



**U.S. Department of Housing and Urban Development**

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Washington, DC 20410  
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## **Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58**

### **Project Information**

**Project Name:** Mejoras Intersección Rotonda PR-693 y PR-698 (PR-CRP-000557)

**Responsible Entity:** Puerto Rico Department of Housing (PRDOH)

**Grant Recipient** (if different than Responsible Entity): Municipality of Dorado

**State/Local Identifier:** Puerto Rico / Dorado

**Preparer:** Gray Jones, Environmental Planner, ICF / Mildred M Guzman, Sr. Environmental Specialist, ICF

#### **Certifying Officer Name and Title:**

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**Consultant** (if applicable): ICF, LLC

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**Project Location:** Intersection of PR-693 and PR-698 in the Municipality of Dorado, Puerto Rico (Lat. 18.462004, Long. -66.268678). The roads are not associated with a cadaster number, however the project will impact three properties that have the following cadaster numbers:



Table 1 – Properties Impacted by PR-CRP-000557

Cadaster Number	Property Owner	Project Area
037-017-051-05	Vázquez Morales Realty LLC	NE corner of roundabout
037-017-216-09	Municipality of Dorado	SW corner of roundabout and adjacent land for demolition
037-017-048-03	Deltran co.	NW corner of roundabout

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

The Municipality of Dorado proposes improvements to the roadway that leads to the town center by the construction of a roundabout. This improvement will be designed to facilitate traffic flow at the intersection between Mendez Vigo Street (PR-693) and Seferino Barbosa Street (PR-698). This action is aimed at reducing the risk of accidents when there is no electricity in the area's traffic signals, improving pedestrian and vehicular safety, and embellishment and improvement of the environment along the roadways. Among the improvements, there will be a reconstruction of sidewalks and curbs, landscaping, and improvements to the electrical and stormwater systems in the area. The project will require acquisitions, demolitions of structures, and new construction.

For the project to be developed, the municipality will need to acquire two portions of land: an area of 447.65 square meters in the northeast corner of the intersection and an area of 61.683 square meters located in the northwest corner of the intersection (see Figure 4 below). Another portion of land will be affected at the southwest corner of the intersection where structures will be demolished and some of the parcel will be reused for public transit. These structures served as a public educational facility and community center for youth. The *Mi Escuela Amiga*, which used to operate on this site, was moved and inaugurated at a new location on February 25, 2022. Thus, the existing structures that housed this program will be demolished for this project. The Head Start school program that shares the parcel with *Mi Escuela Amiga* will remain in place and operational. A total of 694.972 square meters will be impacted by demolition of existing structures and reconfiguration of the parcel. This property is currently under municipality ownership. This portion of the project is being designed and performed by a third party. Thus, funds from the CRP program will not be allocated for demolition, debris removal or disposal. However, it will be addressed in the environmental review record as it is an essential part of the project.

### **Details of proposed work**

The project requires the following activities:

- 1- Medians: Each entrance to the circle will have concrete curbed median separating the opposite flows of traffic. The two-lane entrances will flow into the circle: one, right hand lane, for traffic making a right-hand turn and the other, left-hand lane, for traffic continuing through the circle.
- 2- Curb and Gutter: The curb around the circle will be mountable, reinforced concrete, 2-Ft wide. Following PR-DTOP specifications. The curb and gutter along the impacted roadway totaling 600 linear Ft will follow PR-DTOP specifications.
- 3- Sidewalk: A total of 600 linear feet of Impacted sidewalk will be rebuilt of reinforced concrete, 4 Ft wide following PR-DTOP specifications.

- 4- Green area: The interior of the circle will have a raised, 3 Ft high at the center, 25 Ft diameter planting area inside the curb. This will be landscaped.
- 5- Lighting: The interior of the circle will have 10, solar powered, 45 watt, LED lights illuminating the roadway. There will also be one solar powered, LED, streetlight at each of the four entrances to the circle (4 total).
- 6- Roadway: The circle will have two lanes, 12.5 Ft wide each, 25 Ft wide total. The roadway within the circle and 50-Ft of the roadway approaching the circle from each direction will be 6-inch-thick reinforced concrete, following PR-DTOP specifications.
- 7- Signage: Will follow PR-DTOP specifications and will include:
- 8- Pavement markings: Lanes will be striped following PR-DTOP specifications.
  - Traffic direction arrows will be painted in each lane at 4 locations within the circle. (8 total).
  - Pedestrian crossings will be striped (10 crossings total)
- 9- Existing traffic signals: will be removed and stored for future use by MOD.
- 10- Utilities: Existing overhead and underground utilities (water, electric, telecommunication, storm drains, sewer, etc.) will be located and identified on the drawings.
  - The existing overhead electrical and telecommunication utility will be relocated underground either trenched or by horizontal drilling. This activity will be coordinated with Luma and Claro.
  - Impacted storm drains will be rebuilt with reinforced concrete pipe and sized appropriately following PR-DTOP specifications.
  - Impacted water & sewer lines will be protected during construction.
  - Significant underground features (pipe, bends, valves, manholes, duct banks, conduit, Etc.) will be located on the as-built drawing with GPS coordinates, depth from surface and description of the feature.
- 11- Temporary detour construction: A temporary 2-lane asphalt roadway 25 Ft wide x 300 Ft long following PR-DTOP specifications will be constructed as a detour around the construction area. Construction of the temporary asphalt roadway will take place during off-peak traffic hours. The temporary roadway will be demolished once it is no longer needed.
- 12- Building Demolition

### Change in use and capacity:

According to design data, the total project area encompasses 10,785.489 square meters. In total, 1,203.92 square meters will change land use. This represents a total change in land use of 11.2%. The project was evaluated as an EA due to the change in use of a portion of the SW parcel as a result of the demolition of the *Mi Escuela Amiga* school area.

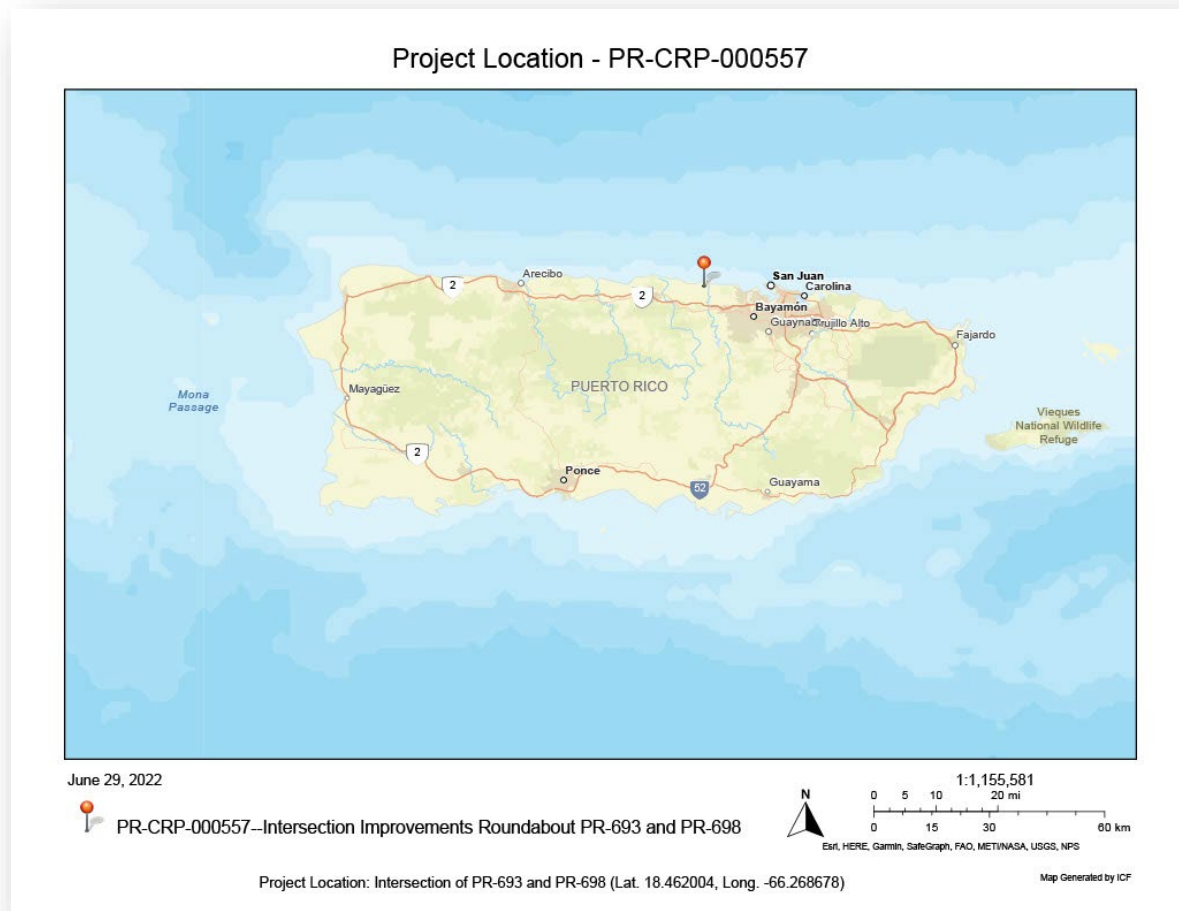
*Table 2 - Calculations for change in area use*

Total project area		10,785.489 m <sup>2</sup>
Acquisitions (changes in use)		Sq meters
037-017-048-03	Deltran co. (blue)	61.683
037-017-051-05	Vázquez Morales Realty LLC (blue)	447.265
Non-acquisitions with changes in use		Sq meters

037-011-216-09	Municipality of Dorado (blue shade)	333.242
037-011-216-09	Demolition (orange shade)	361.73
Total change in use		1203.92
Total change in percentage		11.2%

The proposed project will not change the traffic flow capacity as it will maintain the same amounts of traffic lanes going into the roundabout and leaving the intersection.

Project location and photos of actual conditions in the area can be seen below. Project drawings have been abbreviated from the full 90% drawings set for conciseness, with only relevant sheets included. Abbreviated plans are included in **Attachment 1**.



*Figure 1 - Project location at insular scale*



Figure 2 – Aerial photograph of project area with estimated areas of impact



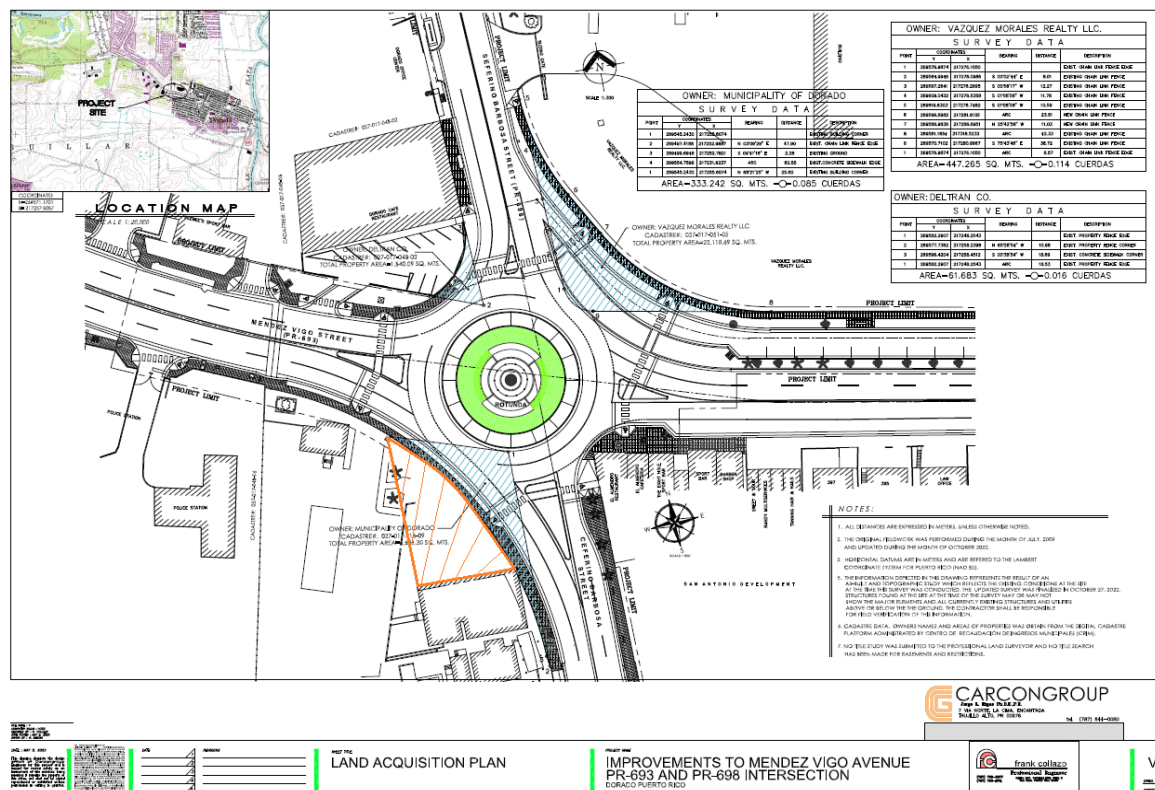
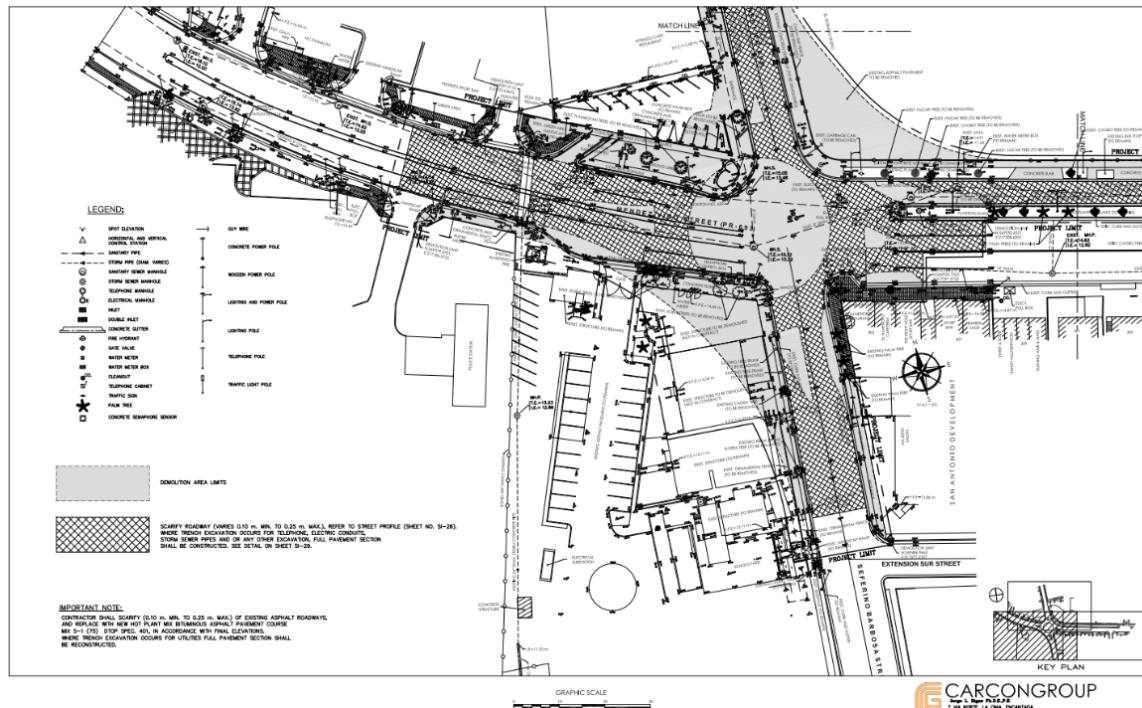




Figure 5- Photos with buildings to be demolished



Figure 6- Street view facing north towards the parcels 037-017-048-03 and 037-017-051-05 for road





Figure 7- Aerial view of Mendez Vigo Rd (PR-693) facing east



Figure 8- Aerial view of the intersection of Mendez Vigo Rd (PR-693) and Seferino Barbosa St (PR-698) facing NW.





Figure 9- Aerial view of the intersection of Mendez Vigo Rd (PR-693) and Seferino Barbosa St (PR-698) facing north.



Figure 10- Aerial view of the intersection of Mendez Vigo Rd (PR-693) facing east.





Figure 11- Aerial view of the area to be demolished (037-017-216-09), facing SW.



Figure 12- Aerial view of the project area.

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

The intersection of PR-693 and PR-698 in Dorado is a high-traffic area, leading to the town center. The proposed roundabout project aims to alleviate traffic congestion during peak hours and enhance overall safety. By providing an alternative to the main traffic light system, the project mitigates disruptions during power outages, ensuring smoother transit and facilitating emergency response efforts. The comprehensive improvements, including sidewalk reconstruction and landscaping, further contribute to the safety and aesthetics of the area.

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

The project will be developed at the intersection of PR-693 and PR-698, located in the Municipality of Dorado. The location is within an urban area with residential subdivisions, churches, schools, and commercial businesses within a 0.5 mi radius. In the NW corner, there are doctors offices and a restaurant; on the NE corner, there is a large parking lot; and on the SE corner, there are a number of commercial businesses. A public educational facility and community center for youth are located on the SW corner of the intersection. The *Mi Escuela Amiga*, which used to operate on this site, was moved and inaugurated at a new location on February 25, 2022. Thus, the existing structures that housed this program will be demolished for this project. The Head Start school program that shares the parcel with *Mi Escuela Amiga* will remain in place and operational.

A traffic study was carried out in 2009 and updated in 2014 describing the current conditions at the intersection (Attachment 19). The intersection is affected and directly affects the operation of two other intersections, so its study was evaluated as a whole. Below is a translated excerpt from the study:

The objective of this report is to study the circulation of vehicles at the intersections of Avenida Boulevard with Highway PR-693, Highways PR-696 with PR-693 and PR-698 with PR-693. The capacity of these three (3) intersections will be analyzed and the operational improvements necessary to obtain a safe and efficient flow of vehicles will be determined.

[...]

As a result of the traffic study carried out on the road system, it has been determined that the intersections studied will improve considerably if the geometric improvements and optimization of the traffic light systems that will be indicated in this chapter are carried out.

**Funding Information**

Grant Numbers	HUD Program	Funding Amount
B-17-DM-72-0001	Community Development Block Grant - Disaster Recovery (CDBG-DR)	\$11,938,162,230.00
B-18-DP-72-0001		
B-19-DP-78-0002		
B-18-DE-72-0001		

**Estimated Total HUD Funded Amount: \$2,657,488.93**

**Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$2,910,886.49**

**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.

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6</b>		
<b>Airport Hazards</b>  24 CFR Part 51 Subpart D	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site is located over 59,000 feet from the nearest civilian airport, the Fernando Luis Ribas Dominicci Airport in San Juan, and more than 91,000 feet from the nearest joint military airport, Luis Muñoz Marín Airport in Carolina. Therefore, the proposed project is not in an Accident Potential Zone (APZ) or a Runway Protection Zone/Clear Zone (RPZ/CZ). As such, the project complies with Airport Hazards requirements, 24 CFR Part 51 Subpart D. See Distance to Airports Figure in Attachment 2
<b>Coastal Barrier Resources</b>  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"/>	According to US Fish and Wildlife (USFWS) data, the project location is over 5 miles away from the nearest CBRS Unit. Therefore, the project will not impact Coastal barrier resources, and is in compliance with the Coastal Barrier Resources Act, as amended. Refer to the CBRS Map in Attachment 3.
<b>Flood Insurance</b>  Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The proposed project does not involve mortgage insurance, refinance, acquisition, repairs, rehabilitation, or construction of a structure, mobile home, or insurable personal property. Furthermore, the area that the proposed activity will impact is outside of flood zones. Thus, flood insurance is not required, and the activity is in compliance with the Flood Disaster Protection Act of 1973 and National Flood Insurance

		Reform Act of 1994. Refer to Flood Insurance Rate Map (FIRM) Panel 720000310J (11/18/2009) included in Attachment 4.
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 &amp; 58.5</b>		
<b>Clean Air</b>  Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The first step in a Clean Air Act analysis is determining if the proposed project may constitute a new source of air pollution. The proposed project would involve the conversion of land use facilitating the development of public facilities (expansion of a public roadway) and must therefore conform to Clean Air Act requirements.</p> <p>The next step in a Clean Air Act analysis is determining the compliance status of the county or air quality management district where the project is located. According to the EPA's Nonattainment Areas for Criteria Pollutants (Green Book) resource (see information in Attachment 5). The closest nonattainment zone is 1.13 miles southeast of the project site. The Municipality of Dorado is currently in attainment status for all criteria pollutants (see EPA Greenbook). Therefore, the project is in compliance with the Clean Air Act and no further analysis is required.</p>
<b>Coastal Zone Management</b>  Coastal Zone Management Act, sections 307(c) & (d)	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>Puerto Rico participates in the Coastal Zone Management program, which addresses the nation's coastal issues through voluntary partnership between the federal government and coastal and Great Lakes states and territories. As such, a determination of whether or not the project is located in, or may affect, a coastal zone is required.</p> <p>The closest coastal zone boundary is located approximately 931 meters (3,000 feet) to the northwest of the project site. Therefore, the project site is not located within a coastal zone, and the addition of a roundabout to an existing road network would not be expected to affect the coastal zone. Therefore, the project is in compliance with the Coastal Zone Management Act and further analysis is not required. Refer to Attachment 6 for coastal zone delineation map, with reference to project location.</p>



<p><b>Contamination and Toxic Substances</b></p> <p>24 CFR Part 50.3(i) &amp; 58.5(i)(2)</p>	<p>Yes    No</p> <p><input checked="" type="checkbox"/>    <input type="checkbox"/></p>	<p>The project site does not contain, nor is it in close proximity to, any known hazardous waste, air pollution, water dischargers, toxic releases, superfund sites, sites participating in the Brownfields program, or any properties subject to the Toxic Substances Control Act, per the EPA's Envirofacts database (see Contamination and Toxic Substances Map in Attachment 7). There are 15 such sites meeting the above criteria within 0.5 miles of the project site, but the proposed project involves reconstruction and minor expansion of an existing roadway and there would be no project occupants. Refer to <b>Attachment 7</b> for information. A summary of the 15 sites is as follows:</p> <ul style="list-style-type: none"> <li>- 5 Water Discharger sites (NPDES) <ul style="list-style-type: none"> <li>o Eureka Marina Products Co of PR, Inc. #1</li> <li>o Eureka Marina Products Co of PR, Inc. #2</li> <li>o Heraues Medical Components Caribe, Inc.</li> <li>o Caribe Holdings (Cayman) Co. LTD. D/B/A Puracap Caribe</li> <li>o Municipality of Dorado</li> </ul> </li> <li>- 6 Hazardous Waste sites (RCRAInfo) <ul style="list-style-type: none"> <li>o CVS Pharmacy #7977</li> <li>o Promed Molded Products Caribe, Inc</li> <li>o Farmacia El Amal #38</li> <li>o Benckiser PR</li> <li>o El Caribbean Inc.</li> <li>o Ruiz Auto Repair</li> </ul> </li> <li>- 2 Toxic Release sites (TRI) <ul style="list-style-type: none"> <li>o Guidant PR BV</li> <li>o McNeil Pharmaceutical Co.</li> </ul> </li> <li>- 2 Air Pollution sites (ICISAIR) <ul style="list-style-type: none"> <li>o Narvaes Dry Cleaners</li> <li>o Hi Class Cleaners</li> </ul> </li> </ul> <p>The acquisition of two separate parcels (portions from existing lots) from private owners is required for this project. The Municipality of Dorado acquired service of a contractor to prepare a Phase I Environmental Site Assessment for the project area (complete report included in Attachment 8); the acquisition of contaminated property could result in liability or clean-up costs under the Comprehensive Environmental Response, Compensation, and</p>
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		<p>Liability Act (CERCLA), third party lawsuits, and costly delays in project implementation.</p> <p>The Phase I ESA identified that one REC was observed near the site during the field visit to the subject property and its surroundings, and one REC was identified when reviewing the literature. During the field visit carried out on November 1, 2022, several open buckets of oil had overflowed and spilled on the cracked pavement outside the boundaries of the project in the old vacant industrial parking lot of Playtex. The spill's runoff had reached some areas with vegetation.</p> <p>A Limited Environmental Site Assessment was conducted as a follow up to the Phase I. Based on soil samples in and around the REC identified in the Phase I, the area does not appear to have been impacted by the potential downstream migration of the pails and oil stains. Based on this follow-up assessment, no further mitigation is required, and the project is considered to be in compliance with 24 CFR Part 50.3(i) &amp; 58.5(i)(2). See Attachment 9 for the full Limited Environmental Site Assessment Report.</p> <p>In a letter dated October 28, 2022, from the Office of Environmental Emergencies of the Department of Natural Resources, contamination is reported in the urban well system, due to a Superfund registered on the NPL list known as Dorado Groundwater Contamination. The proximity of wells near the project area may have the possibility of encountering contaminated groundwater. See Attachment 8 for the Phase I ESA complete report (pg. 29, 40). The possibility of groundwater contamination will not impact the project, as the project will not be using groundwater for construction or operational activities, and no additional contaminants will be introduced by the project.</p> <p>The demolition of the former <i>Mi Escuela Amiga</i> building on the southwest corner of the roundabout (Parcel 037-017-216-09) is being completed by a third party without HUD funding. ACM and LBP testing was completed on the building, and results can be seen in Attachments 16 and 17. No asbestos was detected in the samples collected. However, LBP or lead-glaze was identified above the regulatory</p>
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		level in select areas of the structure. Mitigation for LBP will be required.
<b>Endangered Species</b>  Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The U.S. Fish and Wildlife Service provides the Information for Planning and Consultation (IPaC) tool that provides resources (endangered species, migratory birds, coastal barriers, refuge lands, fish hatcheries, and wetlands) that may appear on or near the project site. A review of the IPaC report for the project area indicates that two federally listed species may be present:</p> <ul style="list-style-type: none"> <li>• Puerto Rican Boa (endangered; reptile)</li> <li>• Puerto Rican Crested Toad (threatened, amphibian)</li> </ul> <p>According to the report, there are no critical habitats at this location. Also, no migratory birds of conservation concern, coastal barrier resources, wildlife refuge lands, fish hatcheries, or wetlands were identified in the project area.</p> <p>Because the project site is located in a busy, urban area and would result in the minor expansion of an existing roadway onto previously disturbed corner lots, it is not expected that suitable habitat for either federally listed species that may be present in the area. Therefore, the project is considered to have no adverse effect to any federally listed species.</p> <p>To support this determination, if a Puerto Rican Boa is found in the project action site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the Construction Manager shall contact the Puerto Rico Department of Natural and Environmental Resources and ask for them to relocate the Boa.</p> <p>Based on the above, the project complies with the criteria under the Blanket Clearance Letter (BCL) issued by the US Fish and Wildlife Service (USFWS) for HUD-financed project and dated January 14, 2013. A Self-Certification under the BCL was prepared and is included in Attachment 10.</p> <p>In conclusion, the project is in compliance with the Endangered Species Act of 1973 and 50 CFR Part 402. No formal compliance steps or mitigation are required.</p>
<b>Explosive and Flammable Hazards</b>	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The proposed project, reconstruction, and redesign of an existing intersection will not increase residential density and is not an area</p>

24 CFR Part 51 Subpart C		where people are likely to congregate. Additionally, the project is not a facility that stores, handles, or processes conventional fuels, hazardous gases or chemicals of an explosive or flammable nature, and as such, does not pose a risk of injury in the event of a fire or an explosion to nearby residences or other areas where people may congregate or be present. Therefore, the proposed action is in compliance with 24 CFR Part 51 Subpart C. No formal compliance steps or mitigation are required.
<b>Farmlands Protection</b>  Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The proposed project would be constructed on land that is not considered prime farmland (Attachment 11). Therefore, the project is in compliance with the Farmlands Protection Policy Act, and further analysis is not required.
<b>Floodplain Management</b>  Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	According to the Advisory Base Flood Elevation (ABFE) Panel 72000C0310J map (04/18/2018), the project site is not located within a floodplain, and no new or existing buildings or improvements would occupy or modify the 100-year floodplain, floodway, or a coastal high hazard area. The project is in compliance with Executive Order 11988 and 24 CFR Part 55. Refer to Attachment 4, which includes the ABFE map.
<b>Historic Preservation</b>  National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	Project activities include demolition of structures and ground disturbance. Because the project site is located within a historic urban area, any construction associated with early utilities, creation of roadways and/or parking lots, may constitute a “disturbed” context but may be of historic significance and therefore requires consultation with the State Historic Preservation Officer (SHPO). Section 106 consultation was performed for the project. On July 21, 2023, SHPO issued their concurrence with a “No Historic Properties Affected” with no further actions required. Thus, the project is in compliance with the National Historic Preservation Act. Documentation related to this consultation is included in Attachment 12.
<b>Noise Abatement and Control</b>  Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The proposed project does not include new construction for residential use or rehabilitation of an existing residential property. The project would include improvements and expansion to an existing roadway, including the addition of a



		roundabout to replace the existing intersection. The removal of the intersection would reduce the number of automobiles stopping, accelerating, and idling in the project area, resulting in a decrease in surrounding area ambient noise in the area. The project is therefore in compliance with the Noise Control Act of 1972 and 24 CFR Part 51 Subpart B.
<b>Sole Source Aquifers</b>  Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	According to EPA Data, there are no Sole Source Aquifers in Puerto Rico. Thus, the project will not affect any Sole Source Aquifers. The project is in compliance with the Safe Drinking Water Act of 1974 and 40 CFR Part 149. See Sole Source Aquifer map in Attachment 13.
<b>Wetlands Protection</b>  Executive Order 11990, particularly sections 2 and 5	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site is located approximately 142 meters (466 feet) southeast of a mapped, freshwater emergent wetland. Although the project includes new construction and ground disturbance, no impacts to wetlands are expected due to the distance between the project site and the closest wetland and the intervening development that can be seen from aerial imagery (see Wetlands map in Attachment 14). In addition, the proposed project would incorporate a new rainwater collection system that would reduce stormwater runoff and provide an overall benefit to the area above the existing conditions and no action alternative. The project is in compliance with Executive Order 11990.
<b>Wild and Scenic Rivers</b>  Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	There are three designated Wild and Scenic Rivers in Puerto Rico, all of which are in El Yunque National Forest, approximately 35.5 miles to the east of the project site. These are located in the boundary between the municipalities of Rio Grande and Luquillo and in Naguabo. The proposed action is therefore not in proximity to a wild, scenic, or recreational river and is in compliance with the Wild and Scenic Rivers Act of 1968. No formal compliance or mitigation steps are required. See Attachment 15 for Wild and Scenic Rivers Map.
<b>ENVIRONMENTAL JUSTICE</b>		
<b>Environmental Justice</b>	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project is not expected to create adverse environmental impacts and would not create

Executive Order 12898		an adverse and disproportionate environmental impact or aggravate an existing impact. The project would have an overall beneficial impact on the community and would not result in any unmitigated impacts. Based on the above, the project is in compliance with Executive Order 12898. No formal compliance or mitigation steps are required.
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**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
<b>LAND DEVELOPMENT</b>		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	1	<p>The project site is located near to a residential urban area and within the existing rights-of-way. The adjacent lots consist of residences, small businesses, schools, churches, and small eateries. During construction, minor impacts will occur to the local urban area due to the presence of construction vehicles and impeded traffic. The added roundabout will retain the current land use of the project area and improve the traffic flow in the area during operations. See Attachment 20 for an endorsement from the PR Department of Transportation.</p> <p>Land classification for the area of the project is identified as “urban soil” the municipality’s Soil Classification Map. The area is zoned as “Dotacional General” which is an area where many uses are allowed (Attachment 18). This is the</p>

		<p>same qualification that the current roads have. Therefore, the proposed use is aligned with the current zoning and land use.</p>
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	3	<p><b>Sedimentation and erosion controls</b> will be implemented to comply with both local and federal regulations. As the project area is over one acre, compliance with the EPA NPDES Construction General Permit will be required. Compliance measures include the development of a Stormwater Pollution Prevention Plan (SWPPP), erosion and sediment controls and pollution prevention practices, stormwater inspections, and compliance with any State, Tribal, or territory-specific requirements in Part 9 of the permit. A Sedimentation and Erosion Control Plan will also be required per location regulations due to excavation volumes estimated over 35,000 cubic meters. The activities will also trigger compliance with state permits related to erosion control in order to proceed to construction.</p> <p><b>Stormwater runoff</b> will be discharged at different points in the existing curbs and gutters along PR- 693 and PR-698 during construction. A number of additional curb inlets are included in the construction drawings (Attachment 1). A number of measures will be implemented to prevent erosion and soil displacement during the construction period. See sheets 35-49 included in Attachment 1 for more information. Minimal impacts will occur during operations because the site will have soil stabilization measures in place prior to operation.</p> <p>A geotechnical study to assess soil suitability was unavailable at the time of this report. However, the area has already been developed and is assumed to be suitable for further development.</p>
Hazards and Nuisances including Site Safety and Noise	2	<p><b>Hazards</b> Based on findings presented above in Contamination and Toxic Substances, the project site is fully surrounded by residential and commercial uses that do not involve the above ground storage of explosive or flammable materials. During construction, OSHA regulations will be followed to address any construction operational hazards. The Project does not involve explosives or flammable materials. No hazards are expected to be managed or encountered during the operation.</p> <p>The most common hazards in the area include fires, earthquakes, and hurricanes. As this project is designed to</p>

improve resiliency of the transportation network of the area, the construction of this project would be of benefit during a hazard. Mobility of first response and emergency assistance vehicles during or after a hazard would be improved, and the likelihood of traffic accidents at the intersection would be reduced, per the traffic study discussed in *Existing Conditions and Trends*. ADA compliance and pedestrian safety are also incorporated in the design, as it intends to comply with current codes.

#### **Noise**

Construction noise would be temporary and mitigated as per Regulations for Noise Pollution Control of the Department of Natural and Environmental Resources (DNER - formerly the Environmental Quality Board). Noise will be incidental to the construction and demolition period and the activities being performed during this phase. Contractors will be required to follow OSHA regulations to mitigate employee noise exposure, which may include the use of ear protection.

The proposed project consists of the construction of a roundabout to create a better intersection between PR-693 and PR-698. The noise generated by road traffic is more disturbing near junctions, where multiple flows are intersecting. A Traffic Noise Study has not been conducted for this project. The proposed project is not expected to generate an increase of the current traffic volume.

The proposed intersection will be approximately 50 meters SE of Iglesia Cristiana. The current intersection is 80 meters to the south. There are also a number of residences within 50 meters of the intersection. Under ideal conditions, a line noise source (such as constant flowing traffic on a busy highway) decreases at a rate of approximately 3 dB each time the distance doubles. In the case of the proposed project, the distance from Iglesia Cristiana to the proposed roundabout is decreased by less than half, so the noise level will increase approximately 3 db(A). The smallest change in noise level that a human ear can perceive is about 3 dB(A). Based on this rule of thumb, we understand that the noise increases generated by the project operation will not impact the residential area.

#### **Nuisance**

		The construction activity will introduce nuisances that include traffic control, dust and noise. These are expected to directly affect surrounding areas and traffic flow in both roadways. Several measures will be taken to reduce the impact of these nuisances, which include adequate maintenance of traffic plan, fugitive dust control and limiting the activities at nighttime. Construction activities at night may be necessary to reduce traffic conflict, increase worker safety, and advance the construction process. Road users will be notified of nighttime construction activities via signs, web notices and municipal information outlets. The nuisance will be incidental to the construction phase and will vary in intensity depending on the activities being performed. Once in operation, any nuisance associated with the construction will be eliminated.
Energy Consumption	2	The Project will meet current federal and local codes concerning energy consumption. Construction machinery will not be connected to the grid, so minimal to no impact is expected during the construction period. The project site is served by LUMA, who serves the existing infrastructure at the site. No LUMA endorsements or permits have been requested at this time, as the municipality is not yet the owner of the properties that need to be acquired for the development. No utility disruptions are anticipated during construction. See Attachment 20 for endorsements from PRTC/CLARO.

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>SOCIOECONOMIC</b>		
Employment and Income Patterns	1	The project is in a mostly low/moderate income area (U.S. Census 2021). This new construction will create 20-25 temporary jobs during the construction period, creating a temporary beneficial impact. Once in operation, the activity will benefit the low/moderate-income population that use the roads in this area. Since there will not be a toll, there are no limitations to the use of the roads. Thus, the activity should benefit citizens of all income.
Demographic Character Changes, Displacement	2	There is no displacement as the project area will continue its current use as a traffic intersection after the project is completed. No demographic changes will occur as a result of this project. As mentioned in the project description, the project seems to have displaced the operation of Mi Escuela Amiga, which was located in the southwest corner of the intersection but was moved from this site. To assess the impact to this

		<p>operation, the Director of the facility, Mrs. Neysha Nieves, was interviewed via phone on December 12, 2023. Mrs. Nieves explained that the facility is not a school but a municipal program that offers services to children in pre-school to Grade 12. The services include study areas, academic assistance, Wifi connectivity, educational document printing, educational games, seminars, and recreational activities. The facility may be used by all the students in the Dorado municipality.</p> <p>In February 2022, the site's location was moved just one block away and closer to the Ricardo Arrollo Laracuente School, where the population that it serves is located. The new location in Ave Paseo de Cristo facilitates the attendance of student population and offers a slightly larger and more comfortable area, according to Mrs. Nieves. Thus, the relocation of the program has been beneficial for the community and the population continues to receive the benefits of the program. As such, there is no displacement of the services since they are within walking distance of the previous site and closer to the population that needs them.</p>
Environmental Justice	2	<p>The project is not expected to create adverse environmental impacts and would not create an adverse and disproportionate environmental impact or aggravate an existing impact. The project is expected to have an overall beneficial impact on the community and would not result in any unmitigated impacts. Based on the information analyzed in this section, the project is in compliance with Executive Order 12898. No formal compliance or mitigation steps are required.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>COMMUNITY FACILITIES AND SERVICES</b>		
Educational and Cultural Facilities	3	<p>The area will experience an overall benefit due to improved mobility. As <i>Mi Escuela Amiga</i> was relocated before the demolition of the building, there will only be a minor impact to the program as a result of the project. Impacts may result from the inconvenience and time lost due to relocation. The Head Start school program that shares the parcel with the former <i>Mi Escuela Amiga</i> building will remain in place and operational. Minor impacts to the Head Start school program are expected during demolition due to its proximity.</p>
Commercial Facilities	1	<p>Temporary, minor adverse impacts may occur due to construction when traffic mobility may be limited. However, significant beneficial impacts will occur during</p>

		the project's operation. This intersection serves as a key community corridor connecting Dorado residents to the town center. The Project will improve traffic flow and mobility, thus benefiting the commercial facilities established in the vicinity after construction is completed.
Health Care and Social Services	2	The area will experience an overall benefit due to improved mobility. However, the activity does not envision direct impacts to health care and social services.
Solid Waste Disposal / Recycling	2	During construction, some debris and waste materials are expected to be generated. It is estimated that a total of 1,100 cubic yards of waste will be generated by the project, which includes concrete, wood and mixed construction waste. In addition, over 400 cubic meters of asphalt waste may be generated. All waste materials will be properly managed and disposed of at approved solid waste facilities or recycled in compliance with applicable pertinent federal and local requirements. As greater than 10 employees are expected to be working during the construction period, Law 70 of the La Autoridad de Desperdicios Sólidos (ADS) requires that a recycling plan be developed. No waste is expected to be generated during project operations. Therefore, no impacts to solid waste disposal or recycling facilities are anticipated and no waste management plans will be required
Waste Water / Sanitary Sewers	2	Sanitary pipelines and sanitary manholes will be relocated during the construction period, and any interconnections to the existing lines in service will be completed by PRASA personnel. The construction activities will not result in generation of wastewater. It will be the contractor's responsibility to obtain portable toilets for construction workers and follow all applicable regulations. No interruptions to service due to construction are anticipated. No impacts to wastewater or sanitary services are expected during operations. Additional PRASA specifications will be requested in the construction permit phase. Please refer to sheets 35-49 of Attachment 1 for more information.
Water Supply	2	During construction activities, non-potable water will be required for dust control and other construction activities such as concrete mixing. However, this water is not permitted to be taken from PRASA's water system. During the construction period, contractors are responsible for providing water needed at the site. Some existing pipelines, meter boxes, and valves will be relocated during the construction period, and any interconnections to the existing lines in service water will be completed by PRASA

		<p>personnel. No interruptions to the potable water supply are expected during the construction phase. Additional PRASA specifications will be requested in the construction permit phase.</p> <p>Once construction is completed, the operation and use of the intersection will not require significant use of water, thus the proposed project will not have any direct impact on the potable water distribution supply.</p>
Public Safety - Police, Fire and Emergency Medical	1	<p>Being in an urban region, the site benefits from public safety, police, fire and emergency medical facilities established and operating in the area. Aside from possible traffic impacts, no direct impact on these services are expected during construction of the project. Long-term benefits will occur to emergency services and to the public due to faster travel times, better access control, fewer accidents, and less delay at the intersection during project operations. The roundabout will also serve as an evacuation route in the event of a natural disaster, providing access routes to primary expressways and clearance routes in the event of tsunamis.</p>
Parks, Open Space and Recreation	3	<p>The proposed activity will not have any impact on parks or open spaces that may be used for recreation. A public educational facility and community center for youth are located on the SW corner of the intersection. The <i>Mi Escuela Amiga</i>, which used to operate on this site, was moved and inaugurated at a new location on February 25, 2022. Thus, the existing structures that housed this program will be demolished for this project. The Head Start school program that shares the parcel with <i>Mi Escuela Amiga</i> will remain in place and operational. The building contains recreational facilities such as a boxing gym. Because the school was relocated, the only impact to recreation as a result of this project are minor inconveniences as a result of relocation.</p>
Transportation and Accessibility	1	<p>Temporary, minor adverse impacts may occur to traffic due to construction. Long-term benefits will occur to transportation and accessibility due to faster travel times, better access control, fewer accidents, and less delay at the intersection. The impacted areas will include the neighborhood of Dorado Del Mar, which contains a residential subdivision, beach areas, substantial commercial activity, and a large beach resort; the Dorado town center, which contains shops, restaurants, inns, and entertainment, as well as large residential subdivisions and small parks; and the Dorado Beach Resort &amp; Club, a large residential development to the west of the intersection, containing golf courses and restaurants.</p>



Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>NATURAL FEATURES</b>		
Unique Natural Features, Water Resources	2	There are no unique natural features nor water resources within this area. The closest water body is a small stream over a mile south of the project. The project area is a previously disturbed site in an urban area.
Vegetation, Wildlife	3	<p>According to project drawings, the proposed activity may impact trees in the median of the road. It is unlikely that there will be any adverse effect to flora of conservation concern, as these trees are in a developed urban area. Local Puerto Rico regulations will require that mitigation be implemented for the loss of trees. This may result in replanting and/or compensatory mitigation. If trees are impacted by the project, the required studies will be developed and mitigation strategy agreed with the Department of Natural and Environmental Resources (DNER).</p> <p>The USFWS Information for Planning and Consultation (IPaC) report indicates the following species are potentially affected by activities in this location: the Puerto Rican Boa (Endangered) and the Puerto Rican Crested Toad (Threatened). The area is not designated as a critical habitat for any species nor is it near to another critical habitat area (see IPaC Report in Attachment 10). Finally, the data in this location indicates there are no migratory birds of conservation concern expected to occur in the project area. Therefore, no mitigation activities need to be established for these.</p> <p>If a Puerto Rican Boa or Puerto Rican Crested Toad is found in the project action site, work shall cease until the animal moves off on its own. If the animal does not move off, the CM shall contact the Puerto Rico Department of Natural and Environmental Resources and ask for them to relocate the animal.</p>
Other Factors	2	There are no other factors that affect the environment with this Project.

