative may provide First Floor Height details in Section H for any zone.

In Puerto Rico only elevations for building information and flood hazard information may be entered in meters.

Note: Section C can be used for insurance and compliance in any zone; however, Section E can be used only for compliance in Zone AO and Zone A.

SECTION A – PROPERTY INFORMATION

Items A1–A4. This section identifies the building, its location, and its owner. Enter the name(s) of the building owner(s), the building's complete street address or property description (e.g., lot and block numbers or legal description), and/or tax parcel number. If the building's address is different from the owner's address, enter the address of the building being certified. If the address is a rural route or a Post Office box number, enter the lot and block numbers, the tax parcel number, the legal description, or an abbreviated location description based on distance and direction from a fixed point of reference. For the purposes of this certificate, "building" means both a building and a manufactured (mobile) home. For properties with multiple buildings, include a description for the specific building.

A map may be attached to this certificate to show the location of the building on the property. A tax map, Flood Insurance Rate Map (FIRM) or detailed community map is appropriate. If no map is available, provide a sketch of the property location, and the location of the building on the property. Include appropriate landmarks such as nearby roads, intersections, and bodies of water. For building use, indicate whether the building is residential, non-residential, an addition to an existing residential or non-residential building, an accessory building (e.g., garage), or other type of structure. Use the Comments area of the appropriate section if needed, or attach additional comments.

Item A5. Provide latitude and longitude coordinates for the center of the front of the building. Use either decimal degrees (e.g., 39.504322°, -110.758522°) or degrees, minutes, seconds (e.g., 39° 30' 15.56" -110° 45' 30.68") format. If decimal degrees are used, provide coordinates to at least six decimal places or better. When using degrees, minutes, seconds, provide seconds to at least two decimal places or better. Provide the datum of the latitude and longitude coordinates (FEMA prefers the use of NAD 1983). Indicate the method or source used to determine the latitude and longitude in the Comments area of the appropriate section. When the latitude and longitude are provided by a land surveyor, check the "Yes" box in Section D.

Item A6. The certifier must provide at least two and when possible four photographs showing each side of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and Building Diagram number provided in Item A7. To the extent possible, these photographs should show the entire building including foundation. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least 3"×3". Digital photographs are acceptable. Additional photographs may be requested by local floodplain management officials or for insurance purposes to show additional detail regarding the building characteristics or features.

Item A7. Select the Building Diagram (shown on pages 17-19) that best represents the building. Then enter the diagram number and use the diagram to identify and determine the appropriate elevations requested in Items C2.a–h. If you are unsure of the correct diagram, select the diagram that most closely resembles the building being certified.

Item A8.a. Provide the square footage of the crawlspace or enclosure(s) below the lowest elevated floor of an elevated building with or without permanent flood openings. Take the measurement from the outside of the crawlspace or enclosure(s). Examples of elevated buildings constructed with crawlspace and enclosure(s) are shown in Diagrams 6-9 on pages 18-19. Diagram 2A, 2B, 4, or 9 should be used for a building constructed with a crawlspace floor that is below the exterior grade on all sides. If there is no crawlspace or enclosure, enter "N/A" for Items A8.a-f.

Item A8.b. Indicate if there is at least one permanent flood opening within 1.0 foot of the adjacent grade on at least two exterior walls of each enclosed area identified in A8.a. A permanent flood opening is a flood vent or other opening that allows the free passage of water automatically in both directions without human intervention. If the crawlspace or enclosure(s) have no permanent flood openings, or if none of the openings are within 1.0 foot above adjacent grade, enter "0" (zero) in Item A8.c-f. If there is no crawlspace or enclosure, enter "N/A".

SECTION A – PROPERTY INFORMATION (Continued)

Item A8.c. Enter the total number of permanent non-engineered and/or engineered flood openings in the crawlspace or enclosure(s) that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. If the interior grade elevation is used, note this in the Comments area of Section D.

Item A8.d. Enter the total measured net open area of permanent non-engineered flood openings indicated in A8.c in square inches, excluding any bars, louvers, or other covers of the permanent flood openings. Non-engineered openings that meet the requirements of NFIP Technical Bulletin 1 are assumed to provide one square foot of rated area for each square inch of net open area. If the net open area cannot be measured, provide in the Comments area of the appropriate section the size of the flood openings without consideration of any covers and indicate the type of cover that exists in the flood openings.

Item A8.e. Enter the total rated area of the permanent engineered flood openings indicated in A8.c, in square feet. Attach a copy of the Individual Engineered Flood Openings Certification for a specific building or an Evaluation Report issued by the International Code Council Evaluator Service (ICC ES) for all engineered openings, and indicate the manufacturer's name and model number in the Comments area of the appropriate section, if applicable. Flood openings cannot be considered engineered flood openings without documentation. If no documentation is available/provided, enter the net open (unobstructed) area of the flood openings in A8.d instead.

Item A8.f. Complete only if permanent engineered and permanent non-engineered flood openings are both present. Enter the sum of A8.d (net open area of all non-engineered openings) and A8.e (total rated area of all engineered openings). Non-engineered openings that meet the requirements of NFIP Technical Bulletin 1 are assumed to provide one square foot of rated area for each square inch of net open area. For example, a non-engineered opening with 140 sq. in. of net open area (i.e., rated for 140 sq. ft. of enclosure area) combined with two (2) engineered openings rated for 200 sq. ft. each, would yield $140 + 400 = 540$ sq. ft. rated area. If either A8.d or A8.e is "0", then enter "N/A" for A8.f.

Item A9.a. Provide the square footage of the attached garage with or without permanent flood openings. Take the measurement from the outside of the garage. If there is no attached garage, enter "N/A" for items A9.a-f.

Item A9.b. Indicate if there is at least one permanent flood opening within 1.0 foot of the adjacent grade on at least two exterior walls of the attached garage identified in A9.a. If the attached garage has no permanent flood openings, or if none of the openings are within 1.0 foot above adjacent grade, enter "0" (zero) in Items A9.c-f. If there is no attached garage, enter "N/A".

Item A9.c. Enter the total number of permanent non-engineered and/or engineered flood openings in the attached garage that are no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. This includes any openings that are in the garage door that are no higher than 1.0 foot above the adjacent grade. If the interior grade elevation is used, note this in the Comments area of Section D.

Item A9.d. Enter the total measured net open area of permanent non-engineered flood openings indicated in A9.c in square inches, excluding any bars, louvers, or other covers of the permanent flood openings, and enter the total in Item A9.d. Non-engineered openings that meet the requirements of NFIP Technical Bulletin 1 are assumed to provide one square foot of rated area for each square inch of net open area. If the net open area cannot be measured, provide in the Comments area of the appropriate section the size of the flood openings without consideration of any covers and indicate the type of cover that exists in the flood openings.

Item A9.e. Enter the total rated area of the permanent engineered flood openings indicated in A9.c in square feet. Attach a copy of the Individual Engineered Flood Openings Certification for a specific building or an Evaluation Report issued by the ICC ES for all engineered openings, and indicate the manufacturer's name and model number in the Comments area of the appropriate section, if applicable. Flood openings cannot be considered engineered flood openings without documentation. If no documentation is available/provided, enter the net open (unobstructed) area of the flood openings in A9.c instead.

Item A9.f. Complete only if permanent engineered and permanent non-engineered flood openings are both present. Enter the sum of A9.d (net open area of all non-engineered openings) and A9.e (total rated area of all engineered openings). Non-engineered openings that meet the requirements of NFIP Technical Bulletin 1 are assumed to provide one square foot of rated area for each square inch of net open area. For example, a non-engineered opening with 140 sq. in. of net open area (i.e., rated for 140 sq. ft. of enclosure area) combined with two (2) engineered openings rated for 200 sq. ft. each, would yield $140 + 400 = 540$ sq. ft. rated area. If either A9.d or A9.e is "0", then enter "N/A" for A9.f.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Complete the Elevation Certificate using the Flood Insurance Study (FIS) and FIRM in effect at the time of the certification.

The information for Section B is obtained by reviewing the FIS and the FIRM panel that includes the building's location. Information about the current FIS and FIRM is available from FEMA by visiting [msc.fema.gov](https://www.msc.fema.gov) or contacting the local floodplain management official. If a Letter of Map Amendment (LOMA), Letter of Map Revision Based on Fill (LOMR-F), or Letter of Map Revision (LOMR) has been issued by FEMA, please provide the letter date and case number in the Comments area of Section D or Section G, as appropriate.

For a building in an area that was mapped in one community but is now in another community due to annexation or dissolution, enter the community name and six-digit Community Identification Number of the community in which the building is now located in Items B1.a and B1.b; the name of the county or new county, if necessary, in Item B2; and the FIRM index date for the community identified in B1.a, in Item B6. Enter information from the actual FIRM panel that shows the building location, even if it is the FIRM for the previous jurisdiction, in Items B4, B5, B7, B8, and B9.

If the map in effect at the time of the building's construction was other than the current FIRM, and you have the past map information pertaining to the building, provide the information in the Comments area of Section D.

Note: Indicate in the Comments area of Section D if using information based on best available data, such as base-level engineering or advisory flood hazard data (contact the local floodplain management official to confirm).

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION (Continued)

Items B1.a–b NFIP Community Name and Community Identification Number. Enter the complete name of the community in which the building is located in B1.a. and the associated six-digit Community Identification Number in B1.b. For an unincorporated area of a county, enter the county name and "unincorporated area" and the six-digit number of the county. For a newly incorporated community, use the name and six-digit number of the new community. Under the NFIP, a "community" is any state or area or political subdivision thereof, or any Indian tribe or authorized native organization which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction. To determine the current community number, see the NFIP *Community Status Book*, available on FEMA's website at www.fema.gov/national-flood-insurance-program-community-status-book.

Item B2. County Name. Enter the name of the county or counties in which the community is located. For an unincorporated area of a county enter the county name. For an independent city, enter "independent city."

Item B3. State. Enter the two-letter state abbreviation (for example, VA, TX, CA).

Items B4–B5. Map/Panel Number and Suffix. Enter the 10-character "Map Number" or "Community Panel Number" shown on the FIRM where the building or manufactured (mobile) home is located. For maps in a county-wide format, the sixth character of the "Map Number" is the letter "C" followed by a four-digit map number. For maps not in a county-wide format, enter the "Community Panel Number" shown on the FIRM.

Item B6. FIRM Index Date. Enter the effective date or the map revised date shown on the FIRM Index.

Item B7. FIRM Panel Effective/Revised Date. Enter the effective date shown on the current FIRM panel. The current FIRM panel effective date can be determined by visiting msc.fema.gov or contacting the local floodplain management official. If the area where the building is located was revised by a LOMR, include the LOMR effective date and the LOMR case number in the comments area of Section D.

Item B8. Flood Zone(s). Enter the flood zone, or flood zones, in which the building is located. All flood zones containing the letter "A" or "V" are considered Special Flood Hazard Areas (SFHAs). Each flood zone is defined in the legend of the FIRM panel on which it appears. If the area where the building is located was revised by a LOMA, CLOMA, LOMR-F, or CLOMR-F, include the flood zone shown on the LOMA, CLOMA, LOMR-F, or CLOMR-F, and add the effective date and case number in the comments area of Section D.

Item B9. Base Flood Elevation(s) (BFE). Using the appropriate Flood Insurance Study (FIS) Profile, FIS Data Table (e.g., Transect, Floodway, etc.), or FIRM panel, locate the property and enter the BFE (or base flood depth) of the building site to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico). If the building is located in more than one flood zone in Item B8, list all appropriate BFEs in Item B9.

BFEs are shown in the FIS or on a FIRM for Zones A1–A30, AE, AH, V–V30, VE, AR, AR/A, AR/AE, AR/A1–A30, and AR/AH; base flood depths are shown for Zones AO and AR/AO. Use the AR BFE (or base flood depth) if the building is located in any of these zones: AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO.

In A or V zones where BFEs are not provided in the FIS or on the FIRM, BFEs may be available from another source. For example, the community may have established BFEs or obtained BFE data from other sources (e.g., Base Level Engineering) for the building site. For subdivisions and other developments of more than 50 lots or 5 acres in Zone A, establishment of BFEs is required by the community's floodplain management ordinance. If a BFE is obtained from another source, enter the BFE in Item B9. The BFE entered in Item B9 must be based on hydrologic and hydraulic analyses. In an A Zone where BFEs are not obtained from another source, enter N/A in Item B9 and complete Section E.

Item B10. Indicate the source of the BFE or base flood depth that you entered in Item B9. If the BFE is from a source other than the FIS, FIRM, or community, include the name of the study, the agency or company that produced it, and the date when the study was completed. Visit msc.fema.gov or contact the local floodplain management official to access the current FIS and FIRM.

Item B11. Indicate the elevation datum to which the elevations on the applicable FIRM are referenced as shown on the map legend. The vertical datum is shown in the Map Legend and/or the Notes to Users on the FIRM.

Item B12. Indicate whether the building is located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA). OPAs are portions of coastal barriers that are owned by Federal, State, or local governments or by certain non-profit organizations and used primarily for natural resources protection. CBRS areas and OPAs are no longer shown on the FIRM; please use the maps available at www.fws.gov/cbra/maps/index.html to complete Item B12. Federal flood insurance is prohibited in designated CBRS areas or OPAs for buildings or manufactured (mobile) homes built or substantially improved after the date of the CBRS or OPA designation. For the first CBRS designations, that date is October 1, 1983. Information about CBRS areas and OPAs may be obtained on the FEMA website at www.fema.gov/national-flood-insurance-program/coastal-barrier-resources-system.

Item B13. Indicate whether the building is located seaward of the Limit of Moderate Wave Action (LiMWA). If the LiMWA is not shown on the FIRM, check the "No" box. Information about the LiMWA and other coastal flood zones may be obtained on the FEMA website at www.fema.gov/flood-maps/coastal/insurance-rate-maps.

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

Complete Section C if the building is located in any of Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or A99. If the Certificate is being completed to demonstrate compliance with local floodplain management requirements, contact the local floodplain management official to find out any additional requirements. Section C may also be completed for insurance purposes to determine the building's First Floor Height in any flood zone (including Zones AO, AR/AO, B, C, X and D). In addition, complete Section C if this certificate is being used to support a request for a LOMA, CLOMA, LOMR-F, or CLOMR-F.

To ensure that all required elevations are obtained, it may be necessary to physically enter the building (for instance, if the building has a basement or sunken living room, split-level construction, or Machinery and Equipment (M&E)).

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) (Continued)

Land surveyors may not be able to gain access to some crawlspaces to shoot the elevation of the crawlspace floor. If access to the crawlspace is limited or cannot be gained, follow one of these procedures.

- Use a yardstick or tape measure to measure the height from the floor of the crawlspace to the "next higher floor," and then subtract the crawlspace height from the elevation of the "next higher floor." If there is no access to the crawlspace, use the exterior grade next to the structure to measure the height of the crawlspace to the "next higher floor."
- Contact the local floodplain management official of the community in which the building is located. The community may have documentation of the elevation of the crawlspace floor as part of the permit issued for the building.
- If the property owner has documentation or knows the height of the crawlspace floor to the next higher floor, try to verify this by looking inside the crawlspace through any openings or vents.

In all three cases, use the Comments area of Section D to provide the elevation and a brief description of how the elevation was obtained.

Note: If any item does not apply to the building, enter "N/A" for not applicable.

Item C1. Indicate whether the elevations to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first two choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those elevations that can be surveyed in Items C2.a–h. Use the Comments area of Section D to provide elevations obtained from the construction plans or drawings. Select "Finished Construction" only when all M&E such as furnaces, water heaters, heat pumps, air conditioners, and elevators and their associated equipment have been installed and the grading around the building is completed.

Item C2. A field survey is required for Items C2.a–h. Most control networks will assign a unique identifier for each benchmark. For example, the National Geodetic Survey uses the Permanent Identifier (PID). For the benchmark utilized, provide the PID or other unique identifier assigned by the maintainer of the benchmark. For GPS survey, indicate the benchmark used for the base station, the Continuously Operating Reference Stations (CORS) sites used for an Online Positioning User Service (OPUS) solution (also attach the OPUS report), or the name of the Real Time Network used.

Also provide the vertical datum for the benchmark elevation. All elevations for the certificate, including the elevations for Items C2.a–h, must use the same datum on which the BFE is based. Show the conversion from the field survey datum used if it differs from the datum used for the BFE entered in Item B9 and indicate the conversion software used. Show the datum conversion, if applicable, in the Comments area of Section D.

For property experiencing ground subsidence, the most recent reference mark elevations must be used for determining building elevations. However, when subsidence is involved, the BFE should not be adjusted.

Note: Enter elevations in Items C2.a–h to the nearest tenth of a foot (nearest tenth of a meter in Puerto Rico); if data is surveyed to the nearest hundredth, round to the nearest tenth.

Item C2.a. Enter the elevation measured at the top of the bottom floor (excluding the attached garage) indicated by the selected Building Diagram (Item A7). For buildings elevated on a crawlspace, Building Diagrams 8 and 9, enter the lowest elevation of the top of the crawlspace floor in Item C2.a, whether or not the crawlspace has permanent flood openings (flood vents).