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>CLIMATE AND ENERGY</b>		
Climate Change Impacts	2	The Proposed Action is intended to improve resiliency against emergency events, such as natural disasters, by

		allowing traffic mobility in a critical metropolitan area. The EPA predicts that rising sea levels as a result of climate change will exacerbate existing coastal flooding and may also result in more frequent and severe hurricanes in Puerto Rico (EPA 2016). This project will be designed to last in the face of increased natural disasters, as well as provide additional resiliency and safety to local residents as a result of climate change impact. Also, the intersection will result in reducing the idle time of vehicles. Thus, this can help to reduce the emissions of the combustion-engine vehicles that utilize this intersection.
Energy Efficiency	2	The Project will meet current federal and local codes concerning energy consumption. Construction machinery will not be connected to the grid, so minimal to no impact is expected during the construction period. Attachment 20 for endorsements from PRTC/CLARO.

#### **Additional Studies Performed:**

- OGPE, Escuela Amiga ACM Test Results, 05/01/23 (Attachment 16)
- OGPE, Escuela Amiga LBP Test Results, 05/01/23 (Attachment 17)

#### **Field Inspection** (Date and completed by):

Field inspection was performed by Mildred M Guzman, ICF Environmental Consultant, on December 30, 2022. See Figures 1-12 for site photos.

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

1. OGPE, 05/01/2023 (Attachment 16)
2. OGPE, 05/01/2023 (Attachment 17)
3. Gobierno de Puerto Rico. Oficina de Geología e Hidrogeología. (Attachment 4)
4. EPA. 2023. Envirofacts. Accessible at:  
<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>
5. EPA. 2023. Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Accessible at:  
[https://www3.epa.gov/airquality/greenbook/anayo\\_pr.htm](https://www3.epa.gov/airquality/greenbook/anayo_pr.htm)
6. EPA. Sole Source Aquifers. 2023. Accessible at:  
<https://nepassisttool.epa.gov/nepassist/nepamap.asp>
7. EPA. 2016. What Climate Change Means for Puerto Rico. Accessible at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-pr.pdf
8. EPA Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS), Nonattainment Areas (MapServer). Accessible at:  
[https://gispub.epa.gov/arcgis/rest/services/OAR\\_OAQPS/NonattainmentAreas/MapServer](https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer)
9. Federal Aviation Administration (FAA). 2023. National Transportation Atlas Database. Accessible at: <https://www.bts.gov/ntad>

10. NOAA. 2018. US Coastal Zone Management Act boundary (Ver. 20180830). Accessible at: <https://koordinates.com/layer/20522-us-coastal-zone-management-act-boundary/>
11. NRCS. 2023. Web Soil Survey. Accessible at: <https://websoilsurvey.nrcs.usda.gov/app/>
12. SHPO Section 106 Consultation, (Attachment 12) PR Planning Board MIPR <https://gis.jp.pr.gov/mipr/>
13. U.S. Census. 2021. QuickFacts: Dorado Municipio, Puerto Rico. Available at: <https://www.census.gov/quickfacts/doradomunicipiopuertorico>
14. USFWS. 2023. IPaC Report. Accessible at: <https://ipac.ecosphere.fws.gov/location/index>
15. USFWS. 2023. National Wetlands Inventory. Accessible at: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper>
16. USFWS. 2023. US Coastal Barrier Resources System Mapper (Version 2). Accessible at: <https://fwsprimary.wim.usgs.gov/CBRSMapper-v2/>
17. Mrs. Neysha Nieves, Director of Mi Escuela Amiga Program in the Municipality of Dorado.

### **List of Permits Obtained:**

Permits/endorsements will be submitted once the design process is complete, and all recommendations received from Agencies are included.

### **Public Outreach [24 CFR 50.23 & 58.43]:**

As a result of the Environmental Review process, a combined public notice for the proposed project, *Finding of No Significant Impact and Notice of Intent to Request Release of Funds* (FONSI-NOI-RROF), will be published in a newspaper of island-side circulation. This notice will have a Spanish translation. Any substantive comments received will be addressed and incorporated into the final environmental assessment document.

### **Cumulative Impact Analysis [24 CFR 58.32]:**

The proposed project will not contribute to adverse cumulative effects on environmental resources. Recovery efforts in the Dorado region include rehabilitation, demolition, reconstruction and new construction of private and public structures and infrastructure. Dorado is undergoing recovery efforts from the damage inflicted by Hurricanes Maria and Irma as are many communities within Puerto Rico. Cumulatively, recovery projects in combination with the proposed action may have a temporary impact on air quality, noise, traffic, educational facilities, recreation, and storm water during construction activities but will have a net long-term benefit to the human environment at the local and regional level. As this is a previously developed area that is currently being used as a traffic intersection, the redevelopment of the area as a roundabout will not cause substantial disturbances or impacts to the existing landscape of the area. The project supports the urban redevelopment goals of the Department of Housing of Puerto Rico (Vivienda)'s City Revitalization Program (for details of the program visit: <https://cdbg-dr.pr.gov/revitalizacion-de-la-ciudad/>). The proposed action will provide a small contribution to improving air quality, transportation, economic growth, and public safety once completed. The project will improve and promote safe and efficient access for pedestrians and the commercial businesses near the project area which will positively influence traffic flow. The proposed actions are not anticipated to substantially contribute to further adverse cumulative environmental effects.

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

No other comparable action alternatives were considered. The project entails the construction of a roundabout at the intersection of PR-693 and PR-698 to reduce the traffic congestion during peak hours and improve safety. The transit during Hurricanes Maria and Irma was vastly affected by the lack of power, and the proposed project will minimize this problem by redirecting traffic movements out from the main traffic light system in the jurisdiction. Improvements to other locations within the region would not address the need and intended goals of this intersection.

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

A No Action Alternative was considered and rejected because the no action alternative would not address the economic revitalization, and rehabilitation needs of Dorado.

**Summary of Findings and Conclusions:**

Once completed, the *Mejoras Intersección Rotonda PR-693 y PR-698* project will reduce the risk of accidents when there is no electricity in the area's traffic signals, improve pedestrian and vehicular safety, and improve the environment along the roadways. The project will involve the reconstruction of sidewalks and curbs, landscaping, and improvements to the electrical and stormwater systems in the area. Thus, the project is expected to provide overall benefits to the community.

The environmental impact of this project is minimal, as the project area has already been developed. Temporary impacts will occur during the construction period, such as additional noise and minor emissions from equipment vehicles. However, these impacts would be short-term and minor. No Critical Habitat exists in the project area, and it is unlikely that threatened or endangered species will be present due to the overall developed, urban nature of the area (see the Endangered Species section for additional details).

Based on the information and evaluation provided in this document, PR-CRP-000557 is in compliance with the statutes, executive orders, and regulations listed in this EA. The findings do not represent significant environmental impact nor an adverse impact on sensitive populations. The proposed project will not require any formal steps to achieve compliance or mitigation measures for any of the impacts areas analyzed, aside from mitigation measures required for the demolition of the *Mi Escuela Amiga* building, as discussed in the Contamination and Toxic Substances section of this report.

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

Summarized below are 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
National Pollutant Discharge Elimination System (NPDES),	Storm Water Pollution Prevention Plan (SWPPP) – Construction General Permit (CGP). Required for construction projects with an area greater than one acre.

<p>Environmental Protection Agency (EPA)</p> <p>Department of Natural and Environmental Resources (DNER) Commonwealth of Puerto Rico</p>	<p>Examples of stormwater pollution mitigation measures:</p> <ul style="list-style-type: none"> <li>• Erosion control, such as dust control, mulching, permanent seeding, land grading, and riprap</li> <li>• Runoff control, such as grass-lined channels and land grading</li> <li>• Sediment control, such as brush barrier, compost filter berms and socks, filter berms and silt fences.</li> </ul>
<p>Puerto Rico Environmental Quality Board and USDA – Natural Resources Conservation Services</p>	<p>Erosion Control and Sediment Prevention Plan (ECSP)</p>
<p>24 CFR 35.115 Lead Based Paint</p>	<p>Work by RRP Certified Renovation Firm and LBP Requirements Screening prior to commencing work:</p> <ul style="list-style-type: none"> <li>• At least one RRP-Certified Renovator must be at the job site or available when work is being done.</li> <li>• Workers at the job site must receive on-the-job training from the Certified Renovator.</li> <li>• Lead Safe Work Practices recommended if paint disturbance is "de minimis".</li> <li>• Lead Safe Work Practices required if paint disturbance exceeds "de minimis" but not EPA's minor repair and maintenance threshold.</li> <li>• Property Risk Assessment and abatement of all lead-based paint hazards is required prior to commencing work if paint disturbance is significant.</li> </ul>

**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: Gray Jones Date: February 9, 2024

Name/Title/Organization: Gray Jones, Environmental Planner, ICF

Certifying Officer Signature: J. Cambrelén Date: 4/11/2024

Name/Title: Janette I. Cambrelén, Permit and Environmental Compliance Specialist

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).

## List of attachments

<b>1</b>	Abbreviated Project Plans
<b>2</b>	Distance to Airports Map
<b>3</b>	Coastal Barrier Resources Map
<b>4</b>	Flood Maps and Determination Letter from PR Planning Board
<b>5</b>	Puerto Rico Nonattainment/Maintenance Status and Nonattainment Map
<b>6</b>	Coastal Zone Delineation Map
<b>7</b>	Contamination and Toxic Substances Map and Table
<b>8</b>	Phase I Environmental Site Assessment by CMA Architects & Engineers LLC (November 1, 2022)
<b>9</b>	Limited Environmental Site Assessment Report by Caribe Environmental Services (Oct 10, 2023)
<b>10</b>	Endangered Species Act Self-Certification Form Critical Habitat Map US Fish and Wildlife Service Blanket Clearance Letter Documentation IPaC Report
<b>11</b>	Farmlands Protection Map and Soil Table
<b>12</b>	Historic Preservation: SHPO Consultation package
<b>13</b>	Sole Source Aquifers Map
<b>14</b>	Wetlands Map
<b>15</b>	Wild and Scenic Rivers Map
<b>16</b>	Escuela Amiga ACM Test Results
<b>17</b>	Escuela Amiga LBP Test Results
<b>18</b>	Zoning Map and Allowed Activities
<b>19</b>	Carcongroup Traffic Study
<b>20</b>	PRTC/CLARO and Liberty Endorsements

**Attachment 1: Abbreviated Project Plans**

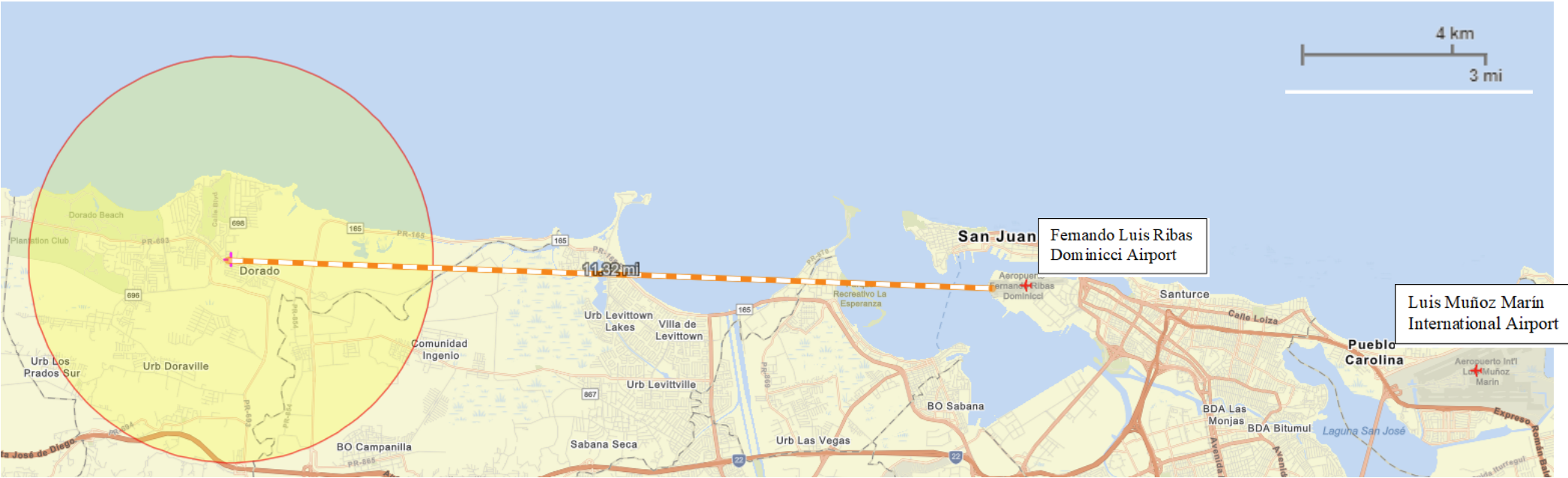


**Attachment 2: Distance to Airports Map**

# Airports Map

PR-CRP-000557- Intersection Improvements  
Roundabout PR-693 and PR-698

Coord: Lat. 18.462004, Long. -66.268678  
Intersection of PR-693 and PR-698



July 26, 2023



Project Buffer - 15,000 feet



PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698



Airport Points

Map prepared by ICF for the Department of Transportation, Puerto Rico. The map shows the project location and the airports. The project is located at the intersection of PR-693 and PR-698. The airports are the Fernando Luis Ribas Dominicci Airport and the Luis Muñoz Marín International Airport.

**Attachment 3: Coastal Barrier Resources Map**

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
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July 26, 2023

 CBRS Buffer Zone

 System Unit




 PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698

## CBRS Units

 Otherwise Protected Area

Source: US Fish and Wildlife Service (USFWS), 2023, US Coastal Barrier Resources System Mapper (Version 2), accessed July 26, 2023, at URL <https://fwsprimary.wim.usgs.gov/CBRSMapper-v2/>

Prepared by 

**Attachment 4: Flood Maps and Determination Letter (PR Planning Board)**



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

Determinación Número  
2021-00-JDI-4648

## 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 037-017-048-03	Nombre de la Comunidad Participante Comunidad Participante de Puerto Rico	Número de la Comunidad Participante 720000#
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### Información de la Propiedad

Municipio Dorado	Barrio Higuillar	Carretera y Sector PR 693, Bo. Higuillar, Dorado	Plus Code 77CMFP6H+VX	Coordenadas X:217244.4 Y:269612.6
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### Información sobre el Mapa de Tasas del Seguro de Inundación (FIRM, por sus siglas en inglés)

Número del Mapa de Inundación, FIRM 72000C0310J	Vigencia 18/Nov/2009	Status de Panel Printed	Zona Inundable X
Cauce Mayor (Sí, No, No determinado) No	¿La propiedad ubica en un área especial de riesgo a inundación del 1% de probabilidad? No	Nivel de Inundación Base (MSL) No Aplica	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 La Plata	
Nombre del Cuerpo de Agua Adyacente (cuando es VE es el mar, primera fase el cuerpo de agua mas cercano) Río de La Plata (Ríos) a 11147.9 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 72000C0310J	Vigencia 13/Apr/2018	Zona Inundable Fuera mapa (ABFE)
--	-------------------------	-------------------------------------

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.

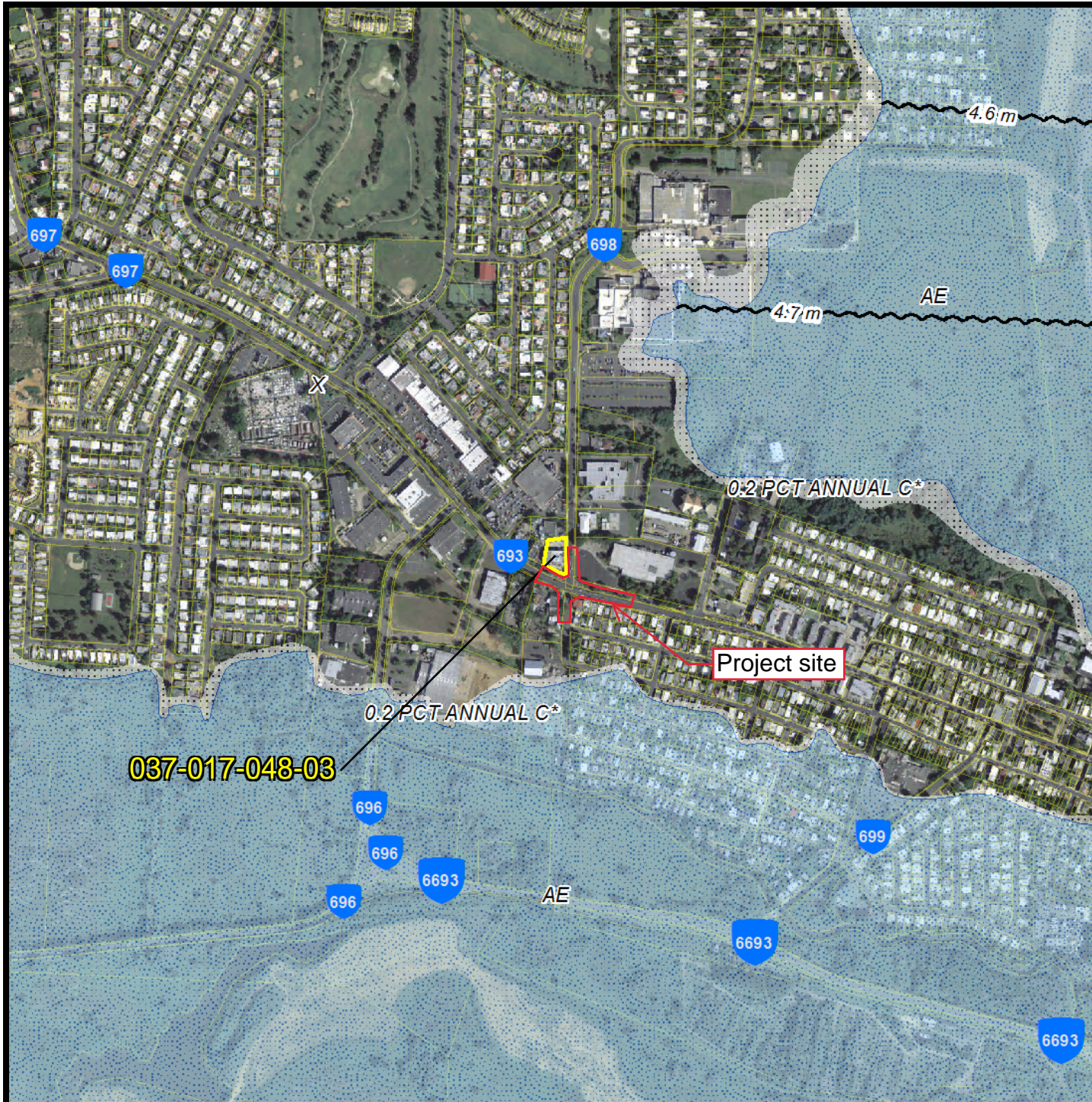
Si la propiedad está en un Área Especial de Riesgo [Peligro] a Inundación, se requiere cumplir con las disposiciones del Reglamento de Planificación No. 13 vigente y será requerido cumplir con la Ley Federal de Protección a Desastres del año 1973. Para las zonas A, AE, AO, AH, A99 y VE es requisito obligatorio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

Solicitante  
Detran CO

Contáctenos en [avipr@jp.pr.gov](mailto:avipr@jp.pr.gov)

Fecha de Emisión  
09/Jul/2021





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

**NFIP**  
**NATIONAL FLOOD INSURANCE PROGRAM**

PANEL 0310J

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
COMMONWEALTH OF  
PUERTO RICO  
AND MUNICIPALITIES

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
Puerto Rico	72000	0310	J

Notes 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.

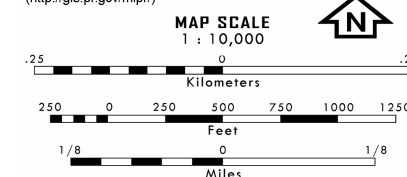
**MAP NUMBER**  
72000C0310J

**EFFECTIVE DATE**  
18/Nov/2009

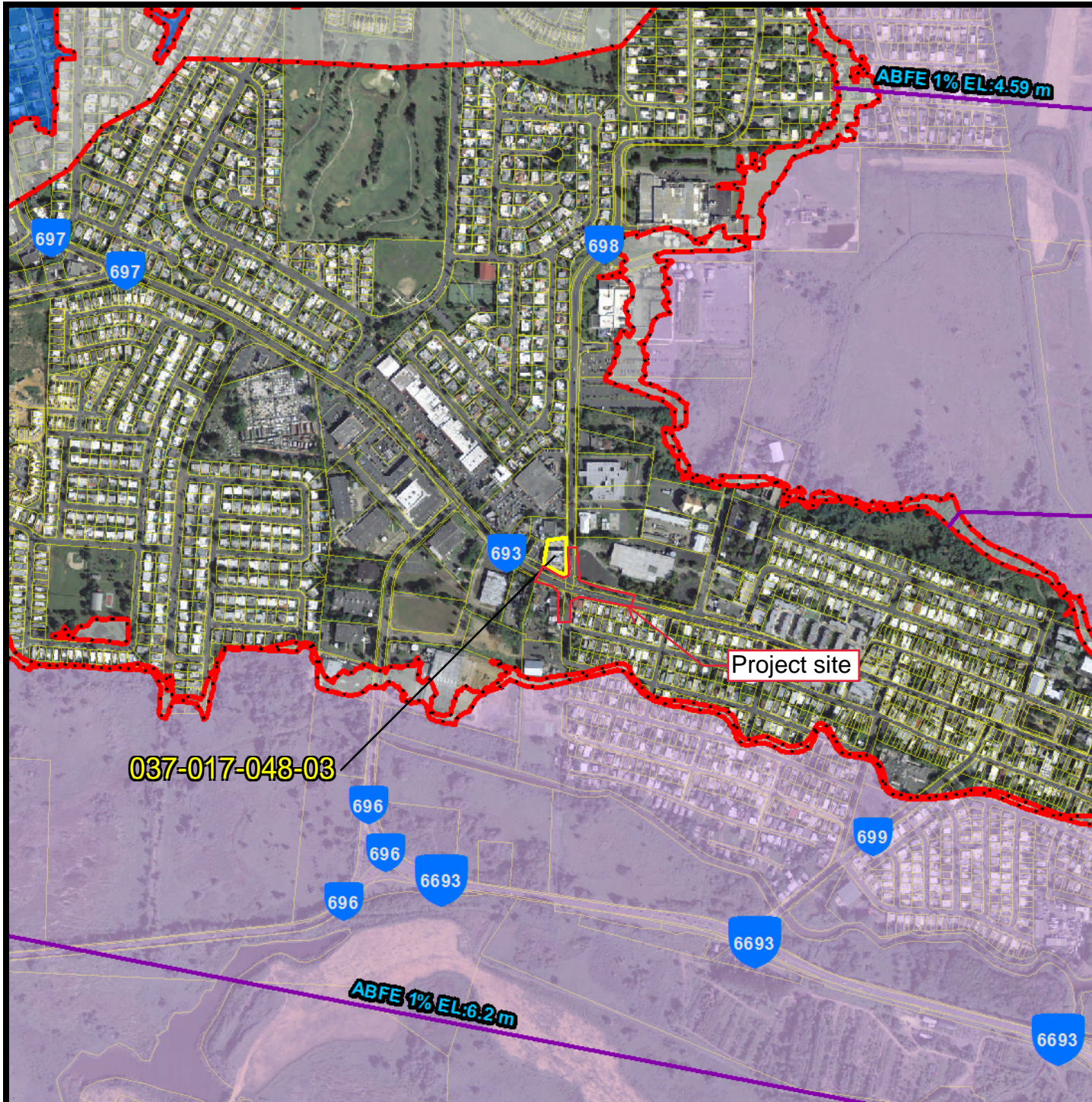
Federal Emergency Management Agency

Leyenda	
	0.2% ACF
	A
	A99
	Cauce Mayor
	Coastal Barrier
	AE
	AH
	AO
	VE
	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/>)







# 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 Por ciento**  
Fuera de los límites de los mapas de inundación recomendados

Panel Inundabilidad: 72000C0310J

Fecha de Efectividad: 18 de abril de 2018  
Ver Resolución JP-ABFE\_01 del 23 de marzo de 2018

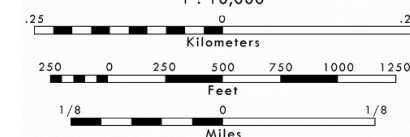
## Leyenda

- |             |                |
|-------------|----------------|
| 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



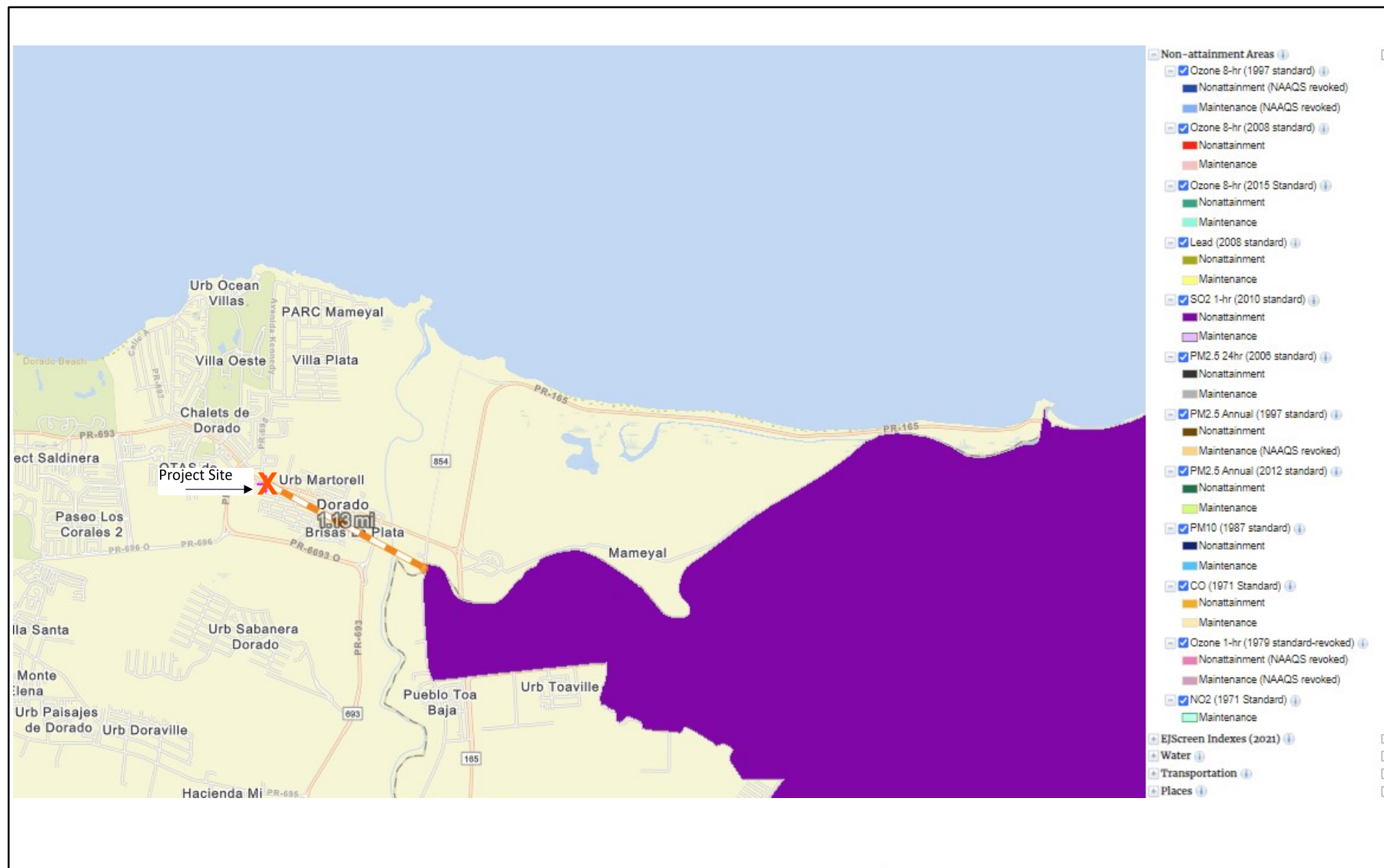


**Attachment 5: Puerto Rico Nonattainment/Maintenance Status and  
Nonattainment Map**

# Nonattainment Map

PR-CRP-000557- Intersection Improvements Roundabout PR-693 and PR-698

Coord: Lat. 18.462004, Long. -66.268678  
Intersection of PR-693 and PR-698



July 26, 2023

 SO2 1-hr Nonattainment (2010 standard)

 PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698



Source: EPA Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS), Nonattainment Areas (MapServer) accessed July 26, 2023, at URL [https://gispub.epa.gov/arcgis/rest/services/OAR\\_OAQPS/NonattainmentAreas/MapServer](https://gispub.epa.gov/arcgis/rest/services/OAR_OAQPS/NonattainmentAreas/MapServer)

Prepared by 

[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 September 30, 2023

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  $\mu\text{g}/\text{m}^3$ ) 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:

Change the state

PUERTO RICO

GO

### Important Notes

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
<b>PUERTO RICO</b>								
Arecibo Municipio	Lead (2008)	Arecibo, PR	<div> <div></div> <div>11 12 13 14 15 16 17 18 19 20 21 22 23</div> </div>	//		Part	32,185	72/013
Bayamon Municipio	Sulfur Dioxide (2010)	San Juan, PR	<div> <div></div> <div>18 19 20 21 22 23</div> </div>	//		Part	22,921	72/021
Catano Municipio	Sulfur Dioxide (2010)	San Juan, PR	<div> <div></div> <div>18 19 20 21 22 23</div> </div>	//		Whole	28,140	72/033
Guaynabo Municipio	PM-10 (1987)	Mun. of Guaynabo, PR	<div> <div>92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09</div> <div></div> </div>	02/11/2010	Moderate	Part	90,470	72/061
Guaynabo Municipio	Sulfur Dioxide (2010)	San Juan, PR	<div> <div></div> <div>18 19 20 21 22 23</div> </div>	//		Part	23,802	72/061
Salinas Municipio	Sulfur Dioxide (2010)	Guayama-Salinas, PR	<div> <div></div> <div>18 19 20 21 22 23</div> </div>	//		Part	23,401	72/123
San Juan Municipio	Sulfur Dioxide (2010)	San Juan, PR	<div> <div></div> <div>18 19 20 21 22 23</div> </div>	//		Part	147,963	72/127
Toa Baja Municipio	Sulfur Dioxide (2010)	San Juan, PR	<div> <div></div> <div>18 19 20 21 22 23</div> </div>	//		Part	52,441	72/137

### Important Notes

[↑ Go Top](#)

Source: Environmental Protection Agency (EPA) 2023, Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, accessed October 20 2023, at URL [https://www3.epa.gov/airquality/greenbook/anayo\\_pr.html](https://www3.epa.gov/airquality/greenbook/anayo_pr.html)

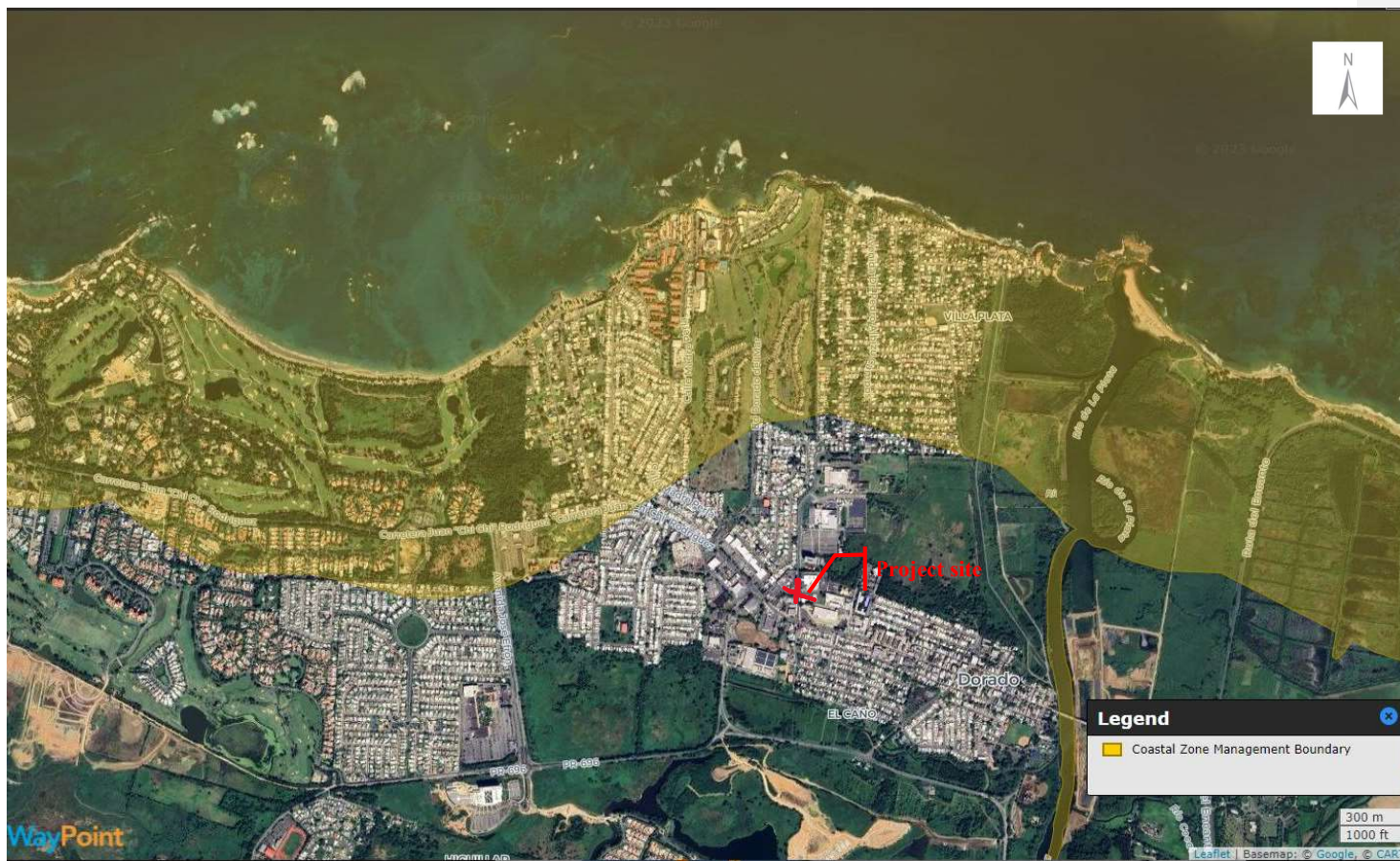
**Attachment 6: Coastal Zone Delineation Map**

## Coastal Zone Boundary Map

PR-CRP-000557 - Mejoras Intersección Rotonda PR-693 y PR-698, Dorado

Coord: 18.461956, -66.269956

Calle San Quintín # 76, Esq. Méndez Vigo, Dorado, Puerto Rico



Source: US National Oceanic and Atmospheric Administration (NOAA), 2018, US Coastal Zone Management Act boundary (Ver. 20180830), accessed September 13, 2023 at URL <https://koordinates.com/layer/20522-us-coastal-zone-management-act-boundary/>