Item C2.b. For Building Diagrams 2A through 9 in any flood zone, including Zones B, C, X, and D, enter the elevation measured at the top of the next higher floor (excluding the attached garage) indicated by the selected Building Diagram (Item A7). For buildings requiring more than two floors or levels to be surveyed, such as those with multiple floors or multi-level enclosures, enter the additional surveyed elevations and floor descriptions in the Section D Comments, and clarify which floors are entered as Item C2.a and C2.b.

Item C2.c. For floodplain management compliance, this elevation is required for all Building Diagrams 5 and 6 in V Zones in areas seaward of the LIMWA and in other areas regulated for coastal flooding hazards. Enter the elevation measured at the bottom of the lowest horizontal structural member of the floor indicated by the selected Building Diagram (Item A7) or the figure below. This elevation can be entered for Building Diagrams 5 and 6 in any flood zone, including Zones B, C, X, and D. For Building Diagrams other than 5 and 6 (if applicable), enter the C2.c elevation as indicated in the figure below. *If this item does not apply to the building, enter "N/A" for not applicable.*

Item C2.d. If there is an attached garage, enter the lowest elevation for top of attached garage slab. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the Building Diagrams.)

Item C2.e. Enter the lowest platform, floor, or ground elevation supporting the lowest electrical, heating, ventilation, plumbing, and air conditioning M&E and other utilities servicing the building, which may be located in an attached garage or enclosure or on an open utility platform. Note that elevations for the M&E items are required regardless of their location. Local floodplain management officials are required to ensure that **all** new M&E servicing the building are protected from flooding. Thus, local officials may require that elevation information for all M&E, including ductwork, be documented on the Elevation Certificate. If the M&E is mounted to a wall, pile, etc., enter the platform elevation of the M&E. Indicate the lowest M&E type and its general location (e.g., on floor inside garage, on platform affixed to exterior wall) in the Comments area of Section D or Section G, as appropriate.

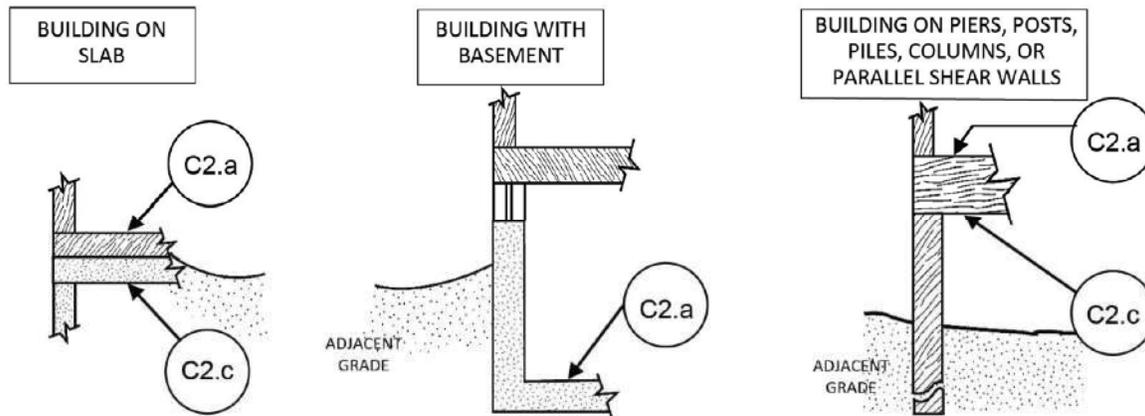
Note: For more guidance on floodplain management compliance for utilities, including M&E, refer to FEMA P-348, *Protecting Building Utility Systems from Flood Damage*. The list of M&E and the elevation requirements for documenting floodplain management compliance are different than the NFIP insurance M&E discount eligibility considerations. See Section H Instructions for additional information.

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) (Continued)

Item C2.f. Enter the finished Lowest Adjacent Grade (LAG) elevation of the ground, sidewalk, or patio slab next to and in direct contact with the building. For a building in Zone AO, use the natural grade elevation if available. Indicate whether the natural or finished grade was used. If natural grade was used, attach the source of the information (e.g., a grading plan). For buildings under construction in any flood zone, enter the LAG elevation at the time of the survey. **Note:** Natural grade means the undisturbed natural surface of the ground prior to any excavation or fill.

Item C2.g. Enter the finished Highest Adjacent Grade (HAG) elevation of the ground, sidewalk, or patio slab next to and in direct contact with the building. For a building in Zone AO, use the natural grade elevation if available. Indicate whether the natural or finished grade was used. If natural grade was used, attach the source of the information (e.g., a grading plan). For buildings under construction in any flood zone, enter the HAG elevation at the time of the survey.

Item C2.h. Enter the finished LAG elevation of the lowest ground, sidewalk, or patio slab next to and in direct contact with the structurally-attached-deck supports or stairs structurally attached to the building. For buildings under construction in any flood zone, enter the lowest LAG at the time of the survey.



Figures for use in determining Item C2.c

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This section of the Elevation Certificate may be signed by only a land surveyor, engineer, or architect who is authorized by state law to certify elevation information. Complete as indicated and place your license number, your seal (as allowed by the state licensing board), your signature, and the date in Section D. You are certifying that the information on this certificate represents your best efforts to interpret the data available and that you understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Use the Comments area of Section D to provide relevant and clarifying information not specified elsewhere on the certificate, including supporting information for latitude/longitude source for A5; openings for A8/A9; LOMR data for Section B; BFE and BFE source data for B9/B10; datum conversion for C2; grading plan for natural grade used in C2.f-g; machinery type and location for C2.e; and any other relevant information identified in the instructions or needed for clarification. If attachments are included, check the attachments box and describe the attachments in the Comments area.

SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)

Complete Section E if the building is located in Zone AO, Zone AR/AO, or Zone A (without BFE) and the Certificate is being completed for the purpose of documenting compliance with local floodplain management requirements. If the Certificate is being completed to document compliance in other flood zones, including Zone A (with BFE), to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request, or to provide a ground elevation for flood insurance rating, complete Section C instead of Section E. Explain in the Section F Comments area if the measurement provided under Items E1–E4 is not based on the "natural grade." Natural grade means the undisturbed natural surface of the ground prior to any excavation or fill.

Indicate whether the measurements to be entered in this section are based on construction drawings, a building under construction, or finished construction. For either of the first two choices, a post-construction Elevation Certificate will be required when construction is complete. If the building is under construction, include only those measurements that can be determined in Items E1–E4. Use the Comments area of Section F to provide measurements obtained from the construction plans or drawings. Select "Finished Construction" only when all Machinery and Equipment (M&E) such as furnaces, water heaters, heat pumps, air conditioners, and elevators and their associated equipment have been installed and the grading around the building is completed.

Note: Enter heights in Items E1–E4 to the nearest tenth of a foot (nearest tenth of a meter, in Puerto Rico).

Items E1.a and b. Enter in Item E1.a the height of the top of the bottom floor (as indicated by C2.a in the selected Building Diagram, Item A7) above or below the natural HAG. Enter in Item E1.b the height of the top of the bottom floor (as indicated by C2.a in the selected Building Diagram, Item A7) above or below the natural LAG. For buildings in Zone AO, the community's floodplain management ordinance requires the lowest floor of the building be elevated above the HAG at least as high as the base flood depth on the FIRM.

**SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED)
FOR ZONE AO AND ZONE A (WITHOUT BFE) (Continued)**

Item E2. For Building Diagrams 6–9 with permanent flood openings (see pages 18–19), enter the height of the next higher floor or elevated floor (as indicated by C2.b in the selected Building Diagram, Item A7) above or below the HAG.

Item E3. Enter the height, in relation to the HAG next to the building, for the top of attached garage slab. (Because elevation for top of attached garage slab is self-explanatory, attached garages are not illustrated in the diagrams.) *If this item does not apply to the building enter "N/A" for not applicable.*

Item E4. Enter the height, in relation to the HAG next to the building, of the platform elevation that supports the M&E servicing the building. See Item C2.e for additional details on M&E. Indicate the M&E type in the Comments area of Section F.

Item E5. For those communities where this base flood depth is not available, the community will need to determine whether the top of the bottom floor is elevated in accordance with the community's floodplain management ordinance.

SECTION F – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements when completing Sections A, B, and E. If Section E is completed by a property owner or property owner's authorized representative in Zone AO, AR/AO, or A (without BFE) then the community should confirm the heights in Section E to ensure compliance with community floodplain management ordinances. If Section E is completed by a local floodplain management official, then complete Item G2.a and Section G instead of Section F. The address entered in this section must be the actual mailing address of the individual who provided the information on the certificate. Check the box as indicated if including attachments and describe in the Comments area.

SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)

The community official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C, E, G or H of this Elevation Certificate and sign this section. Section C may be completed by the local official per the instructions below for Item G1.

Item G1. Check if Section C is completed with elevation data from other documentation that has been signed and sealed by a licensed land surveyor, engineer, or architect who is authorized by state law to certify elevation information. Indicate the source of the elevation data and the date obtained in the Comments area of Section G. If you are both a community official and a licensed land surveyor, engineer, or architect authorized by state law to certify elevation information, and you performed the actual survey for a building in any flood zones (including Zones A99, B, C, X and D), you must also complete Section D.

Item G2.a. Check if information is entered in Section E by the community for a building in Zone A (without a BFE), Zone AO or Zone AR/AO, or when the community certifies Item E5 for a building in Zone AO.

Item G2.b. Check if information is entered in Section H by the community for insurance purposes.

Item G3. Check if the community official is correcting information provided in Sections A, B, E and H. Describe corrections in the Comments area of Section G.

Item G4. Check if the information in Items G5–G11 has been completed for community floodplain management purposes to document the as-built lowest floor elevation of the building. Section C of the Elevation Certificate records the elevation of various building components but does not determine the lowest floor of the building or whether the building, as constructed, complies with the community's floodplain management ordinance. This must be done by the community. Items G5–G11 provide a way to document these determinations.

Item G5. Permit Number. Enter the permit number or other identifier to key the Elevation Certificate to the permit issued for the building.

Item G6. Date Permit Issued. Enter the date the permit was issued for the building.

Item G7. Date Certificate of Compliance/Occupancy Issued. Enter the date that the Certificate of Compliance or Occupancy or similar written official documentation of as-built lowest floor elevation was issued by the community as evidence that all work authorized by the floodplain development permit has been completed in accordance with the community's floodplain management laws or ordinances.

Item G8. New Construction or Substantial Improvement. Check the applicable box. "Substantial Improvement" means any reconstruction, rehabilitation, addition, or other improvement of a building, the cost of which equals or exceeds 50 percent of the market value of the building before the start of construction of the improvement (or meets the community's more restrictive standards, if applicable). The term includes buildings that have incurred substantial damage, regardless of the actual repair work performed.

Item G9.a. As-built lowest floor elevation. Enter the elevation of the lowest floor (including basement) when the construction of the building is completed and a final inspection has been made to confirm that the building is built in accordance with the permit, the approved plans, and the community's floodplain management laws or ordinances. Indicate the elevation datum used.

Item G9.b. As-built lowest horizontal structural member. Enter the elevation measured at the bottom of the lowest horizontal structural member of the floor indicated by the selected Building Diagram (Item A7) or in the figure at the end of the instructions for Section C. Indicate the elevation datum used.

SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION) (Continued)

Item G10.a. BFE. Using the appropriate FIRM panel, FIS, or other data source, locate the property and enter the BFE (or base flood depth) of the building site. Indicate the elevation datum used.

Item G10.b. Community's minimum elevation or depth requirement. Enter the elevation (including freeboard above the BFE) to which the community requires the lowest floor or the lowest horizontal structural member to be elevated. Indicate the elevation datum used.

Item G11. Indicate Yes if a variance from the floodplain management regulations (Title 44 CFR § 60.6) has been issued for the building attach the supporting documentation, and describe the attachment in the Comments area of this section. If no such variance has been issued, indicate No.

Enter your name, title, and telephone number, and the name of the community and add any comments. Sign and enter the date in the appropriate blanks.

**SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION FOR ALL ZONES
(SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES ONLY)**

In any flood zone the property owner, owner's authorized representative, or local floodplain management official may complete this certificate for rating purposes to determine the building's first floor height and identify the elevation of Machinery and Equipment (M&E) servicing the building. Sections A, B, and I must also be completed.

Note: If Sections C and/or E and H are all completed, then information in Section C will prevail for insurance purposes and for compliance.

Item H1.a. For Building Diagrams 1A, 1B, 3, and 5–9 shown on pages 17–19, enter in Item H1.a the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the bottom floor (as indicated in the selected Building Diagram, Item A7) above the LAG. Refer to the arrows on the Foundation Type Diagrams on page 16 that indicate which floor to use to determine the height for Item H1.a.

Item H1.b. For Building Diagrams 2A, 2B, 4, and 6–9 shown on pages 17–19, enter in Item H1.b the height to the nearest tenth of a foot (tenth of a meter in Puerto Rico) of the top of the next higher floor or elevated floor (as indicated in the selected Building Diagram, Item A7) above the LAG. Refer to the arrows on the Foundation Type Diagrams on page 16 that indicate which floor to use to determine the height for Item H1.b.

Note: The LAG is the lowest point of the ground level immediately next to a building.

Item H2. Indicate "Yes" if *all* of the following M&E servicing the building, inside or outside the building, are elevated to at least the height of the location shown by the H2 arrow in the Foundation Type Diagrams on page 16: central air conditioner (including exterior compressor), furnace, heat pump (including exterior compressor), water heater, and elevator M&E. For contents-only insurance coverage, *all* of the following appliances will need to be elevated to at least the height of the location shown by the H2 arrow in the Foundation Type Diagrams below: clothes washers and dryers and food freezers.

Note: For both building and contents coverage, *all* of the M&E and appliances listed above must be elevated per the Foundation Type Diagrams on page 16 to be considered for the M&E mitigation discount.

Indicate "No" if any of the M&E listed above is not elevated to at least the height of the location shown by the H2 arrow in the Foundation Type Diagrams on page 16.

The diagrams on the following page illustrate the six NFIP Foundation Type Diagrams. Each foundation type corresponds with one or more of the eleven Building Diagrams shown at the end of this Elevation Certificate. The arrows on the diagrams indicate which floor to use to determine H1.a and H1.b. The arrows marked as H2 show the minimum elevation required to be eligible for the M&E mitigation discount.

SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

Complete as indicated. This section is provided for certification of measurements when completing Sections A, B, and H. If Section H is completed by a local floodplain management official, then complete Item G2.b and Section G instead of Section I. The address entered in this section must be the actual mailing address of the individual who provided the information on the certificate.

Check the box as indicated if including attachments (e.g., required photos) and describe in the Comments area.

Foundation Type Diagrams (for use in Section H):

Slab on Grade (Non-Elevated)



Corresponds to EC Diagrams 1A, 1B and 3

Note: If the building has more than one floor, the Machinery and Equipment should be on the second floor or higher.

Elevated without Enclosure on Posts, Piles, or Piers



Corresponds to EC Diagram 5

Basement (Non-Elevated)



Corresponds to EC Diagrams 2A, 2B and 4

Elevated with Enclosure on Posts, Piles, or Piers



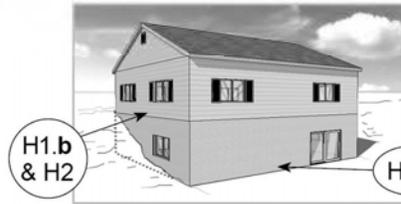
Corresponds to EC Diagram 6

Crawlspace (Elevated, including Non-Elevated Sub-Grade Crawlspace)



Corresponds to EC Diagrams 8 and 9

Elevated with Enclosure Not on Posts, Piles, or Piers (Solid Foundation Walls)



Corresponds to EC Diagram 7

BUILDING DIAGRAMS

The following diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item A7, the square footage of crawlspace or enclosure(s) and the area of flood openings as indicated in Items A8.a-f, the square footage of attached garage and the area of flood openings as indicated in Items A9.a-f, and the elevations in Items C2.a-h.

In A, B, C, X and D zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, areas seaward of the LiMWA, and in other areas regulated for coastal flooding hazards, the floor elevation is taken at the bottom of the lowest horizontal structural member (see figure at end of instructions for Section C).