Prepared by  ICF

**Attachment 7: Contamination and Toxic Substances Map and Table**



# Contamination and Toxic Substances 'A U d'

ÚR-CRP-000557

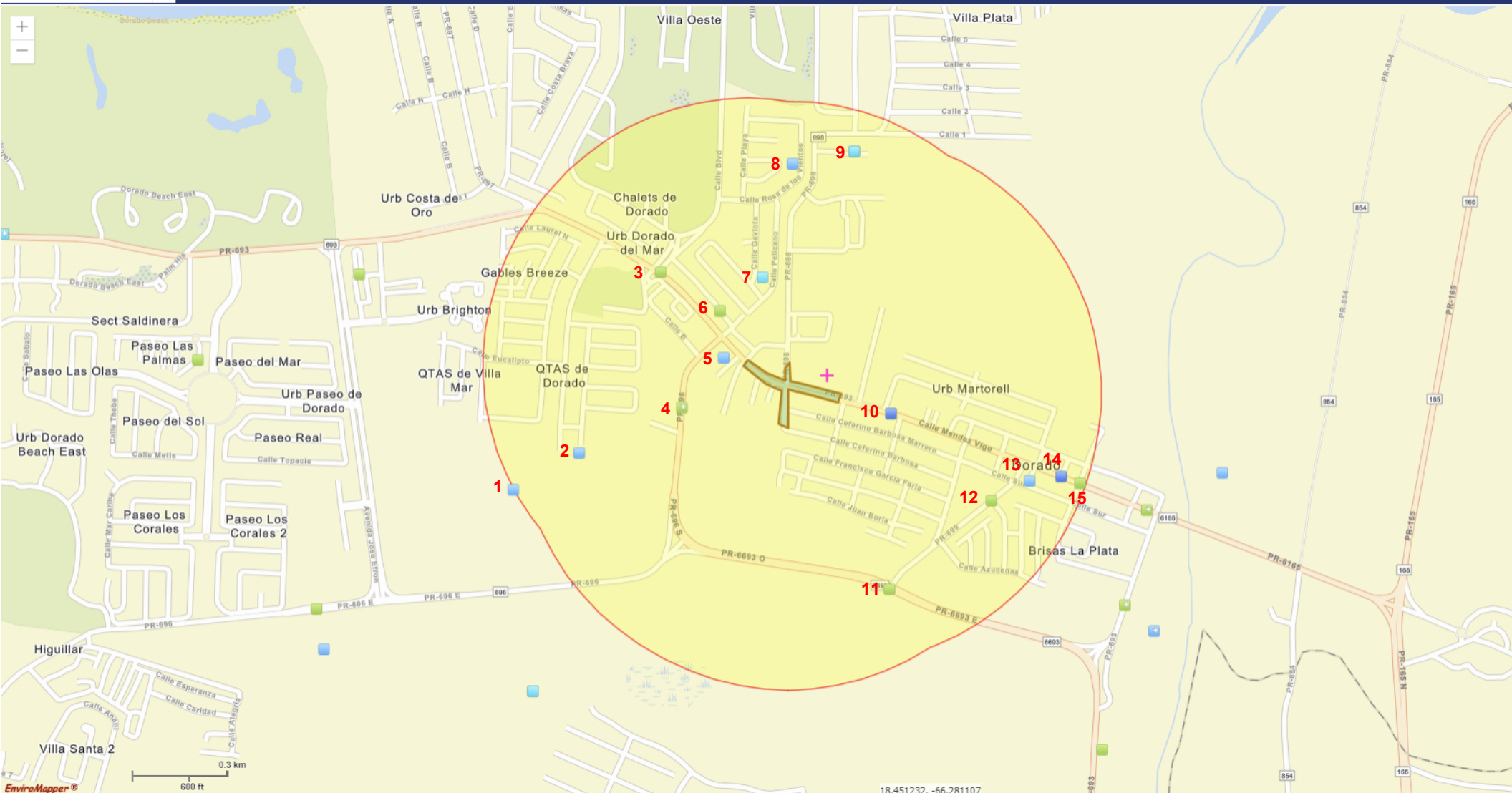
7ccfX. Lat. 18.462004, Long. -66.268678

Qc!^&q} Á ÁÜË JHá áÁÜË JI



18.462004, -66.268678

Basemap Imagery Draw Erase Save Session Tools More Data



October 20, 2023

EPA Facilities

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

PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698



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

Prepared by ICF

## Contamination and Toxic Substances

### Distance from property

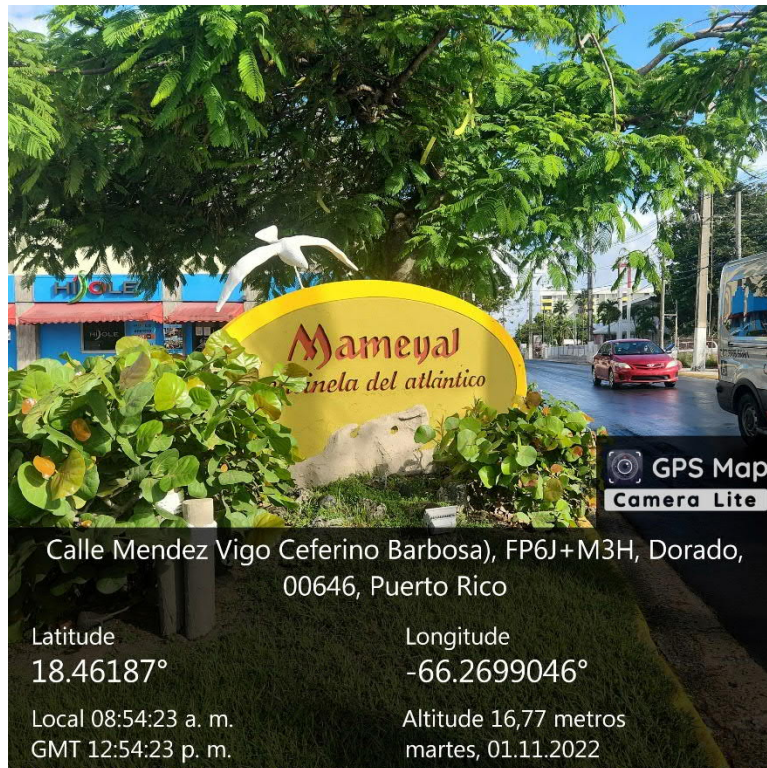
ID	EPA FACILITY	DISTANCE FROM SITE (MI)	DIRECTION FROM SITE	DESCRIPTION
1	Water Dischargers (NPDES)	0.50	West	EUREKA MARINE PRODUCTS CO OF PR INC STATE RD 165, KM 22.1 DORADO, PR 00646 County Name: DORADO Latitude: 18.216667 Longitude: -66.497222
2	Water Dischargers (NPDES)	0.40	West	EUREKA MARINE PRODUCTS CO OF PR INC STATE RD 165, KM 22.1 DORADO, PR 00646 County Name: DORADO Latitude: 18.216667 Longitude: -66.497222
3	Hazardous Waste (RCRAInfo)	0.26	Northwest	CVS PHARMACY #7977 Handler ID: PRR000022616 1 CARR PR 693 INT PR 696 DORADO, PR 00646 County Name: DORADO Latitude: 18.464883 Longitude: -66.273537
4	Hazardous Waste (RCRAInfo)	0.17	West	PROMED MOLDED PRODUCTS CARIBE INC Handler ID: PRR000022376 7 RD 696 DORADO, PR 00646 County Name: DORADO Latitude: 18.461117 Longitude: -66.272923
5	Water Dischargers (NPDES)	0.04	West	HERAEUS MEDICAL COMPONENTS CARIBE, INC. 415 ROAD 693 DORADO, PR 00646 County Name: DORADO Latitude: 18.462490 Longitude: -66.271700
6	Hazardous Waste (RCRAInfo)	0.11	Northwest	FARMACIA EL AMAL #38 Handler ID: PRR000013219 DORADO DEL MAR SHOP CTR DORADO, PR 00646 County Name: DORADO Latitude: 18.4638 Longitude: -66.27181
7	Toxic Releases (TRI)	0.17	North	GUIDANT PR BV 12 LOT, 698 RD SUITE 156 DORADO, PR 00646 County Name: DORADO Latitude: 18.464722 Longitude: -66.270556



8	Water Dischargers (NPDES)	0.39	North	CARIBE HOLDINGS (CAYMAN) CO. LTD. D/B/A PURACAP CARIBE ROAD 698 KM 0.8 DORADO, PR 00646 County Name: DORADO Latitude: 18.467887 Longitude: -66.269689
9	Toxic Releases (TRI)	0.47	North	MCNEIL PHARMACEUTICAL CO RD 698 KM 08 DORADO, PR, 00646 County Name: DORADO Latitude: 18.468234 Longitude: -66.267875
10	Air Pollution (ICIS-AIR)	0.10	East	NARVAEZ DRY CLEANERS DORADO SHOPPING CENTER DORADO, PR 00646
11	Hazardous Waste (RCRAInfo)	0.38	Southeast	BENCKISER PR Handler ID: PRR000008904 92 ESTACION ST DORADO, PR 00646-0958 County Name: DORADO Latitude: 18.45606 Longitude: -66.26684
12	Hazardous Waste (RCRAInfo)	0.36	East	EL CARIBBEAN INC Handler ID: PRD000692574 FRANCISCO ESCUDE ST #92 DORADO, PR 00646 County Name: DORADO Latitude: 18.45852 Longitude: -66.26387
13	Water Dischargers (NPDES)	0.41	East	MUNICIPALITY OF DORADO 75 CALLE SAN QUINTN, ESQUINA MNDEZ VIGO DORADO, PR 00646 County Name: DORADO Latitude: 18.459065 Longitude: -66.262749
14	Air Pollution (ICIS-AIR)	0.45	East	HI CLASS CLEANERS CALLE MENDEZ VIGO #367 DORADO, PR 00646 County Name: DORADO

15	Hazardous Waste (RCRAInfo)	0.49	East	RUIZ AUTO REPAIR Handler ID: PRO007001076 MENDEZ VIGO 343 DORADO, PR 00646 County Name: DORADO Latitude: 18.459017 Longitude: -66.26128
----	-------------------------------	------	------	---

**Attachment 8: Phase I Environmental Site Assessment**



## ENVIRONMENTAL SITE ASSESSMENT PHASE I

### IMPROVEMENTS TO INTERSECTION AND ROUNDABOUT AT PR-693 AND PR-698 CDBG-DR PROJECT ID PR-CRP-000557 INTERSECTION MENDEZ VIGO ST. (693) AND SEFERINO BARBOSA ST. (PR-698) DORADO, PUERTO RICO

November 1, 2022  
CMA 22173

**CMA**  
ARCHITECTS &  
ENGINEERS LLC

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Appendix B – User’s Questionnaire

Appendix C – EDR Radius Report

Appendix D – Agencies Letters

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Appendix G - City Directory

Appendix H – Sanborn Maps

Appendix I – Observations Report with Photos

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Figure Number 1 – Aerial Photo

Figure Number 2 – Location Map

Figure Number 3 - Physical Setting Map (EDR, 2022)

Figure Number 4 – Overview Map (EDR, 2022)

Figure Number 5 – RECs, LUST, NPL Location Map

Figure Number 6 – Physical Setting Map (EDR 2022)

Figure Number 7 - Geological Map (USGS, 1963)

## LIST OF ABBREVIATED TERMS

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ACM	Asbestos Containing Materials
ASTM	American Society for Testing and Materials
AUL	Activity Use Limitation
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CRIM	Puerto Rico Municipal Revenues Collection Center (Centro de Recaudación de Ingresos Municipales)
DNER	Department of Natural and Environmental Resources
EL	Environmental Lien
ERNS	Emergency Response Notification System
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
HSWA	Hazardous and Solid Waste Amendments
HUD	Housing Urban Development
LBP	Lead Based Paint
LUST	Leaking Underground Storage Tanks
NFRAP	No Further Action Planned
NFRAP	No Further Remedial Action Planned
NPL	National Priority List
NRC	National Response Center
PCB	Polychlorinated Byphenyls
PCS	Permit Compliance System
PRASA	Puerto Rico Aqueduct and Sewer Authority
REC	Recognized Environmental Condition
RCRA	Resource Conservation and Recovery Act



## LIST OF ABBREVIATED TERMS

---

RCRIS	Resource Conservation and Recovery Information System
SEMS	Superfund Enterprise Management System
USGS	United States Geological Survey
UST	Underground Storage Tank

## EXECUTIVE SUMMARY

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Municipality of Dorado through the City Revitalization Program under the CDBG-Disaster Recovery Program propose the construction of a traffic circle (roundabout) at the intersection of Mendez Vigo St. (PR-693) and Seferino Barbosa St. (PR-698) in the town of Dorado. This project will be built at the intersection along with three (3) properties that will be acquired for this purpose. The coordinates for the location of the traffic circle are X:18.4617790, Y: -66.2698580. Figure Number 1 shows an aerial photo depicting the project area.



Figure Number 1 - Aerial Photo

Autonomous Municipality of Dorado has retained the services of CMA Architects & Engineers LLC to carry out an Environmental Site Assessment Phase I at the project area. For this purpose, CMA technical personnel carried out a site visit on November 01, 2022.

This Phase I ESA was carried out in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527). A Phase I ESA carried out in accordance with 1527-21 permits a user to satisfy one of the requirements to qualify for the innocent landowner and other landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and/or to comply with financial institution's requirements for property transactions.

The goal of the Phase I ESA is to identify Recognized Environmental Conditions (REC), which is the presence or likely presence of any hazardous substances or petroleum products in, on or at the property. During the field visit to the subject property and its surroundings, one RECs were observed near at the site and one RECs reviewing the literature. This assessment has revealed some recognized environmental conditions, controlled recognized environmental conditions, or significant data gaps in connection with the subject property.

# 1 INTRODUCTION

Autonomous Municipality of Dorado retained the services of CMA Architects & Engineers LLC to conduct a Phase I Environmental Site Assessment for a three (3) properties partial that will acquired located at intersection of Méndez Vigo St. (PR-693) and Seferino Barbosa St. (PR-698) in the town of Dorado. The cadastral numbers for the three (3) properties land parcel are provided in Table 1 below.

Table 1 – Cadastral Numbers Location at Intersection of PR-698 & pr-693		
Direction	Cadastral Number	Description of Acquisition Area
Northeast Corner	037-017-051-05	Sidewalk/Parking area of former "Playtex" industrial site.
Northwest Corner	037-017-048-03	Sidewalk/ Parking area of Hijole Restaurant
Southwest Corner	037-017-216-09	Sidewalk/Former School

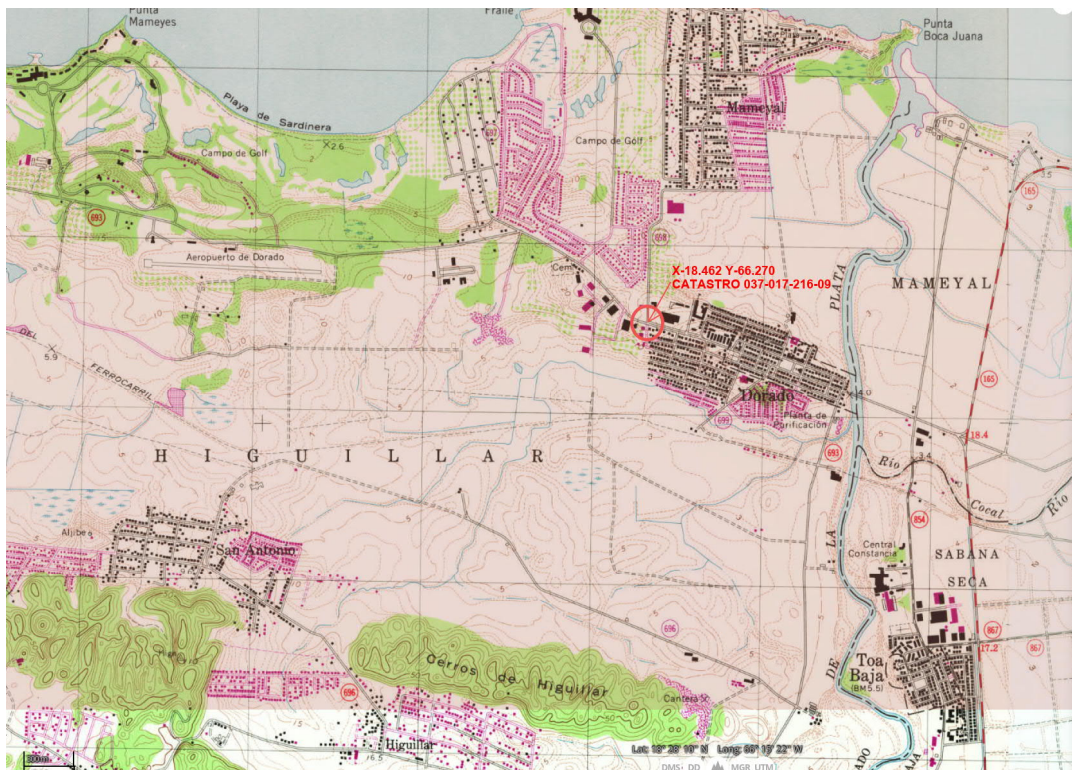


Figure Number 2 – Location Map



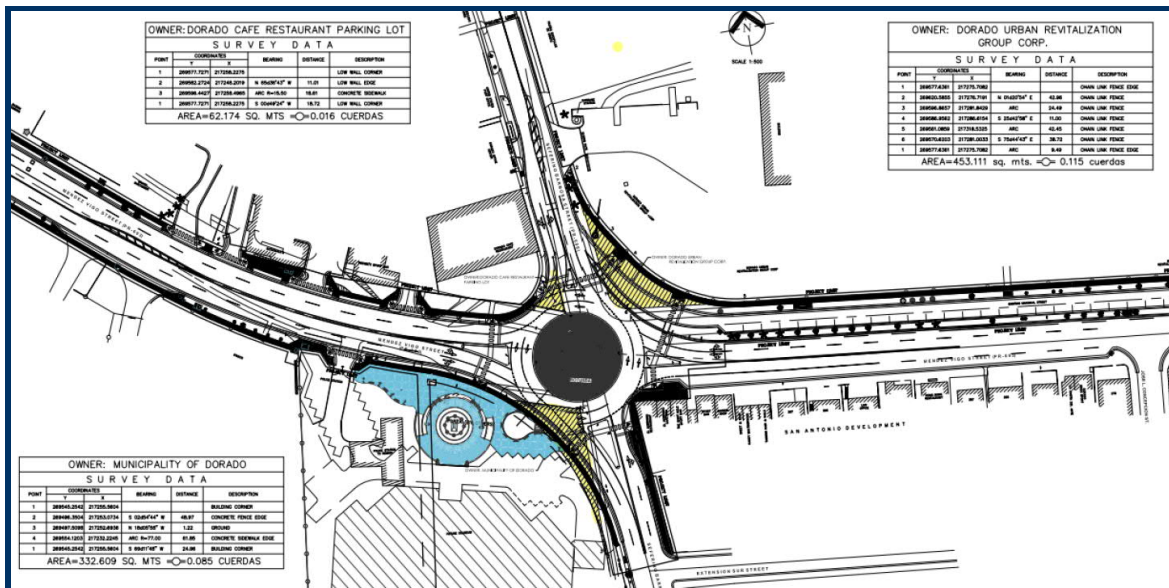


Figure Number 3 – Drawing showing properties to be acquired (in yellow)

The Environmental Site Assessment (ESA) was conducted in general accordance with the guidelines of the Standard Practices for Environmental Site Assessments (Practice E1527-21) developed by the American Society of Testing and Materials (ASTM).

## 1.1 Purpose

ASTM Practice E1527 defines good commercial and customary practice in the United States of America for conducting an Environmental Site Assessment of commercial real estate with respect to the range of contaminants within the Scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products. The practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner defense for the purposes of CERCLA liability; specifically to conduct “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined in 42 USC § 9601(35)B.

Performing an ESA in accordance with ASTM Practice E1527-13 has become essential because of recent amendments to CERCLA’s landowner liability provisions. Specifically, the Small Business Liability Relief and Brownfield’s Revitalization Act of January 11, 2002 clarified the

requirements necessary to establish the innocent landowner defense under CERCLA in addition to providing new liability limitations for landowners that qualify as bona fide prospective purchasers or as contiguous property owners.

First, an innocent landowner is a person who: (1) meets the criteria established in CERCLA Sections 107(b)(3) (including due care) and 101(35); and (2) performs all appropriate inquiry prior to purchase and buys without knowing, or having reason to know, of contamination on the property.

Second, a bona fide prospective purchaser is a person who: (1) meets the criteria established in CERCLA Sections 101(40) and 107(r); (2) purchases the property after January 11, 2002; and (3) performs all appropriate inquiry prior to purchasing the property either knowing or having reason to believe that the property is contaminated.

Third, a contiguous property owner is a person who: (1) meets the criteria established in CERCLA Section 107(q)(1)(A); (2) owns a property that is not the source of the contamination and that is contiguous to, or similarly situated to, a facility that is the actual source of contamination found on their property; and (3) performs all appropriate inquiry prior to purchase and buys without knowing, or having reason to know, of contamination on the property.

In summary, purchaser of real property must make “all appropriate inquiry” into the previous ownership and uses of the property prior to purchasing the property in order to qualify for landowner liability protection under the new CERCLA amendments. This criterion is satisfied by the implementation of a Phase I ESA in accordance with Practice E1527-21.

The purpose of the ESA is to verify, by using the procedures stated in Practice E1527-21, the existence of Recognized Environmental Conditions (REC), which are defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release into structures on the property or into the ground, groundwater, or surface water of the property.



## 1.2 Scope of Services

The ESA was conducted following the Scope of Services approved by Autonomous Municipality of Dorado. The Scope of services included the following:

### 1.2.1 Records Review

- Standard environmental information will be obtained from state and federal regulatory agencies and shall include, when available, the following:
  - Federal NPL site list
  - Federal Delisted NPL list
  - Federal CERCLIS list
  - Federal RCRA TSD facilities list (RCRIS)
  - Federal RCRA generators list property and adjoining properties (RCRIS)
  - State leaking registered and leaking UST lists
- Environmental information will be obtained from state and/or local sources including:
  - Lists of hazardous waste/contaminated sites (CERCLIS)
  - Records of emergency release reports (ERNS)
- Additional, information will be obtained from Environmental Data Resources (EDR) Report.
- All obvious uses of the property will be identified from the present, back to the property's first developed use, or back to 1962, whichever is earlier. We will use standard historical sources using aerial photographs.
- All appropriate inquiries will be conducted to search for the existence of environmental clean-up liens against the subject property that are filed or recorded under federal and local law.
- Identify wells, tanks (above and below ground) and waste disposal facilities (seepage pits, dry wells, septic systems, and landfills), whether active or closed.

- Data gaps will be identified, and their significance will be commented upon.
- Identify current and past corrective actions, existing engineering controls and institutional controls.

### 1.2.2 Site Reconnaissance

- Visual and physical observation of the area to be acquired and any structures located at the property will be completed. This will include:
  - Observation of any visual signs of contamination
  - Identification of potential sources of environmental or regulatory concern
  - Identification of significant emissions, discharges and hazardous wastes
  - Identification of past and present uses and condition of the property
  - Identification of past and present uses and condition of adjacent property
  - Visual and physical observations will include hazardous substances and petroleum products in connection with identified uses, storage tanks (above and below ground), odors, pools of liquid, drums, hazardous substance and petroleum products containers, unidentified substance containers, PCBs, stains and corrosion, drains and sumps, pits, ponds or lagoons, stained soil or pavement, solid waste disposal, wastewater discharge, wells and septic systems.

### 1.3 Study Assumptions, Limitations and Exceptions

As with any site evaluation, there is a certain degree of dependency upon verbally communicated information which is not readily verifiable through visual inspection or supported by any available written documentation.

This report has been prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-13 and E1527-21). The work conducted by CMA Architects & Engineers LLC is limited to the services agreed to with

Autonomous Municipality of Dorado and such Scope of Work and no other services beyond those explicitly stated should be inferred or are implied.

CMA Architects & Engineers LLC Environmental Site Assessment - Phase I is based upon review of available and relevant data and statements made, information provided by the client, its agents, outside parties, and regulatory agencies.

The Environmental Site Assessment - Phase I is a limited and non-exhaustive survey that is intended to evaluate whether readily available information indicates that historic or current use of the subject property or nearby property resulted in contamination by hazardous substances or waste. As a result, without a comprehensive sampling and analysis program or implementation of services beyond the original scope of work, certain conditions, including, but not limited to those summarized below, may not be revealed:

- Naturally occurring toxic or elements found in the subsurface soils, rocks, or water.
- Biological or infectious agents and pathogens.
- Contaminant plumes (liquid or gaseous) below the surface from remote or unknown sources.
- Contaminants or conditions that do not violate current regulatory standards but may violate such standards in the future.
- Unknown, unreported, and not readily visible site contamination which may have been caused by "midnight" dumping and/or accidental spillage.

#### 1.4 Special Terms and Conditions

CMA Architects & Engineers LLC has exercised due and customary care in conducting its assessment but has not independently verified information provided by others to the extent such information was not readily verifiable. Therefore, CMA Architects & Engineers LLC assumes no liability for any loss resulting from errors or omissions arising from the use of inaccurate/incomplete information or misrepresentations made by others.

## 1.5 User Reliance

This report has been prepared for and may be relied upon by the user and its client(s) with direct interest in the property as a Phase I Environmental Site Assessment compliant with ASTM Standard Practice for Environmental Site Assessments Phase I Environmental Site Assessments Process (E1527-21). It should be emphasized that conditions at the subject properties can change over time. The use of this report by unauthorized third parties shall be at their own risk.

## 2 SITE DESCRIPTION

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### 2.1 Location and Legal Description

The subject parcels are a developed tract of land located at the intersection of Méndez Vigo St. (PR-693) and Seferino Barbosa St. (PR-698) in the municipality of Dorado. The properties are occupied by a parking area of former “Playtex” industrial site, Parking area of Hijole restaurant, and building school wall. The sites occupies 0.22 “cuerdas”.

### 2.2 Site and Vicinity General Characteristics

The subject parcels are a developed tract of land located at the intersection of Méndez Vigo St. (PR-693) and Seferino Barbosa St. (PR-698) in the municipality of Dorado. The properties can be accessed by vehicles and pedestrians from the Méndez Vigo and Seferino Barbosa streets. The area is surrounded by private residences, institutional, industrial, and commercial areas.

### 2.3 Current Uses of the Property

The property under study occupies approximately 847.894 square meters and are comprised of a flat tract of land occupied by a parking’s and wall building.

### 2.4 Current Uses of Adjoining Properties

The site is bordered to the north by Hijole Restaurant, State Road PR-698, and the parking area of the former industrial building known as “Playtex” ; to the south by State Road PR-698, and commercial and residential; to the east by State Road PR-693 Méndez Vigo, and commercial buildings to the west by Mi Escuela Amigo, and State Road PR-693 Méndez Vigo.



### 3 USER PROVIDED INFORMATION

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The user provided a digital copy of a Title Studies and description scope of works. User provided information is included as [Appendix A](#). The user also provided basic information on the project description, aerial photo and drawing showing properties to be acquired. No properties to be acquired permits were available for review.

In order to qualify for one of the Landowner Liability Protections (LLP) offered by the Small Business Liability Relief and Brownfield's Revitalization Act of 2001 (the "Brownfield's Amendments") the user must conduct the inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. Failure to conduct these inquiries could result in a determination that "all appropriate inquiries" is not complete. These inquiries are collected in Appendix X3 of ASTM E1527-21, identified as User Questionnaire, and have been sent to the users. [Appendix B](#) shows copy of the User Questionnaire.

## 4 RECORDS REVIEW

Several databases were searched to determine the presence of environmental conditions located within a one-mile search distance that can affect the site. This search was conducted through Environmental Data Resources Inc. (EDR) which produces The EDR Radius Map™ Report with GeoCheck® with the results and a description of the sources and currency tracking information. Refer to [Appendix C](#) for The Radius Map Report.

The following table shows the minimum search distance for each of the searched databases as per ASTM Practice E1527-21:

Table Number 2 – Minimum Search Distances	
Database	Minimum Search Distance [miles]
Federal NPL site list	1.0
Federal Delisted NPL sites list	0.5
Federal CERCLIS List	0.5
Federal CERCLIS NFRAP Site List	0.5
Federal RCRA CORRACTS Facilities List	1.0
Federal Non-CORRACTS TSD Facilities List	0.5
Federal RCRA Generators List	Property and Adjoining Properties
Federal Institutional Control / Engineering Control Registries	Property Only
Federal ERNS List	Property Only
State and Tribal Equivalent NPL	1.0
State and Tribal Equivalent CERCLIS	0.5
State and Tribal Landfills	0.5
State and Tribal LUST	0.5
State and Tribal Registered UST	Property and Adjoining Properties
State and Tribal Institutional Control / Engineering Control Registries	Property only
State and Tribal Voluntary Clean Up Sites	0.5
State and Tribal Brownfields	0.5

## 4.1 Records Review and Significance

### 4.1.1 NPL Database

The United States Environmental Protection Agency (EPA) site assessment process ends either when the Agency determines No Further Remedial Action Planned (NFRAP), at which point site assessment stops and EPA archives site information, or when EPA decides to propose a site for listing on the National Priorities List (NPL), at which point the site assessment phase ends and the listing process begins.

The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation.

A review of the NPL list, as provided by EDR dated 07/26/2022 and the state agency of the Department of Natural and Environmental Resources in dated letter 10/28/2022 have revealed that there is two (2) NPL site within approximately one (1) mile of the target property. The two NPL sites are Dorado Groundwater Contamination which covers the entire area of the Maguayo wells and the urban Dorado well system. Also, a used oil spill on the PR-694 highway in the Higuillar ward for the date of March 12, 2016. The DNER agency letters is attached as [Appendix D](#).

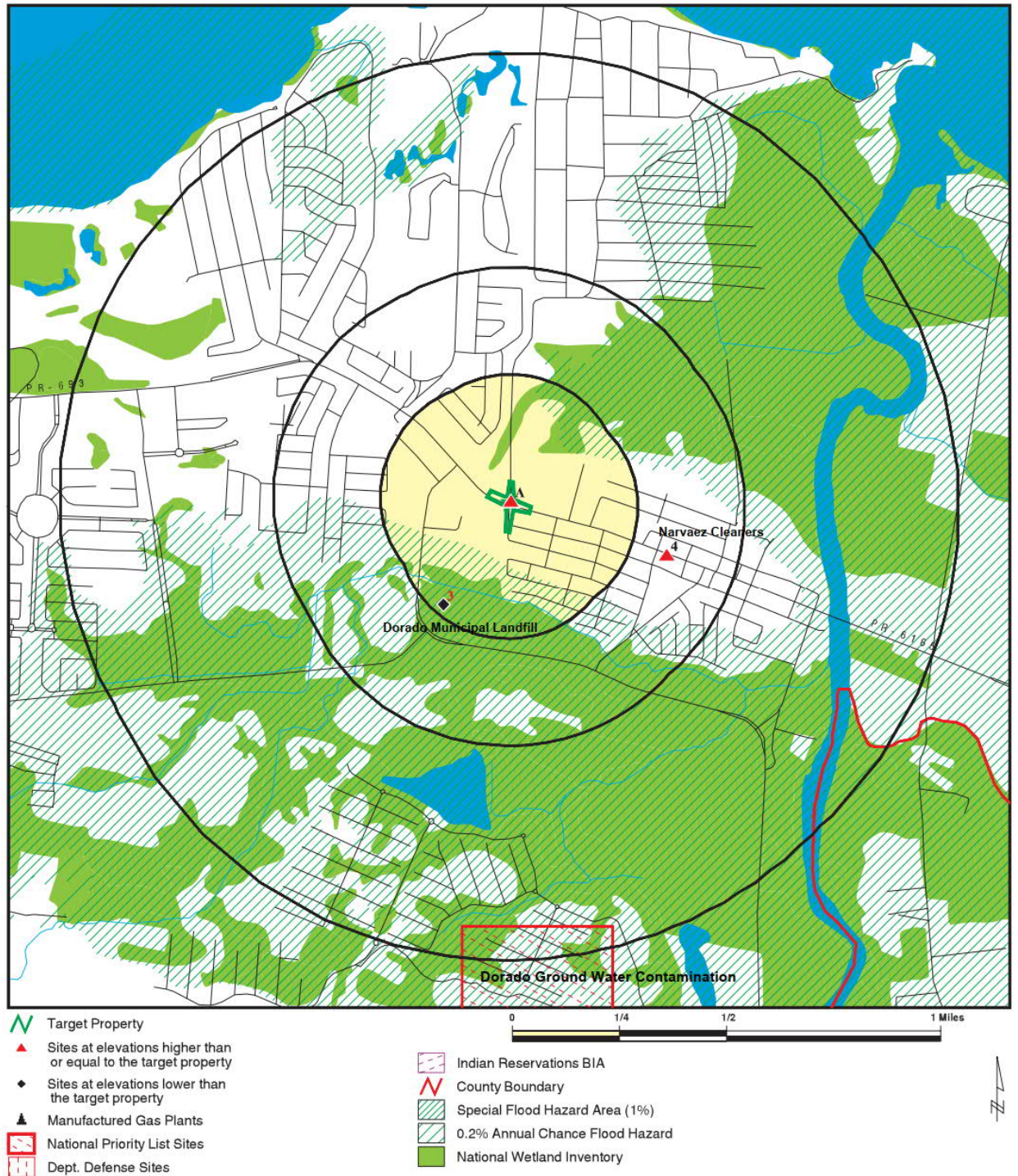


Figure Number 4 - Overview Map (EDR, 2022)



#### 4.1.2 CERCLIS Database

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database contains information on hazardous waste sites, site inspections, preliminary assessments, and remedial status. It was renamed Superfund Enterprise Management System (SEMS) by EPA in 2015. This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL. The SEMS databased was last revised on October 5, 2022, in the EDR Data Base. The EDR Radius Map Report with GeoCheck is attached as [Appendix C](#).

There is one facility listed in the SEMS and located inside the one mile-radius from the subject property. This site is named Narvaez Cleaners and Tailoring 353 Mendez Vigo Street, Dorado, SEMS EPA ID number PRN000206357. The site is located quarter a mile to the east-southeast of the property. This site is not included at the National Priority List (NPL) and no contaminants found.

#### 4.1.3 CERCLIS NFRAP Database

The CERCLIS No Further Response Action Planned (NFRAP) database was renamed SEMS-ARCHIVE by EPA in 2015. It tracks sites that have no further interests under CERCLA. There are no listed or delisted CERCLIS NFRAP sites located within the minimum search distance from the site.

#### 4.1.4 RCRA CORRACTS Database

The EPA maintains a database of the Treatment, Storage and Disposal (TDS) of hazardous waste from reporting facilities under the Resource Conservation and Recovery Act (RCRA). CORRACTS (Corrective Action Sites) is a compilation of data concerning hazardous waste corrective action activity for facilities regulated under RCRA. Corrective action is a requirement under RCRA that TSD facilities investigate and clean up hazardous releases into soil, ground water, surface water, and air. However, a facility may be brought into the corrective action process when EPA is considering a treatment, storage, and disposal facility (TSDF) RCRA permit application.



The subject site was not found in the CORRACTS database. There are no CORRACTS facilities located within the minimum search distance of one (1) mile of the subject site.

#### 4.1.5 RCRA Non-CORRACTS TSD Facilities List

The Non-CORRACTS TSD Facilities database is the EPA's list of TDS facilities that are not currently subject to corrective action.

EDR conducted a search of EPA's RCRAInfo database, which contains information on TSD facilities. A review of the RCRA TSD list indicates that there are no RCRA TSD facilities on the subject property neither inside the search distance.

#### 4.1.6 RCRA Generators List

Under the Resource Conservation and Recovery Act (RCRA), generators, transporters, treaters, storers, and disposers of hazardous waste as defined by the federally recognized hazardous waste codes are required to provide information concerning their activities to state environmental agencies, which in turn provide the information to regional and national US EPA offices. The Resource Conservation and Recovery Information System (RCRIS or RCRAInfo) is used by the Environmental Protection Agency (EPA) to support its implementation of the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA). The system is primarily used to track handler permit or closure status, compliance with Federal and State regulations, and cleanup activities. Other uses of the data include program management, regulation development, waste handler inventorying, corrective action tracking, regulation enforcement, facility management planning, and environmental program progress assessment.

#### 4.1.7 Institutional Control/Engineering Control Registries

Institutional Controls (ICs) are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering Controls (EC) are physical methods to help minimize the potential for exposure to contamination, such as caps and barriers.

The property was not found in the federal institutional controls / engineering controls registries.

#### 4.1.8 ERNS List

The Emergency Response Notification System (ERNS) database is a record of all notices made to the National Response Center (NRC). The NRC should be notified when any one of several different types of spills or releases of toxic substances occurs, including oil spills and CERCLA releases. The ERNS also includes Coast Guard sightings of spills at sea.

No sites located inside the facilities under study are included on the researched list.

#### 4.1.9 State and Tribal Hazardous Waste Sites Database

No state and tribal equivalent Hazardous Waste Sites Database were available for review.

#### 4.1.10 State and Tribal Equivalent NPL

According to a letter from the DNER Environmental Emergencies Department letter dated October 28, 2022, a used oil spill on the PR-694 highway in the Higuillar ward on March 12, 2016. No more information was provided by the agency. The DNER agency letters is attached as [Appendix D](#).

#### 4.1.11 State and Tribal Equivalents CERCLIS

No state and tribal equivalent NPL were available for review. This database is managed by EPA.

#### 4.1.12 State and Tribal Landfills

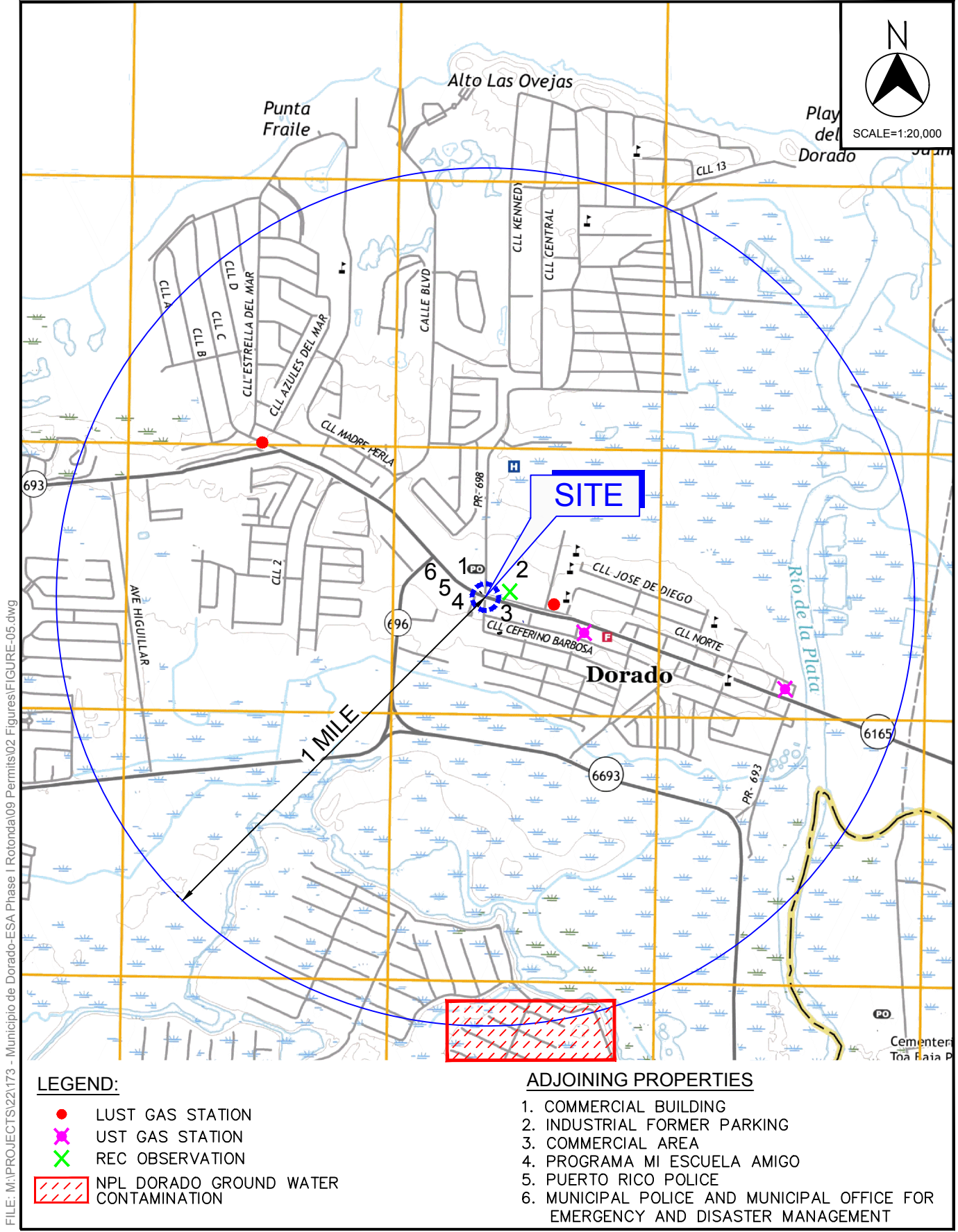
One landfill is located inside the search distance. The Dorado Municipal Landfill located at State Road PR-693 Km. 1.0 Higuillar Ward is an Open Dump Inventory (ODI). An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle Criteria. The site is located quarter a mile to the south-southwest of the property. This site is not included at the National Priority List (NPL).

#### 4.1.13 Leaking Underground Storage Tanks (LUST)

The Leaking Underground Storage Tanks (LUST) list provided by EDR, and the 2020 Inactive Sites LUST List by Department of Natural and Environmental Resources include USTs inside the minimum one mile searching distances radius.

The LUST database provided by EDR shows an orphan sites summary. These are sites that did not have complete information at the available government databases. Two of the orphan sites and DNER LUST List are located inside the one mile's radius minimum. These are Shell S/S #002240 Marginal Street, Urb. Martorell (located 240 meters to the east of the subject property) and Puma Gas Station Dorado del Mar PR-693 (located 985 meters to the west of the subject property). Also, two another gas station was observed located 464 meters to the east a Puma Gas Station at Mendez Vigo Street and Mobil Gas Station located 1,180 meters to the east of the subject property. The following table shows the two of the orphan sites and DNER LUST List:

Table 3 SITES LUST LIST						
UST ID	NAME	ADDRESS	Owner	DATE KNOWN	HOW KNOWN	DATE RELEASED
86-0861	Shell S/S #002240	Calle Marginal, Urb. Martorell	Shell Company (P.R.) Limited	Unknown	Product Spill	Unknown
92-0091	Pump STA. Dorado del Mar	Carr. 693 Calle 2, Dorado del Mar	Puerto Rico Aqueduct and Sewer Authority	15-Oct-90	UST Removal	27-Jun-03



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#### 4.1.14 Registered Underground Storage Tanks (UST)

According to the EDR Radius Map Report, there are no active registered Underground Storage Tanks (USTs) within one mile from the property.

#### 4.1.15 State and Tribal IC/EC Registries

There are no state or tribal IC/EC registries available for review.

#### 4.1.16 Voluntary Clean Up Sites

There are no state or tribal voluntary clean-up sites registries available for review.

#### 4.1.17 State and Tribal Brownfield

There are no state or tribal Brownfield registries available for review.

#### 4.1.18 Water Wells

The EDR Radius Map Report with GeoCheck dated October 27, 2022, includes the results of the search of EPA's Public Water Systems (PWS) and the USGS National Water Inventory System (NWIS), which includes a list of wells, springs, and other groundwater sources. Also, we received from DNER the wells list from Water Franchise Department. Both lists includes several federal USGS and local industrial and agricultural wells within one (1) mile from the site. Refer to The EDR's Radius Map Report with GeoCheck for a list of the wells.

It is important to emphasize that according to the letter received from the DNER environmental emergencies office, the wells in the Maguayo sector and the Dorado Urbano well system are on the list of a Superfund site called Dorado Groundwater Contamination. The DNER Well List is attached as [Appendix E](#). The following table shows the EDR and DNER wells sites:

Table 4 – EDR and DNER Wells Information							
Map ID	EDR ID/#SIPE	Direction	Distance	Elevation	Location	Type	Use
A1	USGS40001046596	North	0 – 1/8 Mile	Higher	Dorado	Well	Investigation
A2	USGS40001046602	NW	0 – 1/8 Mile	Higher	Dorado	Well	Investigation
A3	USGS40001046622	NW	1/8 – ¼ Mile	Lower	Dorado	Well	Investigation
4	USGS40001046637	NW	¼ – ½ Mile	Lower	Dorado	Well	Investigation
B5	PR0726017	ESE	¼ – ½ Mile	Higher	MC Neil Pharmaceutical	Well	Industrial
6	USGS40001046586	East	½ – 1 Mile	Lower	Dorado	Well	Investigation



Table 4 – EDR and DNER Wells Information							
Map ID	EDR ID/#SIPE	Direction	Distance	Elevation	Location	Type	Use
B7	USGS40001046560	ESE	½ - 1 Mile	Higher	Dorado	Well	Investigation
8	USGS40001046560	North	½ - 1 Mile	Lower	Dorado	Well	Investigation
9	USGS40001046480	SE	½ - 1 Mile	Lower	Dorado	Well	Investigation
10	USGS40001046576	West	½ - 1 Mile	Lower	Dorado	Well	Investigation
11	USGS40001046466	SE	½ - 1 Mile	Lower	Dorado	Well	Investigation
12	O-FA-PRE11-SJ-00399-16072013	East	0 – 1/8 Mile	Lower	Dorado Urb. Martorell Calle Mendez Vigo	Well	Industrial
13	O-FA-PRE11-SJ-00643-11022021	East	0 – 1/8 Mile	Lower	Dorado Urb. Martorell Calle Mendez Vigo	Well	Investigation

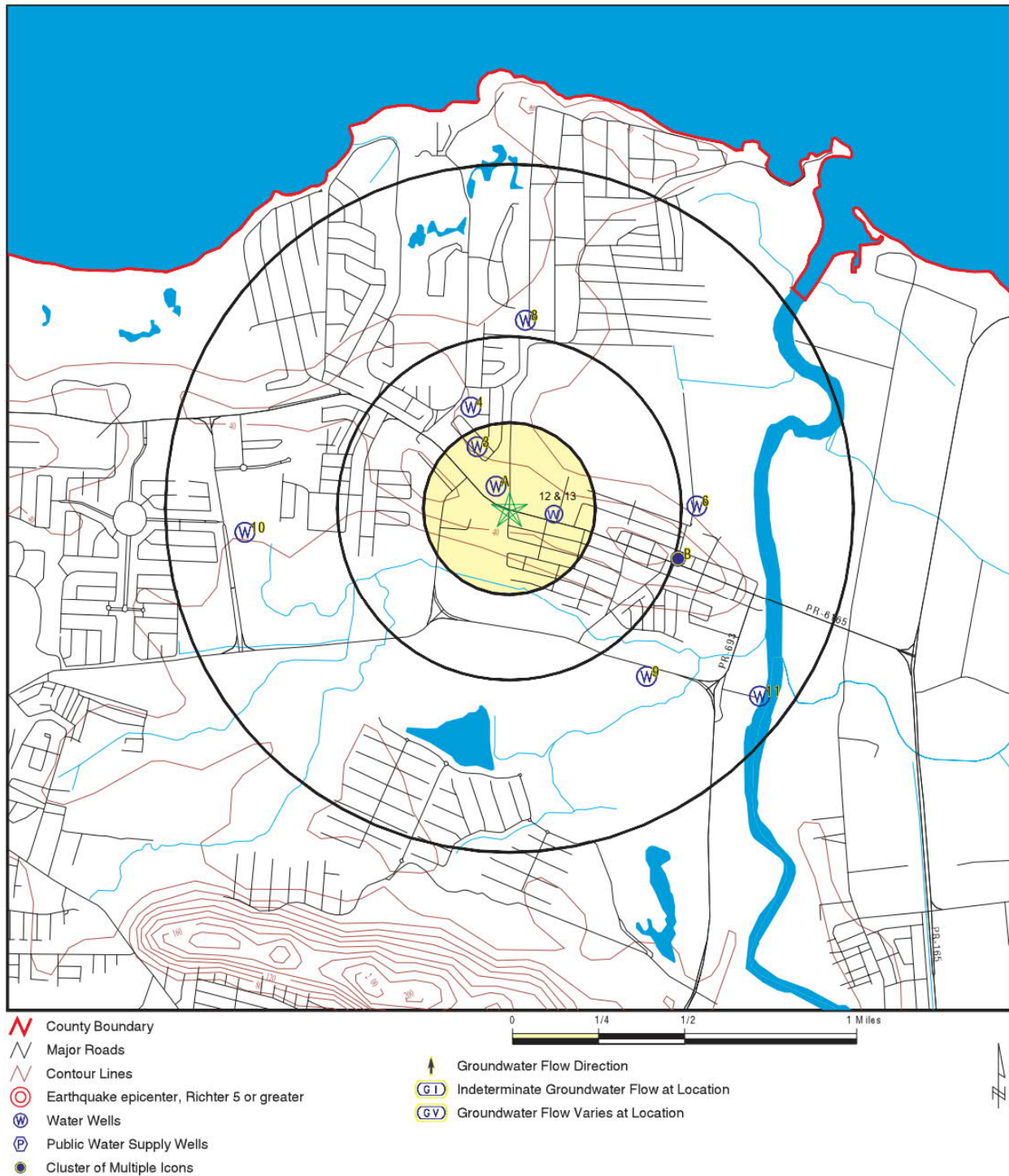


Figure Number 6 - Physical Setting Map (EDR, 2022)

## 4.2 Historical Use Information of the Property and Adjoining Properties

The historical information sources used to obtain information about past uses of the property under study and adjoining properties were the EDR Aerial Photo Decade Package, included as [Appendix F](#), and the USGS Vega Alta topographic quadrangles from 1962 to 2003.

### 4.2.1 Aerial Photos

The EDR aerial photos all have the same scale and span an area of roughly a mile east to west and slightly more than a mile north to south.

The earliest photo of the area is dated 1962 and show several structures at east and south of the proposed site. The subject site can be seen at this aerial photo. The former “Platex” industrial Site as well as town Dorado structures can be seen near to proposed site. In addition, the aerial photo shows the state road Méndez Vigo St. (PR-693) and Seferino Barbosa St. (PR-698). To the north and west of the proposed site can be seen undeveloped land possibly used for cattle grazing.

The 1967 aerial photo shows similar conditions as the previous photos, except for the development of the area north and west of the proposed site. The aerial photo shows the construction of the Mameyal community and Dorado del Mar golf course to the north and some structures to the west of the proposed site. The properties to the west of the property and the earth movement that can be seen are from the buildings that are currently part of the municipal government.

The 1977 aerial photo shows similar conditions as the previous 1967 photo, except for further development to the north with the urbanization of Dorado del Mar and the industrial area to the southwest is beginning to develop. The State Road PR-693 was also improved to provide access to the new areas being developed. In addition, the aerial photo shows the development of the Jardines de Dorado urbanization to the east of the town of Dorado.

The 1983 aerial photo shows similar conditions as the previous 1977 photo, except for further development to the west of the proposed site with the development of the Quintas del

Dorado development and the construction of state road PR-696. In addition, it continues with the improvements to State Road PR-693 and more spaces in the industrial zone.

The 1991 aerial photo shows similar conditions as the previous 1983 photo, except for the development of more industries in the Dorado Industrial Park at southwest.

No new developments can be seen at the property surroundings at the 1994 and 2003 aerial photos.

#### 4.2.2 Historical USGS Quadrangles

The site area is included in the USGS Vega Alta topographic quadrangle. The oldest complete USGS quadrangle map available from the USGS Topo view site is a 1941 topographic map. The map shows the area where the subject Property is located as developed as well as its surroundings. Similar conditions can be seen at the other historic quadrangles.

#### 4.2.3 City Directories

No information regarding the property under study was included in the available City Directory. See [Appendix G](#).

#### 4.2.4 Sanborn Maps

The property under study is unmapped. A certification is included in [Appendix H](#).

#### 4.2.5 Building Permits

No building permits were available during the property evaluation period.

### 4.3 Environmental Liens and Activity and Use Limitations

The client provided several Title Search documents as part of the available information to prepare this ESA. The title search did not mention any Environmental Liens (RL) and Activity and Use Limitations (AUL). [Appendix A](#) present copies of the revised Title Studies.

## 5 SITE RECONNAISSANCE

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On November 01, 2022, a field visit was conducted by an Environmental Professional to identify possible recognized environmental conditions<sup>1</sup> (REC).

During the site visit one (1) RECs were observed. In the industrial area near the project, several buckets of an oily liquid could be observed, in addition to oil stains on the asphalt of the parking lot. Refer to photos number 2 & 3. [Appendix I](#) shows an observations report with photos obtained at the Property.

### 5.1 Objectives

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying Recognized Environmental Conditions (REC) in connection with the property in discussion.

### 5.2 Methodology and Limiting Conditions

A detailed field walk of the subject property was conducted on November 01, 2022. On this day, special attention was given to identify any type of activity and/or existing conditions that could be recognized as an environmental condition in connection to the properties. A Photo Log is included as [Appendix I](#). The report includes photos obtained during the site visit.

### 5.3 General Site Setting

The parcel under study is located at the intersection of Méndez Vigo St. (PR-693) and Seferino Barbosa St. (PR-698) in the town of Dorado. The site is located at X:18.4617790, Y: -66.2698580 coordinates. The surrounding areas are occupied by residences, unoccupied industrial lot, and commercial structures.

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<sup>1</sup> Recognized Environmental Conditions - the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.



## 5.4 Features, Activities, Uses, and Conditions

### 5.4.1 Current Use of the Properties

Currently, the properties are partially occupied by a former “Playtex” industrial site parking, parking area of Hijole Restaurant and former school building.

### 5.4.2 Past Use of the Properties

The past use of the properties are “Playtex” industrial site parking at northeast corner, parking area of Restaurant northwest corner and former school building at southwest corner.

### 5.4.3 Current Use of Adjoining Properties

The subject neighborhood adjoins to the northeast are commercial. The areas to the south, west, and east are residential and institutional.

### 5.4.4 Past Uses of Adjoining Properties

No indicators of past uses of adjoining properties were visually and/or physically observed on the site visit.

### 5.4.5 Current or Past Uses in the Surrounding Area

The current use of the surrounding area is commercial and residential. No indicators of past uses of surrounding areas were visually and/or physically observed on the site visit.

### 5.4.6 Geological, Hydrogeology, Hydrologic and Topographic Conditions

The area under study has a leveled topography. The Geologic Map of Vega Alta Puerto Rico, 1963, shows that the geological formation at the Properties area is Qss. No geological faults were observed at the map.

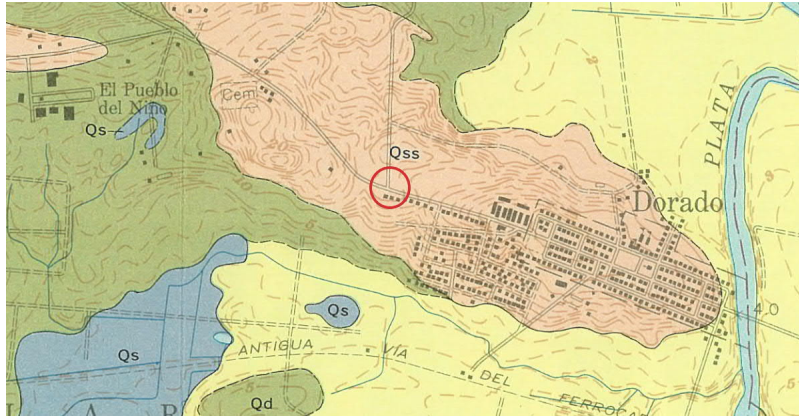


Figure Number 7 - Geological Map (USGS, 1963)

#### 5.4.7 Structures and Other Improvements at the Subject Property

The properties are a flat parcel of approximately 848 square meters occupied. The only structures in the current properties are a concrete and block walls or fences, curb, and sidewalks, with a cement and asphalt floors. No improvements at the subject properties.

#### 5.4.8 Roads

The main access point to the property is PR-698 and PR-693.

#### 5.4.9 Potable Water Supply and Sewage Disposal System

No potable water supply and sewer service are observed.

#### 5.4.10 Storm Sewer System

Property storm water run-off discharges into surrounding roads storm sewer.

#### 5.4.11 Hazardous Substances and Petroleum Products in Connection with Identified Uses

No hazardous substances nor petroleum products were observed at the site.

#### 5.4.12 Storage Tanks

No storage tanks were observed at the site.

#### 5.4.13 Strong, Pungent, or Noxious Odors and Their Sources

No odors of any type were detected during our visit to the site.

#### 5.4.14 Standing Surface Water and Pools or Sumps Containing Liquids Likely to be Hazardous Substances or Petroleum Products

No standing surface water and pools or sumps containing liquids likely to be hazardous substances or petroleum products were observed at the site.

#### 5.4.15 Drums, Totes, and Intermediate Bulk Containers

No drums, totes or intermediate bulk containers were observed at the site.

#### 5.4.16 Hazardous Substance and Petroleum Product Containers Not in Connection With Identified Uses

A hazardous substance and petroleum product containers not in connection with identified uses were observed near at the site.

#### 5.4.17 Unidentified Substance Containers

A unidentified substance containers were observed near at the site.

#### 5.4.18 PCB-Containing Items

No PCB-containing items were observed at the site.

#### 5.4.19 Heating/Cooling

No heating and/or cooling equipment were observed at the site.

#### 5.4.20 Stains or Corrosion on Floors, Walls, or Ceilings

No stains or corrosion were observed at the floors, walls and ceilings.

#### 5.4.21 Drains and Sumps

No drains or sumps were observed at the site,

#### 5.4.22 Pits, Ponds, or Lagoons.

No pits, ponds or lagoons were observed at the site.

#### 5.4.23 Stained Soil or Pavement.

Stained pavements were observed near at the site.

#### 5.4.24 Stressed Vegetation.

No stressed vegetation was observed at the site other than insufficient water.

#### 5.4.25 Solid Waste

Solid waste accumulation was observed near to the site.

#### 5.4.26 Water/Wastewater

No discharges of water, storm water or wastewater were observed at the site.

#### 5.4.27 Wells

No wells were observed at the site

#### 5.4.28 Septic Systems or Cesspools

No septic tanks or cesspools were observed at the site.

## 6 INTERVIEWS

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### 6.1 Interview with Owner

During the site visit we were attended by Eliezer González, director of the Municipal Office for Emergency and Disaster Management. Mr. González did not recall any spill or environmental government agency visit that occurred during his time at the evaluated area. To the best of his knowledge, no environmental violations or environmental inspections had occurred at the site, or any facility located adjacent to the property. Mr. Gonzalez raised a concern about sewage problems in the proposed area.

The User's questionnaire was submitted to Yomaira Maldonado, Director of the Permit Office of the Municipality of Dorado, to be sent to the owners of the properties in the process of being acquired for the proposed project. The owner Mr. Carlos Del Valle from Deltran Inc., indicated that no environmental issues have occurred at the site since her stay at the properties. Copy of the questionnaire is included as [Appendix B](#).

### 6.2 Interview with Local Government Officials

No interviews with local government officials were carried out. The DNER has indicated that requests for information be made via formal letters. DNER indicated in their letter dated October 28, 2022, that oil spills have occurred at the state road PR-694 at the Higuillar ward. Also, stated that there are Superfund sites inside a one-mile radius from the project site named Dorado Groundwater Contamination. Copy of the letter is included as [Appendix D](#).

Puerto Rico Fire Department as well as Health Department were contacted by e-mail and sent letter to hand, to obtain information regarding any incident that happened at the project premises. To the date of publication of this document no answer has been received from both agencies. Copy of the letter submitted to these agencies are included in [Appendix D](#).



## 7 FINDINGS

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To obtain information that could lead to a Recognized Environmental Condition (REC) in connection with the property, a field visit was conducted on November 01, 2022. After revising the available information and the site visit one RECs were observed at the site.

During the field visit carried out on November 1, 2022, an oil spill on the cracked pavement that reached some areas with vegetation could be observed in the old vacant industrial parking lot of Playtex. Additionally, in a letter dated October 28, 2022, from the Office of Environmental Emergencies of the Department of Natural Resources, contamination is reported in the urban well system, due to a Superfund registered on the NPL list known as Dorado Groundwater Contamination.

## 8 OPINION

---

A Recognized Environmental Condition (REC) at the property, as defined by ASTM E1527-21 and 13, indicates the presence or likely presence any hazardous substance or petroleum product in the structures on the property or into the ground, groundwater, or surface water of the property due to a release to the environment, or under conditions that show a threat of a release to the environment. In this Phase I Environmental Site Assessment, two RECs were identified.

### REC Number 1:

Oil spill in the vacated parking lot by the former Playtex industry. The spill can reach the ground because the pavement of the parking lot is cracked, and the oil has access in areas covered by vegetation.

### REC Number 2 :

Contamination of the urban well system by a Superfund registered under the name of Dorado Groundwater Contamination. The proximity of wells near the project area may have the possibility of encountering contaminated groundwater.

### 8.1 Data Gaps and data failure

A Data Gaps is a lack of or inability to obtain information required by ASTM E1527 Standard Practices despite good faith efforts by the environmental professional to gather such information.

Information regarding environmental incidents at the area under study and adjoining properties was requested to the local government agencies. We have contacted the Fire and Health Department personnel to obtain the information about past environmental incidents but at the time of writing have not received a response. Since significant releases require reporting to federal agencies, it is unlikely that a significant release of a hazardous substance or petroleum product occurred without the incident being reported to federal agencies whose records were searched.

Aerial photos showing the undeveloped state or dating back to 1940 were not available; the earliest photo available is from 1962 and already shows the properties proposed in the area. Fire

Insurance Maps, Property Tax File Records and Recorded land title records for adjoining properties were not available or not reasonably ascertainable. This represents a data failure regarding past uses of the property or adjoining properties.

Based on general historical knowledge it is unlikely a prior unknown use of the land parcel or its adjoining properties occurred before agricultural development. Therefore, this data failure is not considered significant for the purpose of the determination of a Recognized Environmental Condition (REC).

## 8.2 Interpretation of findings

From the environmental databases revised as part of this ESA, we understand that Dorado Groundwater Contamination the urban wells located within a one-mile radius would directly affect the parcel under study.

Based on the visual inspection performed on November 01, 2022, it is concluded that one of the findings of the site reconnaissance are Recognized Environmental Conditions (REC).

## 9 CONCLUSIONS

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CMA have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of the proposed project Improvements to Intersection and Roundabout at PR-693 and PR-698 in Dorado, PR. Any exceptions to, or deletions from, this practice are described in Section 10 of this report. This assessment has revealed two recognized environmental conditions, controlled recognized environmental conditions, or significant data gaps in connection with the subject property.

## 10 DEVIATIONS

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This Environmental Site Assessment was prepared in general accordance with the scope and limitations of ASTM practice E1527-21. No deviations were conducted nor requested by the user.

## 11 NON-SCOPE SERVICES

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The ASTM 21 Standard includes the following list of “additional issues” that are non-scope considerations outside of the scope of the ASTM Phase I practice: Radon, Lead in Drinking Water, Wetlands, Cultural and Historic Risks, Industrial Hygiene, Health and Safety, Ecological Resources, Endangered Species, Indoor Air Quality, Toxic Mold and High Voltage Power Lines. None of these non-scope issues were requested by the user.



## 12 ADDITIONAL INVESTIGATION

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### 12.1 Soil Sampling

Due to the findings of the site reconnaissance are Recognized Environmental Conditions (REC), we suggest developing a soil sampling plan. Soil samples should be analyzed for the presence of Volatile Organic Carbons (VOC) and heavy metals.

The soil sampling plan should include at least one composite sample at each exterior face of the be acquired properties down to four feet deep. A control sampling point shall be included in order to obtain the uncontaminated soil characteristics. This control sampling point shall be obtained at an area where no industrial activity has been conducted.

Each composite sample should include one aliquot every foot, mix it to obtain a composite sample. The sampling plan should include quality control samples and sampling blanks. The services of an Environmental Laboratory shall be contracted to carry out the sampling and analysis. Laboratory results should be compared to a control sampling point result. Additional samples at different depths should be obtained in the future based on the obtained results.

## 13 REFERENCES

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ASTM, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-13 and E1527-21)

Concise Dictionary of Environmental Engineering, Thomas M. Pankratz, CRC Lewis Publishers, 1996

EDR Environmental Data Resources Inc. The EDR Radius Map Report with GeoCheck, October 27, 2022

<https://ngmdb.usgs.gov/topoview/viewer/#11/18.4500/-66.5802>. Retrieved October 27, 2022.  
Junta de Calidad Ambiental, Lista de Tanques de Almacenamiento Soterrados de Puerto Rico, 2020.

Junta de Calidad Ambiental, Listado de Tanques de Almacenamiento Soterrados que han Reportado Averías o Derrames en los Mismos, 2020 Third Quarter.

Resource Conservation and Recovery Information System, United States Environmental Protection Agency, 2012

U.S. Geological Survey (USGS) in coordination with the U.S. Environmental Protection Agency (EPA) Atlas of Ground Water Resources in Puerto Rico and the U.S USGS Water-Resources Investigations Report 94-4198, Vega Alta, Puerto Rico, 1996.

United States Environmental Protection Agency (EPA), Hazardous Waste: Learn About Corrective Action. <https://www.epa.gov/hw/learn-about-corrective-action>

USGS Topoview. Vega Alta Quadrangle, 1942 to 2018

## 14 ENVIRONMENTAL PROFESSIONAL STATEMENT

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As required by 40 CFR 312.21(d), we include the following statements of the environmental professional(s) responsible for conducting the Phase I Environmental Site Assessment and preparation of the report.

"I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312 and 12.13.2 and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Respectfully submitted,

Pedro A. Janer, P.E.

## 15 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

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This document was prepared by engineer Pedro A. Janer of CMA Architects & Engineers LLC in accordance with the ASTM E1527-13 and 21standards.

Engineer Pedro A. Janer of CMA has a Bachelor's Degree in Chemical Engineering from the University of Puerto Rico Mayagüez Campus. He is a senior environmental engineer and for the last thirty years has prepared ESA Phases I and II documents for industrial, commercial, and governmental clients.

Engineer Janer is a licensed environmental engineer in Puerto Rico, Florida and Virgin Islands and a Registered Environmental Manager (REM) of the National Registry of Environmental Professionals (NREP).

## 16 APPENDIX

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## Appendix A – User Provided Information





**SCOPE OF WORK**  
**Phase 1 Environmental Site Assessment for CRP-000557 Rotonda**  
**Community Development Block Grant – Disaster Recovery**  
**Municipality of Dorado**  
**Procurement Process No. 3**

**1. Introduction**

This document defines the work that the Supplier must perform for the Rotonda project under a contract with municipality of Dorado (MOD). A detailed description CDBG-DR Programs is included in the Action Plan approved by the U.S. Housing and Urban Development (HUD). A complete copy of the Action Plan is available at [www.cdbg-dr.pr.gov/action-plan](http://www.cdbg-dr.pr.gov/action-plan). CDBG-DR programs subject of this Scope of Work are briefly described below.

**1.1. Applicability**

This work is required for the development of a CDBG-DR project, Id # PR-CRP-000557 and titled *Improvements to intersection and roundabout at PR-693 and PR-698* to build a traffic circle (roundabout) at the intersection of Mendez Vigo St (PR-693) and Seferino Barbosa St (PR-698). This project requires acquisition of properties for its development.

HUD policy requires a Phase I ESA for all multifamily and non-residential acquisition and development activities. The American Society for Testing and Materials (ASTM) E1527 Phase I Environmental Site Assessment (hereafter "Phase I") is commonly used in HUD environmental review to undertake this analysis.

The scope of services requested herein are federally funded by the City Revitalization Program under the CDBG-Disaster Recovery Program.

**1.2. Location**

This is a CDBG-DR project to build a traffic circle (roundabout) at the intersection of Mendez Vigo St (PR-693) and Seferino Barbosa St (PR-698) in the town of Dorado. This project will be built at the intersection along with three properties that will be acquired for this purpose. The coordinates for the location of the rotunda are: 18.449387°, -66.275134°.

The cadastral numbers are provided in table 1 below.

**Table 1.**

<b>Location at intersection of PR-698 &amp; PR-693</b>	<b>Cadastral number</b>	<b>Description of acquisition area</b>
Northeast corner	037-017-051-05	Sidewalk / Parking area of former industrial site
Northwest corner	037-017-048-03	Sidewalk / parking area of Hijole restaurant
Southwest corner	037-017-216-09	Sidewalk / Former school



*Figure 1. Aerial view of project area*

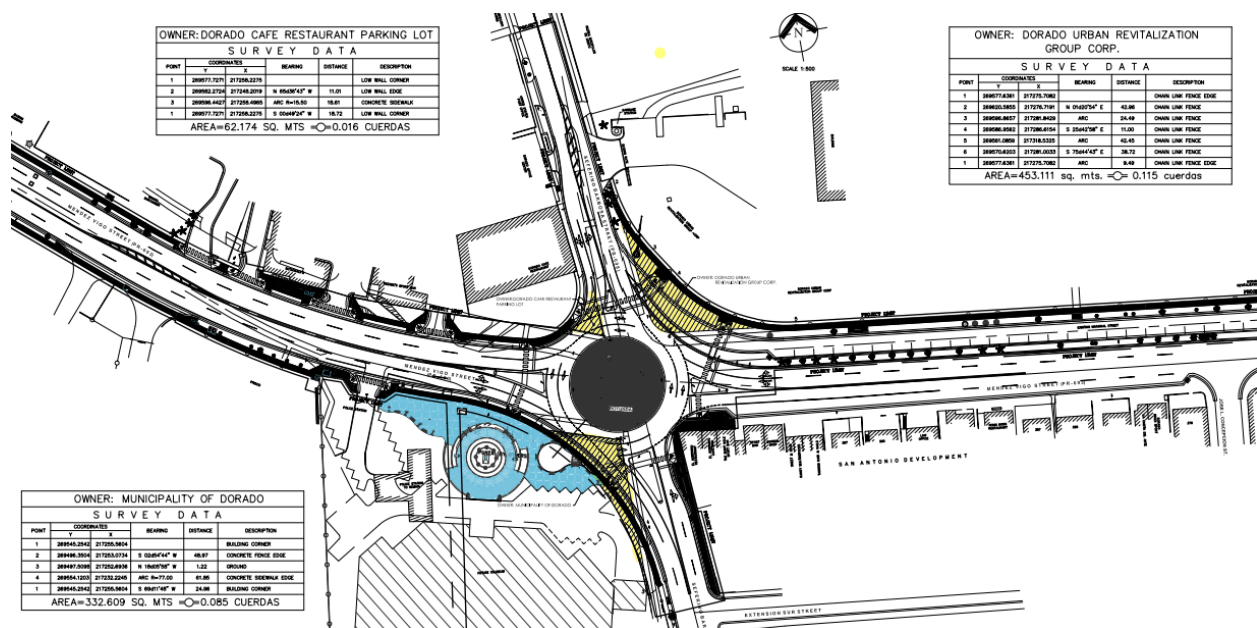


Figure 2. Drawing showing properties to be acquired (in yellow).

## 2. Goods or Services

- 1- Physical Inspection of current conditions and activities at the properties including materials observed at the project site and immediate vicinity.
- 2- Coordinate and obtain all of the information and documentation necessary to prepare and submit the Phase 1 Environmental Site Assessment (ESA) which meets all the requirements under ASTM E1527-21. Also, see addendum attached: "Using a Phase I ESA in HUD Environmental-Review".

The Supplier will be directly responsible for ensuring the accuracy, timeliness, and completion of all tasks assigned under this contract. The scope of work presented is based upon circumstances existing at the time of solicitation. The MOD reserves the right to modify or delete the tasks listed and, if appropriate, add additional tasks prior to and during the term of the contract.

If additional CDBG-DR funds are allocated to Puerto Rico during the life of the contract, Supplier staff may be assigned to work on those future federal grants awarded and potentially expand those services to accommodate other similar programs yet to be defined. There is no guarantee of a minimum level of services which may be requested by the MOD under a contract.

There will not be multiple awards. Subsequent environmental reviews required will be performed separately.

## 3. Deliverables

The key deliverables to be provided include, but are not limited to, the following:

- Report of Phase 1 Environmental Site Assessment, following the ASTM E1527-21, for the properties that will be acquired. Hard copy and electronic format. This will be evaluated for conformance to ASTM E1527-21.

#### **4. Milestones**

The milestones will be:

1. Conduct the Site Reconnaissance. Note: MOD will provide access letters and physical access to the area.
2. Preparation and delivery of the Phase 1 ESA following ASTM E1527-21. The report will be delivered in print and electronically (PDF format) to the MOD.

#### **5. Delivery Schedule**

The Supplier will be notified by MOD once access to the properties is obtained. The Supplier will be responsible for completing the activities required within 4 weeks of Site Reconnaissance. The Phase 1 ESA will be evaluated within one week after submission of report. The supplier will be notified of any revisions required.

#### **6. Technical Specifications**

Documents must comply with ASTM E1527-21 requirements.

#### **7. Staff Requirements**

The Supplier shall have or will secure, at its own expense, all personnel required in performing the services under the contract. MOD expects the Selected Supplier to provide competent and fully qualified staff that are authorized or permitted under federal, state, and local law to perform the scope of work under the contract. The MOD reserves the right to request the removal of any staff not performing to standard. No personnel may be assigned to the resulting contract without the written consent of the MOD.

The supplier must have employed staff that meets the definition of an Environmental Professional (EP) under E1527-21 in order to perform the work. The credentials must be supplied with the documents in the RFP to supporting meeting the EP criteria.

The supplier must also provide list of relevant experience as an Environmental Professional.

#### **8. Evaluation Criteria**

The Municipality shall conduct a comprehensive, fair, and impartial evaluation of the Proposals received in response to this request for quotations.

The evaluators will meet to decide based in the criteria stated in this section. Initial evaluation will consider the Mandatory Requirements of the solicitation as the submission of attachments listed in **Table 2**. Those Proposer's who meet the Mandatory Requirements will be evaluated for their qualifications, certifications, and experiences; for such, all proponents shall submit the experience of the firm and the staff that is going to be executing the quoted job, along with their licenses/certifications and resume's.

**Table 2 Evaluation**

<b>Criteria</b>	<b>Maximum Points</b>
<b>Mandatory Requirements</b>	
Submit Supplier Profile Sheet	Pass/Fail
Submission of Attachment A	Pass/Fail
Submission of Attachment B	Pass/Fail
Submission of Attachment C	Pass/Fail
Submission of Attachment D	Pass/Fail
Submission of Non-Conflict of Interest Certification	Pass/Fail
Submission of Non Collusive Affidavit	Pass/Fail
Cost Form	Pass/Fail
<b>Qualifications &amp; Certifications</b>	
Firm & Staff Experience	25
Staff Licenses and Certifications	25
Total Qualifications & Certifications	<b>50 Points</b>
<b>Cost Proposal</b>	
Proposal Costs	50
Total Technical Score	<b>100 Points</b>
<b>Bonus Points</b>	
Preference Section 3 Business Concern	5
Preference M/WBE	5
<b>Maximum Score</b>	<b>110 Points</b>

#### 9. Warranty

The report will include the information and be in the format required by the ASTM E1527-21.

#### 10. Contract Term

6 Weeks maximum.

[Refer to the MP-SP SOP for additional instructions and considerations.]

The Supplier shall be responsible for completing the activities outlined in this Scope of Work.

**By signing this document, I acknowledge that I have read, understand and accept its contents as described:**

CMA Architects & Engineers LLC  
\_\_\_\_\_  
Supplier Entity Name

\_\_\_\_\_  
Supplier Authorized Representative Signature

June 14, 2022  
\_\_\_\_\_  
Date

Pedro A. Janer  
\_\_\_\_\_  
Supplier Authorized Representative Printed Name



*copy  
single*

*C. M. R. m  
J. M. P*

*SP*



---NUMERO TREINTA Y CUATRO---

-----COMPRVENTA E HIPOTECA-----

---En la Ciudad de San Juan, Estado Libre Asociado de  
Puerto Rico, a los diez días del mes de junio de mil novecien-  
tos ochenta y tres.---

-----ANTE MI-----

---JUAN M. MENDEZ SOLIS---

Abogado y Notario público de Puerto Rico, con estudio abierto  
en Hato Rey, Puerto Rico y con residencia en San Juan, Puerto  
Rico.---

-----COMPARECEN-----

---DE LA PRIMERA PARTE: LOS VENDEDORES, o sea, los  
señores JUAN MATOS PAGAN y su esposa CARMEN MARIA  
RUIZ DE MATOS, mayores de edad, casados entre sí, propie-  
tarios y vecinos de Dorado, Puerto Rico.---

---Y DE LA SEGUNDA PARTE: LA COMPRADORA, o sea,  
DELTRAN CORPORATION, una corporación debidamente orga-  
nizada y existente de acuerdo con las leyes del Estado Libre  
Asociado de Puerto Rico, representada en este acto por  
TERESITA BELTRAN, mayor de edad, casada, propietaria y  
vecina de Dorado, Puerto Rico, en su carácter de Presidenta  
de dicha corporación.---



---Me aseguran los comparecientes hallarse en el --  
completo goce de sus derechos civiles y teniendo a --  
mi juicio, la capacidad legal suficiente para este --  
otorgamiento, libremente -----

-----EXPONEN-----

---PRIMERO: Que LOS VENDEDORES son dueños en pleno  
dominio del inmueble que se describe a continuación:

---"REMANENTE - URBANA: Parcela de terreno de ----  
MIL OCHOCIENTOS CUARENTA PUNTO CERO NOVECIENTOS ---  
VEINTE Y TRES METROS CUADRADOS (1,840.0923 m.c.), --  
localizada en la intersección de la Carretera -----  
Estatal Número Seiscientos Noventa y Tres (693) y --  
la Carretera Número Seiscientos Noventa y Tres (693), --  
de la Municipalidad de Dorado. Colinda por el ----  
NORTE, en veinte y cinco punto diecisiete metros --  
(25.17 m.), con Ramón González, hoy C-Con, Inc; ---  
por el SUR, en cuarentinueve punto cero cuatro ----  
metros (49.04 m.), y en un arco de quince punto ---  
veintisiete metros (15.27 m.), de su esquina -----  
Sureste, con parcela dedicada a uso público; por --  
el ESTE, en cincuenta y tres punto veinte y siete  
metros (53.27 m.), con parcela dedicada a uso ----  
público; y por el OESTE, en cuarenta y cuatro ----  
punto ciento tres metros (44.103 m.), con la ----  
parcela aquí segregada." -----

---"La parcela de terreno antes descrita contiene  
edificio de concreto." -----

-----TITULO-----

---Inscrita en el Registro de la Propiedad al folio  
ciento sesenta y cuatro (164) del tomo cincuenta y  
cuatro (54) de Dorado, finca número dos mil cuaren-  
ta y seis (2,046), -----

---Se halla afecta a servidumbre a favor de la --  
Autoridad de las Fuentes Fluviales de Puerto Rico.  
-----



C m R m  
J M P

312

---SEGUNDO: Manifiestan los comparecientes que ----  
 tienen convenida la compraventa del inmueble antes  
 descrito y la llevan a cabo mediante las siguientes-  
 clausulas: -----

---PRIMERA: LOS VENDEDORES por la presente VENDEN,-  
 CEDEN y TRASPASAN a LA COMPRADORA y ésta compra, el  
 inmueble descrito en el hecho PRIMERO de esta escri-  
 tura, con todos sus usos, pertenencias, accesiones y  
 todo lo que le sea anejo y le pertenezca, así como -  
 todos los derechos, privilegios y servidumbres que -  
 pudiera tener la finca objeto de esta compraventa.-

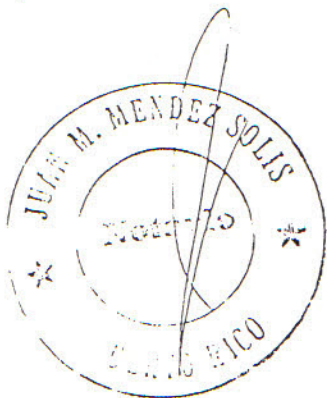
--LA COMPRADORA entra en posesión del inmueble ven-  
 dido, sin más acto que este otorgamiento. -----

---SEGUNDA: Se verifica esta compraventa por el --  
 convenido y ajustado precio de CIENTO TREINTA Y --  
 CINCO MIL DOLARES (\$135,000.00), cantidad que se -  
 satisface en la siguiente forma: -----

---La suma de OCHENTA Y CINCO MIL DOLARES -----  
 (\$85,000.00), que LA COMPRADORA ha pagado a LOS ----  
 VENDEDORES antes de este acto y que LOS VENDEDORES  
 han recibido a su entera satisfacción, por cuya ----  
 suma dan a LA COMPRADORA el más formal recibo y ----  
 eficaz carta de pago. -----

---El balance del precio, o sea, la suma de CINCUENTA  
 MIL DOLARES (\$50,000.00), será pagado por LA COMPRA-  
 DORA a LOS VENDEDORES en el término de ocho (8) años  
 con intereses al tipo del OCHO POR CIENTO (8% ANUAL  
 a contar de esta fecha, y pagaderos estos intereses-  
 mensualmente, por mensualidades vencidas. - -----

---Para garantizar este precio aplazado, por la ---  
 presente LA COMPRADORA constituye hipoteca sobre -  
 el inmueble descrito, a favor de LOS VENDEDORES, -  
 por dicha cantidad de CINCUENTA MIL DOLARES -----  
 (\$50,000.00), sus intereses al tipo convenido, a  
 una suma equivalente al DIEZ POR CIENTO (10% de





dicha cantidad, para costas, gastos y honorarios de abogado en caso de reclamación judicial. Esta ---- hipoteca tendrá el rango de segunda hipoteca. -----

- LA COMPRADORA podrá hacer abonos a cuenta del principal de dicha hipoteca, sin tener que pagar penalidad alguna por dichos pagos. -----

---TERCERA: El gravamen aquí constituido permanece rá subsistente hasta su total pago y el pago de los correspondientes intereses sobre el principal de -- dicha hipoteca, al tipo convenido. -----

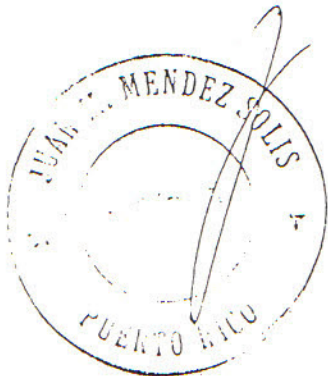
---CUARTA: Los comparecientes asignan al inmueble descrito anteriormente, un valor de tasación ----- mínimo de CIENTO TREINTA Y CINCO MIL DOLARES ----- (\$135,000.00), para que sirva de tipo en caso de - subasta, cumpliendo con los Artículos Ciento ----- Setentinueve (179) y Doscientos Veintiuno (221) de la Ley Hipotecaria y si no se produjere remate -- ni adjudicación en la primera subasta, en la segunda que se celebrare, servirá de tipo las dos terceras - partes del precio pactado; y si tampoco hubiere - - remate ni adjudicación en la segunda subasta, ---- regirá como tipo de la tercera subasta la mitad - - del precio pactado. -----

---QUINTA: LA COMPRADORA queda obligada a pagar las contribuciones de todo género impuestas a dicho inmueble hipotecado, sobre el principal de la ----- presente hipoteca o sus réditos. -----

---SEXTA: La falta de pago de dos (2) ----- mensualidades por concepto de intereses, así como - el no pago de las contribuciones impuestas o que se impusieren al inmueble hipotecado, bastará para que se dé por vencida la hipoteca constituida en el - presente acto, pudiendo procederse a su cobro total inmediatamente. -----

C. M. R. m.  
J. M. P.

JB.