DIAGRAM 1A:

All slab-on-grade single- and multiple-floor buildings (other than split-level) and high-rise buildings, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least one side.*

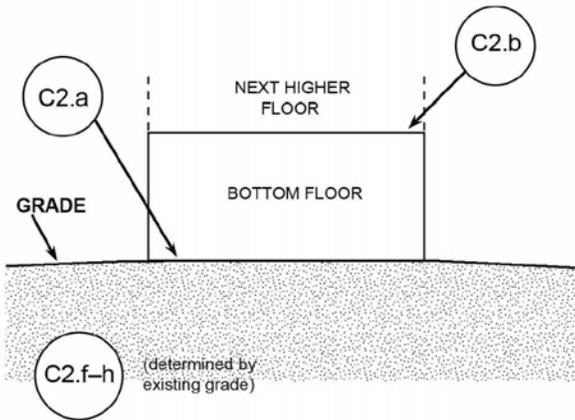


DIAGRAM 1B:

All raised-slab-on-grade or slab-on-stem-wall-with-fill single- and multiple-floor buildings (other than split-level), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least one side.*

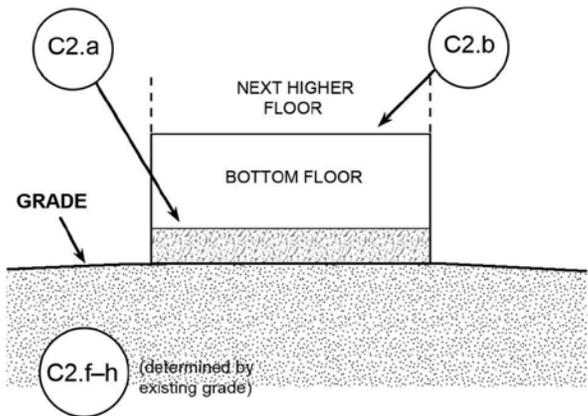


DIAGRAM 2A:

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

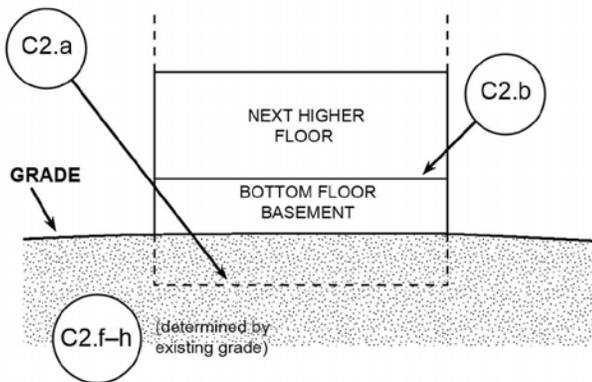
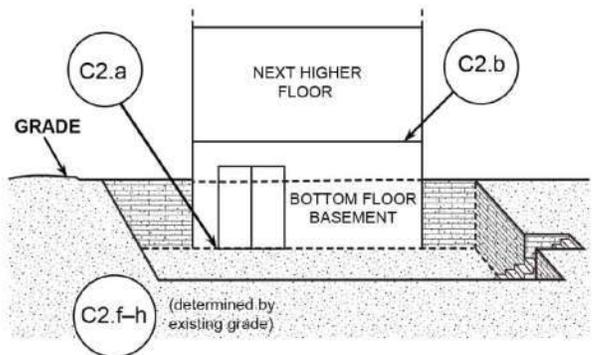


DIAGRAM 2B:

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides; most of the height of the walls is below ground level on all sides; and the door and area of egress are also below ground level on all sides.*



* A floor that is below ground level(grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

BUILDING DIAGRAMS

DIAGRAM 3:

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (excluding garage) is at or above ground level (grade) on at least one side.*

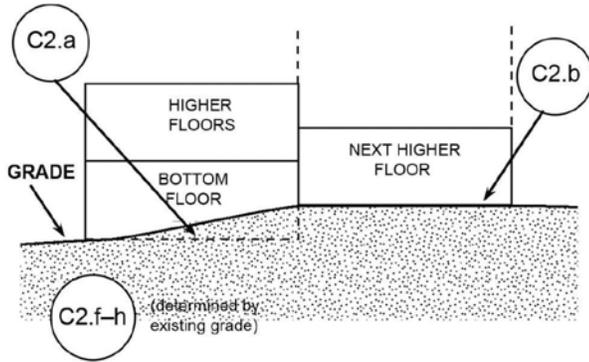


DIAGRAM 4:

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.*

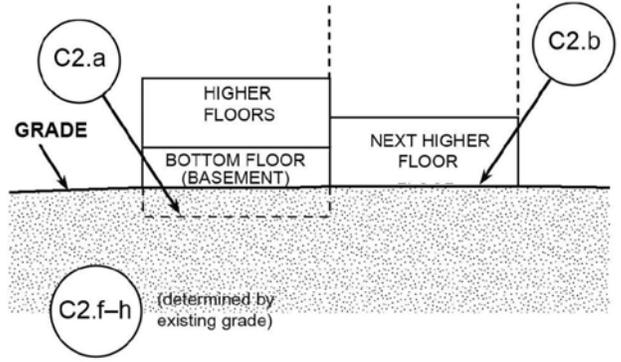


DIAGRAM 5:

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is open, with no obstruction to flow of floodwaters (open lattice work and/or insect screening is permissible).

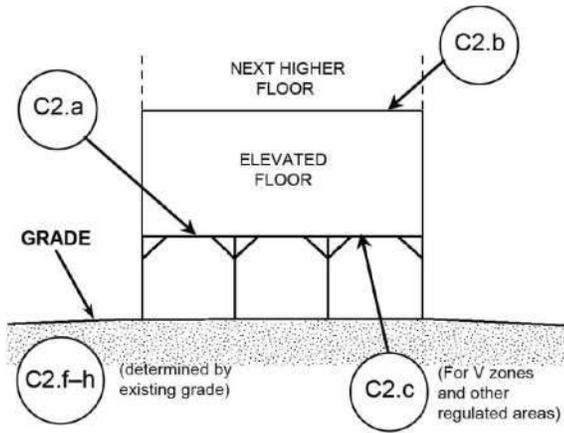
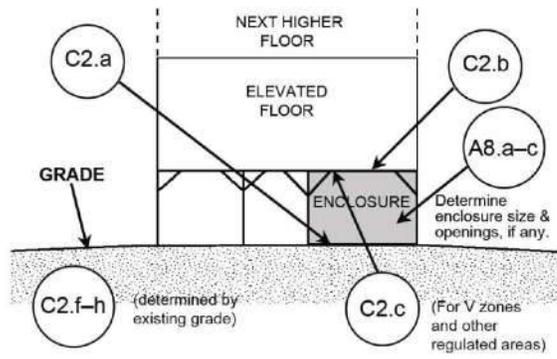


DIAGRAM 6:

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A - Property Information.



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of two openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than one square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the ICC ES must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least two sides of the enclosed area. If a building has more than one enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

BUILDING DIAGRAMS

DIAGRAM 7:

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least one side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A - Property Information.

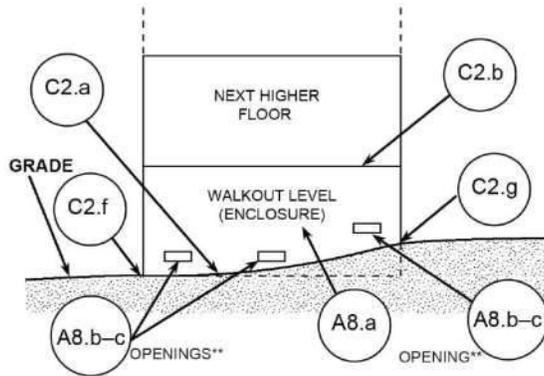


DIAGRAM 8:

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least one side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings** present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A - Property Information. (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, use Diagram 7.)

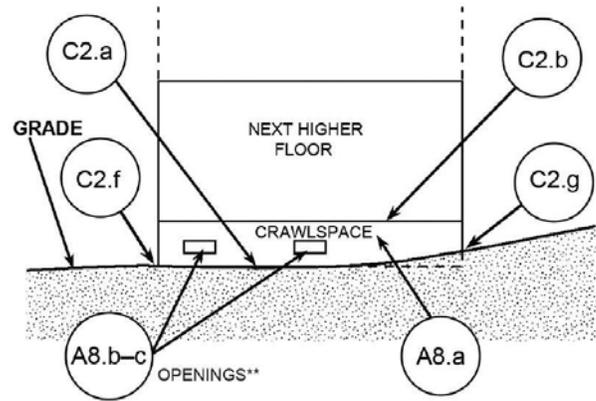
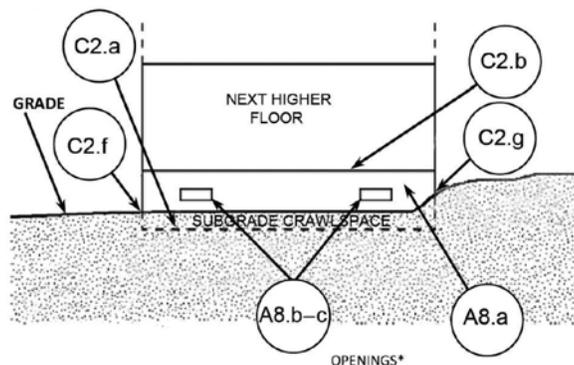


DIAGRAM 9:

All buildings (other than split-level) elevated on a sub-grade crawlspace, with or without attached garage.

Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.* (If the distance from the crawlspace floor to the top of the next higher floor is more than five feet, or the crawlspace floor is more than two feet below the grade [LAG] on all sides, use Diagram 2A or 2B.)



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of two openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than one square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the ICCES must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least two sides of the enclosed area. If a building has more than one enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

E09 Soil Report



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

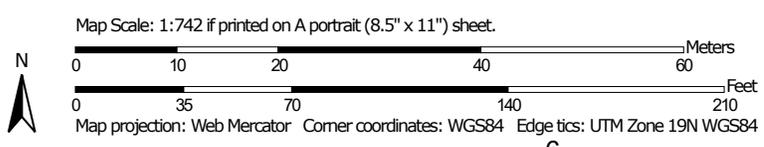
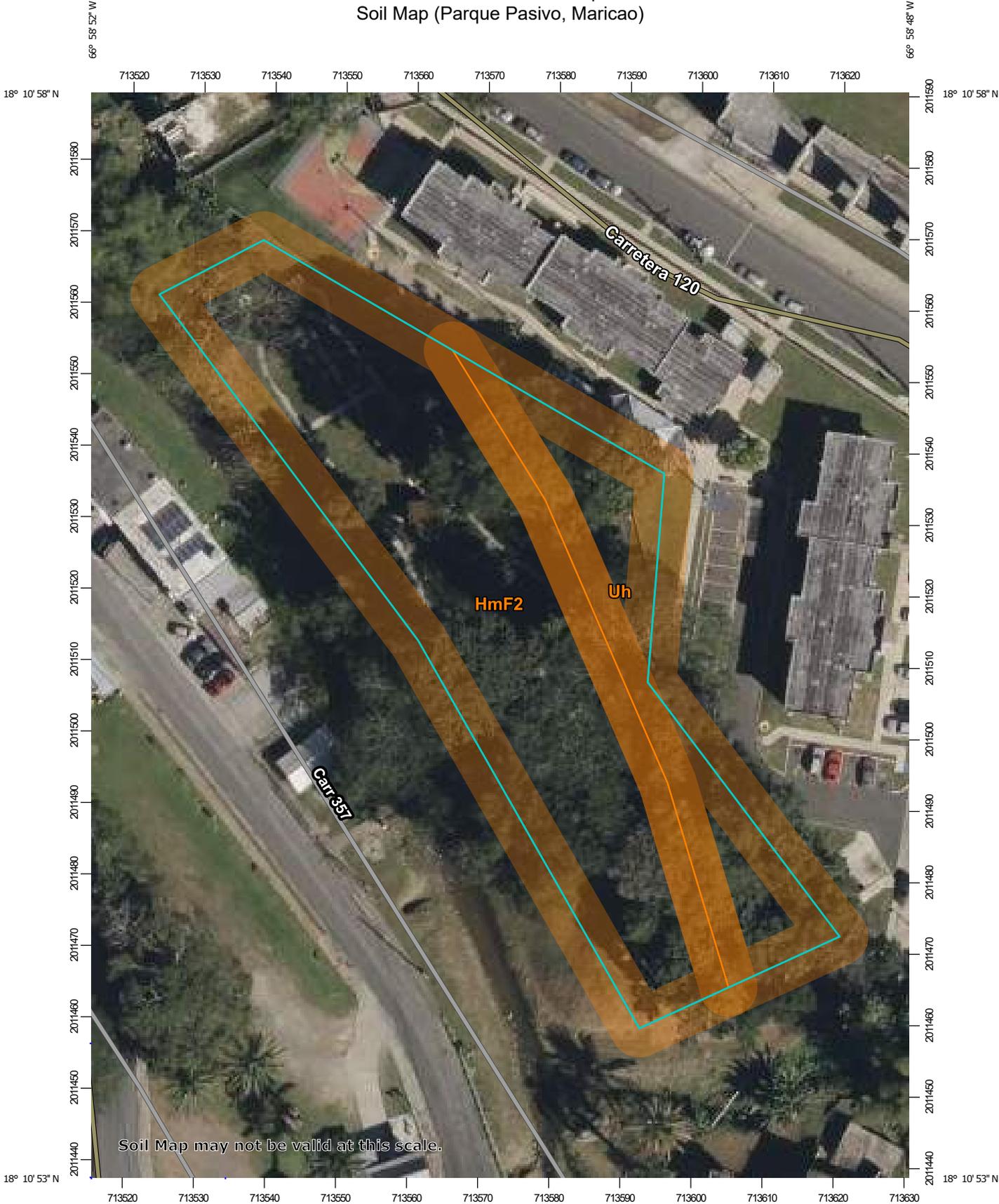
Custom Soil Resource Report for Mayaguez Area, Puerto Rico Western Part



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Custom Soil Resource Report
Soil Map (Parque Pasivo, Maricao)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mayaguez Area, Puerto Rico Western Part
 Survey Area Data: Version 19, Sep 13, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 23, 2022—Mar 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Parque Pasivo, Maricao)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HmF2	Humatas clay, 40 to 60 percent slopes	0.7	75.4%
Uh	Urban land-Humatas complex, 20 to 40 percent slopes	0.2	24.6%
Totals for Area of Interest		0.9	100.0%

Map Unit Descriptions (Parque Pasivo, Maricao)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

Custom Soil Resource Report

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Mayaguez Area, Puerto Rico Western Part

HmF2—Humatas clay, 40 to 60 percent slopes

Map Unit Setting

National map unit symbol: 2tgwr
Elevation: 100 to 2,460 feet
Mean annual precipitation: 54 to 96 inches
Mean annual air temperature: 65 to 90 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Humatas and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Humatas

Setting

Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Clayey residuum weathered from volcanic rock

Typical profile

A - 0 to 4 inches: clay
BC - 19 to 38 inches: clay
C - 38 to 80 inches: clay

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Consumo

Percent of map unit: 10 percent
Landform: Hills on mountains, hillslopes on mountains

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Landform position (three-dimensional): Mountainflank, mountaintop, interfluve, side slope

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Other vegetative classification: Unnamed (G270XZ000PR)

Hydric soil rating: No

Alonso

Percent of map unit: 5 percent

Landform: Ridges

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountaintop, mountainflank

Down-slope shape: Convex

Across-slope shape: Linear, convex

Hydric soil rating: No

Uh—Urban land-Humatas complex, 20 to 40 percent slopes

Map Unit Setting

National map unit symbol: 2yg2n

Elevation: 100 to 2,000 feet

Mean annual precipitation: 54 to 96 inches

Mean annual air temperature: 65 to 90 degrees F

Frost-free period: 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 46 percent

Humatas and similar soils: 44 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydric soil rating: No

Description of Humatas

Setting

Landform: Hillslopes, mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex, linear

Across-slope shape: Linear, convex

Parent material: Clayey residuum weathered from volcanic rock

Typical profile

Ap - 0 to 4 inches: clay

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Bt1 - 4 to 12 inches: clay
Bt2 - 12 to 19 inches: clay
BC - 19 to 38 inches: clay
C - 38 to 80 inches: clay

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Daguey

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, mountaintop
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Consumo

Percent of map unit: 5 percent
Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, mountaintop, interfluve, side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Other vegetative classification: Unnamed (G270XZ000PR)
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Prime and other Important Farmlands (Parque Pasivo, Maricao)

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

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Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

Report—Prime and other Important Farmlands (Parque Pasivo, Maricao)

Prime and other Important Farmlands—Mayaguez Area, Puerto Rico Western Part		
Map Symbol	Map Unit Name	Farmland Classification
HmF2	Humatas clay, 40 to 60 percent slopes	Not prime farmland
Uh	Urban land-Humatas complex, 20 to 40 percent slopes	Not prime farmland

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties (Parque Pasivo, Maricao)

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

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Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves,

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numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Mayaguez Area, Puerto Rico Western Part														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
HmF2—Humatas clay, 40 to 60 percent slopes														
Humatas	85	C	0-4	Clay, silty clay	—	—	0- 0- 0	0- 2- 2	94-98-100	88-96-100	80-94-100	65-80-100	50-52-65	20-21-30
			4-12		—	—	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-94-100	79-85-100	61-63-75	28-34-38
			12-19		—	—	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-95-100	80-86-100	61-73-75	28-37-38
			19-38	Silty clay, clay, silty clay loam	—	—	0- 0- 0	0- 0- 0	98-98-100	96-96-100	84-94-100	67-82-97	52-55-60	20-23-25
			38-80	Silty clay loam, clay, silty clay	—	—	0- 0- 0	0- 0- 0	98-98-100	94-94-100	83-92-100	66-78-96	36-51-60	14-20-25