---SEPTIMA: Los sellos de rentas internas y demás gastos de esta escritura, así como los honorarios de abogado, serán de cuenta y cargo de LA COMPRADORA. -----

--OCTAVA: Manifiestan LOS VENDEDORES-ACREEDORES que consienten que LA COMPRADORA constituya primera hipoteca sobre la finca adquirida por dicha COMPRADORA en este instrumento público, por la suma de SESENTA MIL DOLARES (\$60,000.00), representada por dos pagarés hipotecarios al PORTADOR, pagaderos a su presentación, por la suma de TREINTA MIL DOLARES (\$30,000.00) cada uno, con intereses al tipo del TRECE POR CIENTO (13%) ANUAL----- y por tanto, queda la hipoteca constituida en esta escritura por la suma de CINCUENTA MIL DOLARES (\$50,000.00), como se ha expresado anteriormente, con el rango de segunda hipoteca, cuya hipoteca se constituye en esta fecha y ante el propio Notario Público de la presente, bajo la escritura número Treinta y Cinco (35).-----

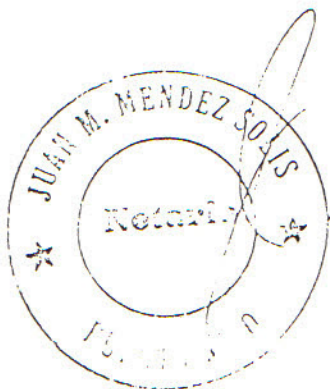
---Así lo dicen y otorgan ante mí los comparecientes en un solo acto. -----

---Hechas por mí, el Notario, las advertencias legales pertinentes y leída por mí esta escritura a los otorgantes y también leída personalmente por ellos, dichos otorgantes la aceptan en la forma que está redactada y todos la firman conmigo, habiendo, además, los otorgantes, puesto sus iniciales en todos y cada uno de los folios de esta escritura. -----

--Esta escritura se otorga sin testigos por haberlo dispuesto así los otorgantes. -----

C m. B m  
J. M. P

JB.





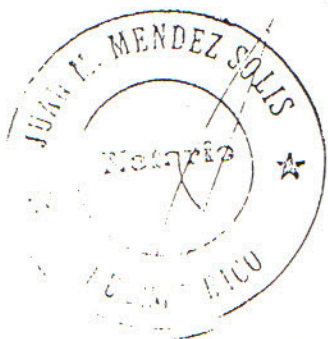
---Y de mi conocimiento personal de los otorgantes -  
 y por sus dichos de sus circunstancias personales y-  
 vecindad, así como de todo lo demás consignado en --  
 este instrumento público, yo, el Notario, DOY FE. -  
 ---En el mismo estado las partes hacen constar que no habrán  
 penalidades por pagos anticipados al principal, y yo el Notario  
 repito la FE.-----

*Teresa Beltrán*

*Carmen María Ruiz Matos*  
*Juan M. Pagán*

(Firmado) Juan Matos Pagán---Carmen Ruiz de Matos---Teresa  
 Beltrán-----  
 (Firmado, signado, sellado y rubricado) JUAN M. MENDEZ-----  
 SOLIS-----

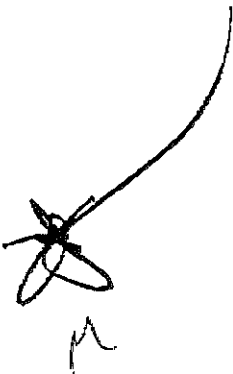
(Yo, notario, en el original y en las copias de este instrumento  
 de partes internas e internas, y en los rubricados y  
 iniciales de los otorgantes y el Notario en todo  
 y cada uno de los folios).....



*Copia*  
*Beltrán*

HOY DIA DE SU OTORGA---  
MIENTO EXPEDI PRIMERA---  
COPIA CERTIFICADA A---  
FAVOR DE DORADO URBAN--  
DEVELOPMENT INC. -----  
DOY FE. -----

  
---NOTARIO PUBLICO---





-----ESCRITURA NUMERO: DOSCIENTOS DIECIOCHO (218)-----  
----- COMPRAVENTA-----  
---En la Ciudad de San Juan, Puerto Rico, a los ---  
diecinueve (19) días del mes de septiembre de dos  
mil cinco (2005).-----  
----- ANTE MI -----  
---YARITZA DEYA MELENDEZ, Abogada y Notario -----  
Público de Puerto Rico con oficinas en la Ciudad de  
San Juan y residencia en Gurabo, Puerto Rico. -----  
----- COMPARECEN -----  
---DE UNA PARTE: COMO "PARTE VENDEDORA"-----  
---YABUCOA DEVELOPMENT S.E., cuyo número de seguro  
social patronal es el 660-45-3820 una sociedad  
especial organizada y existente bajo las Leyes del  
Estado Libre Asociado de Puerto Rico según surge de  
la escritura número veintitrés (#23), sobre  
Constitución de Sociedad Especial, otorgada el día  
veintiséis (26) de octubre de mil novecientos  
ochenta y nueve (1989) ante el notario público  
Ismael E. Marrero, representada en este acto por  
su socio principal DON ISRAEL KOPEL AMSTER, cuyo  
número de seguro social es el 082-36-9360, casado,  
mayor de edad, ejecutivo y vecino de San Juan,  
Puerto Rico, y yo la notario doy fe de que tiene  
las facultades necesarias para este otorgamiento,  
según consta de la escritura número veintitrés  
(#23) antes mencionada, la cual la PARTE VENDEDORA  
manifiesta, asegura y garantiza que a la fecha de  
este otorgamiento la misma se encuentra vigente y  
que no ha sido enmendada .-----  
---Y DE LA OTRA PARTE: COMO "PARTE COMPRADORA"-----  
DORADO URBAN DEVELOPMENT INC., cuyo número de



seguro social patronal es el 660-45-3820, una corporación organizada y existente bajo las leyes del Estado Libre Asociado de Puerto Rico, representada en este acto por su presidente DON RICARDO JIMENEZ ORTIZ, cuyo número de seguro social es el 583-10-5853, casado, mayor de edad, arquitecto y vecino de Dorado, Puerto Rico, y yo la notario doy fe de que tiene las facultades necesarias para este otorgamiento, según consta de la Resolución Corporativa de fecha diecinueve (19) de septiembre de dos mil cinco (2005), affidavit número tres mil novecientos setenta y nueve (3,979) jurada y suscrita ante la notario público Yaritza Deyá Meléndez.-----

---DOY FE del conocimiento personal de los ----- comparecientes y por sus dichos de su edad, estado civil, profesión y vecindad. Me aseguran tener, y a mi juicio tienen, la capacidad legal necesaria -- para este otorgamiento y, en tal virtud, ----- libremente: -----

----- EXPONEN -----  
 ---PRIMERO: Que la PARTE VENDEDORA es dueña en --- pleno dominio de la propiedad que se describe a continuación:-----

---RUSTIC: Parcel of land at Dorado Industrial Development, Higuillar Ward in Dorado with an area of TWENTY THOUSAND POINT FIVE HUNDRED SQUARE METERS, equivalent to five point eight hundred eighty five (5.885) cuerdas. It bounds by the NORTH, with lots five (5) and nine (9); SOUTH, with the right of way of State Road number six hundred ninety three (693); EAST, with local street; and WEST, with state road number six hundred ninety eight (#698).-----

---There is a building on the above described parcel of land described as follows: This is a pitched roof type building consisting of reinforced concrete foundation columns and girders supporting



forty feet long two inches fiber dyne, covered by one half inch insulation and three ply built-up roofing.-----

---Consta inscrita al folio ciento catorce (114) del tomo cincuenta y ocho (58) de Dorado, finca número dos mil doscientos ochenta y ocho (2288) del Registro de la Propiedad de Bayamón, sección cuarta.-----

---SEGUNDO: La PARTE VENDEDORA adquirió la ----- propiedad antes descrita según los términos que según de la escritura número uno (1), otorgada en San Juan, Puerto Rico, el día treinta y uno (31) de enero de dos mil tres (2003) ante el notario público Juan Agustín Rivero, la cual se encuentra presentada y pendiente de calificación e inscripción al asiento doscientos nueve (209) del diario doscientos once (211), finca número dos mil doscientos ochenta y ocho (2288) del Registro de la Propiedad de Bayamón, sección cuarta.-----

---TERCERO: La propiedad antes descrita, por su procedencia, se encuentra afecta a aquellas----- servidumbres que resultan del Registro de la----- Propiedad, incluyendo pero sin limitarse a servidumbre a favor de la Autoridad de Fuentes Fluviales; y por sí se encuentra afecta a la siguiente hipoteca:-----

---Hipoteca en garantía de pagaré a favor del PORTADOR por la suma principal de TRES MILLONES DE DOLARES (\$3,000,000.00), según surge de la escritura número uno (1), otorgada en San Juan, Puerto Rico el día treinta y uno (31) de enero de dos mil tres (2003), ante la notario público María I. De Mier, la cual se encuentra presentada y pendiente de calificación e inscripción al asiento doscientos diez (210) del diario doscientos once



(211), finca número dos mil doscientos ochenta y ocho (2288) del Registro de la Propiedad de Bayamón, sección cuarta.-----

---La PARTE VENDEDORA manifiesta, asegura y -----  
garantiza que dicha hipoteca ha sido pagada en su totalidad y que la correspondiente escritura de cancelación de hipoteca se encuentra pendiente de otorgamiento, presentación, calificación e inscripción en el Registro de la Propiedad correspondiente.-----

---Yo, la Notario Autorizante, advierto a las partes que la hipoteca existente es un gravamen --  
válido y que la propiedad continuará sujeta al ---  
mismo hasta que sea cancelada.-----

--CUARTO: Los comparecientes reconocen haber----  
recibido copia de un estudio registral reciente en el cual se expresa, entre otras cosas, la-----  
situación registral de la propiedad y sus cargas y gravámenes.-----

---Quedan los comparecientes advertidos, además, de que la presente escritura ha sido redactada por la Notario Autorizante de acuerdo a los datos y hechos que surgen del estudio de título, que tuve a mi vista, fechado quince (15) de septiembre de dos mil cinco (2005), preparado por William Negrón Quiñones, Investigador de Títulos, compañía que se dedica a ofrecer este servicio. Quedan advertidos también de las consecuencias adversas por errores en el estudio y por documentos que se presenten luego de la fecha del mismo y antes de la presentación de esta escritura.-----

---La PARTE VENDEDORA, además de cualquier otra



representación y/o garantía anteriormente o más adelante ofrecida, incondicionalmente representa y garantiza a la PARTE COMPRADORA que : (1) es la única dueña del inmueble objeto de esta compraventa y tiene amplio, negociable e inscribible título del cien por ciento (100%) del mismo; (2) que no existen demandas o expropiaciones forzosas u orden de confiscación contra el inmueble anteriormente aludido o contra la PARTE VENDEDORA que afecten el mismo; (3) que no existen contratos, acuerdos, opciones ni otros arreglos, verbales o escritos, que afecten o de alguna manera limiten o impidan el uso y/o explotación del inmueble por la PARTE COMPRADORA; y (4) que no existen arrendamientos o cualquier otro derecho de ocupar o poseer el mencionado inmueble.-----

---QUINTO: Los comparecientes tienen convenida la compraventa de la propiedad descrita en el----- párrafo PRIMERO de esta escritura, y la llevan a efecto bajo las siguientes:-----

----- CLAUSULAS Y CONDICIONES -----

---Una: La PARTE VENDEDORA por la presente VENDE, CEDE Y TRASPASA la propiedad descrita en el párrafo PRIMERO de esta escritura a la PARTE COMPRADORA, con todos sus usos, anexos, derechos, pertenencias y servidumbres, por el convenido y ajustado precio de SIETE MILLONES DOSCIENTOS CINCUENTA MIL DOLARES (\$7,250,000.00), de cuya suma la PARTE VENDEDORA confiesa haber recibido de manos de la PARTE COMPRADORA la cantidad de QUINIENTOS MIL DOLARES (\$500,000.00) con anterioridad a este acto, quedando un balance de SEIS MILLONES SETECIENTOS



CINCUENTA MIL DOLARES (\$6,750,000.00), de cuya suma la PARTE VENDEDORA recibe en esta misma fecha, pero con anterioridad a este acto, la cantidad de UN MILLON CUATROCIENTOS CINCUENTA MIL DOLARES (\$1,450,000.00) a su entera satisfacción y contento en moneda del curso legal de los Estados Unidos de América, por lo que, le otorga la más formal y eficaz carta de pago, quedando un balance del precio de venta por la cantidad de CINCO MILLONES TRESCIENTOS MIL DOLARES (\$5,300,000.00), la cual quedará garantizada por una serie de cuatro (4) pagarés que le serán entregados en esta misma fecha a la PARTE VENDEDORA, a favor de YABUCOA DEVELOPMENT S.E o a su orden por la cantidad principal de UN MILLON TRESCIENTOS VEINTICINCO MIL DOLARES (\$1,325,000.00) cada uno de ellos, los cuales estarán garantizados por una PRIMERA HIPOTECA sobre el inmueble que se describe en el hecho PRIMERO de esta escritura, la cual será otorgada en esta misma fecha.-----

---Dos: La PARTE VENDEDORA se obliga a pagar las contribuciones territoriales correspondientes hasta la fecha de esta escritura y la PARTE COMPRADORA asume la obligación de pagar las posteriores. La PARTE VENDEDORA es responsable de cualquier balance de contribuciones sobre la propiedad hasta la fecha que por ley le corresponde pagar como titular del referido inmueble.-----

---Tres: La PARTE COMPRADORA manifiesta y-----  
confiesa que ha inspeccionado a su entera-----  
satisfacción la propiedad objeto de esta-----  
compraventa, así como los accesorios, enseres y

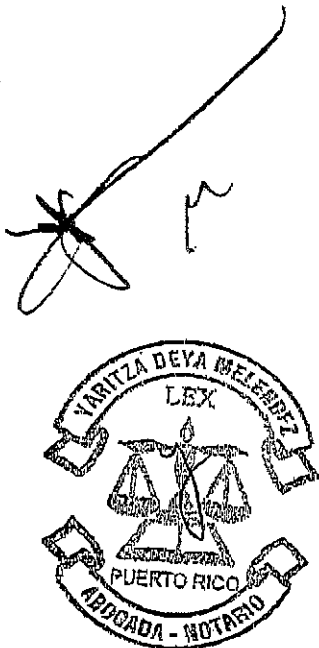


demás equipos, si alguno, habiéndolos encontrado en estado conforme a sus deseos y reconoce que, a su mejor entender, los mismos se encuentran libres de defectos y/o vicios de construcción por lo que los compra tal y como éstos se encuentran. Las partes manifiestan y reconocen que en la determinación del precio de esta compraventa se tomó en consideración que la PARTE COMPRADORA está adquiriendo dicha--- propiedad tal y como ésta se encuentra.-----

---SEXTO: La PARTE COMPRADORA, sin más requisito que el presente otorgamiento, entra en la inmediata posesión real y pacífica del inmueble que adquiere en este acto a título de dueña y la PARTE VENDEDORA se obliga al saneamiento en caso de evicción conforme a derecho.-----

---SEPTIMO: La PARTE VENDEDORA manifiesta, ----- asegura, garantiza y certifica que no hay ninguna otra carga que grave la propiedad, excepto las---- anteriormente indicadas y las servidumbres y/o---- restricciones que surgen del Estudio Registral y que de surgir otra que obstaculice la transacción, será responsable de reembolsarle a la PARTE----- COMPRADORA cualquier pago que ésta tenga que hacer para satisfacer, eliminar o cancelar cualquier gravamen sobre la propiedad que no sean los ya enumerados.-----

---OCTAVO: Los comparecientes, sus sucesores y---- causahabientes, por cualquier título, vienen----- obligados a otorgar y suscribir, sin dilación alguna, toda clase de documentos público y/o privado que les sea requerido, para suplir cualquier omisión o detalle que deba aclararse,





corregirse, enmendarse o adicionarse de manera que esta escritura quede inscrita en el Registro de la Propiedad correspondiente.-----

---NOVENO: Las partes comparecientes expresamente aceptan que la notario autorizante les ha preguntado sobre la veracidad de los hechos que ha dado base a la redacción de esta escritura y han certificado que la información es correcta y que corresponde a la voluntad expresa de las partes.---

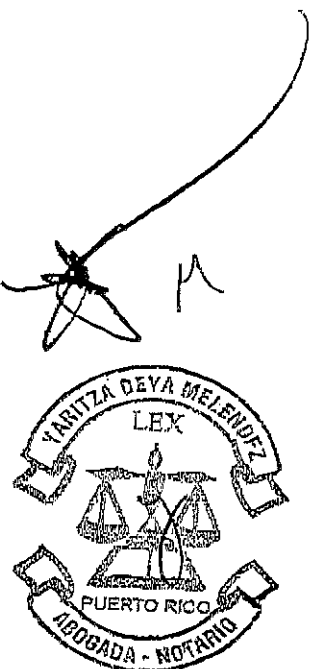
----- ACEPTACION -----

---Tal es la escritura que aceptan los compare-----  
cientes, ratificándola en todas sus partes por ----  
hallarla redactada conforme a sus instrucciones y -  
deseos, procediendo Yo, la Notario Autorizante, a  
hacerles las advertencias y reservas pertinentes de  
ley, en particular las siguientes: -----

---(a) Que el estudio registral utilizado para ---  
preparar esta escritura fue realizado por un -----  
tercero independiente y no por la Notario -----  
Autorizante; -----

---(b) La posibilidad de que otros documentos que  
afecten los derechos aquí creados hayan sido -----  
presentados para su inscripción, en el Registro de  
la Propiedad, con anterioridad al otorgamiento y/o  
presentación de la copia certificada de esta  
escritura y la preferencia o prioridad que dicho  
título, gravamen interventor y/o derecho pueda  
tener sobre la inscripción de esta escritura; -----

---(c) De que sería conveniente verificar el -----  
estado de las cargas y gravámenes sobre la -----  
propiedad, si alguno, en la medida que puedan -----  
aparecer en el Registro de la Propiedad y de las --



consecuencias adversas que pueden resultar de esto  
no hacerse; -----

---(d) De la posibilidad de que existan gravámenes  
estatutarios adicionales no registrados y -----  
contribuciones sobre la propiedad que gravan el ---  
inmueble. -----

---(e) De la conveniencia y deseabilidad de que --  
esta escritura sea presentada en el Registro de la  
Propiedad lo más pronto posible. -----

---(f) Del derecho que tienen de obtener una -----  
póliza de título como dueños ("Owner's Title -----  
Insurance Policy") que les garantice su título y --  
les indemnice en caso de que sufran una pérdida o -  
menoscabo en su derecho de propiedad. -----

---(g) La Notario Autorizante advierte a las partes  
aquí comparecientes que de encontrarse en una zona  
inundable el inmueble objeto de esta transacción,  
cualquier titular y/o ocupante presente y futuro  
del mismo, queda obligado por ley a observar y  
cumplir con los requerimientos y disposiciones del  
Reglamento sobre Zonas Susceptibles de Inundación,  
bajo apercibimiento de que incumplir con lo mismo  
resultaría en un acto ilegal, a tenor con las  
disposiciones de la Sección tres (3) de la Ley once  
(11), del ocho (8) de marzo de mil novecientos----  
ochenta y ocho (1988) sobre Zonas Inundables,-----  
veintitrés (23) L.P.R.A. Secc. doscientos-----  
veinticinco (225) (g). Las partes otorgantes aquí--  
comparecientes reconocen estar plenamente-----  
advertidas sobre este requisito y se obligan a su--  
fiel cumplimiento en caso de que les sea de----  
aplicación el mismo.-----



---(h) Sobre el contenido, alcance y limitaciones de los recibos sobre las contribuciones----- territoriales, expedidos por la Oficina de Tasación correspondiente, y los riesgos de que el Centro de Recaudaciones de Ingresos Municipales (CRIM) expida recibos de cobro adicionales.-----

---(i) Los deberes y consecuencias fiscales de este negocio jurídico.-----

---(j) Del contenido sustantivo de este instrumento.-----

---(k) La consecuencia de la cláusula que se ha incluido en esta escritura sobre saneamiento en caso de evicción.-----

---(l) La necesidad de cotejar el pago de contribuciones territoriales y obtener una certificación de CRIM.-----

---(m) El deber de informar al Departamento de Hacienda en su planilla de contribución sobre ingresos la ganancia que haya generado este negocio.-----

---(n) El deber del transmitente de llenar, firmar y entregarme la Planilla Informativa para el Departamento de Hacienda.-----

---(o) Las partes comparecientes reconocen y quedan advertidas por la Notario Autorizante que el inmueble objeto de esta transacción no aparece inscrito en el Registro de la Propiedad a favor de la PARTE VENDEDORA. Que la escritura a través de la cual la PARTE VENDEDORA adquirió la propiedad se encuentra presentada y pendiente de calificación e inscripción en el Registro de la Propiedad correspondiente. Además, las partes comparecientes



reconocen y quedan advertidas de que dicha escritura deberá ser calificada por el Registrador de la Propiedad y que la presente escritura de compraventa no será inscrita hasta que el Registrador de la Propiedad inscriba la referida escritura. La referida escritura podría ser notificada por adolecer de algún defecto, si dicho defecto no es subsanado dentro del término dispuesto por el Registrador de la Propiedad la misma no sería inscrita al igual que la presente escritura, por lo que la titularidad de la PARTE VENDEDORA y de la PARTE COMPRADORA se vería afectada. La PARTE VENDEDORA por su parte reitera su obligación al saneamiento por evicción y garantiza bajo su responsabilidad a la PARTE COMPRADORA un título inscribible sin más cargas o hipotecas que las descritas en el párrafo TERCERO de esta escritura. -----

---(p) La PARTE COMPRADORA adquiere la propiedad objeto de esta transacción tal y como se encuentra (as is) y la PARTE VENDEDORA no tendrá obligación alguna de realizar reparación o mejora alguna sobre la misma.-----

---(q) La PARTE COMPRADORA expresamente reconoce y acepta que la PARTE VENDEDORA no le ha brindado garantía alguna en relación con la condición de la propiedad o en relación con cualquier uso que la PARTE COMPRADORA tenga intención de darle a la propiedad.-----

---(r) Que en la actualidad se ha establecido un sistema de bitácora electrónica en el Registro de la Propiedad sobre el cual no se puede precisar la



existencia de documentos adicionales relacionados con la propiedad. Los comparecientes confiesan haber tenido ante sí un estudio de título preparado por William Negrón Quiñones, Investigador de Título, fechado quince (15) de septiembre de dos mil cinco (2005) del inmueble objeto de esta transacción y manifiestan estar conformes con tal estudio, por lo que liberan a la Notario Autorizante de cualquier situación registral o extra registral que pueda surgir con relación al inmueble descrito en este instrumento. Además, relevan a la Notario Autorizante de toda responsabilidad en cuanto al examen de las constancias registrales.-----

---(s) La PARTE COMPRADORA será responsable del pago de los gastos correspondientes a los sellos de rentas internas para la copia certificada de esta escritura y de los comprobantes de inscripción en el Registro de la Propiedad. La PARTE VENDEDORA será responsable del pago de los gastos de sellos de rentas internas correspondientes a la escritura original y de los honorarios. -----

----- OTORGAMIENTO -----

--Así lo dicen y otorgan los comparecientes ante mí, luego de haber renunciado al derecho que les -- hice saber tenían para requerir la presencia de --- testigos instrumentales. -----

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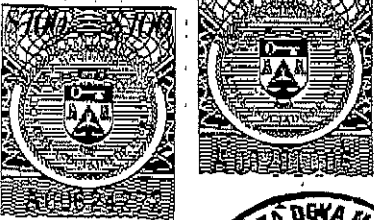
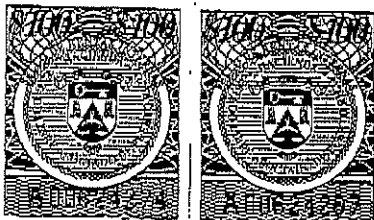
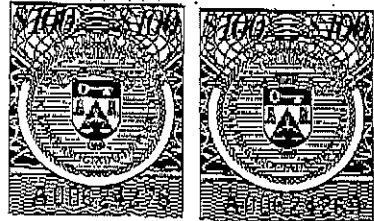
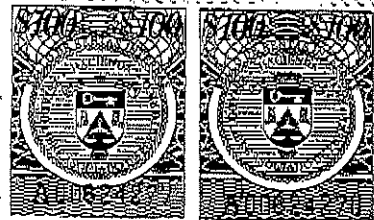
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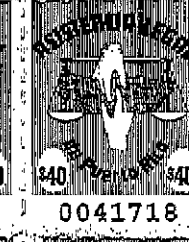
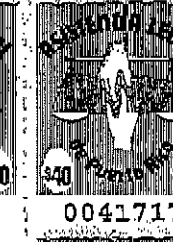


----- LECTURA -----

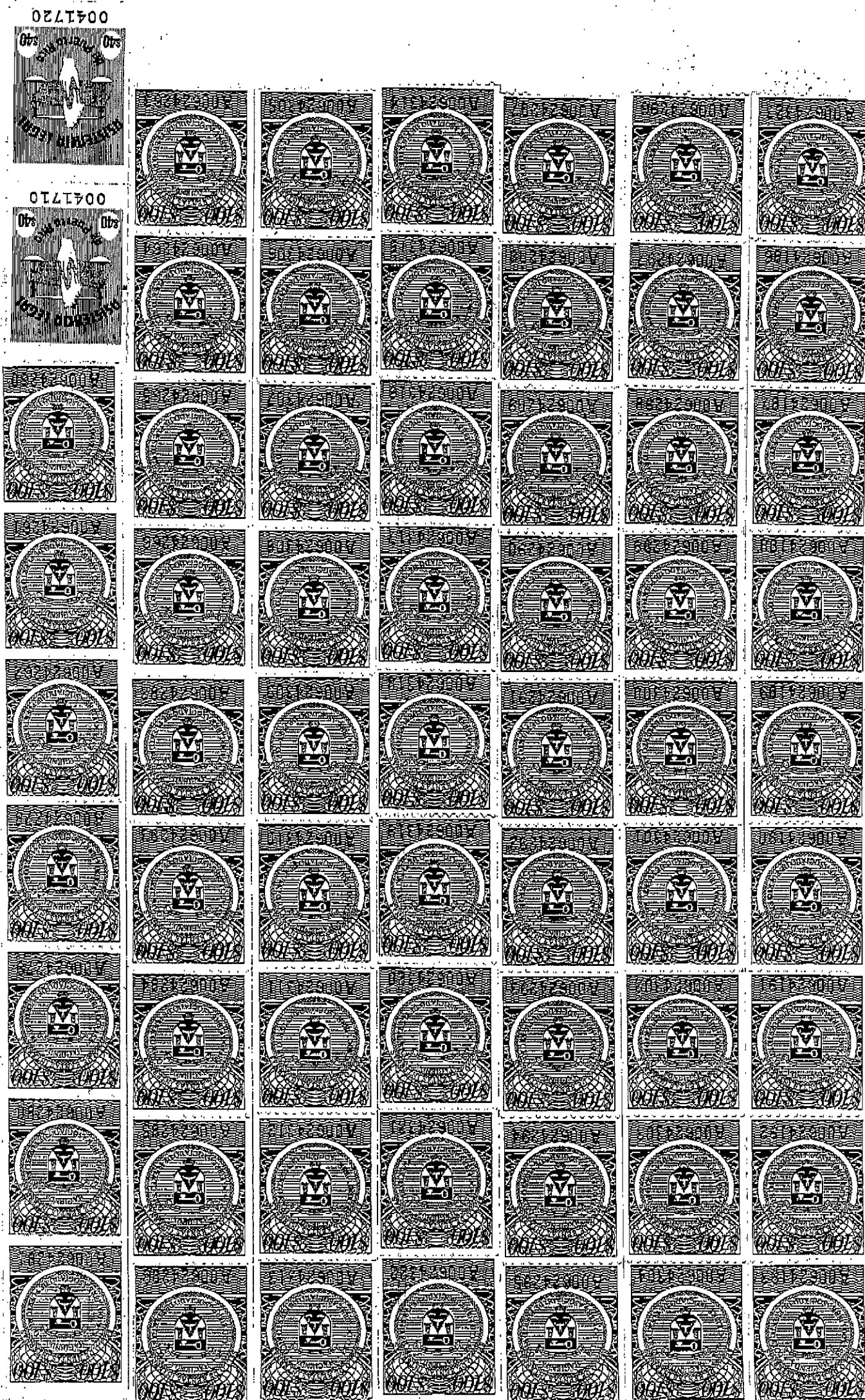
---Leída esta escritura por los comparecientes, en la misma se ratifican, fijan sus iniciales en todos y cada uno de los folios de este documento y firman todos ante mí, la Notario, que de todo lo ----- anteriormente consignado en el presente documento - público, DOY FE.-----

CERTIFICO: QUE ESTE DOCUMENTO ES COPIA  
SIMPLE, FIEL Y EXACTA DEL ORIGINAL.

NOTARIO PUBLICO







## Appendix B – User's Questionnaire



Improvements to Intersection and Roundabout at PR-693 and PR-698  
Dorado, Puerto Rico

User Questionnaire

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendment*"), the user must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The user should provide the following information to the environmental professional. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

1. **Environmental liens that are filed or recorded against the property (40 CFR 312.25).** Did a search of recorded land title records (or judicial records where appropriate, see Note 1 below) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

No environmental liens that are filed or recorded against the property.

2. **Activity and use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)).** Did a search of recorded land title records (or judicial records where appropriate, see Note 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

A search of recorded land titles records did not identify any AULs.

3. ☐ **Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).** Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No knowledge or experience related to the property or nearby properties.



4. Relationship of the purchase price to the fair market value of the *property if it were not contaminated* (40 CFR 312.29). Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property.

The purchase price for the property is reasonable.

5. Commonly known or reasonably ascertainable information about the *property* (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,

a. Do you know the past uses of the property? Yes

b. Do you know of specific chemicals that are present or once were present at the property?

No

c. Do you know of spills or other chemical releases that have taken place at the property? No

d. Do you know of any environmental cleanups that have taken place at the property? No

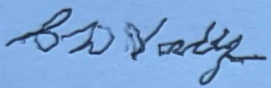
6. ☐ The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

No indications of the presence of contamination at the property.



Completed by:

Name: CARLOS Del Valle

Signature: 

Title: Owner

Company: Deltran, Inc.

Date: 11-18-2022

## Appendix C – EDR Radius Report



**Intersection and Roundabout At PR-693 and PR-698**

Intersection Mendez Vigo St & Seferino Barbosa St  
Dorado, PR 00646

Inquiry Number: 7160763.2s  
October 27, 2022

# The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### **TARGET PROPERTY INFORMATION**

#### **ADDRESS**

INTERSECTION MENDEZ VIGO ST & SEFERINO BARBOSA ST  
DORADO, PR 00646

#### **COORDINATES**

Latitude (North):	18.4617790 - 18° 27' 42.40"
Longitude (West):	66.2698580 - 66° 16' 11.48"
Universal Transverse Mercator:	Zone 19
UTM X (Meters):	788350.4
UTM Y (Meters):	2043330.1
Elevation:	52 ft. above sea level

### **USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY**

Target Property Map:	12367431 VEGA ALTA, PR
Version Date:	2018

# MAPPED SITES SUMMARY

Target Property Address:

INTERSECTION MENDEZ VIGO ST & SEFERINO BARBOSA ST  
DORADO, PR 00646

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">Reg</a>	DORADO GROUND WATER	PR-694 KM 4.5	NPL, SEMS, ROD	Same	4860, 0.920, South
<a href="#">A1</a>	UNIQUE PROPERTIES AN	PR-693 KM 8.2 MARGIN	FINDS	Higher	1 ft.
<a href="#">A2</a>	RE MAX DORADO REALTY	MARGINAL COSTA DE OR	FINDS	Higher	1 ft.
<a href="#">3</a>	DORADO MUNICIPAL LAN	STATE ROAD PR-693 KM	ODI	Lower	1187, 0.225, SSW
<a href="#">4</a>	NARVAEZ CLEANERS AND	353 CALLE MENDEZ VIG	SEMS, ECHO	Higher	1766, 0.334, ESE

## EXECUTIVE SUMMARY

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

### STANDARD ENVIRONMENTAL RECORDS

#### ***Lists of Federal NPL (Superfund) sites***

Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

#### ***Lists of Federal Delisted NPL sites***

Delisted NPL..... National Priority List Deletions

#### ***Lists of Federal sites subject to CERCLA removals and CERCLA orders***

FEDERAL FACILITY..... Federal Facility Site Information listing

#### ***Lists of Federal CERCLA sites with NFRAP***

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

#### ***Lists of Federal RCRA facilities undergoing Corrective Action***

CORRACTS..... Corrective Action Report

#### ***Lists of Federal RCRA TSD facilities***

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

#### ***Lists of Federal RCRA generators***

RCRA-LQG..... RCRA - Large Quantity Generators  
RCRA-SQG..... RCRA - Small Quantity Generators  
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

#### ***Federal institutional controls / engineering controls registries***

LUCIS..... Land Use Control Information System  
US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROLS..... Institutional Controls Sites List



## EXECUTIVE SUMMARY

### ***Federal ERNS list***

ERNS..... Emergency Response Notification System

### ***Lists of state- and tribal hazardous waste facilities***

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

### ***Lists of state and tribal leaking storage tanks***

LUST..... Leaking Underground Storage Tanks  
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### ***Lists of state and tribal registered storage tanks***

FEMA UST..... Underground Storage Tank Listing  
UST..... Underground Storage Tank Facilities  
INDIAN UST..... Underground Storage Tanks on Indian Land

### ***Lists of state and tribal voluntary cleanup sites***

INDIAN VCP..... Voluntary Cleanup Priority Listing

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### ***Local Brownfield lists***

US BROWNFIELDS..... A Listing of Brownfields Sites

### ***Local Lists of Landfill / Solid Waste Disposal Sites***

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands  
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
IHS OPEN DUMPS..... Open Dumps on Indian Land

### ***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL..... Delisted National Clandestine Laboratory Register  
US CDL..... National Clandestine Laboratory Register

### ***Local Land Records***

LIENS 2..... CERCLA Lien Information

### ***Records of Emergency Release Reports***

HMIRS..... Hazardous Materials Information Reporting System

### ***Other Ascertainable Records***

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated  
FUDS..... Formerly Used Defense Sites

## EXECUTIVE SUMMARY

DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
ECHO.....	Enforcement & Compliance History Information
UXO.....	Unexploded Ordnance Sites
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
MINES MRDS.....	Mineral Resources Data System

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank
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### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

## EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### **STANDARD ENVIRONMENTAL RECORDS**

#### ***Lists of Federal NPL (Superfund) sites***

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

<b><u>Equal/Higher Elevation</u></b>	<b><u>Address</u></b>	<b><u>Direction / Distance</u></b>	<b><u>Map ID</u></b>	<b><u>Page</u></b>
<b><i>DORADO GROUND WATER</i></b> Cerclis ID:: 201872 EPA Id: PRN000201872	<b><i>PR-694 KM 4.5</i></b>	<b><i>S 1/2 - 1 (0.920 mi.)</i></b>	<b><i>0</i></b>	<b><i>7</i></b>

#### ***Lists of Federal sites subject to CERCLA removals and CERCLA orders***

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

<b><u>Equal/Higher Elevation</u></b>	<b><u>Address</u></b>	<b><u>Direction / Distance</u></b>	<b><u>Map ID</u></b>	<b><u>Page</u></b>
<b><i>NARVAEZ CLEANERS AND</i></b> Site ID: 0206357 EPA Id: PRN000206357	<b><i>353 CALLE MENDEZ VIG</i></b>	<b><i>ESE 1/4 - 1/2 (0.334 mi.)</i></b>	<b><i>4</i></b>	<b><i>12</i></b>

## EXECUTIVE SUMMARY

### ADDITIONAL ENVIRONMENTAL RECORDS

#### ***Local Lists of Landfill / Solid Waste Disposal Sites***

ODI: An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

A review of the ODI list, as provided by EDR, and dated 06/30/1985 has revealed that there is 1 ODI site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DORADO MUNICIPAL LAN	STATE ROAD PR-693 KM	SSW 1/8 - 1/4 (0.225 mi.)	3	12

#### ***Other Ascertainable Records***

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 07/26/2022 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DORADO GROUND WATER	PR-694 KM 4.5	S 1/2 - 1 (0.920 mi.)	0	7

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 08/03/2022 has revealed that there are 2 FINDS sites within approximately 0.001 miles of the target property.