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Engineering Properties—Mayaguez Area, Puerto Rico Western Part														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Uh—Urban land-Humatas complex, 20 to 40 percent slopes														
Humatas	44	C	0-4	Clay, silty clay	ML, CH	A-6, A-4, A-7-6	0- 0- 0	0- 2- 2	94-98-100	88-96-100	80-94-100	65-80-100	38-40-58	9-11-29
			4-12	Clay, silty clay	CH, CL	A-7-6	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-94-100	79-85-100	39-52-68	14-24-36
			12-19	Clay, silty clay	CH, CL	A-7-6	0- 0- 0	0- 0- 0	98-98-100	96-96-100	90-95-100	80-86-100	41-54-68	16-26-36
			19-38	Silty clay, clay, silty clay loam, clay loam	CL, CH	A-7-6	0- 0- 0	0- 0- 0	98-98-100	96-96-100	84-94-100	67-82-97	33-42-56	11-18-28
			38-80	Silty clay loam, silty clay, clay, clay loam	CL	A-6, A-7-6, A-4	0- 0- 0	0- 0- 0	98-98-100	94-94-100	83-92-100	66-78-96	29-40-42	8-16-18

8-STEP PROCESS

**U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT:
COMMUNITY DEVELOPMENT BLOCK GRANT – DISASTER RELIEF (CDBG-DR) PROGRAM
Parque Pasivo _ Project PR-CRP-000873**

APPENDIX

- 01 Location Map
- 02 Early Notice and Public Review
- 03 JP Determinación Inundación
- 04 FEMA ABFE
- 05 JP-PUT
- 06 General Site Plan
- 07 SFHA Floodway Limits
- 08 8 Step Decision Making Process Analysis
- 09 USFWS National Wetland Map
- 10 National Wetlands Inventory
- 11 Final Notice

02 Early Notice and Public Review

Attachment 2

Step 2 Early Notice and Public Review of a
Proposed
Activity in the 100-Year Floodplain/Wetland



aviso público

Aviso Preliminar y Revisión Pública de una Actividad Propuesta en un valle inundable de 100 años

**Parque Pasivo
PR-CRP-000873**

Para: Todas las partes interesadas, grupos e individuos

Este aviso notifica que el Departamento de la Vivienda de Puerto Rico (Vivienda, en adelante) ha determinado que la siguiente acción propuesta bajo el Programa de Revitalización de la Ciudad, Subvención en Bloque para el Desarrollo Comunitario – Recuperación ante Desastres (CDBG-DR), número de subvención B-17-DM-72-0001 y B-18-DP-72-0001, se encuentra en un valle inundable de 100 años. Vivienda estará evaluando e identificando alternativas prácticas para realizar la acción propuesta y el impacto potencial en la llanura de inundación debido a la acción propuesta, según establecido por la Orden Ejecutiva 11988, de acuerdo con las regulaciones de HUD en 24 CFR 55.20 Subparte C - Procedimientos para tomar determinaciones sobre el manejo de llanuras aluviales y la protección de humedales. El proyecto propuesto, **PR-CRP-000873**, se encuentra dentro de un municipio que sufrió daños debido a los huracanes Irma y María y está localizado en la carretera PR-357 Km 0.0, Maricao, PR 00606; coordenadas 18.181943, -66.980671. El objetivo del proyecto consiste en la rehabilitación y mejoras de las instalaciones recreativas existentes, como gazebos, baños, iluminación y un puente peatonal de acero. La nueva construcción incluye un sendero peatonal, parque infantil, mobiliario del parque, anfiteatro al aire libre, mejoras en las aceras a lo largo de PR-357, acceso según la Ley de Estadounidenses con Discapacidades (ADA, siglas en inglés) y el manejo de aguas pluviales. La siembra de jardines incorporará técnicas de control de la erosión del suelo. La actividad propuesta se ubica en dos tipos de zonas de inundación, 0.12 acres en valle inundable zona A y 0.81 acres en un área fuera de la zona inundable. El área del proyecto se encuentra en el Flood Insurance Rate Map (FIRM) 72000C01040H, revisado el 19 de abril de 2005, como se indica en el Centro de Servicio de Mapas de Inundaciones de FEMA en <https://msc.fema.gov/portal/home>.

Este aviso tiene tres propósitos principales. En primer lugar, las personas que puedan verse afectadas por las actividades en las llanuras aluviales y las que tengan interés en la protección del ambiente natural deben tener la oportunidad de expresar sus inquietudes y proveer información sobre estas áreas. Se exhorta a la comunidad a ofrecer ubicaciones alternas fuera de las llanuras aluviales, métodos alternos para cumplir el mismo propósito del proyecto y métodos para minimizar y mitigar los impactos. Segundo, un programa adecuado de avisos públicos puede ser una herramienta importante para la educación pública. La divulgación de información sobre las llanuras aluviales puede facilitar y mejorar los esfuerzos federales para reducir los riesgos e impactos asociados con la ocupación y alteración de estas áreas especiales. Tercero, como materia de justicia, cuando el gobierno federal determine participar en acciones ubicadas en las llanuras aluviales, debe informárselo a quienes puedan ser expuestos a un riesgo mayor o similar al presente.

Vivienda considerará todos los comentarios recibidos en o antes de 1 de octubre de 2023 [un período mínimo de comentarios de 15 días calendario comenzará el día después de la publicación y finalizará el día 16 después de la publicación]. Pueden enviar los comentarios de forma impresa a la siguiente dirección: Departamento de la Vivienda de Puerto Rico, edificio Juan C. Cordero Dávila, 606 avenida Barbosa, Río Piedras, PR 00918-8461, Atención: Ivelisse Lorenzo-Torres, Especialista en Permisos y Cumplimiento Ambiental. Una descripción completa del proyecto está disponible al público para revisión de 8:30 a.m. a 4:00 p.m. en el Departamento de la Vivienda de Puerto Rico, edificio Juan C. Cordero Dávila, 606 avenida Barbosa, Río Piedras, PR 00918. El número para obtener información es (787)274-2527 ext. 4320. Como alternativa, también pueden enviar los comentarios a Vivienda por medio electrónico a environmentcdbg@vivienda.pr.gov.

Fecha: 15 de septiembre de 2023



DEPARTAMENTO DE LA VIVIENDA



public notice

Early Notice and Public Review of a Proposed Activity in the 100-Year Floodplain

**Parque Pasivo
PR-CRP-000873**

To: All Interested Parties, Groups & Individuals

This is to give notice that the Puerto Rico Department of Housing (PRDOH) has determined that the following proposed action under the Community Development Block Grant – Disaster Recovery (CDBG-DR), City Revitalization Program, Grant number B-17-DM-72-0001 & B-18-DP-72-0001, is located in the 100-year floodplain. PRDOH will be identifying and evaluating practicable alternatives to locating the action in the floodplains and the potential impacts on the floodplain from the proposed action, as required by Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C - Procedures for Making Determinations on Floodplain Management and Protection of Wetlands. The proposed project, **PR-CRP-000873**, is within a municipality with structures damaged by Hurricanes Irma and María and it's located at by Road PR-357 Km 0.0, Maricao, PR 00606; coordinates 18.181943, -66.980671. The objective of the project consists in the rehabilitation and improvements to the existing recreational facilities such as gazebos, bathroom, lighting, and a steel pedestrian bridge. New construction includes a pedestrian path, playground, park furniture, outdoor amphitheater, sidewalk improvements along PR-357, ADA access and storm water management. Landscape planting will incorporate soil erosion control techniques. The proposed activity is situated in a diverse flood zone type, 0.12 acres located in the flood zone A, and 0.81 acres out of the floodplains. The floodplains in the project area can be found at Flood Insurance Rate Map (FIRM) Panel 72000C01040H, revised on April 19, 2005, as shown in the FEMA Flood Map Service Center at <https://msc.fema.gov/portal/home>.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Commenters are encouraged to offer alternative sites outside of the floodplains, alternative methods to serve the same project purpose, and methods to minimize and mitigate impacts. Second, an adequate public notice program can be an important public education tool. The dissemination of information and request for public comment about floodplains can facilitate and enhance federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk.

PRDOH will consider all comments received on or before October 1, 2023 [a minimum 15 calendar day comment period will begin the day after the publication and end on the 16th day after the publication]. Written comments can be sent to the following address: Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918-8461, Attention: Ivelisse Lorenzo-Torres, Permits and Environmental Compliance Specialist. A complete description of the project is available to the public for review from 8:30 am to 4:00 pm at the Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918. The number to get information is (787)274-2527 ext. 4320. In the alternative, comments may also be sent to PRDOH by email at environmentcdbg@vivienda.pr.gov.

Date: September 15, 2023



DEPARTMENT OF HOUSING



RosaRamos, Sol

From: AlbaladejoTorres, Luis
Sent: Friday, September 15, 2023 9:58 AM
To: RosaRamos, Sol
Cc: Espada, Deborah
Subject: Maricao / Evidence of Step 2 Early Notice / PR-CRP-000873
Attachments: Early Notice and Public Review CRP Project 873 - Maricao.pdf

Saludos Sol,

Adjunto el Step 2 Early Notice para el proyecto 000873 y te reenvío la evidencia de la notificación a las agencias del gobierno.

Luis A. Albaladejo Torres, PE | Project Assistant
Mobile (787) 225-7066 | l.albaladejotorres@tetrattech.com

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From: Robert Rodriguez <cdbgmaricao@gmail.com>
Sent: Friday, September 15, 2023 9:26 AM
To: anais.rodriguez@drna.pr.gov <anais.rodriguez@drna.pr.gov>; ayudaciudadano@drna.pr.gov <ayudaciudadano@drna.pr.gov>; jannira.colon@ddec.pr.gov <jannira.colon@ddec.pr.gov>; comentariosjp@jp.pr.gov <comentariosjp@jp.pr.gov>; Caribbean_es@fws.gov <Caribbean_es@fws.gov>; secretario@ddec.pr.gov <secretario@ddec.pr.gov>; rcabrera@agricultura.pr.gov <rcabrera@agricultura.pr.gov>; jcampos@agricultura.pr.gov <jcampos@agricultura.pr.gov>; alejandro.de-la-campa@fema.dhs.gov <alejandro.de-la-campa@fema.dhs.gov>; edwin_muniz@fws.gov <edwin_muniz@fws.gov>; guerrero.carmen@epa.gov <guerrero.carmen@epa.gov>; PublicMail.CESAJ-CC@usace.army.mil <PublicMail.CESAJ-CC@usace.army.mil>; Sindulfo.Castillo@usace.army.mil <Sindulfo.Castillo@usace.army.mil>; nmfs.ser.esa.consultations@noaa.gov <nmfs.ser.esa.consultations@noaa.gov>
Cc: AlbaladejoTorres, Luis <Luis.AlbaladejoTorres@tetrattech.com>; Ovidio Gonzalez-Feliciano <director.opmaricao@gmail.com>; Municipio Maricao <alcaldiamaricao.pr@gmail.com>; PROGRAMAS FEDERALES MUNICIPIO MARICAO <rickyfc10@gmail.com>; PROGRAMAS FEDERALES MUNICIPIO MARICAO <mmaricao@hotmail.com>
Subject: Aviso Publicado en Primera Hora - Public Notice - Municipio de Maricao (Proyecto 873)

⚠ CAUTION: This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

Saludos Cordiales:

Acompañamos el aviso publicado en el día de hoy para la revisión publica preliminar de una propuesta para apoyar actividades realizadas en terrenos inundables de 100 años.

Cordialmente,
Robert Rodríguez Vega
Municipio de Maricao



October 2, 2023

To whom it may concern,

This letter is to validate that no comments were received in the Permits and Environmental Compliance Division e-mail: environmentcdbg@vivienda.pr.gov, for the project *Parque Pasivo* (PR-CRP-000873), as part of the CDBG-DR City Revitalization Program. The Early Notice and Public Review of a Proposed Activity in the 100-Year Floodplain was published in the *Primera Hora* newspaper of Puerto Rico on September 15, 2023, with a comment period that concluded on October 1, 2023.

Cordially,

Permits and Environmental Compliance Division
CDBG-DR/MIT Program
environmentcdbg@vivienda.pr.gov | 787.274.2527 ext. 4320

Andrea Curbelo-Marty

From: Kenneth M. Garcia-De Leon
Sent: Monday, October 2, 2023 4:42 PM
To: environmentcdbg
Subject: RE: Comentarios PR-CRP-000873

Saludos

Por correo postal no llegaron comentarios para mencionado proyecto.

Atentamente

Kenneth M. García De León
Oficial de Radicación de Informes de Operaciones
Oficina Recuperación de Desastres
kgarcia@vivienda.pr.gov | [787.274.2527](tel:787.274.2527) Ext. 4013
Visit us: www.cdbg-dr.pr.gov
Write us: infocdbg@vivienda.pr.gov

**DEPARTAMENTO DE LA
VIVIENDA**



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From: environmentcdbg <environmentcdbg@vivienda.pr.gov>
Sent: Monday, October 2, 2023 1:50 PM
To: Kenneth M. Garcia-De Leon <kgarcia@vivienda.pr.gov>
Subject: Comentarios PR-CRP-000873

Saludos Kenneth,

Con respecto a la publicación del Aviso Preliminar y Revisión Pública de una Actividad Propuesta en una Llanura Aluvial de 100 años (Paso 2) para el proyecto **Parque Pasivo – Maricao (PR-CRP-000873)** ¿habrá llegado algún comentario a través del correo postal? De ser así, por favor nos lo hace llegar.

Cordialmente,

Permits and Environmental Compliance Division

Office of Disaster Recovery

environmentcdbg@vivienda.pr.gov | 787.274.2527

Visit us: www.cdbg-dr.pr.gov

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Attachment 1

Maps

National Flood Hazard Layer FIRMMette



66°59'10"W 18°11'13"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/3/2022 at 9:19 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

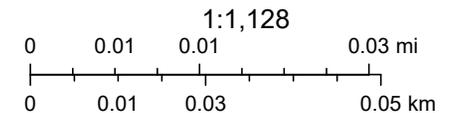


1/8/2024

Flood Hazard Area (zoom in to make visible)

- | | |
|--|---|
| A | VE |
| AO | 0.2% Annual Chance Flood Zone |
| AE | A-Floodway |
| Coastal A Zone | AE-Floodway |

- | | | |
|--|--|--|
| Coastal A Zone and Floodway | Zone/BFE Boundary | Limit of Moderate Wave Action (LiMWA) |
| Flood Hazard Extent | FIRM Panels | Streamline (zoom in to make visible) |
| 1% Annual Chance Flood | | |
| 0.2% Annual Chance Flood | | |





January 9, 2024

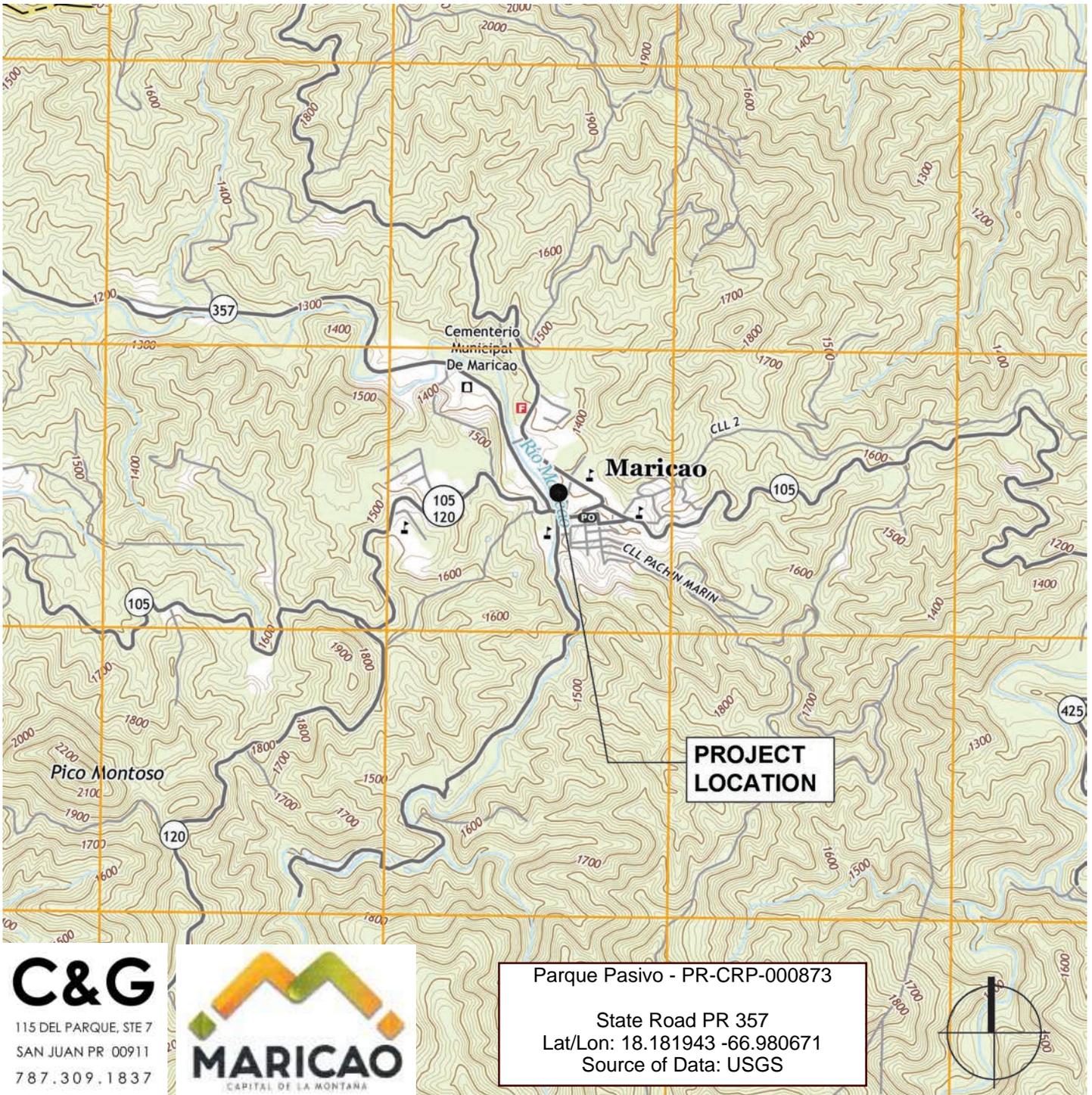
Wetlands

- | | | |
|--|---|--|
|  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.