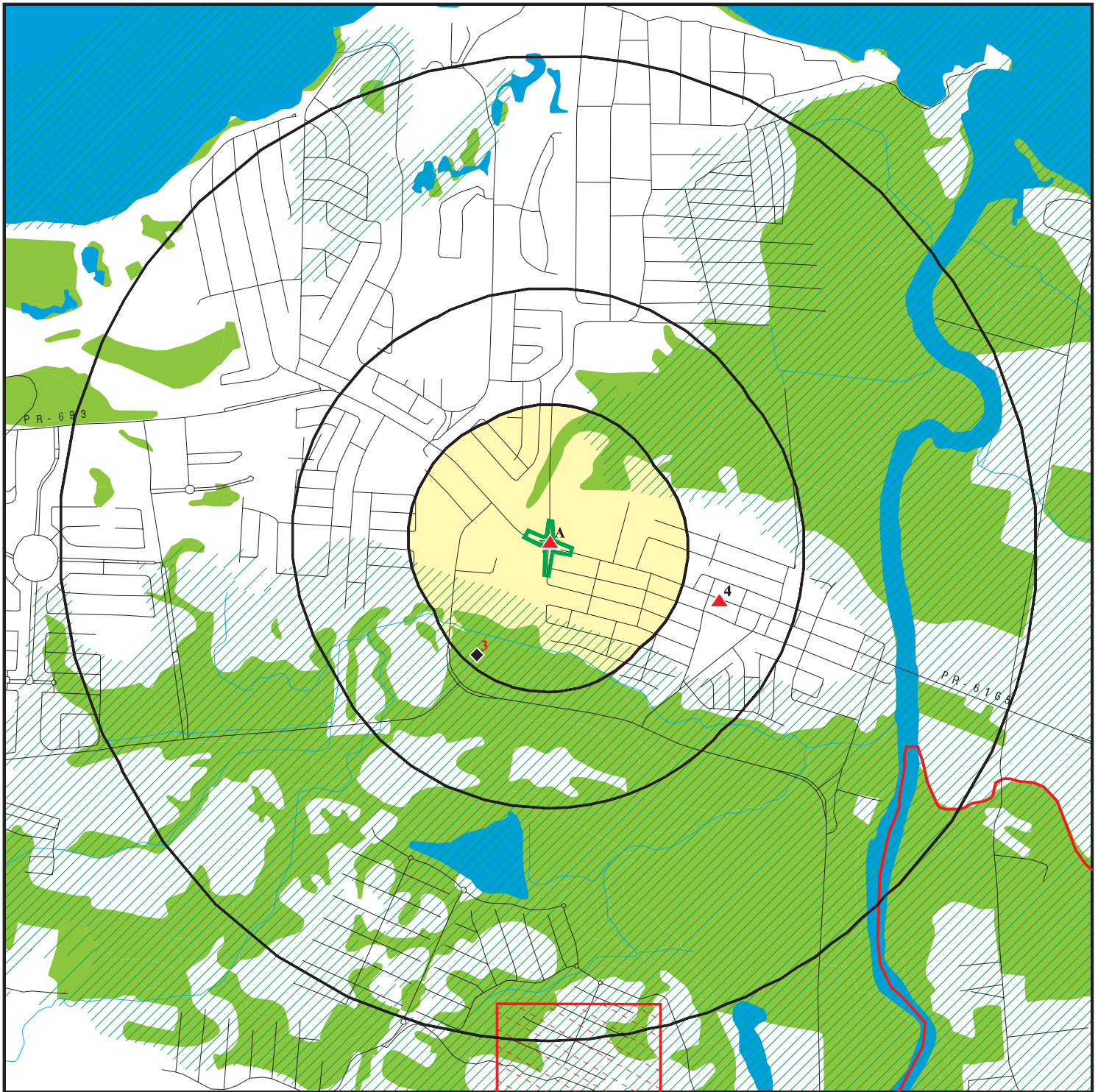
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
UNIQUE PROPERTIES AN Registry ID:: 110055111757	PR-693 KM 8.2 MARGIN	0 - 1/8 (0.000 mi.)	A1	11
RE MAX DORADO REALTY Registry ID:: 110055109626	MARGINAL COSTA DE OR	0 - 1/8 (0.000 mi.)	A2	11

## EXECUTIVE SUMMARY


Due to poor or inadequate address information, the following sites were not mapped. Count: 36 records.


Site Name	Database(s)
LAUNDRY ESPINOSA	SEMS
METAL MACHINING CO., INC	SEMS, RCRA NonGen / NLR
HIGUILLAR DRY CLEANERS	SEMS
PRIDCO LOT NOS: L-107-2-64-16/18/1	SEMS
ADRIEL AUTO	SEMS, RCRA-VSQQ
HYATT DORADO BEACH HOTEL	SEMS
PRIDCO BUILDINGS NOS. T-0957-0-68/	SEMS
PRIDCO BUILDINGS NO:T-0638-0-66 AN	SEMS
PRIDCO BUILDING NOS: T-0868-0-67 A	SEMS
PRIDCO BUILDING NO. T-1322-0-88	SEMS
PRIDCO BUILDING NOS: S-0838-0-67 A	SEMS
PRIDCO BUILDINGS NO: S-1166-0-74 A	SEMS
PRIDCO BUILDING NO. T-1125-0-73 AN	SEMS
PRIDCO BUILDING NO: S-0745-0-66	SEMS
PRIDCO BUILDING NO:S-0050-0-51	SEMS
CATANO PYROTECHNICS	SEMS
SHELL S/S #002240	LUST
PUMP STA. DORADO DEL MAR	LUST
GOLDEN HILLS	LUST
DORAVILLE S/S	LUST
IRIS I. MARTINEZ	LUST
CARIBBEAN PETROLEUM CORPORATION	LUST
ESSO 3P-089	LUST
ESSO STANDARD OIL CO - PR DO-098	LUST, RCRA NonGen / NLR
HOLSUM	LUST
GULF #013	LUST
WILLIAM RODRIGUEZ #312	LUST
TEXACO #293	LUST
BAYAMON CONCRETE	LUST
BLOQUES LA PLATA	LUST
PUNTA SALINAS RADAR SITE	LUST
TEXACO #991	LUST
TOA BAJA S/S	LUST
SHELL #2658	LUST
SHELL #4509	LUST
SHELL # 3700	LUST

# OVERVIEW MAP - 7160763.2S



 Target Property

 Sites at elevations higher than or equal to the target property

 Sites at elevations lower than the target property

 Manufactured Gas Plants

 National Priority List Sites

 Dept. Defense Sites

 Indian Reservations BIA

 County Boundary

 Special Flood Hazard Area (1%)

 0.2% Annual Chance Flood Hazard

 National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.












SITE NAME: Intersection and Roundabout At PR-693 and PR-698  
ADDRESS: Intersection Mendez Vigo St & Seferino Barbosa St  
Dorado PR 00646  
LAT/LONG: 18.461779 / 66.269858

CLIENT: CMA Architects & Engineers LLP  
CONTACT: Pedro Janer  
INQUIRY #: 7160763.2s  
DATE: October 27, 2022 7:40 am



# DETAIL MAP - 7160763.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Intersection and Roundabout At PR-693 and PR-698  
 ADDRESS: Intersection Mendez Vigo St & Seferino Barbosa St  
 Dorado PR 00646  
 LAT/LONG: 18.461779 / 66.269858

CLIENT: CMA Architects & Engineers LLP  
 CONTACT: Pedro Janer  
 INQUIRY #: 7160763.2s  
 DATE: October 27, 2022 7:40 am

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Lists of Federal NPL (Superfund) sites</i></b>								
NPL	1.000		0	0	0	1	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal Delisted NPL sites</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	1	NR	NR	1
<b><i>Lists of Federal CERCLA sites with NFRAP</i></b>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<b><i>Lists of Federal RCRA facilities undergoing Corrective Action</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal RCRA TSD facilities</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Lists of Federal RCRA generators</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	0.001		0	NR	NR	NR	NR	0
<b><i>Lists of state- and tribal hazardous waste facilities</i></b>								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
<b><i>Lists of state and tribal leaking storage tanks</i></b>								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
<b><i>Lists of state and tribal registered storage tanks</i></b>								
FEMA UST	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b><i>Lists of state and tribal voluntary cleanup sites</i></b>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b><u>ADDITIONAL ENVIRONMENTAL RECORDS</u></b>								
<b><i>Local Brownfield lists</i></b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><i>Local Lists of Landfill / Solid Waste Disposal Sites</i></b>								
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	1	0	NR	NR	1
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b><i>Local Lists of Hazardous waste / Contaminated Sites</i></b>								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
<b><i>Local Land Records</i></b>								
LIENS 2	0.001		0	NR	NR	NR	NR	0
<b><i>Records of Emergency Release Reports</i></b>								
HMIRS	0.001		0	NR	NR	NR	NR	0
<b><i>Other Ascertainable Records</i></b>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	1	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		2	NR	NR	NR	NR	2
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA LUST	0.001		0	NR	NR	NR	NR	0
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- Totals --		0	2	1	1	2	0	6
-------------	--	---	---	---	---	---	---	---

#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NPL**  
**Region**  
**South**  
**1/2-1**  
**4860 ft.**

**DORADO GROUND WATER CONTAMINATION**  
**PR-694 KM 4.5**  
**DORADO, PR 00646**

**NPL** **1019328412**  
**SEMS** **PRN000201872**  
**ROD**

NPL:

EPA Region: 2  
EPA ID: PRN000201872  
Site ID: 201872  
Name: DORADO GROUND WATER CONTAMINATION  
Address: PR-694 KM 4.5  
City,State,Zip: DORADO, PR 00646  
Federal: N  
Final Date: 2016-09-09 00:00:00  
Latitude: 18.429756  
Longitude: -66.27832  
Site Score: Not reported  
NAI: Not reported  
Native American Entity: Not reported

SEMS:

Site ID: 0201872  
EPA ID: PRN000201872  
Name: DORADO GROUND WATER CONTAMINATION  
Address: PR-694 KM 4.5  
Address 2: Not reported  
City,State,Zip: DORADO, PR 00646  
Cong District: 98  
FIPS Code: 72051  
Latitude: 18.429756  
Longitude: -66.278320  
FF: N  
NPL: Currently on the Final NPL  
Non NPL Status: Not reported

SEMS Detail:

Region: 02  
Site ID: 0201872  
EPA ID: PRN000201872  
Site Name: DORADO GROUND WATER CONTAMINATION  
NPL: F  
FF: N  
OU: 00  
Action Code: DS  
Action Name: DISCVRY  
SEQ: 1  
Start Date: 2015-06-24 04:00:00  
Finish Date: 2015-06-24 04:00:00  
Qual: Not reported  
Current Action Lead: EPA Perf

Region: 02  
Site ID: 0201872  
EPA ID: PRN000201872  
Site Name: DORADO GROUND WATER CONTAMINATION  
NPL: F  
FF: N

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DORADO GROUND WATER CONTAMINATION (Continued)**

**1019328412**

OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	2015-09-04 05:00:00
Finish Date:	2015-09-04 05:00:00
Qual:	H
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0201872
EPA ID:	PRN000201872
Site Name:	DORADO GROUND WATER CONTAMINATION
NPL:	F
FF:	N
OU:	00
Action Code:	HX
Action Name:	PRE-CERC
SEQ:	1
Start Date:	2015-06-24 04:00:00
Finish Date:	2015-06-24 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0201872
EPA ID:	PRN000201872
Site Name:	DORADO GROUND WATER CONTAMINATION
NPL:	F
FF:	N
OU:	00
Action Code:	ES
Action Name:	ESI
SEQ:	1
Start Date:	2015-11-11 05:00:00
Finish Date:	2015-11-11 05:00:00
Qual:	G
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0201872
EPA ID:	PRN000201872
Site Name:	DORADO GROUND WATER CONTAMINATION
NPL:	F
FF:	N
OU:	00
Action Code:	HR
Action Name:	HAZRANK
SEQ:	1
Start Date:	2016-04-07 05:00:00
Finish Date:	2016-04-07 05:00:00
Qual:	O
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0201872
EPA ID:	PRN000201872



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DORADO GROUND WATER CONTAMINATION (Continued)**

**1019328412**

Site Name:	DORADO GROUND WATER CONTAMINATION
NPL:	F
FF:	N
OU:	01
Action Code:	RD
Action Name:	RD
SEQ:	1
Start Date:	2021-11-19 06:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0201872
EPA ID:	PRN000201872
Site Name:	DORADO GROUND WATER CONTAMINATION
NPL:	F
FF:	N
OU:	01
Action Code:	CO
Action Name:	RI/FS
SEQ:	1
Start Date:	2017-01-20 05:00:00
Finish Date:	2021-09-28 05:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0201872
EPA ID:	PRN000201872
Site Name:	DORADO GROUND WATER CONTAMINATION
NPL:	F
FF:	N
OU:	01
Action Code:	RO
Action Name:	ROD
SEQ:	1
Start Date:	2021-09-28 05:00:00
Finish Date:	2021-09-28 05:00:00
Qual:	R
Current Action Lead:	EPA Perf
Region:	02
Site ID:	0201872
EPA ID:	PRN000201872
Site Name:	DORADO GROUND WATER CONTAMINATION
NPL:	F
FF:	N
OU:	00
Action Code:	NF
Action Name:	NPL FINL
SEQ:	1
Start Date:	2016-09-09 05:00:00
Finish Date:	2016-09-09 05:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DORADO GROUND WATER CONTAMINATION (Continued)**

**1019328412**

Region: 02  
Site ID: 0201872  
EPA ID: PRN000201872  
Site Name: DORADO GROUND WATER CONTAMINATION  
NPL: F  
FF: N  
OU: 00  
Action Code: NP  
Action Name: PROPOSED  
SEQ: 1  
Start Date: 2016-04-07 05:00:00  
Finish Date: 2016-04-07 05:00:00  
Qual: Not reported  
Current Action Lead: EPA Perf

Region: 02  
Site ID: 0201872  
EPA ID: PRN000201872  
Site Name: DORADO GROUND WATER CONTAMINATION  
NPL: F  
FF: N  
OU: 01  
Action Code: MA  
Action Name: ST COOP  
SEQ: 1  
Start Date: 2017-09-29 05:00:00  
Finish Date: Not reported  
Qual: Not reported  
Current Action Lead: EPA Perf

Region: 02  
Site ID: 0201872  
EPA ID: PRN000201872  
Site Name: DORADO GROUND WATER CONTAMINATION  
NPL: F  
FF: N  
OU: 01  
Action Code: TA  
Action Name: TECH ASSIST  
SEQ: 1  
Start Date: 2017-10-13 05:00:00  
Finish Date: Not reported  
Qual: Not reported  
Current Action Lead: EPA Perf

ROD:

No Details:

No Details

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number

	Site	Database(s)	
<b>A1</b>	<b>UNIQUE PROPERTIES AND REAL ESTATE</b>	<b>FINDS</b>	<b>1016692753</b>
<b>&lt; 1/8</b>	<b>PR-693 KM 8.2 MARGINAL C-3</b>		<b>N/A</b>
<b>1 ft.</b>	<b>DORADO, PR 00646</b>		

**Site 1 of 2 in cluster A**

**Relative:**  
**Higher**

FINDS:

Registry ID: 110055111757

**Actual:**  
**52 ft.**

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

<b>A2</b>	<b>RE MAX DORADO REALTY</b>	<b>FINDS</b>	<b>1016379512</b>
<b>&lt; 1/8</b>	<b>MARGINAL COSTA DE ORO, SUITE # 1</b>		<b>N/A</b>
<b>1 ft.</b>	<b>DORADO, PR 00646</b>		

**Site 2 of 2 in cluster A**

**Relative:**  
**Higher**

FINDS:

Registry ID: 110055109626

**Actual:**  
**52 ft.**

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**3**  
**SSW**  
**1/8-1/4**  
**0.225 mi.**  
**1187 ft.**

**DORADO MUNICIPAL LANDFILL**  
**STATE ROAD PR-693 KM-1 HM-0 HIGUILLAR WARD**  
**DORADO, PR**

**ODI** **1007445504**  
**N/A**

**Relative:** ODI:  
**Lower** Non Compliance Category: 01 06 11  
**Actual:** Latitude: 18 27 30  
**4 ft.** Longitude: 066 16 20

**4**  
**ESE**  
**1/4-1/2**  
**0.334 mi.**  
**1766 ft.**

**NARVAEZ CLEANERS AND TAILORING**  
**353 CALLE MENDEZ VIGO**  
**DORADO, PR 00646**

**SEMS** **1014202017**  
**ECHO** **PRN000206357**

**Relative:** SEMS:  
**Higher** Site ID: 0206357  
**Actual:** EPA ID: PRN000206357  
**75 ft.** Name: NARVAEZ CLEANERS AND TAILORING  
Address: 353 CALLE MENDEZ VIGO  
Address 2: Not reported  
City,State,Zip: DORADO, PR 00646  
Cong District: Not reported  
FIPS Code: Not reported  
Latitude: +18.460745  
Longitude: -066.266624  
FF: N  
NPL: Not on the NPL  
Non NPL Status: ESI Start Needed

SEMS Detail:

Region: 02  
Site ID: 0206357  
EPA ID: PRN000206357  
Site Name: NARVAEZ CLEANERS AND TAILORING  
NPL: N  
FF: N  
OU: 00  
Action Code: DS  
Action Name: DISCVRY  
SEQ: 1  
Start Date: 2009-08-25 04:00:00  
Finish Date: 2009-08-25 04:00:00  
Qual: Not reported  
Current Action Lead: EPA Perf

Region: 02  
Site ID: 0206357  
EPA ID: PRN000206357  
Site Name: NARVAEZ CLEANERS AND TAILORING  
NPL: N  
FF: N  
OU: 00  
Action Code: HX  
Action Name: PRE-CERC  
SEQ: 1  
Start Date: 2010-02-04 05:00:00  
Finish Date: 2010-02-04 05:00:00

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**NARVAEZ CLEANERS AND TAILORING (Continued)**

**1014202017**

Qual: Not reported  
Current Action Lead: EPA Perf  
  
Region: 02  
Site ID: 0206357  
EPA ID: PRN000206357  
Site Name: NARVAEZ CLEANERS AND TAILORING  
NPL: N  
FF: N  
OU: 00  
Action Code: PA  
Action Name: PA  
SEQ: 1  
Start Date: 2013-03-28 04:00:00  
Finish Date: 2013-03-28 04:00:00  
Qual: H  
Current Action Lead: EPA Perf

Region: 02  
Site ID: 0206357  
EPA ID: PRN000206357  
Site Name: NARVAEZ CLEANERS AND TAILORING  
NPL: N  
FF: N  
OU: 00  
Action Code: SI  
Action Name: SI  
SEQ: 1  
Start Date: 2014-03-26 04:00:00  
Finish Date: 2014-05-21 05:00:00  
Qual: N  
Current Action Lead: EPA Perf

Region: 02  
Site ID: 0206357  
EPA ID: PRN000206357  
Site Name: NARVAEZ CLEANERS AND TAILORING  
NPL: N  
FF: N  
OU: 00  
Action Code: OO  
Action Name: SITE REASS  
SEQ: 1  
Start Date: 2015-07-21 05:00:00  
Finish Date: 2015-07-21 05:00:00  
Qual: H  
Current Action Lead: EPA Perf

**ECHO:**

Envid: 1014202017  
Registry ID: 110040437024  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110040437024>  
Name: NARVAEZ CLEANERS AND TAILORING  
Address: 353 CALLE MENDEZ VIGO  
City,State,Zip: DORADO, PR 00646

Count: 36 records.

## ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BO. ESPINOSA, DORADO	1014202018	LAUNDRY ESPINOSA	ROUTE 2, KM 27.4	00646	SEMS
BO. ESPINOSA, DORADO	1015731870	METAL MACHINING CO., INC	ROUTE 2, KM 24.8	00646	SEMS, RCRA NonGen / NLR
BO. HIGUILLAR, DORAD	1014202015	HIGUILLAR DRY CLEANERS	ROUTE 695, KM 1.3, BUILDING 1,	00646	SEMS
DORADO	1014202029	PRIDCO LOT NOS: L-107-2-64-16/18/1	9 ROUTE #696 BO. DORADO	00646	SEMS
DORADO	1015731872	ADRIEL AUTO	ROUTE 2 KM 23.0	00646	SEMS, RCRA-VSQQ
DORADO	1015736318	HYATT DORADO BEACH HOTEL	RD 693 KM 12.8	00646	SEMS
DORADO	1014202022	PRIDCO BUILDINGS NOS. T-0957-0-68/	ROUTE 693, KM. 7.3 DORADO INDU	00646	SEMS
DORADO	1014202025	PRIDCO BUILDINGS NO:T-0638-0-66 AN	415 ROUTE 693, DORADO INDUSTRI	00646	SEMS
DORADO	1014202024	PRIDCO BUILDING NOS: T-0868-0-67 A	ROUTE 693, DORADO INDUSTRIAL P	00646	SEMS
DORADO	S101442846	SHELL S/S #002240	CALLE MARGINAL, URB. MARTORELL		LUST
DORADO	S103554116	PUMP STA. DORADO DEL MAR	CARR 693 CALLE 2, DORADO DEL M		LUST
DORADO	S104904852	GOLDEN HILLS	CARR. 2 KM. 27.7		LUST
DORADO	S123161978	DORAVILLE S/S	CARR. 695 KM. 1.5 BO. HIGUILLA		LUST
DORADO	1014202031	PRIDCO BUILDING NO. T-1322-0-88	DORADO INDUSTRIAL PARK, ROUTE	00646	SEMS
DORADO	1014202023	PRIDCO BUILDING NOS: S-0838-0-67 A	DORADO INDUSTRIAL PARK, ROUTE	00646	SEMS
DORADO	1014202030	PRIDCO BUILDINGS NO: S-1166-0-74 A	DORADO INDUSTRIAL PARK, ROUTE	00646	SEMS
DORADO	1014202032	PRIDCO BUILDING NO. T-1125-0-73 AN	DORADO INDUSTRIAL PARK, 415 RO	00646	SEMS
DORADO	1014202028	PRIDCO BUILDING NO: S-0745-0-66	DORADO INDUSTRIAL PARK, ROUTE	00646	SEMS
DORADO	S123161979	IRIS I. MARTINEZ	DORAVILLE CALLE 695 KM 1.5		LUST
DORADO	1014202026	PRIDCO BUILDING NO:S-0050-0-51	INTERSECTION OF ROUTES 165 AND	00646	SEMS
DORADO	S103554046	CARIBBEAN PETROLEUM CORPORATION	PR-2 KM. 26.7, BO. ESPINOSA		LUST
GUAYNABO	1012209773	CATANO PYROTECHNICS	FOREIGN TRADE ZONE #61 BUILDIN	00949	SEMS
TOA BAJA	S106917715	ESSO 3P-089	CALLE MUNOZ RIVERA 11		LUST
TOA BAJA	1001203513	ESSO STANDARD OIL CO - PR DO-098	CAR 863 KM 1.0 BO PAJAROS	00949	LUST, RCRA NonGen / NLR
TOA BAJA	S103553826	HOLSUM	CARR 2 KM 20.1		LUST
TOA BAJA	S106917726	GULF #013	CARR #167 AVE. COMERIO NORTE #		LUST
TOA BAJA	S103553993	WILLIAM RODRIGUEZ #312	CARR 2 KM 22.4 BO. MEDIA LUNA		LUST
TOA BAJA	S105841000	TEXACO #293	CARR. #2 KM. 19.3 BO. CANDELAR		LUST
TOA BAJA	1003011142	BAYAMON CONCRETE	CARR. 2 KM. 20.5 BO. CANDELARI		LUST
TOA BAJA	S106917740	BLOQUES LA PLATA	CARR. 2 KM. 20.1, BO. CANDELAR		LUST
TOA BAJA	S123161985	PUNTA SALINAS RADAR SITE	CARR. 868 KM. 0.9		LUST
TOA BAJA	S104904907	TEXACO #991	CARR. 2 KM. 70.3 CANDELARIA		LUST
TOA BAJA	S104540035	TOA BAJA S/S	CARR. 865 KM. 0.2		LUST
TOA BAJA	S103553871	SHELL #2658	CARR. 165 KM. 6.9, LEVITTOWN		LUST
TOA BAJA	S103553842	SHELL #4509	CARR. 2 KM. 16.8, BO. CANDELAR		LUST
TOA BAJA	S106917677	SHELL # 3700	CARR.2 KM.16.2		LUST



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

### **STANDARD ENVIRONMENTAL RECORDS**

#### ***Lists of Federal NPL (Superfund) sites***

##### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/26/2022	Source: EPA
Date Data Arrived at EDR: 08/02/2022	Telephone: N/A
Date Made Active in Reports: 08/22/2022	Last EDR Contact: 10/05/2022
Number of Days to Update: 20	Next Scheduled EDR Contact: 01/09/2023
	Data Release Frequency: Quarterly

##### **NPL Site Boundaries**

###### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

##### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/26/2022	Source: EPA
Date Data Arrived at EDR: 08/02/2022	Telephone: N/A
Date Made Active in Reports: 08/22/2022	Last EDR Contact: 10/05/2022
Number of Days to Update: 20	Next Scheduled EDR Contact: 01/09/2023
	Data Release Frequency: Quarterly

##### **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991  
Date Data Arrived at EDR: 02/02/1994  
Date Made Active in Reports: 03/30/1994  
Number of Days to Update: 56

Source: EPA  
Telephone: 202-564-4267  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

### ***Lists of Federal Delisted NPL sites***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/26/2022  
Date Data Arrived at EDR: 08/02/2022  
Date Made Active in Reports: 08/22/2022  
Number of Days to Update: 20

Source: EPA  
Telephone: N/A  
Last EDR Contact: 10/05/2022  
Next Scheduled EDR Contact: 01/09/2023  
Data Release Frequency: Quarterly

### ***Lists of Federal sites subject to CERCLA removals and CERCLA orders***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021  
Date Data Arrived at EDR: 06/24/2021  
Date Made Active in Reports: 09/20/2021  
Number of Days to Update: 88

Source: Environmental Protection Agency  
Telephone: 703-603-8704  
Last EDR Contact: 09/06/2022  
Next Scheduled EDR Contact: 01/10/2023  
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/26/2022  
Date Data Arrived at EDR: 08/02/2022  
Date Made Active in Reports: 08/22/2022  
Number of Days to Update: 20

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 10/05/2022  
Next Scheduled EDR Contact: 01/23/2023  
Data Release Frequency: Quarterly

### ***Lists of Federal CERCLA sites with NFRAP***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/26/2022	Source: EPA
Date Data Arrived at EDR: 08/02/2022	Telephone: 800-424-9346
Date Made Active in Reports: 08/22/2022	Last EDR Contact: 10/05/2022
Number of Days to Update: 20	Next Scheduled EDR Contact: 01/23/2023
	Data Release Frequency: Quarterly

### ***Lists of Federal RCRA facilities undergoing Corrective Action***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/20/2022	Source: EPA
Date Data Arrived at EDR: 06/21/2022	Telephone: 800-424-9346
Date Made Active in Reports: 06/28/2022	Last EDR Contact: 09/19/2022
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Quarterly

### ***Lists of Federal RCRA TSD facilities***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/20/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/21/2022	Telephone: (212) 637-3660
Date Made Active in Reports: 06/28/2022	Last EDR Contact: 09/19/2022
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Quarterly

### ***Lists of Federal RCRA generators***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/21/2022	Telephone: (212) 637-3660
Date Made Active in Reports: 06/28/2022	Last EDR Contact: 09/19/2022
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/20/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/21/2022	Telephone: (212) 637-3660
Date Made Active in Reports: 06/28/2022	Last EDR Contact: 09/19/2022
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Quarterly

### RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/21/2022	Telephone: (212) 637-3660
Date Made Active in Reports: 06/28/2022	Last EDR Contact: 09/19/2022
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Quarterly

### ***Federal institutional controls / engineering controls registries***

#### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/16/2022	Source: Department of the Navy
Date Data Arrived at EDR: 08/22/2022	Telephone: 843-820-7326
Date Made Active in Reports: 10/24/2022	Last EDR Contact: 08/03/2022
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/21/2022
	Data Release Frequency: Varies

#### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/15/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/17/2022	Telephone: 703-603-0695
Date Made Active in Reports: 10/24/2022	Last EDR Contact: 08/17/2022
Number of Days to Update: 68	Next Scheduled EDR Contact: 12/05/2022
	Data Release Frequency: Varies

#### US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/15/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/17/2022	Telephone: 703-603-0695
Date Made Active in Reports: 10/24/2022	Last EDR Contact: 08/17/2022
Number of Days to Update: 68	Next Scheduled EDR Contact: 12/05/2022
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal ERNS list***

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2022

Date Data Arrived at EDR: 06/15/2022

Date Made Active in Reports: 06/21/2022

Number of Days to Update: 6

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 09/20/2022

Next Scheduled EDR Contact: 01/02/2023

Data Release Frequency: Quarterly

## ***Lists of state- and tribal hazardous waste facilities***

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: Environmental Quality Board

Telephone: 787-767-8181

Last EDR Contact: 08/22/2005

Next Scheduled EDR Contact: 11/21/2005

Data Release Frequency: N/A

## ***Lists of state and tribal leaking storage tanks***

LUST: Leaking Underground Storage Tanks

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/24/2020

Date Data Arrived at EDR: 02/09/2021

Date Made Active in Reports: 05/04/2021

Number of Days to Update: 84

Source: Environmental Quality Board

Telephone: 787-767-8056

Last EDR Contact: 10/17/2022

Next Scheduled EDR Contact: 01/30/2023

Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021

Date Data Arrived at EDR: 06/11/2021

Date Made Active in Reports: 09/07/2021

Number of Days to Update: 88

Source: EPA Region 1

Telephone: 617-918-1313

Last EDR Contact: 10/17/2022

Next Scheduled EDR Contact: 01/30/2023

Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 06/02/2022

Date Data Arrived at EDR: 06/13/2022

Date Made Active in Reports: 08/31/2022

Number of Days to Update: 79

Source: EPA Region 4

Telephone: 404-562-8677

Last EDR Contact: 10/17/2022

Next Scheduled EDR Contact: 01/30/2023

Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/14/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA Region 7  
Telephone: 913-551-7003  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/20/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA Region 8  
Telephone: 303-312-6271  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: Environmental Protection Agency  
Telephone: 415-972-3372  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/20/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA Region 10  
Telephone: 206-553-2857  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA, Region 5  
Telephone: 312-886-7439  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/28/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA Region 6  
Telephone: 214-665-6597  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### ***Lists of state and tribal registered storage tanks***

#### FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021  
Date Data Arrived at EDR: 11/05/2021  
Date Made Active in Reports: 02/01/2022  
Number of Days to Update: 88

Source: FEMA  
Telephone: 202-646-5797  
Last EDR Contact: 09/27/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Varies



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Underground Storage Tank Facilities  
Underground storage tank site locations.

Date of Government Version: 01/01/2008  
Date Data Arrived at EDR: 03/26/2008  
Date Made Active in Reports: 04/23/2008  
Number of Days to Update: 28

Source: Environmental Quality Board  
Telephone: 787-767-8056  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Semi-Annually

### INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/28/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA Region 6  
Telephone: 214-665-7591  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA Region 5  
Telephone: 312-886-6136  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/07/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA, Region 1  
Telephone: 617-918-1313  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 06/02/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/31/2022  
Number of Days to Update: 79

Source: EPA Region 4  
Telephone: 404-562-9424  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

### INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/20/2022  
Date Data Arrived at EDR: 06/13/2022  
Date Made Active in Reports: 08/16/2022  
Number of Days to Update: 64

Source: EPA Region 10  
Telephone: 206-553-2857  
Last EDR Contact: 10/17/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/14/2022	Source: EPA Region 7
Date Data Arrived at EDR: 06/13/2022	Telephone: 913-551-7003
Date Made Active in Reports: 08/16/2022	Last EDR Contact: 10/17/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: Varies

### INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/20/2022	Source: EPA Region 8
Date Data Arrived at EDR: 06/13/2022	Telephone: 303-312-6137
Date Made Active in Reports: 08/16/2022	Last EDR Contact: 10/17/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: Varies

### INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2022	Source: EPA Region 9
Date Data Arrived at EDR: 06/13/2022	Telephone: 415-972-3368
Date Made Active in Reports: 08/16/2022	Last EDR Contact: 10/17/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: Varies

### ***Lists of state and tribal voluntary cleanup sites***

#### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 07/08/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

#### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 09/13/2022
Number of Days to Update: 142	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Varies

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### ***Local Brownfield lists***

#### US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/23/2022  
Date Data Arrived at EDR: 03/10/2022  
Date Made Active in Reports: 03/10/2022  
Number of Days to Update: 0

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 09/09/2022  
Next Scheduled EDR Contact: 12/26/2022  
Data Release Frequency: Semi-Annually

### **Local Lists of Landfill / Solid Waste Disposal Sites**

#### **INDIAN ODI: Report on the Status of Open Dumps on Indian Lands**

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998  
Date Data Arrived at EDR: 12/03/2007  
Date Made Active in Reports: 01/24/2008  
Number of Days to Update: 52

Source: Environmental Protection Agency  
Telephone: 703-308-8245  
Last EDR Contact: 10/20/2022  
Next Scheduled EDR Contact: 02/06/2023  
Data Release Frequency: Varies

#### **ODI: Open Dump Inventory**

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985  
Date Data Arrived at EDR: 08/09/2004  
Date Made Active in Reports: 09/17/2004  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 800-424-9346  
Last EDR Contact: 06/09/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

#### **DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations**

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009  
Date Data Arrived at EDR: 05/07/2009  
Date Made Active in Reports: 09/21/2009  
Number of Days to Update: 137

Source: EPA, Region 9  
Telephone: 415-947-4219  
Last EDR Contact: 10/11/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: No Update Planned

#### **IHS OPEN DUMPS: Open Dumps on Indian Land**

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014  
Date Data Arrived at EDR: 08/06/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service  
Telephone: 301-443-1452  
Last EDR Contact: 07/21/2022  
Next Scheduled EDR Contact: 11/07/2022  
Data Release Frequency: Varies

### **Local Lists of Hazardous waste / Contaminated Sites**

#### **US HIST CDL: National Clandestine Laboratory Register**

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 07/29/2022  
Date Data Arrived at EDR: 08/18/2022  
Date Made Active in Reports: 10/24/2022  
Number of Days to Update: 67

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 08/18/2022  
Next Scheduled EDR Contact: 12/05/2022  
Data Release Frequency: No Update Planned

#### **US CDL: Clandestine Drug Labs**

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/29/2022  
Date Data Arrived at EDR: 08/18/2022  
Date Made Active in Reports: 10/24/2022  
Number of Days to Update: 67

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 08/18/2022  
Next Scheduled EDR Contact: 12/05/2022  
Data Release Frequency: Quarterly

### **Local Land Records**

#### **LIENS 2: CERCLA Lien Information**

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/26/2022  
Date Data Arrived at EDR: 08/02/2022  
Date Made Active in Reports: 08/22/2022  
Number of Days to Update: 20

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 10/05/2022  
Next Scheduled EDR Contact: 01/09/2023  
Data Release Frequency: Semi-Annually

### **Records of Emergency Release Reports**

#### **HMIRS: Hazardous Materials Information Reporting System**

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/19/2022  
Date Data Arrived at EDR: 09/19/2022  
Date Made Active in Reports: 09/30/2022  
Number of Days to Update: 11

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 09/19/2022  
Next Scheduled EDR Contact: 01/02/2023  
Data Release Frequency: Quarterly

### **Other Ascertainable Records**

#### **RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/20/2022  
Date Data Arrived at EDR: 06/21/2022  
Date Made Active in Reports: 06/28/2022  
Number of Days to Update: 7

Source: Environmental Protection Agency  
Telephone: (212) 637-3660  
Last EDR Contact: 09/19/2022  
Next Scheduled EDR Contact: 01/02/2023  
Data Release Frequency: Quarterly

#### **FUDS: Formerly Used Defense Sites**

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/11/2022  
Date Data Arrived at EDR: 08/11/2022  
Date Made Active in Reports: 09/30/2022  
Number of Days to Update: 50

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285  
Last EDR Contact: 08/11/2022  
Next Scheduled EDR Contact: 11/28/2022  
Data Release Frequency: Varies

#### **DOD: Department of Defense Sites**

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/07/2021  
Date Data Arrived at EDR: 07/13/2021  
Date Made Active in Reports: 03/09/2022  
Number of Days to Update: 239

Source: USGS  
Telephone: 888-275-8747  
Last EDR Contact: 10/13/2022  
Next Scheduled EDR Contact: 01/23/2023  
Data Release Frequency: Varies

### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018  
Date Data Arrived at EDR: 04/11/2018  
Date Made Active in Reports: 11/06/2019  
Number of Days to Update: 574

Source: U.S. Geological Survey  
Telephone: 888-275-8747  
Last EDR Contact: 10/03/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: N/A

### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017  
Date Data Arrived at EDR: 02/03/2017  
Date Made Active in Reports: 04/07/2017  
Number of Days to Update: 63

Source: Environmental Protection Agency  
Telephone: 615-532-8599  
Last EDR Contact: 08/03/2022  
Next Scheduled EDR Contact: 11/21/2022  
Data Release Frequency: Varies

### US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/20/2022  
Date Data Arrived at EDR: 06/21/2022  
Date Made Active in Reports: 08/31/2022  
Number of Days to Update: 71

Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 09/20/2022  
Next Scheduled EDR Contact: 01/02/2023  
Data Release Frequency: Quarterly

### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013  
Date Data Arrived at EDR: 03/21/2014  
Date Made Active in Reports: 06/17/2014  
Number of Days to Update: 88

Source: Environmental Protection Agency  
Telephone: 617-520-3000  
Last EDR Contact: 07/29/2022  
Next Scheduled EDR Contact: 11/14/2022  
Data Release Frequency: Quarterly

### 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/30/2017  
Date Data Arrived at EDR: 05/08/2018  
Date Made Active in Reports: 07/20/2018  
Number of Days to Update: 73

Source: Environmental Protection Agency  
Telephone: 703-308-4044  
Last EDR Contact: 08/04/2022  
Next Scheduled EDR Contact: 11/14/2022  
Data Release Frequency: Varies

### TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016  
Date Data Arrived at EDR: 06/17/2020  
Date Made Active in Reports: 09/10/2020  
Number of Days to Update: 85

Source: EPA  
Telephone: 202-260-5521  
Last EDR Contact: 09/12/2022  
Next Scheduled EDR Contact: 12/26/2022  
Data Release Frequency: Every 4 Years

### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018  
Date Data Arrived at EDR: 08/14/2020  
Date Made Active in Reports: 11/04/2020  
Number of Days to Update: 82

Source: EPA  
Telephone: 202-566-0250  
Last EDR Contact: 08/11/2022  
Next Scheduled EDR Contact: 11/28/2022  
Data Release Frequency: Annually

### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/18/2022  
Date Data Arrived at EDR: 07/18/2022  
Date Made Active in Reports: 07/29/2022  
Number of Days to Update: 11

Source: EPA  
Telephone: 202-564-4203  
Last EDR Contact: 10/18/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Annually

### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/26/2022  
Date Data Arrived at EDR: 08/02/2022  
Date Made Active in Reports: 08/22/2022  
Number of Days to Update: 20

Source: EPA  
Telephone: 703-416-0223  
Last EDR Contact: 10/05/2022  
Next Scheduled EDR Contact: 12/12/2022  
Data Release Frequency: Annually

### RMP: Risk Management Plans



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/27/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/04/2022	Telephone: 202-564-8600
Date Made Active in Reports: 05/10/2022	Last EDR Contact: 10/11/2022
Number of Days to Update: 6	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: Varies

### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 07/26/2022	Source: EPA
Date Data Arrived at EDR: 08/02/2022	Telephone: 202-564-6023
Date Made Active in Reports: 08/31/2022	Last EDR Contact: 10/05/2022
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2022
	Data Release Frequency: Quarterly

### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2022	Source: EPA
Date Data Arrived at EDR: 01/20/2022	Telephone: 202-566-0500
Date Made Active in Reports: 03/25/2022	Last EDR Contact: 10/06/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/16/2023
	Data Release Frequency: Annually

### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 09/27/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/16/2023
	Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009  
Date Data Arrived at EDR: 04/16/2009  
Date Made Active in Reports: 05/11/2009  
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances  
Telephone: 202-566-1667  
Last EDR Contact: 08/18/2017  
Next Scheduled EDR Contact: 12/04/2017  
Data Release Frequency: No Update Planned

### FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009  
Date Data Arrived at EDR: 04/16/2009  
Date Made Active in Reports: 05/11/2009  
Number of Days to Update: 25

Source: EPA  
Telephone: 202-566-1667  
Last EDR Contact: 08/18/2017  
Next Scheduled EDR Contact: 12/04/2017  
Data Release Frequency: No Update Planned

### MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/10/2022  
Date Data Arrived at EDR: 06/14/2022  
Date Made Active in Reports: 08/22/2022  
Number of Days to Update: 69

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169  
Last EDR Contact: 10/11/2022  
Next Scheduled EDR Contact: 01/30/2023  
Data Release Frequency: Quarterly

### COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020  
Date Data Arrived at EDR: 11/30/2021  
Date Made Active in Reports: 02/22/2022  
Number of Days to Update: 84

Source: Department of Energy  
Telephone: 202-586-8719  
Last EDR Contact: 08/25/2022  
Next Scheduled EDR Contact: 12/12/2022  
Data Release Frequency: Varies

### COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017  
Date Data Arrived at EDR: 03/05/2019  
Date Made Active in Reports: 11/11/2019  
Number of Days to Update: 251

Source: Environmental Protection Agency  
Telephone: N/A  
Last EDR Contact: 08/25/2022  
Next Scheduled EDR Contact: 12/12/2022  
Data Release Frequency: Varies

### PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019  
Date Data Arrived at EDR: 11/06/2019  
Date Made Active in Reports: 02/10/2020  
Number of Days to Update: 96

Source: Environmental Protection Agency  
Telephone: 202-566-0517  
Last EDR Contact: 08/04/2022  
Next Scheduled EDR Contact: 11/14/2022  
Data Release Frequency: Varies

### RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/2019  
Date Data Arrived at EDR: 07/01/2019  
Date Made Active in Reports: 09/23/2019  
Number of Days to Update: 84

Source: Environmental Protection Agency  
Telephone: 202-343-9775  
Last EDR Contact: 09/21/2022  
Next Scheduled EDR Contact: 01/10/2023  
Data Release Frequency: Quarterly

### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2007  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020  
Date Data Arrived at EDR: 01/28/2020  
Date Made Active in Reports: 04/17/2020  
Number of Days to Update: 80

Source: Department of Transportation, Office of Pipeline Safety  
Telephone: 202-366-4595  
Last EDR Contact: 10/24/2022  
Next Scheduled EDR Contact: 02/06/2023  
Data Release Frequency: Quarterly

### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2022  
Date Data Arrived at EDR: 07/21/2022  
Date Made Active in Reports: 09/30/2022  
Number of Days to Update: 71

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 09/27/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019  
Date Data Arrived at EDR: 03/02/2022  
Date Made Active in Reports: 03/25/2022  
Number of Days to Update: 23

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 09/19/2022  
Next Scheduled EDR Contact: 01/02/2023  
Data Release Frequency: Biennially

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 07/14/2015  
Date Made Active in Reports: 01/10/2017  
Number of Days to Update: 546

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 10/06/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Semi-Annually

### FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021  
Date Data Arrived at EDR: 07/27/2021  
Date Made Active in Reports: 10/22/2021  
Number of Days to Update: 87

Source: Department of Energy  
Telephone: 202-586-3559  
Last EDR Contact: 07/26/2022  
Next Scheduled EDR Contact: 11/14/2022  
Data Release Frequency: Varies

### UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019  
Date Data Arrived at EDR: 11/15/2019  
Date Made Active in Reports: 01/28/2020  
Number of Days to Update: 74

Source: Department of Energy  
Telephone: 505-845-0011  
Last EDR Contact: 08/24/2022  
Next Scheduled EDR Contact: 11/28/2022  
Data Release Frequency: Varies

### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/26/2022  
Date Data Arrived at EDR: 08/02/2022  
Date Made Active in Reports: 08/22/2022  
Number of Days to Update: 20

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 10/05/2022  
Next Scheduled EDR Contact: 01/09/2023  
Data Release Frequency: Varies

### LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36

Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

### US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

### MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 08/01/2022  
Date Data Arrived at EDR: 08/02/2022  
Date Made Active in Reports: 09/30/2022  
Number of Days to Update: 59

Source: DOL, Mine Safety & Health Admini  
Telephone: 202-693-9424  
Last EDR Contact: 10/04/2022  
Next Scheduled EDR Contact: 12/12/2022  
Data Release Frequency: Quarterly

### US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/03/2022  
Date Data Arrived at EDR: 08/17/2022  
Date Made Active in Reports: 08/31/2022  
Number of Days to Update: 14

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 08/17/2022  
Next Scheduled EDR Contact: 12/05/2022  
Data Release Frequency: Semi-Annually

### US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020  
Date Data Arrived at EDR: 05/27/2020  
Date Made Active in Reports: 08/13/2020  
Number of Days to Update: 78

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 08/17/2022  
Next Scheduled EDR Contact: 12/05/2022  
Data Release Frequency: Varies

### US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011  
Date Data Arrived at EDR: 06/08/2011  
Date Made Active in Reports: 09/13/2011  
Number of Days to Update: 97

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 08/17/2022  
Next Scheduled EDR Contact: 12/05/2022  
Data Release Frequency: Varies

### ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/14/2022  
Date Data Arrived at EDR: 06/15/2022  
Date Made Active in Reports: 08/22/2022  
Number of Days to Update: 68

Source: Department of Interior  
Telephone: 202-208-2609  
Last EDR Contact: 09/13/2022  
Next Scheduled EDR Contact: 12/19/2022  
Data Release Frequency: Quarterly

### FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/03/2022  
Date Data Arrived at EDR: 08/25/2022  
Date Made Active in Reports: 10/24/2022  
Number of Days to Update: 60

Source: EPA  
Telephone: (212) 637-3000  
Last EDR Contact: 08/25/2022  
Next Scheduled EDR Contact: 12/12/2022  
Data Release Frequency: Quarterly

### ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/25/2022  
Date Data Arrived at EDR: 07/01/2022  
Date Made Active in Reports: 09/30/2022  
Number of Days to Update: 91

Source: Environmental Protection Agency  
Telephone: 202-564-2280  
Last EDR Contact: 09/30/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Quarterly

### DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021  
Date Data Arrived at EDR: 05/21/2021  
Date Made Active in Reports: 08/11/2021  
Number of Days to Update: 82

Source: Environmental Protection Agency  
Telephone: 202-564-0527  
Last EDR Contact: 08/22/2022  
Next Scheduled EDR Contact: 12/05/2022  
Data Release Frequency: Varies

### UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020  
Date Data Arrived at EDR: 01/11/2022  
Date Made Active in Reports: 02/14/2022  
Number of Days to Update: 34

Source: Department of Defense  
Telephone: 703-704-1564  
Last EDR Contact: 10/05/2022  
Next Scheduled EDR Contact: 01/23/2023  
Data Release Frequency: Varies

### FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/11/2022  
Date Data Arrived at EDR: 08/11/2022  
Date Made Active in Reports: 09/30/2022  
Number of Days to Update: 50

Source: EPA  
Telephone: 800-385-6164  
Last EDR Contact: 08/11/2022  
Next Scheduled EDR Contact: 11/28/2022  
Data Release Frequency: Quarterly

### PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/05/2014  
Date Data Arrived at EDR: 01/06/2015  
Date Made Active in Reports: 05/06/2015  
Number of Days to Update: 120

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/28/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Semi-Annually

### MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 04/06/2018  
Date Data Arrived at EDR: 10/21/2019  
Date Made Active in Reports: 10/24/2019  
Number of Days to Update: 3

Source: USGS  
Telephone: 703-648-6533  
Last EDR Contact: 08/17/2022  
Next Scheduled EDR Contact: 12/05/2022  
Data Release Frequency: Varies

### PCS ENF: Enforcement data No description is available for this data

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 02/05/2015  
Date Made Active in Reports: 03/06/2015  
Number of Days to Update: 29

Source: EPA  
Telephone: 202-564-2497  
Last EDR Contact: 09/28/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Varies

### PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011  
Date Data Arrived at EDR: 08/05/2011  
Date Made Active in Reports: 09/29/2011  
Number of Days to Update: 55

Source: EPA, Office of Water  
Telephone: 202-564-2496  
Last EDR Contact: 09/28/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Semi-Annually

## **EDR HIGH RISK HISTORICAL RECORDS**

### ***EDR Exclusive Records***

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

#### EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

### EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

#### RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Environmental Quality Board in Puerto Rico.

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 01/04/2014  
Number of Days to Update: 187

Source: Environmental Quality Board  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

#### NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018  
Date Data Arrived at EDR: 04/10/2019  
Date Made Active in Reports: 05/16/2019  
Number of Days to Update: 36

Source: Department of Environmental Protection  
Telephone: N/A  
Last EDR Contact: 10/03/2022  
Next Scheduled EDR Contact: 01/16/2023  
Data Release Frequency: Annually

#### RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020  
Date Data Arrived at EDR: 11/30/2021  
Date Made Active in Reports: 02/18/2022  
Number of Days to Update: 80

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 08/10/2022  
Next Scheduled EDR Contact: 11/28/2022  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

### Electric Power Transmission Line Data

Source: Endeavor Business Media

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

### Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### STREET AND ADDRESS INFORMATION

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## **GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

INTERSECTION AND ROUNDABOUT AT PR-693 AND PR-698  
INTERSECTION MENDEZ VIGO ST & SEFERINO BARBOSA ST  
DORADO, PR 00646

### **TARGET PROPERTY COORDINATES**

Latitude (North):	18.461779 - 18° 27' 42.40"
Longitude (West):	66.269858 - 66° 16' 11.49"
Universal Transverse Mercator:	Zone 19
UTM X (Meters):	788350.4
UTM Y (Meters):	2043330.1
Elevation:	52 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map:	12367431 VEGA ALTA, PR
Version Date:	2018

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

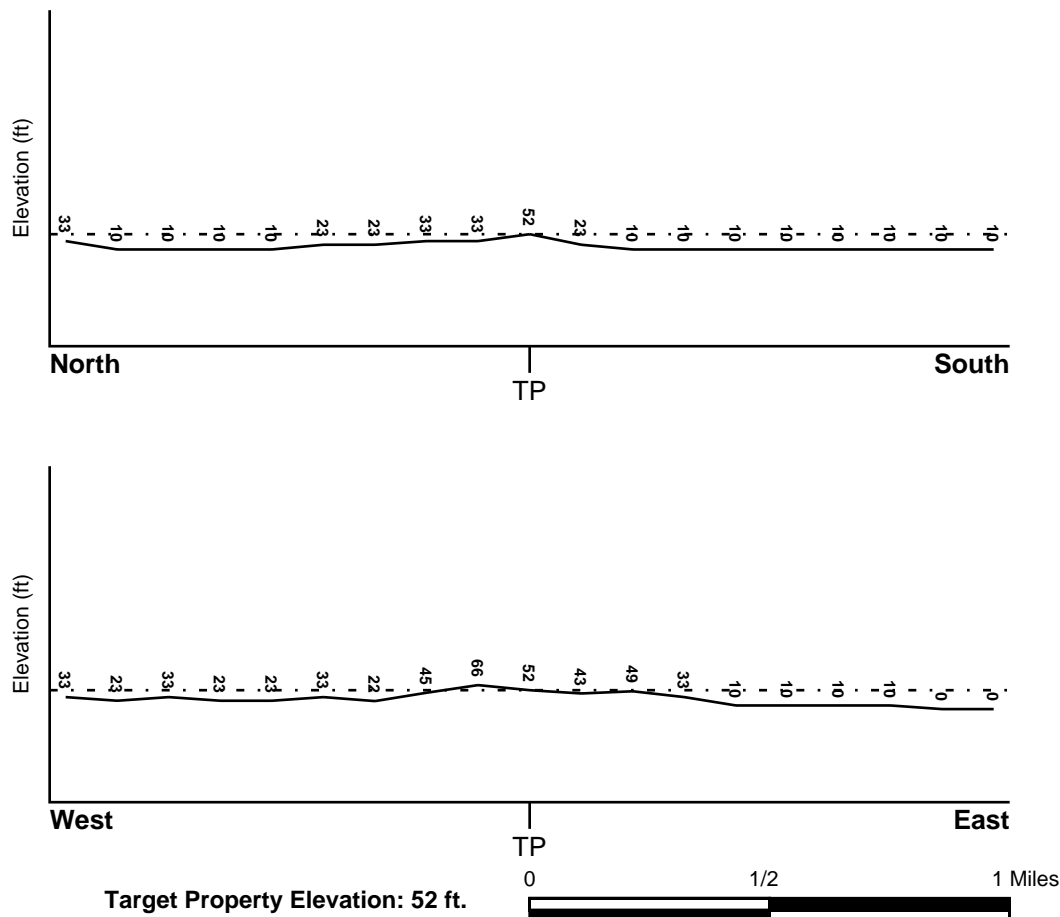
### TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.



## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

### **FEMA FLOOD ZONE**

Flood Plain Panel at Target Property

FEMA Source Type

7200000045D

FEMA Q3 Flood data

Additional Panels in search area:

FEMA Source Type

Not Reported

### **NATIONAL WETLAND INVENTORY**

NWI Quad at Target Property

NWI Electronic

NOT AVAILABLE

Data Coverage

YES - refer to the Overview Map and Detail Map

### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### **GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

Era: -  
System: -  
Series: -  
Code: N/A (decoded above as Era, System & Series)

#### **GEOLOGIC AGE IDENTIFICATION**

Category: -

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: clay  
sandy loam  
loam

Surficial Soil Types: clay  
sandy loam  
loam

Shallow Soil Types: loam

Deeper Soil Types: clay  
very gravelly - sand  
stratified  
sandy loam  
loam

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile

### FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	USGS40001046596	0 - 1/8 Mile North

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### FEDERAL USGS WELL INFORMATION

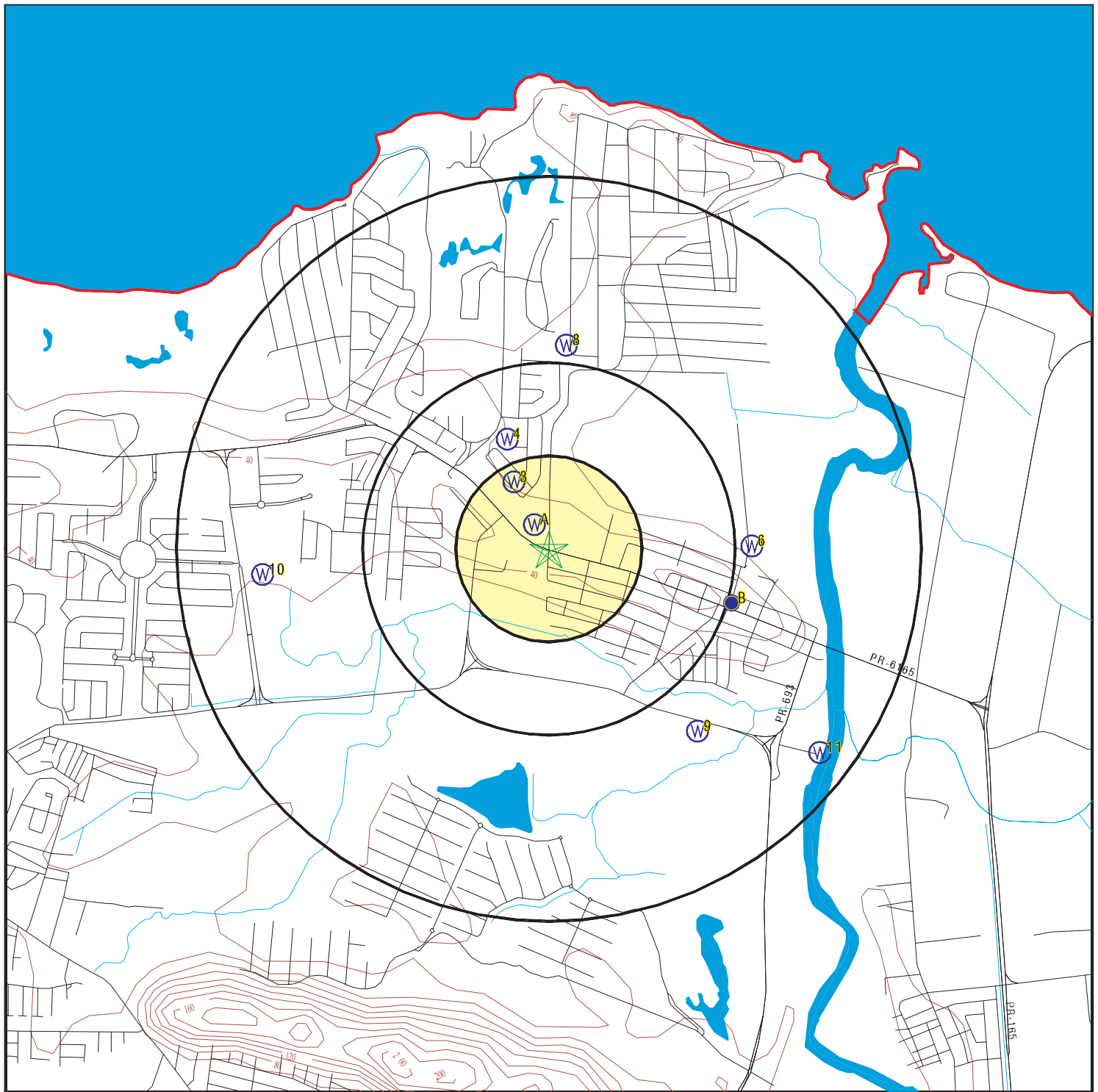
MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40001046602	0 - 1/8 Mile NW
3	USGS40001046622	1/8 - 1/4 Mile NNW
4	USGS40001046637	1/4 - 1/2 Mile NNW
6	USGS40001046586	1/2 - 1 Mile East
B7	USGS40001046560	1/2 - 1 Mile ESE
8	USGS40001046671	1/2 - 1 Mile North
9	USGS40001046480	1/2 - 1 Mile SE
10	USGS40001046576	1/2 - 1 Mile West
11	USGS40001046466	1/2 - 1 Mile SE

### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B5	PR0726017	1/4 - 1/2 Mile ESE

Note: PWS System location is not always the same as well location.

# PHYSICAL SETTING SOURCE MAP - 7160763.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

0 1/4 1/2 1 Miles

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



SITE NAME: Intersection and Roundabout At PR-693 and PR-698  
 ADDRESS: Intersection Mendez Vigo St & Seferino Barbosa St  
 Dorado PR 00646  
 LAT/LONG: 18.461779 / 66.269858

CLIENT: CMA Architects & Engineers LLP  
 CONTACT: Pedro Janer  
 INQUIRY #: 7160763.2s  
 DATE: October 27, 2022 7:40 am

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database EDR ID Number

**A1**  
**North**  
**0 - 1/8 Mile**  
**Higher**

**FED USGS USGS40001046596**

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	RIV 1 WELL, DORADO, PR	Type:	Well
Description:	Not Reported	HUC:	21010002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**A2**  
**NW**  
**0 - 1/8 Mile**  
**Higher**

**FED USGS USGS40001046602**

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	RIV 2 WELL, DORADO, PR	Type:	Well
Description:	Not Reported	HUC:	21010002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**3**  
**NNW**  
**1/8 - 1/4 Mile**  
**Lower**

**FED USGS USGS40001046622**

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	RIV 3 WELL, DORADO, PR	Type:	Well
Description:	Not Reported	HUC:	21010002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**4**  
**NNW**  
**1/4 - 1/2 Mile**  
**Lower**

**FED USGS      USGS40001046637**

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	RIV 4 SPRING, DORADO, PR	Type:	Well
Description:	Not Reported	HUC:	21010002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**B5**  
**ESE**  
**1/4 - 1/2 Mile**  
**Higher**

**FRDS PWS      PR0726017**

Epa region:	02	State:	PR
Pwsid:	PR0726017	Pwsname:	MC NEIL PHARMACENTICAL CO.
Cityserved:	Not Reported	Stateserved:	PR
Ziperved:	Not Reported	Fipscounty:	72051
Status:	Closed	Retpopsrvd:	271
Pwssvconn:	68	Psource longname:	Groundwater
Pwstype:	NTNCWS	Owner:	Private
Contact:	MC NEIL PHARMACENTICAL CO.		
Contactorgname:	Not Reported	Contactphone:	809-796-1540
Contactaddress1:	CARR. 698	Contactaddress2:	KM. 0.8
Contactcity:	DORADO	Contactstate:	PR
Contactzip:	00646	Pwsactivitycode:	I
Pwsid:	PR0726017	Facid:	1T
Facname:	MC. NEIL PHARMACENTICAL	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
PWS ID:	PR0726017	PWS type:	System Owner/Responsible Party
PWS name:	ELIZABETH KANFMAN/JOS	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	PR0726017
Activity status:	Active	Date system activated:	9110
Date system deactivated:	Not Reported	Retail population:	00000271
System name:	MC NEIL PHARMACENTICAL CO.		
System address:	CARR. 698	System address:	KM. 0.8
System city:	DORADO	System state:	PR
System zip:	00646		
County FIPS:	Not Reported	City served:	DORADO
Population served:	101 - 500 Persons	Treatment:	Treated
Latitude:	182742	Longitude:	0661548

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database EDR ID Number

**6**  
**East**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS USGS40001046586**

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	CEIBA 2 WELL, DORADO, PR	Type:	Well
Description:	Not Reported	HUC:	21010002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1961-05-04
Feet below surface:	11.3	Feet to sea level:	Not Reported
Note:	Not Reported		

**B7**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS40001046560**

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	DORADO OLD WELL, DORADO, PR		
Type:	Well	Description:	Not Reported
HUC:	21010002	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**8**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS USGS40001046671**

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	DORADO G-SE WELL, DORADO, PR		
Type:	Well	Description:	DF
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database EDR ID Number

**9**  
**SE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS USGS40001046480**

Organization ID:	USGS-PR	Type:	Well
Organization Name:	USGS Puerto Rico Water Science Center	HUC:	21010002
Monitor Location:	JGRA WELL, DORADO, PR	Drainage Area Units:	Not Reported
Description:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Drainage Area:	Not Reported	Formation Type:	Not Reported
Contrib Drainage Area:	Not Reported	Construction Date:	Not Reported
Aquifer:	Not Reported	Well Depth Units:	Not Reported
Aquifer Type:	Not Reported	Well Hole Depth Units:	Not Reported
Well Depth:	Not Reported		
Well Hole Depth:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1985-01-25
Feet below surface:	3.61	Feet to sea level:	Not Reported
Note:	Not Reported		

**10**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS USGS40001046576**

Organization ID:	USGS-PR	Type:	Well
Organization Name:	USGS Puerto Rico Water Science Center	HUC:	21010002
Monitor Location:	DBEA 1 WELL, DORADO, PR	Drainage Area Units:	Not Reported
Description:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Drainage Area:	Not Reported	Formation Type:	Not Reported
Contrib Drainage Area:	Not Reported	Construction Date:	Not Reported
Aquifer:	Not Reported	Well Depth Units:	Not Reported
Aquifer Type:	Not Reported	Well Hole Depth Units:	Not Reported
Well Depth:	Not Reported		
Well Hole Depth:	Not Reported		

**11**  
**SE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS USGS40001046466**

Organization ID:	USGS-PR	Type:	Well
Organization Name:	USGS Puerto Rico Water Science Center	HUC:	21010002
Monitor Location:	SCORBE WELL, DORADO, PR	Drainage Area Units:	Not Reported
Description:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Drainage Area:	Not Reported	Formation Type:	Not Reported
Contrib Drainage Area:	Not Reported	Construction Date:	195911
Aquifer:	Not Reported	Well Depth Units:	ft
Aquifer Type:	Not Reported	Well Hole Depth Units:	ft
Well Depth:	60		
Well Hole Depth:	60		

Ground water levels,Number of Measurements:	1	Level reading date:	1961-05-03
Feet below surface:	12.42	Feet to sea level:	Not Reported
Note:	Not Reported		

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS**  
**RADON**

**AREA RADON INFORMATION**

Not Reported

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## **TOPOGRAPHIC INFORMATION**

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

## **HYDROLOGIC INFORMATION**

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

## **HYDROGEOLOGIC INFORMATION**

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## **GEOLOGIC INFORMATION**

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## OTHER STATE DATABASE INFORMATION

### RADON

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

## STREET AND ADDRESS INFORMATION

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## Appendix D –Agency Letters





GOBIERNO DE PUERTO RICO  
DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES

28 de octubre de 2022

VÍA CORREO ELECTRÓNICO: [pjaner@cmapr.com](mailto:pjaner@cmapr.com)

Ing. Pedro A. Janer-Vila, PE  
CMA Arquitectos e Ingenieros  
1509 Ave. F.D. Roosevelt, Guaynabo, PR 00968-2612  
PO BOX 11490 San Juan, PR 00922-1490

Estimado ingeniero Janer:

El 27 de octubre de 2022, se recibió una carta Fase 1, en la cual usted solicita información sobre los incidentes ambientales que hubiesen ocurrido en o cerca del lugar que se menciona a continuación:

Facilidad: *Improvements to Intersection and Roundabout at PR-693 and PR-698 in*  
Dorado, PR

En respuesta a su solicitud, el Área de Respuesta a Emergencias Ambientales y Superfondo ha revisado los expedientes encontrados en nuestro archivo físico y en nuestro sistema mecanizado de datos. De la revisión realizada, le informamos que ocurrió la siguiente emergencia ambiental: el 12 de marzo de 2016 hubo un derrame de aceite usado en la Carr. PR-694 en el Barrio Higuillar en Dorado, PR. Además, para su información existe un Lugar Superfondo llamado *Dorado Groundwater Contamination* que cubre toda el área de los pozos de Maguayo y el sistema de pozos de Dorado Urbano.

Esperamos que esta información le sea de utilidad. De tener alguna duda o pregunta se puede comunicar con Amarilis Rodríguez Méndez, Oficial de Inspección y Cumplimiento Ambiental, Área de Respuesta a Emergencias Ambientales y Superfondo, al (787) 999-2200 extensión 5901 o por vía de correo electrónico a: [amarilisrodriguez@drna.pr.gov](mailto:amarilisrodriguez@drna.pr.gov).

Cordialmente,

Edwin O. Malavet Santiago, Gerente  
Área de Respuesta a Emergencias Ambientales  
y Superfondo

ARM

27 de octubre de 2022

Lic. Anaís Rodríguez Vega, Secretaria  
Departamento de Recursos Naturales y Ambientales  
Apartado 11488  
San Juan, PR 00910-1488

Att: Sr. Edwin O. Malavet Santiago, Gerente  
Área de Respuesta de Emergencias

**Auditoría Ambiental Fase I  
Improvements to Intersection and Roundabout at  
PR-693 and PR-698 Dorado, Puerto Rico  
CMA Núm. 22173**

Estimado señora Nazario Borges:

CMA Architects & Engineers, LLC está realizando una Auditoría Ambiental Fase I para el proyecto de referencia. El proyecto es parte del programa de recuperación por desastres (CDBG-DR) por sus siglas en inglés, el número del caso es el CRP-000557. Adjunto una sección del cuadrángulo topográfico mostrando la localización del proyecto.

Como parte de la auditoría es necesario obtener información del Área de Emergencias Ambientales sobre incidentes ambientales reportados o conocidos en el área del proyecto. Estos incidentes incluyen, pero no se limitan a derrames o escapes de combustibles, aceite o sustancias peligrosas.

De necesitar información adicional favor de comunicarse con el que suscribe al (787) 792-1509 X-2802 o por correo electrónico a [pjaner@cmapr.com](mailto:pjaner@cmapr.com).

Cordialmente,



Pedro A. Janer, PE Socio  
Departamento de Ciencias e Ingeniería Ambiental



*Figure 1. Aerial view of project area*

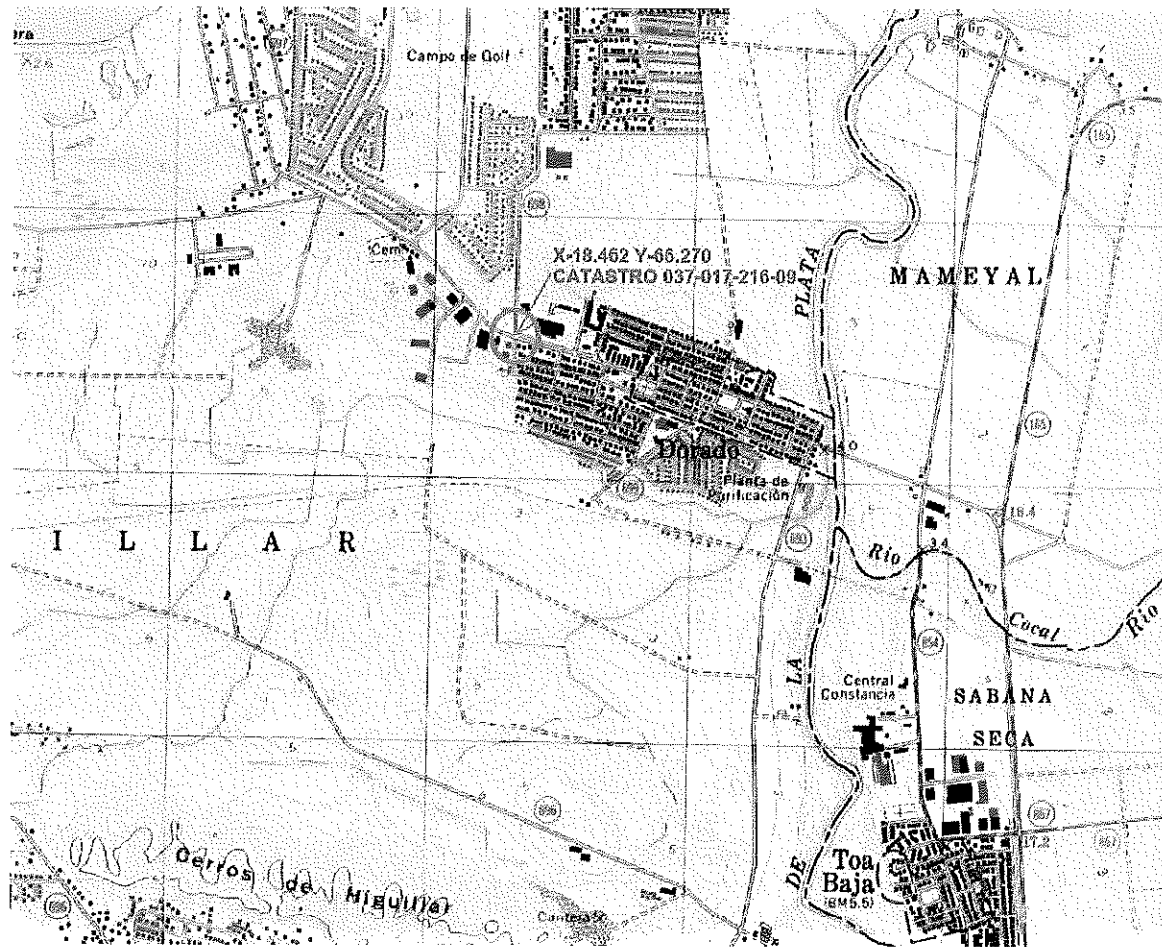


Figure – 2 Mapa Topográfico



ARCHITECTS &  
ENGINEERS LLC

Since 1959

## SOLICITUD DE INFORMACIÓN

27 de octubre de 2022

Vía Correo Electrónico: [nvelazquez@dna.pr.gov](mailto:nvelazquez@dna.pr.gov)

Lic. Anaís Rodríguez Vega, Secretaria  
Departamento de Recursos Naturales y Ambientales  
Apartado 11488  
San Juan, PR 00910-1488

Att: Nelson Velázquez  
División de Permisos y Franquicias de Agua

**Auditoría Ambiental Fase I  
Improvements to Intersection and Roundabout at  
PR-693 and PR-698 Dorado, Puerto Rico  
CMA Núm. 22173**

Estimado Sr. Velázquez:

La firma CMA Architects & Engineers LLC ha sido contratada para preparar una Auditoría Ambiental Fase I para el proyecto en referencia. Como parte de la información necesaria para completar la auditoría ambiental, se requiere incluir un listado de los pozos de agua existentes en el área. Por tal razón, solicitamos el listado de pozos para el municipio de Dorado en el sector del casco urbano. Adjunto foto aérea para la localización del proyecto.

El proyecto es parte del programa de recuperación por desastres (CDBG-DR) por sus siglas en inglés, el número del caso es el CRP-000557. Agradeceremos su atención en este asunto. De necesitar información adicional al respecto, favor de comunicarse con nosotros a su mejor conveniencia.

Cordialmente,



Pedro A. Janer, PE-Socia  
Departamento de Ciencias e Ingeniería Ambiental





Figure 1. Aerial view of project area



ARCHITECTS &  
ENGINEERS LLC

Since 1959

## Solicitud de Información

31 de octubre de 2022

Vía correo electrónico: [prensabomberos@bomberos.pr.gov](mailto:prensabomberos@bomberos.pr.gov)

Sr. Marcos Concepción Tirado  
Comisionado  
Cuerpo de Bomberos Puerto Rico  
Apartado 13325  
San Juan, Puerto Rico 00908-3325

**Auditoría Ambiental Fase I**  
**Improvements to Intersection and Roundabout at**  
**PR-693 and PR-698 Dorado, Puerto Rico**  
**CMA Núm. 22173**

Estimado señor Collazo:

CMA Architects & Engineers, LLC está realizando una Auditoría Ambiental Fase I para la propiedad en referencia. Adjunto una sección del cuadrángulo topográfico y una foto aérea mostrando la localización del proyecto.

Como parte de la auditoría es necesario obtener información del Cuerpo de Bomberos sobre incidentes que hayan reportados o conocidos en el área del proyecto. Estos incidentes incluyen, pero no se limitan a incendios, derrames o escapes de combustibles, aceite o sustancias peligrosas.

De necesitar información adicional favor de comunicarse con el que suscribe al (787) 792-1509 X-2802 o por correo electrónico a [pjaner@cmapr.com](mailto:pjaner@cmapr.com).

Cordialmente,

Pedro Janer, F.E.  
Miembro  
Departamento de Ciencias e Ingeniería Ambiental

Rec. 2/NOV/22.  
1:07 pm





Figure 1. Aerial view of project area



## Solicitud de Información

31 de octubre de 2022

Vía correo electrónico: [contactus@salud.pr.gov](mailto:contactus@salud.pr.gov)

Dr. Carlos Mellado  
Secretario  
Departamento de Salud  
Centro Médico Norte  
Calle Periferal Interior,  
Bo. Monacillos  
Río Piedras, Puerto Rico

**Auditoría Ambiental Fase I  
Improvements to Intersection and Roundabout at  
PR-693 and PR-698 Dorado, Puerto Rico  
CMA Núm. 22173**

Estimado doctor Mellado:

CMA Architects & Engineers, LLC está realizando una Auditoría Ambiental Fase I para la propiedad en referencia. Adjunto una sección del cuadrángulo topográfico y foto aérea mostrando la localización del proyecto.

Como parte de la auditoría es necesario obtener información del Departamento de Salud sobre incidentes que hayan reportados o conocidos en el área del proyecto. Estos incidentes incluyen, pero no se limitan a accidentes reportados sobre derrames o escapes de combustibles, aceite o sustancias peligrosas.

De necesitar información adicional favor de comunicarse con el que suscribe al (787) 792-1509 X-2802 o por correo electrónico a [pjaner@cmapr.com](mailto:pjaner@cmapr.com).