01 Location Map

PARQUE PASIVO PR-CRP-000873

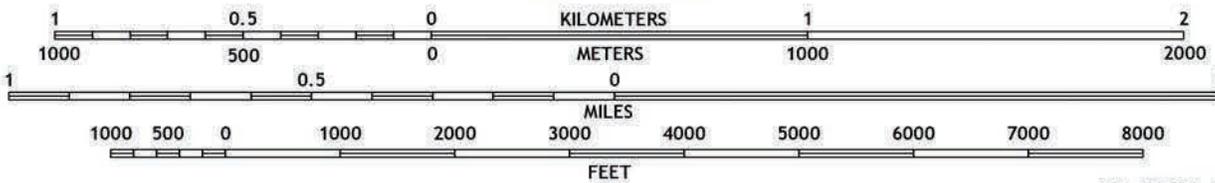


C&G

115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837



SCALE 1:20 000



QUADRANGLE LOCATION



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

MARICAO QUADRANGLE
PUERTO RICO
7.5-MINUTE SERIES
MARICAO, PR
2018

03 JP Determinación Inundación



Gobierno de Puerto Rico
Junta De Planificación de Puerto Rico
Administrador Estatal de Valles Inundables
Oficina de Geología e Hidrogeología

Determinación Número
2023-00-JDI-1952

DETERMINACIÓN DE INUNDACIÓN

Determinación sobre la clasificación de una propiedad respecto a las Áreas Especiales de Riesgo a Inundación en Puerto Rico

Número de Catastro 262-000-002-39	Nombre de la Comunidad Participante Comunidad Participante de Puerto Rico	Número de la Comunidad Participante 720000#
--------------------------------------	--	--

Información de la Propiedad

Municipio Maricao	Barrio Barrio Pueblo	Carretera y Sector PR 357 Maricao	Plus Code 77CM52J9+VQ	Coordenadas X:142105.1 Y:238698
----------------------	-------------------------	--------------------------------------	--------------------------	---------------------------------------

Información sobre el Mapa de Tasas del Seguro de Inundación

(FIRM, por sus siglas en inglés)

Número del Mapa de Inundación, FIRM 72000C1040H	Vigencia 19/Apr/2005	Status de Panel Printed	Zona Inundable X (76.8%), A (23.2%)
Cauce Mayor (Sí, No, No determinado) No	¿La propiedad ubica en un área especial de riesgo a inundación del 1% de probabilidad? Sí	Nivel de Inundación Base (MSL) 89.1 m.	Profundidad de Inundación Base (Solo aplica a Zona AO) No Aplica
Sistema de Barreras Costeras (Sí o No)/Fecha de Designación No Aplica	Tipo de Barrera Costera No Aplica	Cuenca Hidrográfica (USGS) Cuenca del Río Guanajibo	¿Se propone depósito de relleno? No
Nombre del Cuerpo de Agua Adyacente (cuando es VE es el mar, primera fase el cuerpo de agua mas cercano) Río Maricao (Quebradas) a 00.9 m.			

Información sobre el Mapa de Niveles de Inundación Base Recomendados

(ABFE, por sus siglas en inglés)

Número del Mapa de Inundación 72000C1040H	Vigencia 13/Apr/2018	Zona Inundable Fuera mapa (ABFE) (74.9%), A (24.0%), X (0.2%) ACE) (1 1%)
--	-------------------------	---

La Junta de Planificación de Puerto Rico, en su resolución JP-ABFE_01 del 23 de marzo de 2018, requiere que para toda nueva construcción o mejora sustancial, otorgación de permisos según aplique en su ámbito jurisdiccional cumpla con los Mapas de Niveles de Inundación Base Recomendados preparados por la Agencia Federal para el Manejo de Emergencias (FEMA, por sus siglas en inglés); excluyendo de su uso determinaciones o decisiones relacionadas al seguro de inundación NFIP, por sus siglas en inglés.

Determinación

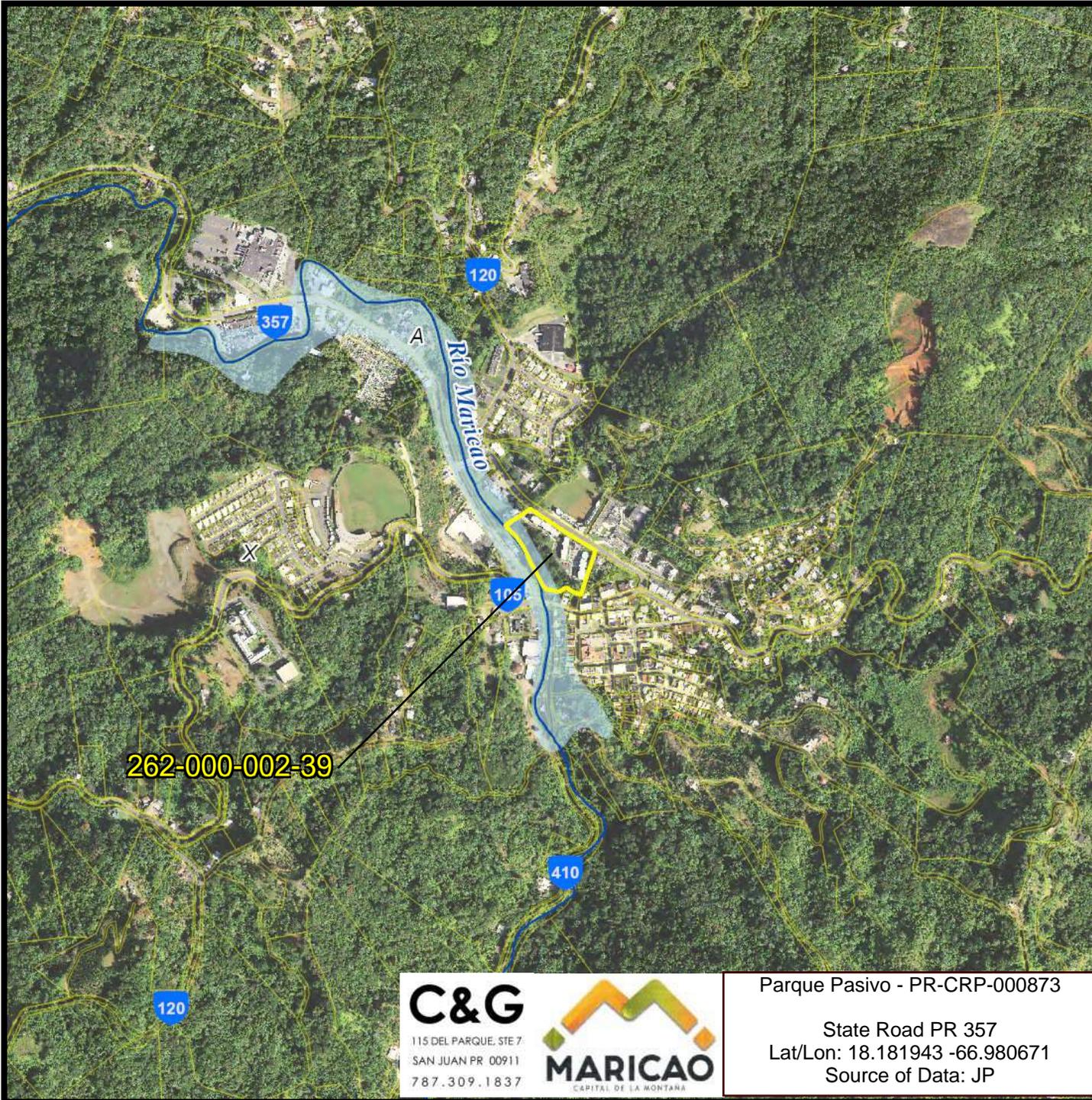
Esta determinación está basada en datos de la Junta de Planificación y datos obtenidos de los Mapas de Tasas del Seguro de Inundación vigentes y no determina la localización exacta de una estructura dentro de una propiedad. Se advierte que una propiedad no localizada dentro del área inundable regulatoria (inundación del 1% de probabilidad o inundación con recurrencia de 100 años) pudiera ser afectada por inundaciones locales o inundaciones de otras recurrencias no reflejadas en estos mapas. Para propósitos del seguro de inundación, el mapa oficial es el DFIRM, adoptado por la Junta de Planificación de Puerto Rico. La clasificación parcial entre dos o más zonas, prevalecerá la más estricta.

Si la propiedad está en un Área Especial de Riesgo [Peligro] a Inundación, se requiere cumplir con las disposiciones del Reglamento de Planificación No. 13 vigente y será requerido cumplir con la Ley Federal de Protección a Desastres del año 1973. Para las zonas A, AE, AO, AH, A99 y VE es requisito obligatorio adquirir un seguro de inundación para propiedades con hipotecas respaldadas federalmente.

Solicitante
José M Castro Pavía

Contáctenos en avipr@jp.pr.gov

Fecha de Emisión
14/Sep/2023



Mapa sobre Tasas del Seguro de Inundación
(Flood Insurance Rate Maps, FIRM)

NFIP PANEL 1040H

FIRM
FLOOD INSURANCE RATE MAP
COMMONWEALTH OF
PUERTO RICO
AND MUNICIPALITIES

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COUNTY	NUMBER	PANEL	SHEET
Puerto Rico	72000	1040	H

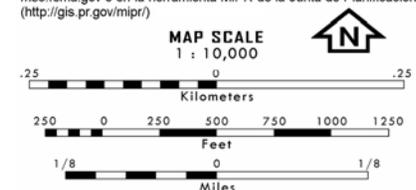
MAP NUMBER
72000C1040H
EFFECTIVE DATE
19/Apr/2005

Federal Emergency Management Agency

Leyenda

0.2% ACF	AE
A	AH
A99	AO
Cauce Mayor	VE
Coastal Barrier	X

Notas:
Las elevaciones mostradas en estos mapas son consideradas la mejor información disponible hasta que se desarrollen Mapas de Tasas del Seguro de Inundación (FIRM, por sus siglas en inglés) actualizados.
Estos mapas NO han sido desarrollados para tomar determinaciones respecto al seguro de inundación del Programa Nacional del Seguro de Inundación (NFIP, por sus siglas en inglés). Para propósitos del seguro de inundación, se debe hacer referencia a los FIRMs vigentes para Puerto Rico y disponibles en <http://msc.fema.gov> o en la herramienta MiPR de la Junta de Planificación (<http://gis.pr.gov/mipr/>)



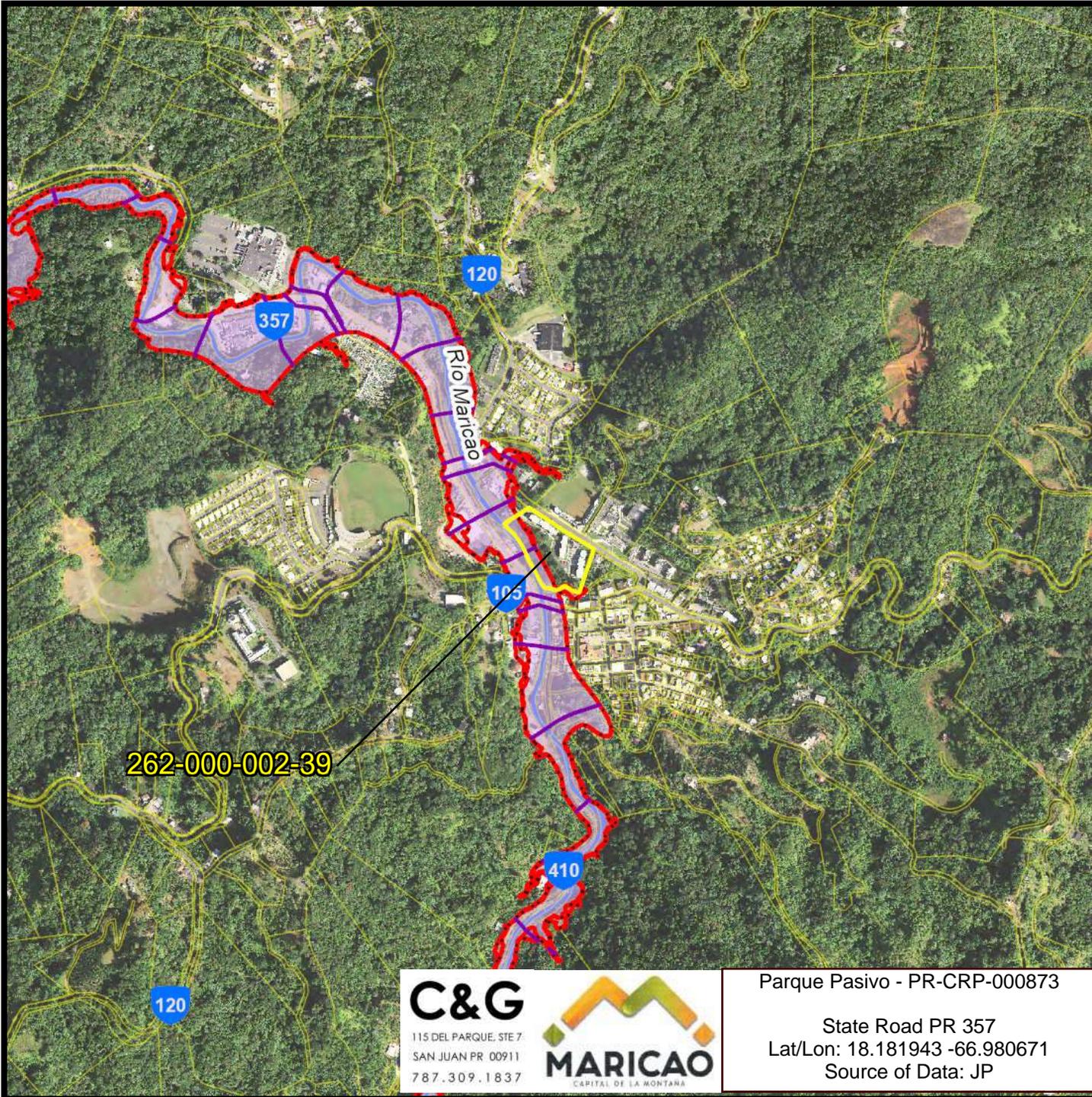
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115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837



Parque Pasivo - PR-CRP-000873

State Road PR 357
Lat/Lon: 18.181943 -66.980671
Source of Data: JP



Mapa de Niveles de Inundación Base Recomendados
Para propósitos de nueva construcción o mejora substancial.

Estos mapas desarrollados por la Agencia Federal para el Manejo de Emergencias (FEMA, por sus siglas en inglés) identifican cuales áreas se encuentran en las nuevas zonas inundables recomendadas del 1% y 2% de probabilidad, así como los niveles de inundación base recomendados (ABFE, por sus siglas en inglés) que pueden afectar las prácticas de construcción en Puerto Rico.

Zona Inundabilidad	Porcentaje
Fuera mapa (ABFE)	74.9
A	24.0
X (0.2% ACF)	1.1

Nivel de Inundación Base Recomendado: 420 m.

Panel Inundabilidad: 72000C1040H

Fecha de Efectividad: 18 de abril de 2018
Ver Resolución JP-ABFE_01 del 23 de marzo de 2018

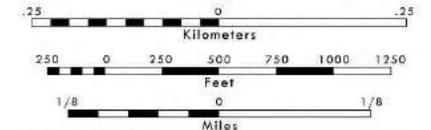
Leyenda

Hidrografía	A
Límite ABFE	AE
Cauce Mayor	AO
	Coastal A Zone
	VE
	X (0.2% ACF)

Notas:

La elevación de inundación base que se muestra en este mapa utiliza el nivel medio del mar (MSL). Se advierte al usuario que toda información obtenida del mapa deberá corroborarse con el Estudio del Seguro de Inundación (FIS, por sus siglas en inglés) de Puerto Rico. Se deberá utilizar la tabla de niveles de inundación provista por dicho estudio que muestra la elevación para inundación, dichos datos deberán ser utilizados en proyectos de construcción o propósitos relacionados con la administración de Valles Inundables en Puerto Rico cuando estos sean mayores a las elevaciones que muestra el mapa de Inundaciones (FIRM).

MAP SCALE
1 : 10,000



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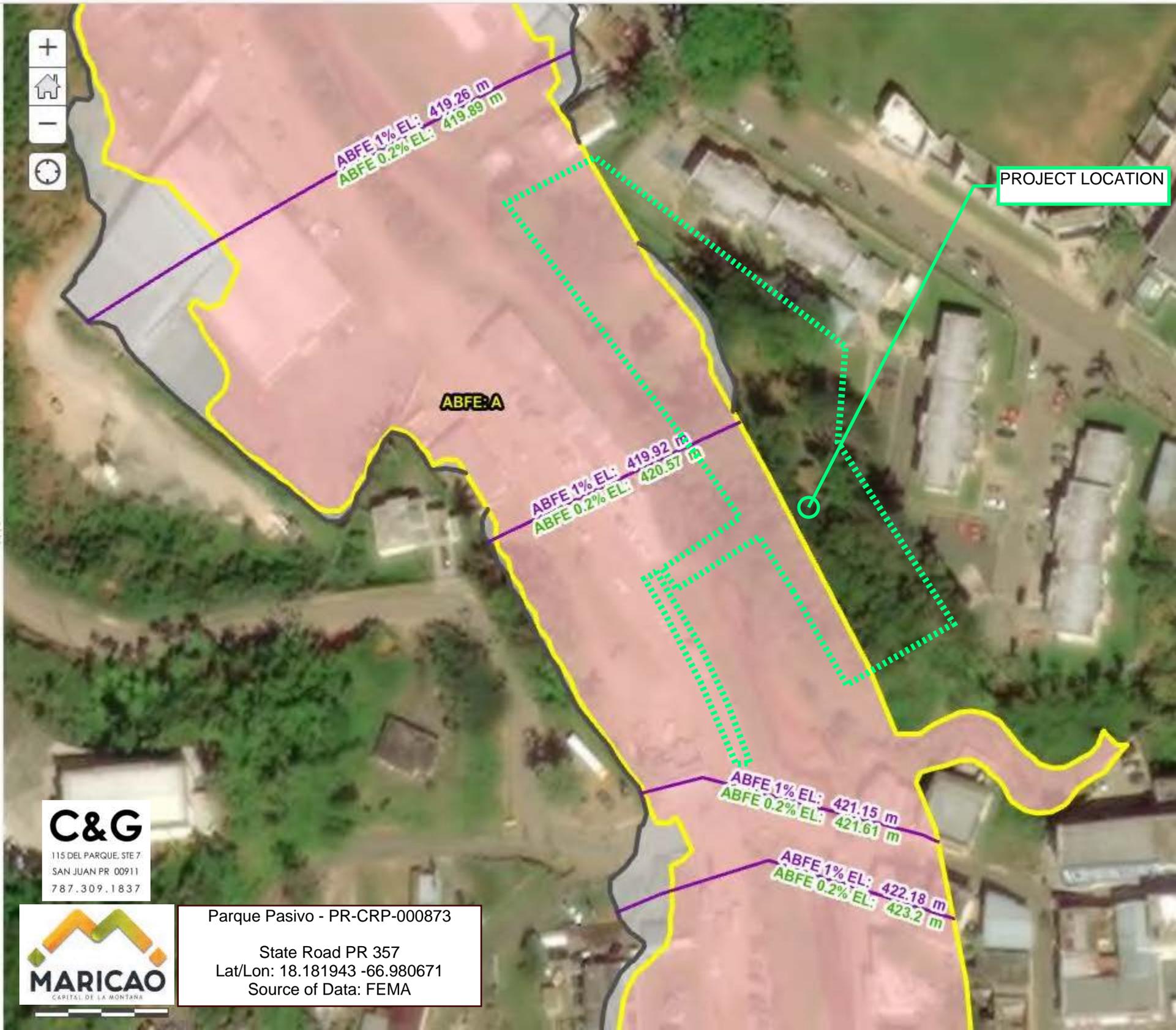
Parque Pasivo - PR-CRP-000873

State Road PR 357
Lat/Lon: 18.181943 -66.980671
Source of Data: JP

04 FEMA ABFE

- Municipios
- Flood Hazard Boundary (zoom in to make visible)
- Limit of Moderate Wave Action (LiMWA)
- Flood Hazard Extent
 - 1% Annual Chance Flood
 - 0.2% Annual Chance Flood
- Zone/BFE Boundary
- Flood Hazard Area (zoom in to make visible)
- Floodway
- Flood Hazard Zone

- A
- AO
- AE
- Coastal A Zone
- VE
- X 0.2% Annual Chance Flood
- A-Floodway
- AE-Floodway
- Coastal A Zone and Floodway

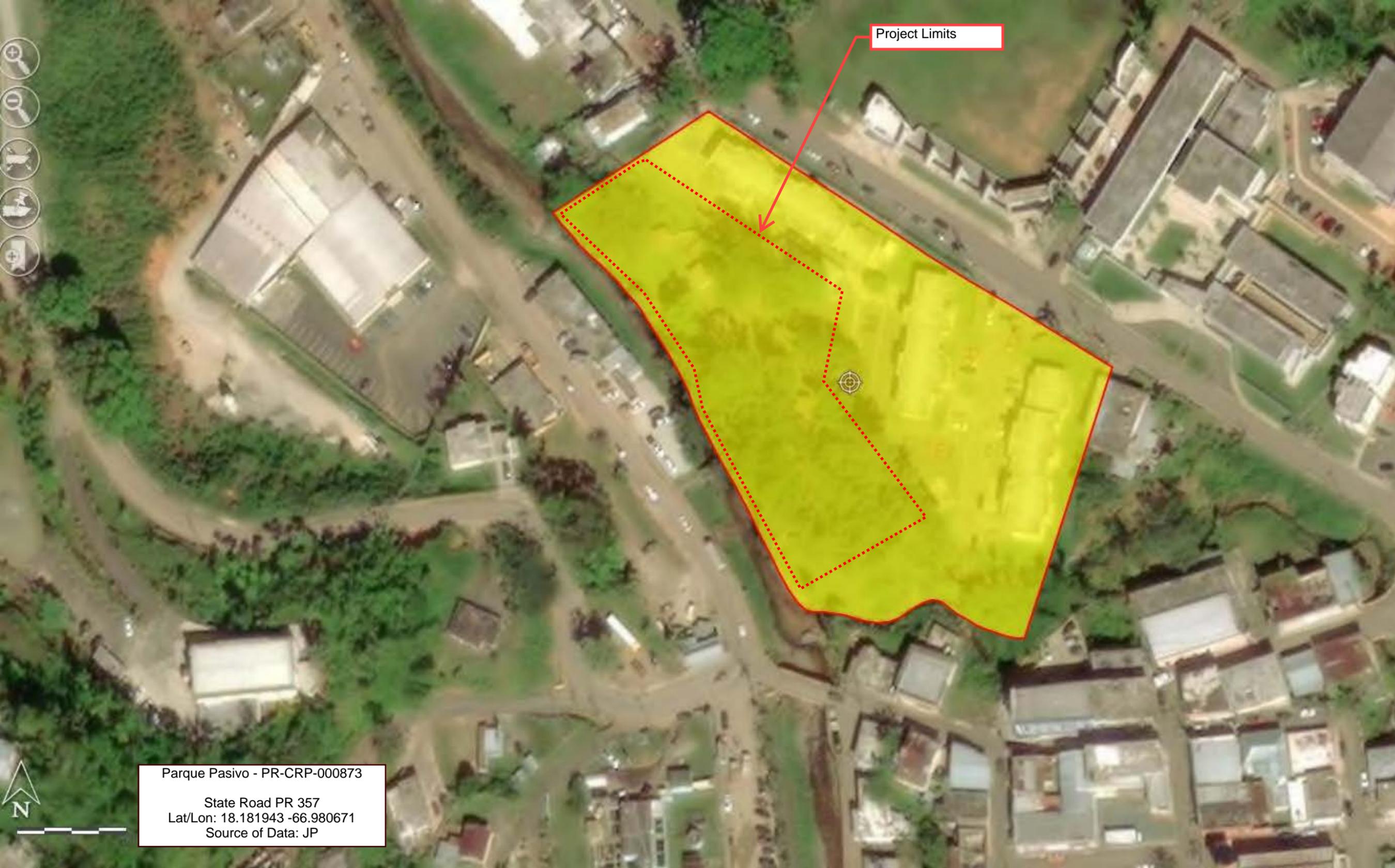


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SAN JUAN PR 00911
787.309.1837



Parque Pasivo - PR-CRP-000873
State Road PR 357
Lat/Lon: 18.181943 -66.980671
Source of Data: FEMA

05 JP - PUT



Project Limits

Ubicación	
Catastro	262-000-002-39
Coordenadas Nad83	x: 142105.0524, y: 238698.0137 (Lat: 18.18219065, Lon: -66.98056928) Ver: Google Google Earth OpenStreet Temblores USGS Waze
Area Aprox. (m.c.)	12322.2531
Municipio	Maricao
Barrio	Barrio Pueblo
Características Ambientales	
Zona Inund. Advisory	A (24.0%) , X 0.2% ACF (1.1%)
Zona Inundabilidad (firm)	X (76.8%) , A (23.2%)
Panel Inundabilidad (advisory)	72000C1040H
Floodway	No ubica en floodway
Suelo (NRCS)	HmF2 (49.5%) , SNS (45.2%) , HmD2 (5.3%)
Calificación y Clasificación de Suelo	
Calificación	Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
Clasificación PT	Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
Clasificación PUT	SU (Suelo Urbano)
Mapas de Calificación	Hoja: 001 de Maricao Mapa PUT
Distrito Sobrepuesto	
Zona Histórica	
Sitio Histórico	
Reglamento Aplicable	<ul style="list-style-type: none"> Plan de Uso de Terrenos Reglamento Conjunto de Permisos para Obras de Construcción y Usos de Terrenos (2020) Reglamento Núm. 13 - Sobre Áreas Especiales de Riesgo a Inundación
Vigencia de Clasificación PUT	30-nov-2015
Vigencia de GeoDato de Calificación	07/30/1990
Status POT	Fase: 4
Permisos	1 Casos ARPE

Parque Pasivo - PR-CRP-000873
 State Road PR 357
 Lat/Lon: 18.181943 -66.980671
 Source of Data: JP

C&G
 115 DEL PARQUE, STE 7
 SAN JUAN PR 00911
 787.309.1837

MARICAO
 CAPITAL DE LA MONTAÑA

JUNTA DE
PLANIFICACIÓN

06 General Site Plan

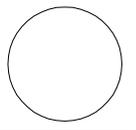
THESE PLANS ARE AN INSTRUMENT OF SERVICE AND THE PROPERTY OF THE ARCHITECTS. THEY MAY NOT BE COPIED OR REPRODUCED WITHOUT THEIR EXPRESS WRITTEN CONSENT.

C&G

JMCP +
JLG ARCHITECTS

BAIGES GEOTECHNICAL ENGINEERS, LLC
110 ONE PARKWAY STREET, SUITE 1000, SAN JOSE, CA 95128
408.253.8800

60% PRE DESIGN SET
NOT FOR CONSTRUCTION



PARQUE PASIVO
CARRERA ESTADAL PR 357 - MARICAO BARRO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

PROJECT: PR-CRP-006673

NO.	DATE	DRAWING ISSUE	BY	APP.
1				

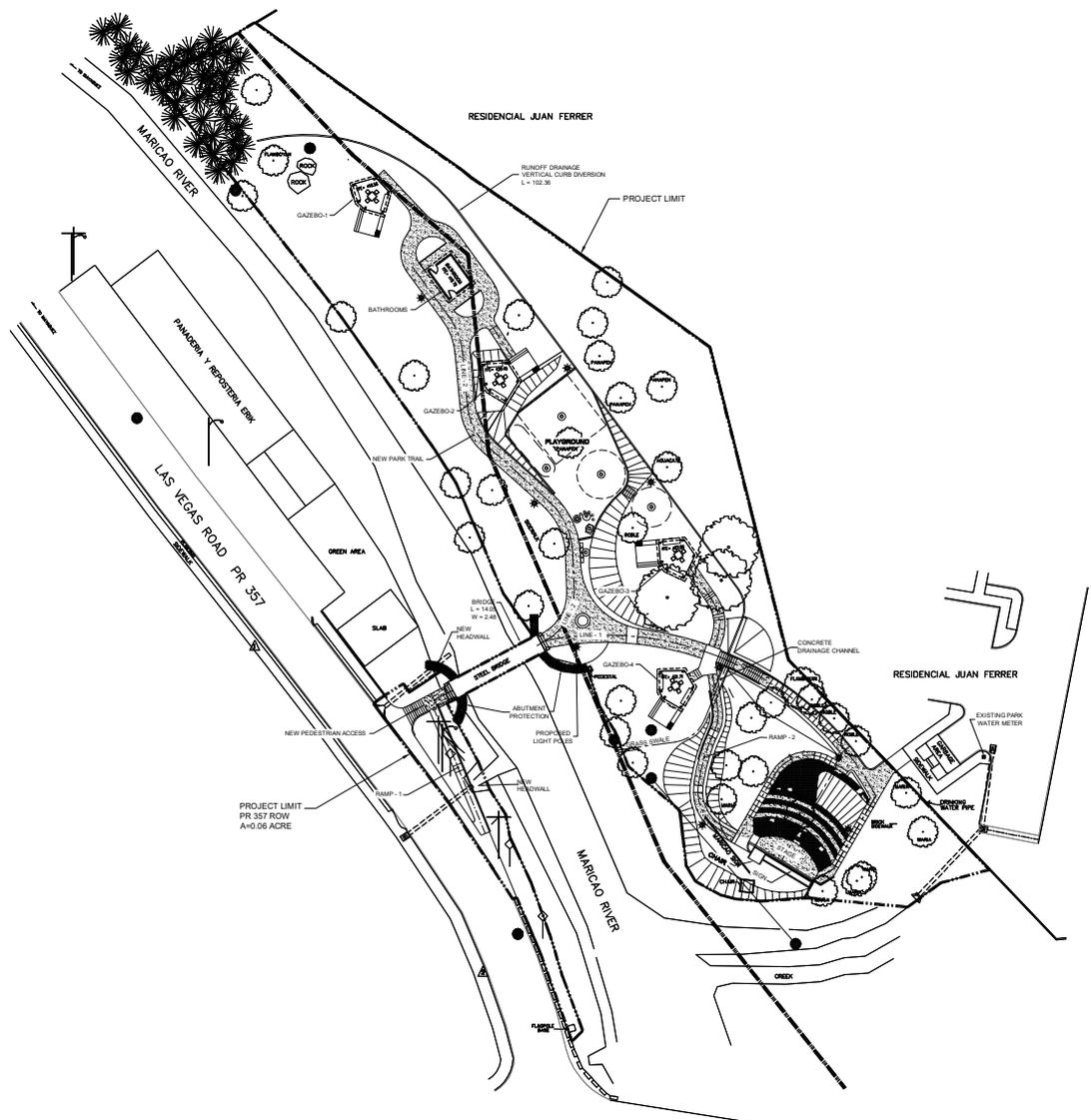
DRAWN BY:
REVIEWED BY:
DATE:

SHEET TITLE
GENERAL SITE PLAN
DRAWING NO.
G-100

SYMBOL	DESCRIPTION
	0.50 MT. CONTOUR INTERVALS
	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	1 FLOWERS
	2 YACONIA TREE
	3 MARISMA
	4 DRUMS
	5 GUMBER
	6 MULTI-ACTIVITY
	7 SPARE
	8 SEEDBAY
	9 SPINNER
	BAMBU
	TREE
	PALM

- 1 FLOWERS
 - 2 YACONIA TREE
 - 3 MARISMA
 - 4 DRUMS
 - 5 GUMBER
 - 6 MULTI-ACTIVITY
 - 7 SPARE
 - 8 SEEDBAY
 - 9 SPINNER
- 1 FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
2 FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.

HORIZONTAL VERTICAL CONTROLS	
STATION # 01 Y = 100,000.000 X = 142,200.000 ELEV. = 45.000 PK	STATION # 02 Y = 200,000.000 X = 142,200.000 ELEV. = 45.000 PK



GENERAL SITE PLAN
scale = 1:300



07 SFHA Floodway Limits

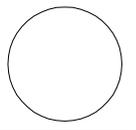
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C&G

JMCP +
JLG ARCHITECTS
110 ONE PARKWAY STREET
SAN JOSE, COSTA RICA
2222-0000

BAIGES GEOTECHNICAL ENGINEERS, LLC
11400 W. CENTRAL EXP. SUITE 1000
DENVER, COLORADO 80231
303.750.0000

60% PRE DESIGN SET
NOT FOR CONSTRUCTION



PARQUE PASIVO
CABARETIN ESTATAL PR 367 - MARICAO BARRO PUEBLO
GOBIERNO MUNICIPAL DE MARICAO

PROJECT: PR-CRP-006673

NO.	DATE	DRAWING ISSUE	BY	APP.

DRAWN BY: _____
REVIEWED BY: _____
DATE: _____

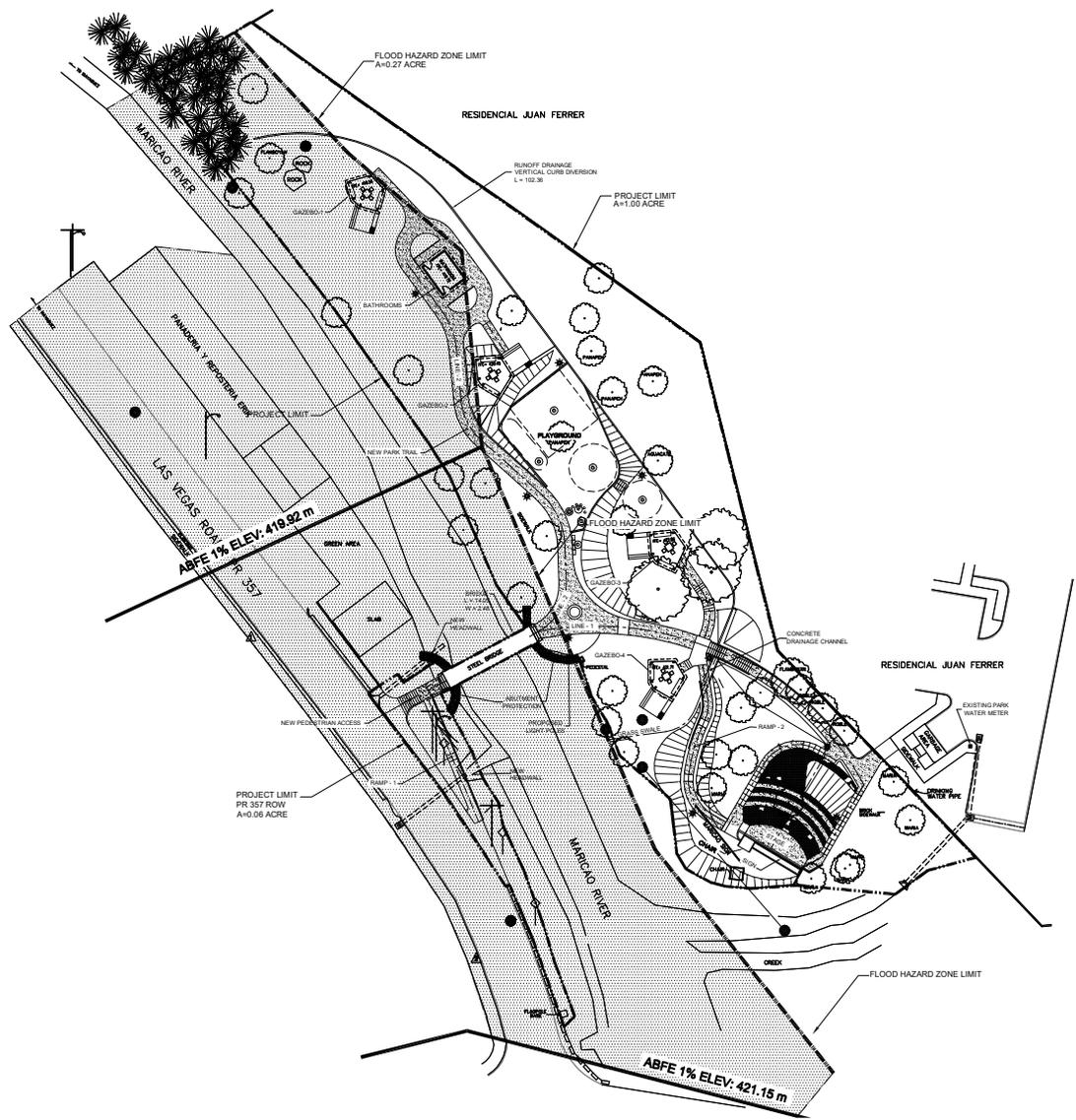
SHEET TITLE: _____
DRAWING NO: **C-305**

SYMBOL	DESCRIPTION
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	1.00 MT. CONTOUR INTERVALS
	5.00 MT. CONTOUR INTERVALS
	CONCRETE FENCE
	GUARD RAIL
	CHAIN LINK FENCE
	CONCRETE POWER TRANSMISSION POLE
	POWER WOODEN POLE
	PRTC. POLE
	LIGHTING POLE
	ORNAMENTAL POLE
	SIGN
	1 FLOWERS
	2 YACON TREE
	3 MARISSA
	4 DRUMS
	5 GUMBER
	6 MULTI ACTIVITY
	7 SPARE
	8 BUSHY
	9 SPINNER
	BAMBU
	TREE
	PALM

- 1 FLOWERS
 - 2 YACON TREE
 - 3 MARISSA
 - 4 DRUMS
 - 5 GUMBER
 - 6 MULTI ACTIVITY
 - 7 SPARE
 - 8 BUSHY
 - 9 SPINNER
- 1 FOR GAZEBOS AND BATHROOMS RENOVATIONS REFER TO ARCHITECTURAL DRAWINGS.
2 FOR EXISTING BRIDGE RENOVATIONS REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.

HORIZONTAL VERTICAL CONTROLS	
STATION # 01 Y = 100.000 X = 142,267.000 ELEV. = 451.00 PK	STATION # 02 Y = 200.000 X = 142,267.000 ELEV. = 451.00 PK

SCALE = 1:300



FLOOD HAZARD ZONE LIMITS
scale= 1:300

08 - 8 Step Decision Making Process Analysis

**EXECUTIVE ORDER 11988 – FLOODPLAIN MANAGEMENT EIGHT-STEP PROCESS
U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
COMMUNITY DEVELOPMENT BLOCK GRANT – DISASTER RELIEF (CDBG-DR)
PROGRAM**

FLOODPLAIN MANAGEMENT 8-STEP DECISION-MAKING PROCESS

Project: "Parque Pasivo", Municipality of Maricao, Puerto Rico

Project No. PR-CRP-000873

Decision Process for Executive Order 11988 as Provided by 24 CFR §55.20

Step 1: Determine whether the action is located in a Floodplain or Wetland.

The proposed project, PR-CRP-000873, is located by Road PR-357 Km 0.0, Maricao, PR 00606; coordinates 18.181943, -66.980671 with total dimensions of 0.93 acres. The objective of the project consists in the rehabilitation and improvements to the existing recreational facilities such as gazebos, bathroom, lighting, and a steel pedestrian bridge. New construction includes a pedestrian path, playground, park furniture, outdoor amphitheater, sidewalk improvements along PR-357, ADA access and storm water management. Landscape planting will incorporate soil erosion control techniques. The project involves public land. The proposed activity is situated in a diverse flood zone type, 0.12 acres located in the flood zone A, and 0.81 acres out of the floodplain. The project involves public. Therefore, there will not be acquisition of private land and no new construction on previously undisturbed areas addressed by this notice.

The floodplain in the project area can be found at Flood Insurance Rate Map (FIRMette), map 72000C1040H (effective 4/19/2005) as indicated on <https://msc.fema.gov/portal/home>. The ABFE Map (effective 12/11/2018) as indicated in the FEMA Flood Map Service Center at <https://gis-r2-fema.hub.arcgis.com/apps/31dfa15671944086b54b55bfc03344d7/explore>.

The project is also located adjacent to a riverine wetland. The wetland in the project area can be found at National Wetlands Inventory at <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>.

Refer to Attachment 1 for FIRMette, ABFE Map and Riverine wetland Map.

This analysis will consider impacts to the floodplain along with concerns for loss of life or property; if applicable.

Step 2: Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process.

A public notice describing the project was published in the “Primera Hora” newspaper of Puerto Rico on September 15, 2023. The notice targeted local residents, including those in the floodplain/wetland. The notice was also sent to interested Federal, and State agencies to be interested in such notices. The required fifteen (15) calendar days were allowed for public comment. As required by regulation, the notice also included the name, proposed location and description of the activity, total number of floodplain acres involved, and the responsible entity contact for information as well as a website and the location and hours of the office at which a full description of the proposed action can be viewed. No comments were received. No opposition to the proposed project was expressed by the commentators. Attachment 2 includes copy of the public notice.

Step 3: Identify and evaluate practicable alternatives.

The responsible entity has considered the following alternatives:

Alternative 1: Locate the Project Within the floodplain/wetland – The proposed action is according to zoning. Besides, the proposed project will not exceed the existing developed area and will not change the present use of the area.

Alternative 2: Locate the Project Outside of the floodplain and riverine wetland. - The responsible entity did not identify an alternative site to develop the proposed project, because the main purpose of the project is to improve the passive recreative facility within the urban area.

Alternative 3: No action taken - The proposed improvements will not be implemented, and the recreative facility will not be enhanced.

Step 4: Identify Potential Direct and Indirect Impacts of Associated with Floodplain/wetland Development.

Alternative 1: Locate the Project Within the floodplain and riverine wetland. –The project at the proposed site will not impact the floodplain and riverine wetland and will not have a significant impact on the actual runoff water behavior during weather events. The city of Mayagüez is a member of the National Flood Insurance Program and structures located in the flood zone must comply with the PR flood regulations. In consequence, the structures will be constructed according to the current regulations designed to minimize these impacts. Potential adverse impacts from construction would be temporary and mitigated through construction staging plans developed in partnership with the Maricao

Municipality to minimize disturbance throughout the construction period and at the end of the project. The recreation area will mostly consist of green areas with no enclosed structures. Project activities will not impact wetlands. The proposed project will be connected to the existing infrastructure systems, minimize adverse impacts on the environment and will help preserve the present functions and values like water quality, erosion control and flora & fauna habitat in the facility.

Step 5: Mitigate Adverse Impacts

The determination is that there is no practicable alternative for locating the project outside the floodplain/wetland.

The highest priority of this review is to prevent the loss of life. No loss of life could be generated as part of the proposed actions. On the contrary, the proposed works would not only generate a positive impact to the actual floodplain/wetland in benefit of the people's life, but also would help to protect the financial investment of the contiguous business that actually serves the community.

In order to preserve property, flood insurance will also be acquired and maintained in order to mitigate flood damage.

The site design chosen as an alternative at Step 3 reduces floodplain and riverine wetland impacts and prevents new construction from occurring in the floodplain considering provisions for draining and using pervious surfaces throughout the site. The construction will have minimal effects on water resources. Impacts to the floodplain and riverine wetland will also be limited due to construction occurring within the previously developed site. Construction debris will be collated and disposed at a certified dump site or other authorized facility to manage wastes.

Step 6: Re-Evaluate Alternatives

No new occupancy or modification of the floodplain and riverine wetland areas will take place since this project consists of an existing recreational facility that is actually in use. The proposed improvements will provide longer useful life of the facility so that it can be continued to be used by citizens of Maricao and their visitors. The People of Puerto Rico and the Municipality of Maricao are the owners of the proposed project site. No additional cost due to land acquisition will be incurred upon nor will ownership issues needed to be solved.

It is the responsible entity determination that there is no practicable alternative for locating the project outside the flood zone. This is due to:

- 1) Enhance current recreational and outdoor options for the people of Maricao.

- 2) Provide recreational open spaces alternatives to low- and moderate-income communities surrounding the area.
- 3) The ability to mitigate and minimize impacts on human health, public property, and floodplain/wetland values.
- 4) Improve existing site's conditions, and infrastructure.
- 5) Will help to prevent further deterioration of the site.
- 6) Have minimal adverse impacts on the floodplain functions and values.
- 7) Improve tourism to the City of Maricao.
- 8) The people of Puerto Rico and the Municipality of Maricao are the owners of the proposed project site, no additional cost due to land acquisition will be incurred upon nor will ownership issues needed to be solved.

If no action is taken, the proposed improvements will not be implemented, and the recreative facility will not be enhanced. The proposed use is in harmony with the surrounding developments area.

Step 7: Determination of No Practicable Alternative

PRDOH has considered the following alternatives and mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial values: (1) locate the project within the floodplain according to zoning, (2) locate the project outside of the floodplain, and (3) take no action. Alternative 1 is considered a viable option that has no impact to the floodplain by incorporating primarily open green spaces and will maintain the current use of the area, necessary for community residents. The proponent considers that the project will not have a significant impact on the actual runoff water behavior during weather events. Alternatives 2 and 3 are not feasible since the needed improvements for revitalization, restoration, and construction of the urban center are site specific. The proposed project must be located in the floodplain by considering the following aspects: the need to provide recreational open spaces for the residents of the community, it will enhance current outdoor recreational options for the residents of the community, and the ability to mitigate and minimize impacts on human health, public property, and floodplain values. The people of Puerto Rico and of the Municipality of Maricao are the owners of the proposed project site, no additional cost due to land acquisition will be incurred upon nor will ownership issues needed to be solved. The project will have minimal adverse impacts on the floodplain functions and values, it will improve the existing site's conditions and infrastructure, and it will help to prevent further deterioration of the site. If no action is taken, the proposed improvements will not be implemented, and the recreative facility will not be enhanced. The proposed use is in harmony with the surrounding developments area.

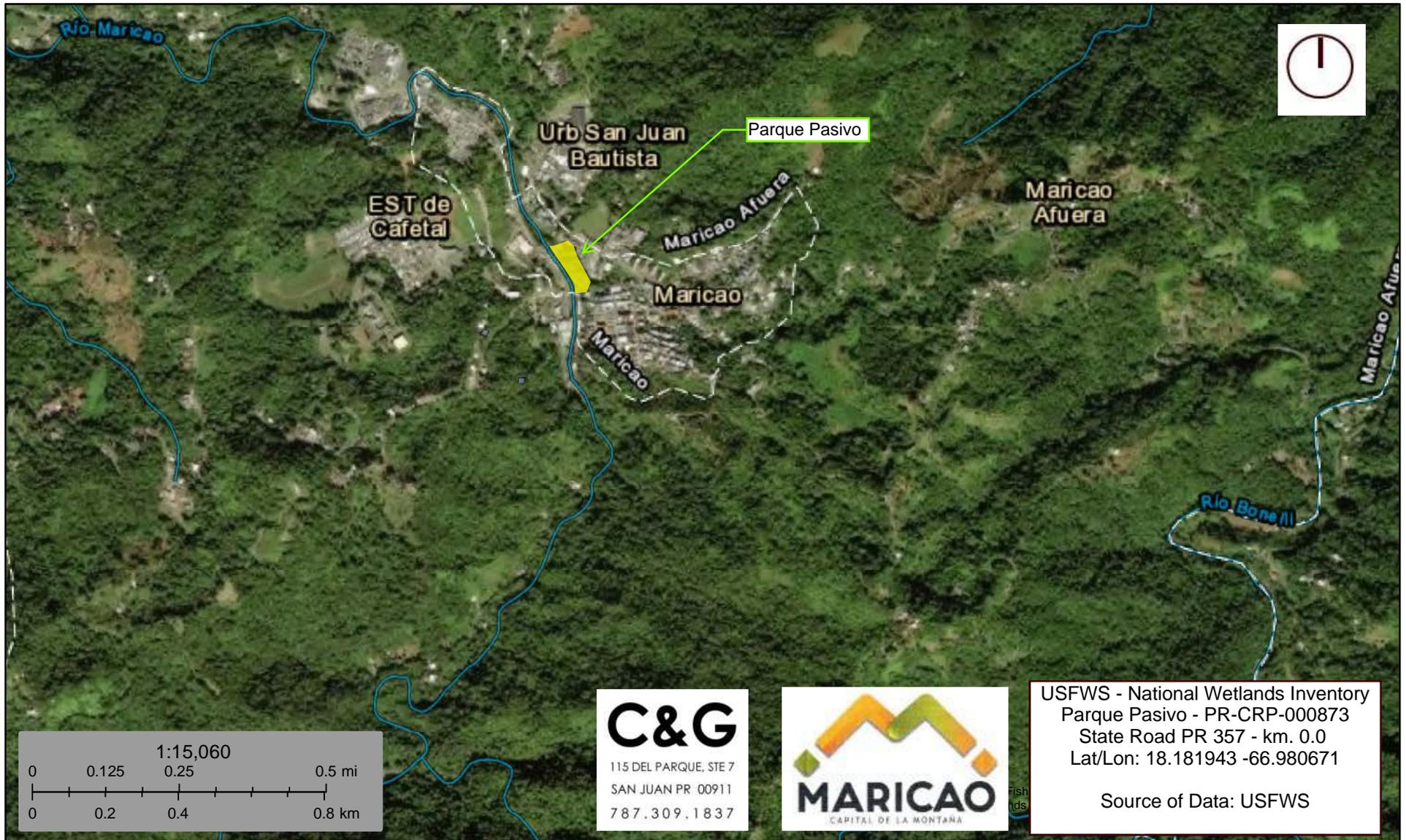
PRDOH has reevaluated the alternatives to building in the floodplain and wetland, and has determined that it has no practicable alternative. Environmental files that document compliance with steps 3 through 6 of 24 Executive Order 11988/11990 are available for public inspection, review and copying upon request at the times and location delineated in the last paragraph of this notice for receipt of comments.

A final notice was published on January 26, 2024 at a local newspaper "El Vocero" detailing the reasons why the modified project must be located in the floodplain/wetland, a list of alternatives considered, and all mitigation measures taken to minimize adverse impacts and preserve natural and beneficial floodplain values. No concerns were expressed by the public concerning this notice.

Step 8: Implement the Proposed Action

The PRDOH will assure that this plan, as modified and described above, is executed and necessary language will be included in all agreements with participating parties. The city will also take an active role in monitoring the construction process to ensure no unnecessary impacts occur nor unnecessary risks are taken. Implementation of the Proposed Action will require additional local and state permits, which may place additional design modifications or mitigation requirements on the Proposed Action. It is acknowledged there is a continuing responsibility by the responsible entity to ensure, to the extent feasible and necessary, compliance with the steps herein.

09 USFWS National Wetland Map



August 23, 2023

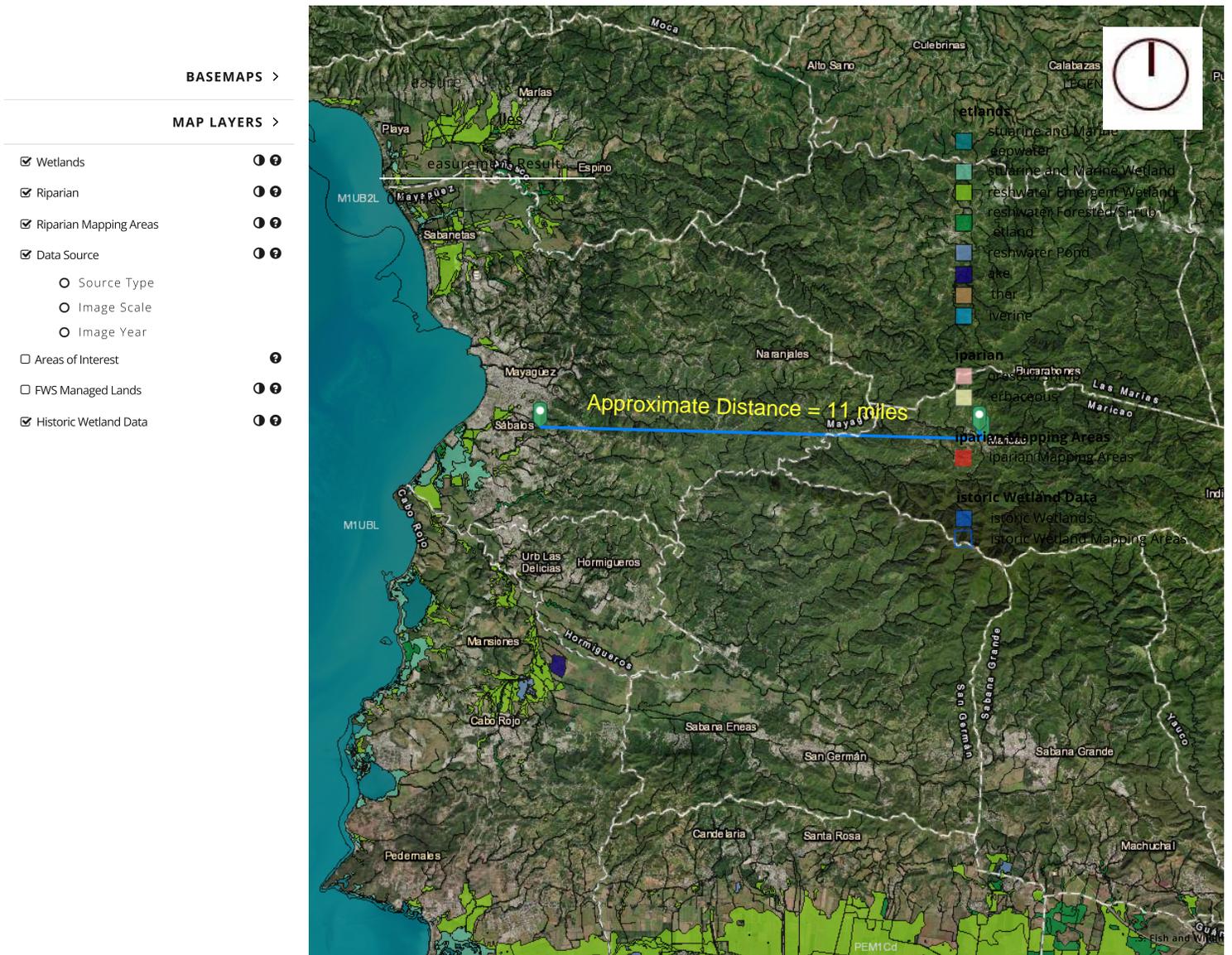
Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | 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.

Figure B14.1

10 National Wetlands Inventory



C&G

115 DEL PARQUE, STE 7
SAN JUAN PR 00911
787.309.1837

44,448
8.185 | 66.981



USFWS - National Wetlands Inventory
 Parque Pasivo - PR-CRP-000873
 State Road PR 357 - km. 0.0
 Lat/Lon: 18.181943 -66.980671

Source of Data: USFWS

11 Final Notice

ceder utilizando la siguiente dirección electrónica: https://unired.ramajudicial.pr...

STANLEY BLEUS DEMANDADA

CIVIL NUM. CG2023CV0057 SOBRE COBRO DE DINERO INCUMPLIMIENTO DE CONTRATO EMPLAZAMIENTO POR EDICTO ESTADOS UNIDOS DE AMERICA) EL PRESIDENTE DE LOS ESTADOS UNIDOS DE AMERICA) A. STANLEY BLEUS DIFERENCIADO: 21035 E 53 RD PU. DENVER, CO 80249

https://unired.ramajudicial.pr/salvo que se presente por derecho propio, en cuyo caso deberá presentar su alegación...

MARLENE FERNANDEZ DEMANDADA

CIVIL NUM. CA2023CV03753 SOBRE COBRO DE DINERO INCUMPLIMIENTO DE CONTRATO EMPLAZAMIENTO POR EDICTO ESTADOS UNIDOS DE AMERICA) EL PRESIDENTE DE LOS ESTADOS UNIDOS DE AMERICA) A. MARLENE FERNANDEZ DIRECCION: 1106 BLACKWATER DR WESLEY CHAPEL, FL 33345

la Demanda dentro de los treinta (30) días siguientes a la publicación de este edicto y de...

SS-19226 ESTADO LIBRE ASOCIADO DE PUERTO RICO TRIBUNAL DE PRIMERA INSTANCIA SALA DE CAGUAS IRIS MINERVA CAPELLA MARRERO En Representación de SYLVIA RAFAELLA TORRES RODRIGUEZ PARTE DEMANDANTE VS SUCESION MANUEL BLANCO CAPELLA compuesta por: MANUEL BLANCO TORRES, LIZA MARGARITA BLANCO TORRES Y LOUIS ROVI BLANCO TORRES PARTES DEMANDADAS CASO NUM.: CG2023CV03237 SOBRE: LIQUIDACION DE BIENES Y PARTICION DE HERENCIA EMPLAZAMIENTO

POR EDICTO ESTADOS UNIDOS DE AMERICA) EL PRESIDENTE DE LOS ESTADOS UNIDOS DE AMERICA) A. S. MANUEL BLANCO TORRES POR LA PRESENTE se le notifica que la parte demandante ha radicado una Demanda de Liquidación de bienes y Partición de Herencia...

allegaciones de la Petición en este caso, las cuales podrá usted examinar en la Sala de Caguas, del Tribunal de Primera Instancia, Sección Superior, dentro de los treinta (30) días contados desde el siguiente día a la fecha de la publicación de este Emplazamiento por Edicto...

Llama a Clasificados de EL VOCERO 787-724-1485

SS-19226 GOBIERNO DE PUERTO RICO TRIBUNAL DE PRIMERA INSTANCIA SALA SUPERIOR DE CAROLINA AAA CAR RENTAL, INC. H/N/C Allied Car & Truck Rental DEMANDANTE

SS-19224 GOBIERNO DE PUERTO RICO TRIBUNAL DE PRIMERA INSTANCIA SALA SUPERIOR DE CAROLINA AAA CAR RENTAL, INC. H/N/C ALLIED CAR & TRUCK RENTAL DEMANDANTE

SS-19224 GOBIERNO DE PUERTO RICO TRIBUNAL DE PRIMERA INSTANCIA SALA SUPERIOR DE CAROLINA AAA CAR RENTAL, INC. H/N/C ALLIED CAR & TRUCK RENTAL DEMANDANTE

aviso público

Aviso Final y Explicación Pública de una Actividad Propuesta en un valle inundable de 100 años y humedal

Parque Pasivo PR-CRP-000873

Para: Todas las partes interesadas, grupos e individuos

Este aviso notifica que el Departamento de la Vivienda de Puerto Rico (Vivienda) completó una evaluación según establece la Orden Ejecutiva 11988/11990, de acuerdo con los reglamentos de HUD en 24 CFR 55.20 Subparte C - Procedimientos para hacer determinaciones sobre el manejo del valle inundable y la protección de humedales...

Vivienda ha considerado las siguientes alternativas y medidas de mitigación que se tomarán para minimizar los impactos adversos y restaurar y preservar los valores naturales y beneficiosos: (1) ubicar el proyecto dentro del valle inundable de acuerdo con la zonificación, (2) ubicar el proyecto fuera del valle inundable, y (3) no tomar acción. La alternativa 1 se considera una opción viable que no tiene impacto en el valle inundable...

Vivienda reevaluó las alternativas para construir en el valle inundable y humedal, y determinó que no cuenta con alternativas prácticas. La documentación ambiental que evidencia el cumplimiento de los pasos 3 a 6 de la Orden Ejecutiva 11988/11990, está disponible para inspección, revisión y reproducción de parte del público...

Este aviso tiene tres propósitos principales. Primero, las personas que pueden verse afectadas por actividades en el valle inundable/humedal y aquellos que tengan interés en la protección del ambiente natural deben recibir la oportunidad de expresar sus inquietudes y proveer información sobre estas áreas. Segundo, un programa adecuado de avisos públicos puede ser una importante herramienta de educación pública...

Vivienda considerará todos los comentarios recibidos en o antes del 3 de febrero de 2024. Pueden enviar los comentarios de forma impresa a la siguiente dirección: Departamento de la Vivienda de Puerto Rico, edificio Juan C. Cordero Dávila, 606 avenida Barbosa, Río Piedras, PR 00918-8461...

Fecha: 26 de enero de 2024

Loda William C. Rodríguez Rodríguez Secretario del Departamento de la Vivienda

Autorizado por la Oficina del Contralor Electoral OCE-SA-2023-00076

public notice

Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain and Wetland

Passive Park PR-CRP-000873

To: All Interested Parties, Groups & Individuals

This is to give notice that the Puerto Rico Department of Housing (PRDOH) has conducted an evaluation as required by the Executive Order 11988/11990, in accordance with HUD regulations at 24 CFR 55.20 Subpart C - Procedures for Making Determinations on Floodplain Management and Wetlands Protection. The activity is funded under the Community Development Block Grant - Disaster Recovery (CDBG-DR), City Revitalization Program, Grant number B-17-DM-72-0001 and B-18-DM-72-0001. The proposed project, PR-CRP-000873, is located at PR-357 Road Km 0.0, Maricao, PR 00606...

PRDOH has considered the following alternatives and mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial values: (1) locate the project within the floodplain according to zoning, (2) locate the project outside of the floodplain and (3) take no action. Alternative 1 is considered a viable option that has no impact to the floodplain by incorporating primarily open green spaces and will maintain the current use of the area...

PRDOH has reevaluated the alternatives to building in the floodplain and wetland, and has determined that it has no practicable alternative. Environmental files that document compliance with steps 3 through 6 of 24 Executive Order 11988/11990 are available for public inspection, review and copying upon request at the times and location delineated in the last paragraph of this notice for receipt of comments.

There are three primary purposes for this notice. First, people who may be affected by activities in the floodplain/wetland and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Second, an adequate public notice program can be an important public education tool. The dissemination of information and request for public comment about the floodplain/wetland can facilitate and enhance federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas...

PRDOH will consider all comments received on or before February 3, 2024. Written comments can be sent to the following address: Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918-8461, Attention: Nelisse Lorenzo-Torres, Permits and Environmental Compliance Specialist. A complete description of the project is available to the public for review from 8:30 am to 4:00 pm at the Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918. The number to get information is (787)274-2527 ext. 4333. In the alternative, comments may also be sent to PRDOH by email at environmentcbg@vivienda.pr.gov.

Date: January 26, 2024

William O. Rodríguez Rodríguez, Esq. Secretary of the Department of Housing

Autorizado by the Office of the Electoral Comptroller OCE-SA-2023-00076

Andrea Curbelo-Marty

From: environmentcdbg <environmentcdbg@vivienda.pr.gov>
Sent: Friday, January 26, 2024 10:04 AM
To: Jose.A.CedenoMaldonado@hud.gov; Mahon, Donna M; Caribbean_es@fws.gov; Edwin_muniz@fws.gov; Rodriguez.elias@epa.gov; Guerrero.carmen@epa.gov; PublicMail.CESAJ-CC@usace.army.mil; Rich.Okulski@noaa.gov; Noah.Silverman@noaa.gov; nmfs.ser.esa.consultations@noaa.gov; FEMA-R4EHP@fema.dhs.gov; carubio@prshpo.pr.gov; comunicaciones@ddec.pr.gov; secretario@ddec.pr.gov; jannira.colon@ddec.pr.gov; Rivera_r1@jp.pr.gov; comentarios@jp.pr.gov; pmzc@drna.pr.gov; eortega@drna.pr.gov; ayudaciudadano@drna.pr.gov; anais.rodriguez@drna.pr.gov
Subject: Public Notice – Final Notice and Public Explanation of a Proposed Activity in the 100-Year Floodplain and Wetland_PRDOH Case PR-CRP-000873
Attachments: Final Notice_El Vocero_PR-CRP-000873.pdf

Concerned agencies,

Enclosed please find a **Public Notice – Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain and Wetland** the Puerto Rico Department of Housing (as the Responsible Entity) published as part of HUD's requirements for the release of CDBG-DR funds to undertake the project *Parque Pasivo* (PR-CRP-000873). The Final Notice was published in the *El Vocero* newspaper of Puerto Rico on January 26, 2024.

Respectfully,

Permits and Environmental Compliance Division

Disaster Recovery Office

environmentcdbg@vivienda.pr.gov | 787.274.2527

Visit us: recuperacion.pr.gov

Contact us: infocdbg@vivienda.pr.gov

DEPARTAMENTO DE LA
VIVIENDA



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Andrea Curbelo-Marty

From: Kenneth M. Garcia-De Leon
Sent: Tuesday, February 6, 2024 2:11 PM
To: environmentcdbg
Subject: RE: Comentarios - Aviso Final PR-CRP-000873

Saludos:

Por correo postal no llegaron comentarios para mencionado proyecto.

Atentamente,

Kenneth M. García De León
Especialista en Control de Documentos / Operaciones
Oficina Recuperación de Desastres
kgarcia@vivienda.pr.gov | [787.274.2527](tel:787.274.2527) Ext. 4013
Visítanos: recuperacion.pr.gov
Contactanos: infocdbg@vivienda.pr.gov

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From: environmentcdbg <environmentcdbg@vivienda.pr.gov>
Sent: Tuesday, February 6, 2024 2:00 PM
To: Kenneth M. Garcia-De Leon <kgarcia@vivienda.pr.gov>
Subject: Comentarios - Aviso Final PR-CRP-000873

Saludos Kenneth,

Con respecto a la publicación del Aviso Final y Explicación Pública de una Actividad Propuesta en un valle inundable de 100 años y humedal (Paso 7) para el proyecto **Parque Pasivo (PR-CRP-000873)** ¿habrá llegado algún comentario a través del correo postal? De ser así, por favor nos lo hace llegar.

Cordialmente,

Permits and Environmental Compliance Division

Disaster Recovery Office

environmentcdbg@vivienda.pr.gov | 787.274.2527

Visit us: recuperacion.pr.gov

Contact us: infocdbg@vivienda.pr.gov

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