Cordialmente,



Pedro Janer, P.E.  
Miembro  
Departamento de Ciencias e Ingeniería Ambiental



Vertical stamp: RECEIVED OCT 31 2022  
Signature: Pedro Janer





Figure 1. Aerial view of project area

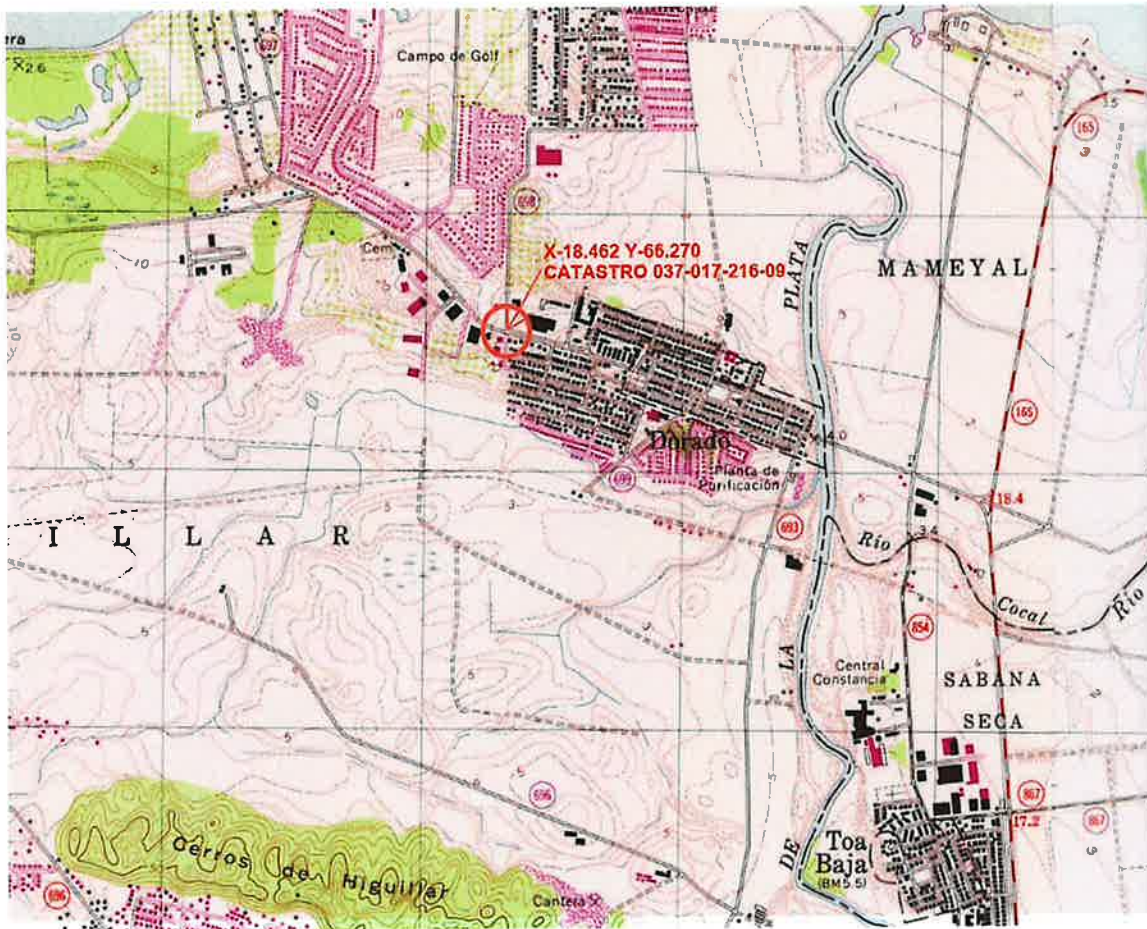


Figure – 2 Mapa Topográfico

## Appendix E – DNER Well List EDR

# SIPE	NUM RADICACION	MUNICIPIO	BARRIO	SECTOR	CARR Y KM	FUENTE	NUM-POZOS	NUM-TOMAS	GPD	MGA	TIPO-USO
RR-30-10-01-FA-70385		DORADO	BO. HIGUILLAR	SECTOR MARISMILLA	CARR#691 KM.1.9	POZO	1	0	2586	943890	AGRICOLA
		DORADO				POZO	1				AGRICOLA
RO-10-04-01-FA-70160		DORADO	BO. RIO LAJAS	SEC. EL ABANICO	CARR#165 KM. 11.7	POZO	1	0	4393	1603445	AGRICOLA
		DORADO	BO. HIGUILLAR	SEC. LA POZA	CARR#695 KM. 2.7	POZO	1		19000	6916000	AGRICOLA
		DORADO	BO. HIGUILLAR		CARR#694 KM.5.3 CARR# 695 KM.2.5	POZO	3	0	84000	4368000	AGRICOLA
		DORADO	BO. MAMEYAL		CARR#165 KM.19.8	POZO	1				AGRICOLA
	RR-13-12-95-RA-0089	DORADO				POZO	1				AGRICOLA
RO-03-08-98-PFA-70456	RO-03-08-98-PFA-70456	DORADO	BO. MAMEYAL	FINCA LA JULIA	CARR#165	POZO	1				AGRICOLA
RR-13-3-97RA52	RR-13-3-97RA52	DORADO				POZO	1				AGRICOLA
		DORADO	BO. HIGUILLAR			POZO	1				AGRICOLA
	RO-30-9-96RA327	DORADO				POZO	1				AGRICOLA
O-FA-PPAG1-SJ-00171-04112016	E-FA-FAAG1-SJ-00020-04112016	DORADO	BO. HIGUILLAR	SECTOR MARISMILLA	PR-691 KM 1.9	POZO	0	1	0	0	AGRICOLA
O-FA-PPAG1-SJ-00197-19082019	O-FA-FAAG1-SJ-00514-19082019	DORADO	BO. HIGUILLAR	SECTOR LOS PUERTOS	PR-696 KM 2.1	POZO	1		0	0	AGRICOLA
		DORADO				POZO	1				AGRICOLA
O-FA-PPAG1-PO-00027-19012021	O-FA-FAAG1-PO-00143-19012021	DORADO	BO MAGUAYO		PR 2 KM 25.6	POZO	1	0	6000	0	AGRICOLA
O-FA-PPAG1-SJ-00195-23072019	O-FA-FAAG1-SJ-00512-23072019	DORADO	BO. LOS PUERTOS		PR-695 KM .6	POZO	1	0	7200	0	AGRICOLA
RO-10-06-04-PFA-70085		DORADO	BO. HIGUILLAR		CARR#693 KM. 1.5	POZO	1	0	0	0	AGRICOLA
		DORADO	BO. HIGUILLAR		CARR#695 KM.4.3	POZO	1				AGRICOLA
O-FA-FAAG1-SJ-00497-29102018		DORADO	BO. RIO LAJAS		PR-165 KM 11.7	POZO	1	0	2000	730000	AGRICOLA
R-FA-FAAG1-SJ-00246-17062013		DORADO	BO. HIGUILLAR		PR-695 KM 2.9	POZO	0	1	3300	858000	AGRICOLA
R-FA-FAAG1-SJ-00240-30052013		DORADO	BO. HIGUILLAR	FINCA SANTA CRUZ	PR-691 KM 1	POZO	0	1	3000	1092000	AGRICOLA
R-FA-FAAG1-SJ-00173-22052012		DORADO	BO. HIGUILLAR		PR-694 KM 5.3	POZO	3	0	60000	21900000	AGRICOLA
O-FA-FAAG1-SJ-00178-16112007		DORADO	BO. HIGUILLAR		CARR. PR-691 KM. 1	POZO	1	0	3684	1344660	AGRICOLA
R-FA-FAAG1-SJ-00216-22022013	RR-30-10-01-FA-70385	DORADO	BO. HIGUILLAR	SECTOR MARIONILLA FINCA TROPIGARDENS	CARR. 691 KM 1.9		0	0	12000	4380000	AGRICOLA
R-FA-FAAG1-SJ-00322-01122015		DORADO	BO. HIGUILLAR		PR-695 KM 0.9	POZO	0	1	13700	5000500	AGRICOLA
O-FA-FAAG1-AR-00139-14052014		DORADO	BO. PUGNADO AFUERA	SECTOR PALMAREJO	PR-649 KM 5.7	POZO	0	1	1368	499320	AGRICOLA
RO-30-01-01-PFA-70018	RO-30-01-01-PFA-70018	DORADO	BO. MAMEYAL	FINCA LA JULIA	CARR#165 INT.	POZO	3	0	320000	116800000	AGRICOLA
R-FA-FAAG1-SJ-00442-23042019		DORADO	BO. HIGUILLAR		PR-695 KM 2.9	POZO	1	0	6693	2442945	AGRICOLA
O-FA-FAAG1-SJ-00388-18022014		DORADO	BO. HIGUILLAR		CARR 695 KM 0.9	POZO	0	1	0	0	AGRICOLA



O-FA-FAAG1-SJ-00383-10122013		DORADO	BO. HIGUILLAR	SECTOR LOS PUERTOS	CARR. 695 KM 4.3	POZO	0	1	43681	15943565	AGRICOLA
RO-22-10-01-FA-70375	RO-22-10-01-FA-70375	DORADO	BO. MAMEYAL	SEC. MONSERRATE	CARR#165 KM. 22.1	POZO	1	0	0	0	AGRICOLA
	RO-11-03-03-FA-70055	DORADO	BO. HIGUILLAR		CARR#695 KM. 1.0	POZO	1	0	0	0	AGRICOLA
	RO-01-11-02-FA-70218	DORADO	BO. HIGUILLAR	SEC. HIGUILLAR	CARR#694 KM.5.2	POZO	1	0	19600	7154000	AGRICOLA
O-FA-FAAG1-SJ-00102-08082006		DORADO	BO. HIGUILLAR	SECTOR DORA VILLE	CARR. PR-694 PR-695 KM. 5.3 KM. 2.5	POZO	3	0	60000	21900000	AGRICOLA
R-FA-FAAG1-SJ-00492-08022021		DORADO	HIGUILLAR	DORAVILLE FINCA MAGUAYO	PR 694 KM 2.5	POZO	2	0	0	0	AGRICOLA
R-FA-FAAG1-SJ-00431-23102018		DORADO	BO. HIGUILLAR	FINCA SANTA CRUZ	PR-691 KM 1	POZO	1	0	5500	2007500	AGRICOLA
R-FA-FAAG1-SJ-00400-23012018		DORADO	BO. HIHUIILLAR	SECTOR DORA VILLE FINCA MAGUAYO	PR-685	POZO	1	0	60000	21900000	AGRICOLA
O-FA-PBP04-SJ-00062-09082017	O-FA-FAAG1-SJ-00482-23082017	DORADO	BO. MAMEYAL	FINCA LA JULIA	PR-163 KM 1.5	POZO	1	0	0	0	AGRICOLA
O-FA-FAAG1-SJ-00244-02032009		DORADO	BO. MAGUAYO		CARR#694 KM. 5.2	POZO	3	0	6480	2365200	AGRICOLA
O-FA-FAAG1-SJ-00197-23042008		DORADO	BO. RIO LAJAS	SECTOR EL ABANICO	CARR#165 KM. 11.7	POZO	1	0	4393	1603445	AGRICOLA
O-FA-PPAG1-SJ-00055-04052007	O-FA-FAAG1-SJ-00148-04052007	DORADO	BO. HIGUILLAR	SEC. LA PLAZA	CARR#695 KM. 2.9	POZO	1	0	19200	7270000	AGRICOLA
O-FA-FAAG1-SJ-00153-31052007	RR-30-10-01-FA-70385	DORADO	BO. HIGUILLAR	SEC. MARISMILLA	CARR#691 KM. 1.9	POZO	1	0	3000	1095000	AGRICOLA
R-FA-FAAG1-SJ-00424-17072018		DORADO	BO. HIGUILLAR	SECTOR MORISMILLA	PR-691 KM 2.1	POZO	1	0	12000	4380000	AGRICOLA
	RO-26-01-00-FC-70023	DORADO	BO. MAGUAYO		CARR#694 KM.4.0	POZO	1	0	14246	4444752	COMERCIAL
	RR-23-08-99-FC-70303	DORADO	BO. MAGUAYO		CARR#694 KM. 4.0	POZO	1	0	0	0	COMERCIAL
	RO-12-05-99-FC-70153	DORADO	BO. MAGUAYO		CARR.PR-2 KM.25.5	RIO LA PLATA	0	1	0	0	COMERCIAL
	RO-20-08-97RA216	DORADO	BO. HIGUILLAR		CARR#693	POZO	1		72000	20160000	COMERCIAL
	RO-10-10-95RA15	DORADO	BO. MAGUAYO		CARR#694 KM.4	POZO	1		5760	1497600	COMERCIAL
R-FA-FACO3-SJ-00175-05072017		DORADO	BO. MAGUAYO		PR-694 KM 4.0	POZO	0	1	17000	6205000	COMERCIAL
R-FA-FACO3-SJ-00078-21062012		DORADO	BO. MAGUAYO		PR-694 KM 4.0	POZO	1	0	17000	6205000	COMERCIAL
R-FA-FACO3-SJ-00010-18052005		DORADO	BO. MAGUAYO		CARR#694 KM 4.0	POZO	1	0	17703	6461595	COMERCIAL
O-FA-FACO3-SJ-00267-28062017		DORADO			CALLE KENNEDY FINAL	TOMA PORTATIL	0	1	210	76650	COMERCIAL
	RO-22-06-99-FD-70228	DORADO	BO. HIGUILLAR		CARR3693 KM. 9.5	POZO	1	0	0	0	DOMESTICO
RR-17-10-00-FD-70292		DORADO	BO. MAGUAYO		CARR#659	POZO	1	0	480000	175200000	DOMESTICO
		DORADO		LA VIRGENCITA		TOMA RIO LA PLATA		1			DOMESTICO
		DORADO				POZO	1				DOMESTICO
RO-5-9-96RA316		DORADO				POZO	1				DOMESTICO
		DORADO				POZO	1				DOMESTICO
		DORADO				POZO	1				DOMESTICO

RD-5-10-95-RA-6		DORADO				POZO	1					DOMESTICO
		DORADO				POZO	1					DOMESTICO
RO17-11-95RA64		DORADO				POZO	1					DOMESTICO
		DORADO				POZO	1					DOMESTICO
	RO-16-10-98-PFD-70535	DORADO	BO. ESPINOSA		CARR.PR-2 KM.26.2	POZO	1					DOMESTICO
		DORADO				POZO	1					DOMESTICO
		DORADO				POZO	1					DOMESTICO
RR-15-02-01-FD-70042		DORADO	BO. SANTA ROSA		CARR#659	POZO	1	0	480000	175200000		DOMESTICO
R-FA-FADO4-SJ-00063-04122008		DORADO	BO. MAGUAYO		CARR#659 KM. 0.5 INT.	POZO	1	0	0	0		DOMESTICO
R-FA-FADO4-SJ-00064-04122008		DORADO	BO. MAGUAYO		CARR#659 KM. 0.5 INT.	POZO	1	0	0	0		DOMESTICO
O-FA-PPID6-SJ-00078-30052018	O-FA-FAID6-SJ-00224-30052018	DORADO	BO. MAMEYAL		PR-12 ROAD 698	POZO	1	0	0	0		INDUSTRIAL
O-FA-PRE11-SJ-00399-16072013		DORADO	BO. DORADO PUEBLO	SECTIR URB. MARTORELL	CALLE MENDEZ VIGO	POZO	0	8	0	0		INDUSTRIAL
T-FA-FAID6-SJ-00048-11082017		DORADO	BO. ESPINOSA	SECTOR GUARISCO	PR-2 KM 26.7	POZO	2	0	0	0		INDUSTRIAL
RF-179-89		DORADO	BO. ESPINOSA		PR-2 KM 26.7	POZO	1					INDUSTRIAL
RO-08-08-00-FI-70223		DORADO	BO. MAGUAYO		CARR#2 KM. 22.5	POZO	1	0	0	0		INDUSTRIAL
O-FA-FAID6-SJ-00246-21022020		DORADO	BO. ESPINOSA		PR-31 KM 26.7	POZO	2	0	0	0		INDUSTRIAL
O-FA-FAID6-SJ-00174-21052012		DORADO	BO. ESPINOSA		PR-2 KM 26.5	POZO	1		33700	12300500		INDUSTRIAL
O-FA-FAID6-SJ-00063-10042007		DORADO	BO. ESPINOSA	SEC. GUARISCO	CARR-2 KM. 26.7	POZO	1	0	0	0		INDUSTRIAL
	RO-02-12-98-PFI-70591	DORADO	BO. ESPINOSA		CARR.PR-2 KM.24.1	POZO	1		75360	23512320		INDUSTRIAL
O-FA-FAID6-SJ-00050-12032007		DORADO	BO. ESPINOSA		CARR. PR-2 KM. 20.6	POZO	1	0	147000	53655000		INDUSTRIAL
T-FA-FAID6-SJ-00053-03102018		DORADO	BO. ESPINOSA		PR-2 KM 26.7	POZO	1	0	0	0		INDUSTRIAL
O-FA-PRE11-SJ-00214-10022010		DORADO	BO. HIGUILLAR	VERTEDERO MUNICIPAL	PR-693	POZO	2	0	0	0		INVESTIGACION
O-FA-PRE11-SJ-00196-30062009		DORADO	CARR. 693			POZO	15	0	0	0		INVESTIGACION
O-FA-PRE11-SJ-00526-22072016		DORADO	BO. ESPINOSA		PR-2 KM 27.2	POZOS	0	10	0	0		INVESTIGACION
O-FA-PRE11-SJ-00527-22072016		DORADO	BO. ESPINOSA		PR-2 KM 27.3	POZOS	0	6	0	0		INVESTIGACION
O-FA-PRE11-SJ-00463-05022015		DORADO	BO. ESPINOSA		PR-2 KM 27.3	POZO	0	3	0	0		INVESTIGACION
O-FA-PRE11-SJ-00415-07102013		DORADO	BO. ESPINOSA		PR-2 KM 27.2	POZO	0	4	0	0		INVESTIGACION
O-FA-PRE11-SJ-00416-07102013		DORADO	BO. ESPINOSA		PR-2 KM 27.3	POZO	0	2	0	0		INVESTIGACION
O-FA-PBP04-SJ-00059-13072016		DORADO	BO. HIGUILLAR	URB. DORADO BEACH ESTATES FINCA LOTE 11	PR-693	POZO	0	1	0	0		INVESTIGACION
O-FA-PRE11-SJ-00643-11022021		DORADO	BO PUEBLO	URB MARTORELL	CALLE MENDEZ VIGO	POZO	5	0	0	0		INVESTIGACION

O-FA-PRE11-SJ-00629-29052020		DORADO	ESPINOSA	PR 2 KM 27.2		POZO	6	0	0	0	INVESTIGACION
O-FA-PRE11-SJ-00631-26062020		DORADO	BO ESPINOSA	PR 2 KM 27.3		POZO	1	0	0	0	INVESTIGACIÓN
	RO-03-07-98-PPR-70334	DORADO	BO. ESPINOSA		CARR#2 KM.27.2	POZO	1				MONITORIA
	RO-7-10-96RA333	DORADO				POZO	1				PRUEBA
	RO-23-06-03-PBP-70142	DORADO	BO. ESPINO			POZO	1	0	0	0	PRUEBA
		DORADO				POZO	1				PRUEBA
RO-30-11-99-PBP-70417		DORADO	BO. HIGUILLAR		CARR. 693	POZO	1	0	0	0	PRUEBA
O-FA-PRA05-SJ-00013-26112007		DORADO	BO. ESPINOSA		CARR. PR-693 KM. 12.9	POZO	9	0	0	0	RASTREO
R-FA-FARE9-SJ-00004-23112015		DORADO	BO. MAMEYAL	FINCA LA JULIA	PR-165 KM 17.4	POZO	0	1	10000	3650000	RECREATIVO
O-FA-FARE9-SJ-00013-20102010		DORADO	BO. MAMEYAL	SECTOR LA JULIA	PR 165 KM 17.4	POZO	1	0	10000	3650000	RECREATIVO
R-FA-FACO3-SJ-00013-30062005		DORADO	BO. HIGUILLAR		CARR.PR-693 KM 9.1	POZO	1	0	38000	13870000	RECREATIVO

## Appendix F – Aerial Photo Decade Package



## **Intersection and Roundabout At PR-693 and PR-698**

Intersection Mendez Vigo St & Seferino Barbosa St

Dorado, PR 00646

Inquiry Number: 7160763.5

October 28, 2022

# **The EDR Aerial Photo Decade Package**



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

## EDR Aerial Photo Decade Package

10/28/22

**Site Name:**

Intersection and Roundabout A  
Intersection Mendez Vigo St &  
Dorado, PR 00646  
EDR Inquiry # 7160763.5

**Client Name:**

CMA Architects & Engineers LLP  
1509 Roosevelt Ave Caparra Heights  
Guaynabo, PR 00968  
Contact: Pedro Janer



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**Search Results:**

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2003	1"=500'	Flight Date: December 18, 2003	USGS
1994	1"=500'	Acquisition Date: November 24, 1994	USGS/DOQQ
1991	1"=500'	Flight Date: January 20, 1991	USGS
1983	1"=500'	Flight Date: February 05, 1983	USGS
1977	1"=500'	Flight Date: March 22, 1977	USGS
1967	1"=500'	Flight Date: November 22, 1967	USGS
1962	1"=500'	Flight Date: February 15, 1962	USGS

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INQUIRY #: 7160763.5

YEAR: 2003

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 7160763.5

YEAR: 1994

— = 500'







INQUIRY #: 7160763.5

YEAR: 1991

— = 500'







INQUIRY #: 7160763.5

YEAR: 1983

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 7160763.5

YEAR: 1977

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 7160763.5

YEAR: 1967

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.



INQUIRY #: 7160763.5

YEAR: 1962

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.

## Appendix G - City Directory



Intersection and Roundabout At PR-693 and PR-698

Intersection Mendez Vigo St & Seferino Barbosa St

Dorado, PR 00646

Inquiry Number: 7160763.3

October 27, 2022

## Certified Sanborn® Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# Certified Sanborn® Map Report

10/27/22

**Site Name:**

Intersection and Roundabout A  
Intersection Mendez Vigo St &  
Dorado, PR 00646  
EDR Inquiry # 7160763.3

**Client Name:**

CMA Architects & Engineers LLP  
1509 Roosevelt Ave Caparra Heights  
Guaynabo, PR 00968  
Contact: Pedro Janer



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**Certification #** A96C-4F25-9B9D

**PO #** 22173

**Project** Roundabout PR693 and PR-698

### UNMAPED PROPERTY

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Sanborn® Library search results

Certification #: A96C-4F25-9B9D

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## Appendix H – Sanborn Maps

Intersection and Roundabout At PR-693 and PR-698

Intersection Mendez Vigo St & Seferino Barbosa St

Dorado, PR 00646

Inquiry Number: 7160763.3

October 27, 2022

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# Certified Sanborn® Map Report

10/27/22

**Site Name:**

Intersection and Roundabout A  
Intersection Mendez Vigo St &  
Dorado, PR 00646  
EDR Inquiry # 7160763.3

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**Certification #** A96C-4F25-9B9D

**PO #** 22173

**Project** Roundabout PR693 and PR-698

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## Appendix I – Observation Report With Photos



Municipality of Dorado

November 01, 2022/ 9:00AM

CLIENT/OWNER

OBSERVATION DATE & TIME

Improvements to Intersection and Roundabout at PR-693 and PR-698 Dorado

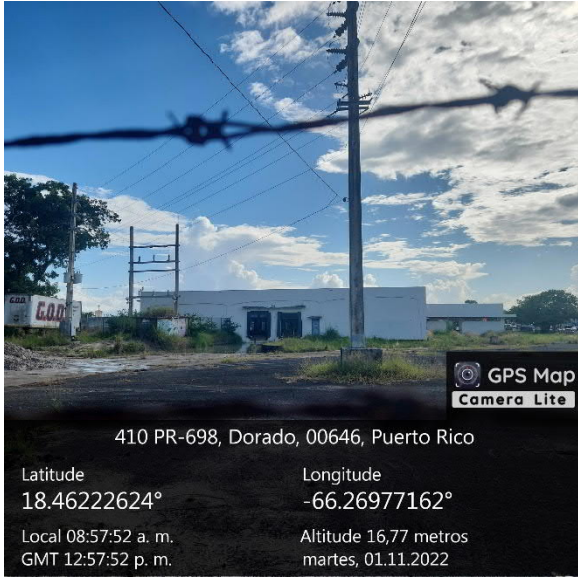
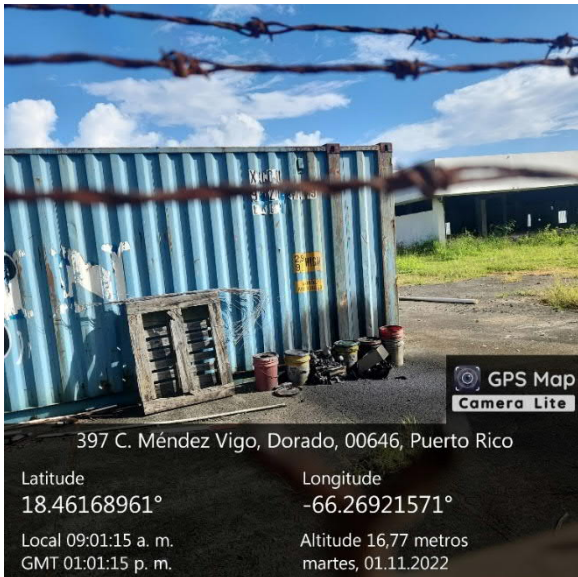
22173


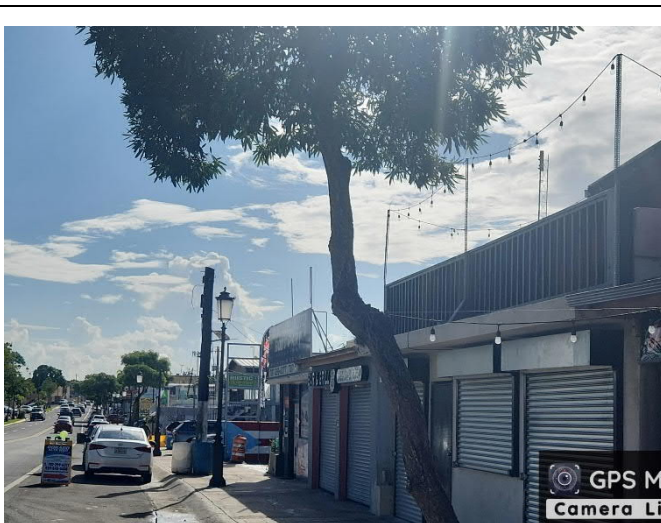
PROJECT NAME – LOCATION

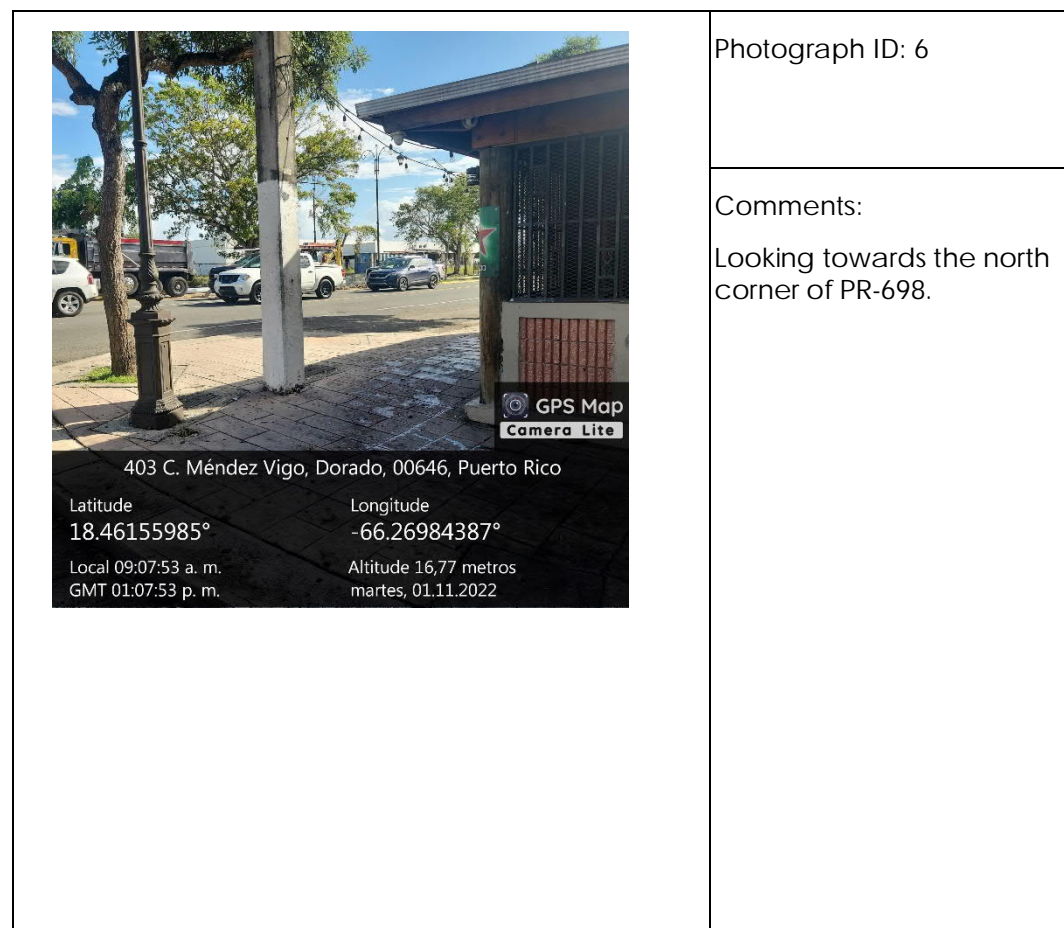
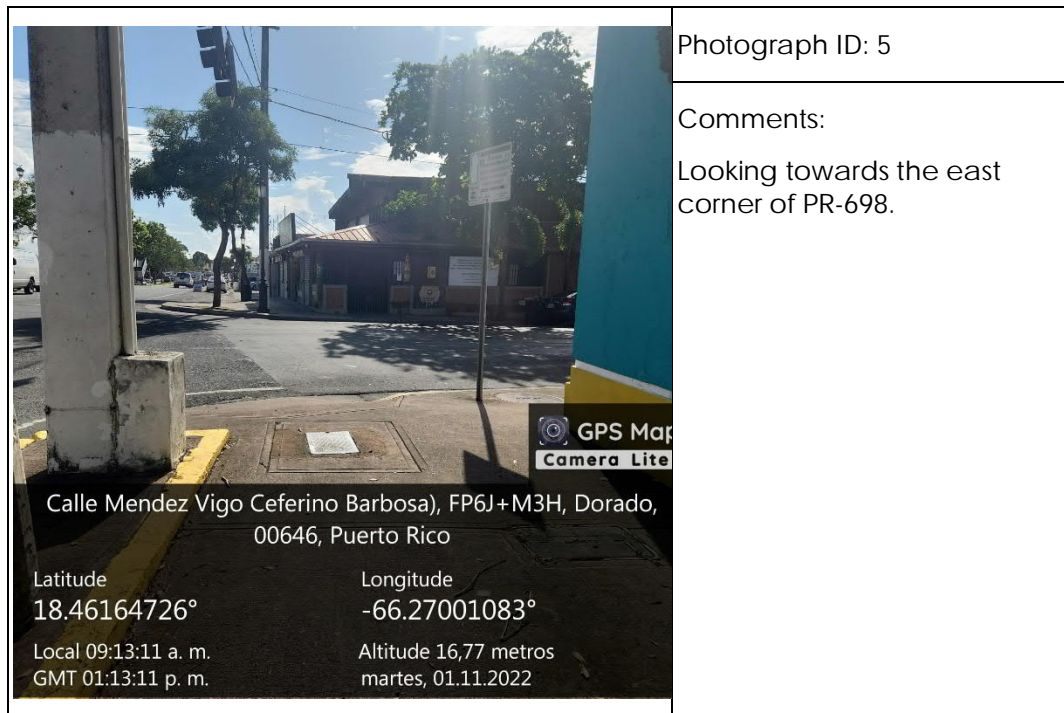
CMA JOB NO.

Marivette Pastoriza & Juan A. Fernández



PRESENT AT THE SITE



	<p>Photograph ID: 1</p> <p>Comments: Vacant Platex Building</p>
	<p>Photograph ID: 2</p> <p>Comments: Former Playtex Industrial Parking Oil Spill is Observed.</p>

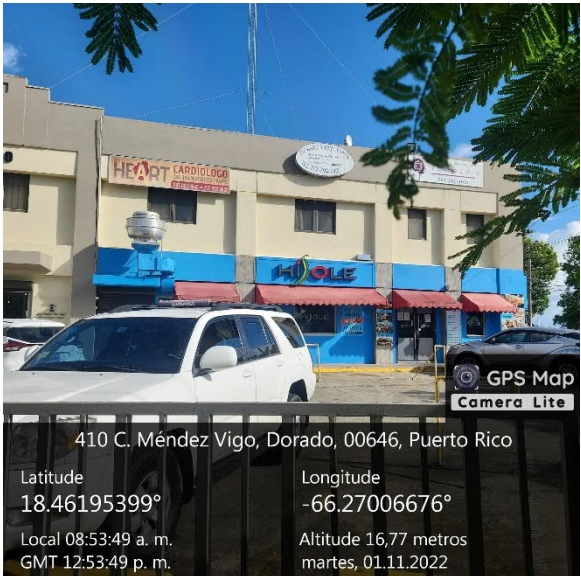
 <p>423 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46168358° Longitude -66.26915984°</p> <p>Local 09:02:44 a. m. Altitude 16,77 metros GMT 01:02:44 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 3</p> <p>Comments:</p> <p>Former Playtex Industrial Parking Oil Spill is Observed.</p>
 <p>403 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46162103° Longitude -66.26975911°</p> <p>Local 09:07:06 a. m. Altitude 16,77 metros GMT 01:07:06 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 4</p> <p>Comments:</p> <p>Looking East from the Commercial Area of PR-693.</p>







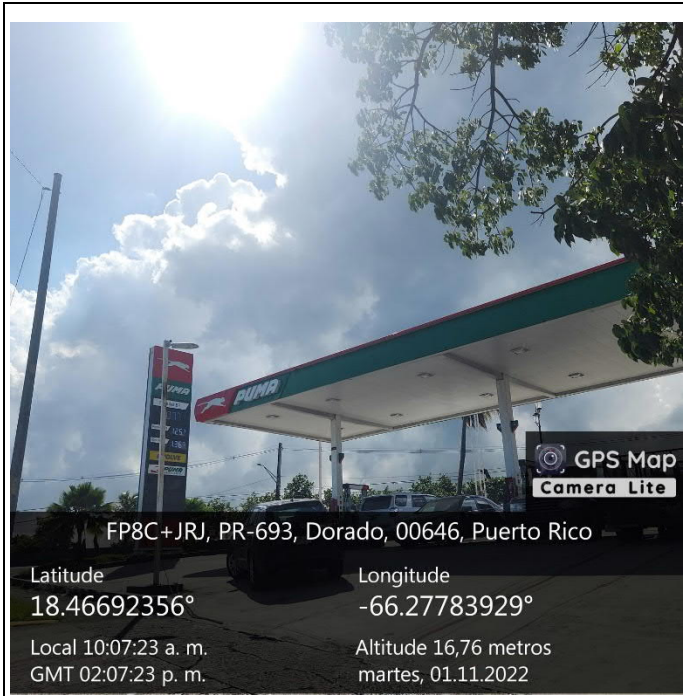
 <p>410 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46174853° Longitude -66.27018241°</p> <p>Local 09:13:43 a. m. Altitude 16,77 metros GMT 01:13:43 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 7</p> <p>Comments:</p> <p>Looking east in front of Mi Escuela Amiga.</p>
 <p>412 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46198104° Longitude -66.27032642°</p> <p>Local 09:33:23 a. m. Altitude 16,77 metros GMT 01:33:23 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 8</p> <p>Comments:</p> <p>Looking south in front of Mi Escuela Amiga.</p>

 <p>412 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46193382° Longitude -66.27046801°</p> <p>Local 09:32:39 a. m. Altitude 16,77 metros</p> <p>GMT 01:32:39 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 9</p> <p>Comments:</p> <p>View to the north from highway PR-693.</p>
 <p>410 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46193965° Longitude -66.27001383°</p> <p>Local 08:54:00 a. m. Altitude 16,77 metros</p> <p>GMT 12:54:00 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 10</p> <p>Comments:</p> <p>View to the north from highway PR-693. The medical office building, laboratory and Hijole restaurant can be observed.</p>

 <p>410 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46195399°</p> <p>Longitude -66.27006676°</p> <p>Local 08:53:49 a. m. GMT 12:53:49 p. m.</p> <p>Altitude 16,77 metros martes, 01.11.2022</p>	<p>Photograph ID: 11</p> <p>Comments:</p> <p>View to the north from highway PR-693 in front of the medical office building, laboratory and the Hijole restaurant.</p>
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 <p>410 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.4619915° Longitude -66.27011438°</p> <p>Local 08:52:40 a. m. Altitude 16,77 metros GMT 12:52:40 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 12</p> <p>Comments:</p> <p>View to the east is the area to be acquired from the Hijole restaurant parking lot.</p>
 <p>363 C. Méndez Vigo, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46106921° Longitude -66.26725723°</p> <p>Local 09:39:09 a. m. Altitude 16,77 metros GMT 01:39:09 p. m. martes, 01.11.2022</p>	<p>Photograph ID: 13</p> <p>Comments:</p> <p>Shell Gas Station PR-693 Km. 6.9 Marginal Street Urb. Martorell UST ID 86-0861.</p>

 <p>FP8C+JRJ, PR-693, Dorado, 00646, Puerto Rico</p> <p>Latitude 18.46692356°</p> <p>Longitude -66.27783929°</p> <p>Local 10:07:23 a. m. GMT 02:07:23 p. m.</p> <p>Altitude 16,76 metros martes, 01.11.2022</p>	<p>Photograph ID: 14</p> <p>Comments:</p> <p>Puma Gas Station PR-693 #2 Street Urb. Dorado del Mar UST ID 92-0091.</p>
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**Attachment 9: Limited Environmental Site Assessment Report**

**October 10, 2023**

**Axel Rodríguez**  
**Secretario Municipal**  
**Secretaria Municipal**  
**Municipio Autónomo de Dorado**  
341 Méndez Vigo  
Dorado, Puerto Rico 00646

Via Email: [Axel.Rodriguez@dorado2025.com](mailto:Axel.Rodriguez@dorado2025.com)

**Subject: PRIVILEGED AND CONFIDENTIAL**  
**Limited Environmental Site Assessment Report**  
**Project CRP-000557 Rotonda**  
**Community Development Block Grant**  
**Disaster Recovery**  
**Municipality of Dorado, Puerto Rico**  
**CES Project No. 23-0059**

**Dear Mr. Rodríguez:**

Caribe Environmental Services (CES) respectfully submits to your attention this Limited Environmental Site Assessment Report of the referenced property. A digital copy of the report is submitted for your use. These services were conducted in accordance with the scope of work described in our proposal PR23-0053 dated April 28, 2023.

We appreciate the opportunity to provide our professional services to you and look forward to our continued working relationship. If you have any questions regarding the enclosed report, please do not hesitate to contact us at your convenience.

**Cordially yours,**  
**CARIBE ENVIRONMENTAL SERVICES**



**Raul Colón, P.E., P.H.**  
**Principal**



**Luis R Colon Morales, P.E., M.E.**  
**Project Manager**

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*2023 files/Municipio de Dorado/Environmental Site Inspection Report/Transmittal Letter.doc*



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**LIMITED ENVIRONMENTAL SITE ASSESSMENT REPORT  
PROJECT CRP-000557 ROTONDA  
COMMUNITY DEVELOPMENT BLOCK GRANT  
DISASTER RECOVERY  
MUNICIPALITY OF DORADO, PUERTO RICO**

**PREPARED FOR:**

**MUNICIPIO DE DORADO  
DORADO, PUERTO RICO**

**PREPARED BY:**

**CARIBE ENVIRONMENTAL SERVICES  
CAGUAS, PUERTO RICO**

**PROJECT NO. 23-0059**

**OCTOBER 2023**



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Appendix B	Soil Boring Logs
Appendix C	Site Photographs
Appendix D	Resumes of Environmental Professionals

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### **1.0 INTRODUCTION**

#### **1.1 Background Information and Site Description**

According to the information provided to us, it is our understanding that, as part of the development of the roundabout under CDBG-DR Project CRP-000557, the Municipality of Dorado (MOD) requested inspection services of an Environmental Specialist. The services are associated with the findings recorded in the Phase 1 environmental study assessment procured in compliance with the Department of Housing procedures, prepared by CMA on November 1, 2022.

According to the MOD, the Phase I identified at the industrial area (Playtex Lot) close to the project perimeter, several pails and oil stains, on the asphalt of the parking lot. Due to the location of the stains, inside a private lot, the Municipality could only visually inspect within project boundaries. This finding was considered by the MOD as a concern for the “rotonda” project.

A Site Vicinity Map is provided in **Figure 1**. A Site Aerial Photograph, showing the Site’s features, general settings, and surroundings is provided in **Figure 2**. The approximate area needed to be investigated based on the information provided to CES is included in **Figure 2**. The approximate coordinates of the center portion of the area are 18°27'42.12"N; and 66°16'09.28"W.

The MOD requested to conduct a physical inspection of current conditions and activities at the project site and immediate vicinity and to evaluate the possibility of the substance migration downstream of the area where several pails and oil stains, on the asphalt of the parking lot were observed. Therefore, the scope of work included in this assessment was limited to a physical inspection of the area most likely to have been impacted.

The purpose of the investigation was to assess the potential presence of impacted soils underlying the area of concern by visual and volatile organics screening. This report documents the investigation activities conducted which included:

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- Assessment of the existing subsoil conditions underlying the areas of concern to determine the potential presence of impacted soils.
- Provide MOD with recommendations for additional investigation or remedial actions, if necessary.

## **1.2 Purpose and Objective**

The purpose of this report is to document the field and assessment activities conducted during the Limited investigation. Before implementing the field activities, a WSP describing the procedures that CES would follow during the execution of the Limited assessment activities was prepared by CES. A copy of the WSP is included in *Appendix A*.

The objectives of this investigation included:

- Collection of samples for visual assessment and field screening using a Photo-Ionization Detector (PID) to preliminary evaluate the underlying soil's condition.

Following is a summary of the Limited assessment activities conducted to address the above-mentioned objectives:

- Drilling of 6 soil borings distributed within the area of concern which would be located at the area more likely to have been impacted by the pails and oil stains, on the asphalt of the adjoining parking lot. Drilling locations were based on the information provided by the MOD, field observations, and the presence of underground utilities.
- Collection of 6 soil samples (1 sample from each soil boring) for field screening and visual observations.
- The soil borings were drilled to a depth of approximately 1 ft below the ground surface (bgs).
- Report Preparation documenting field activities conducted and results obtained.



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### **1.3 Areas of Concern (AOC)**

The areas of concern (AOC) investigated during the Limited assessment and the rationale for selecting each AOC are presented below:

<b>Area of Concern</b>	<b>Rationale</b>
Project perimeter closest to pails and oil stains, on the asphalt of the adjoining parking lot	Determine the potential presence of impacted soils underlying this area.

### **1.4 Limitations & Deviations**

We note that Subject Site conditions and regulatory requirements may change in the future. Therefore, the information included in this report, our findings, or recommendations presented are based upon information readily available and obtained during the execution of these activities. We note that a finding of no impacts in the areas of investigation is not a warranty or guarantee that the property remains free from contamination. No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the Property. Performance of this assessment is intended to reduce, but not to eliminate uncertainty regarding the potential for recognized environmental conditions or the extent of such conditions, in connection with the Property.

Furthermore, any sample, either surface or subsurface, collected may or may not be representative of a larger population. Professional judgment and interpretation are inherent in the process and uncertainty is inevitable. Even when the work is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects and the limitations of assessment technologies. Measurements and sampling data only represent the site

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conditions at the time of data collection. Therefore, the usability of data collected as part of a Limited assessment may have a finite lifetime depending on the application and use being made of the data.

Any property boundary, feature location, or measurements included in this report are approximate, for illustration purposes only, and other than for the ease of use of this report, these shall not be used. Any property boundary, feature location, or measurement included in this report must not be assumed to be or interpreted as a certified building covering area, a survey footprint area, or a certified property limit.

This assessment has been undertaken and performed in a professional manner, in accordance with generally accepted practices, using the degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied is made.

We understand that this investigation was conducted by MOD as a voluntary action. We also understand that the proposed investigation is not intended to be consulted nor submitted to the Department of Natural and Environmental Resources of Puerto Rico (DNER) and/or the United States Environmental Protection Agency (EPA). However, we understand that the Puerto Rico Department of Housing (PRDOH) or the grant manager may be reviewing this limited investigation report.

The collection of samples for laboratory analysis and QA/QC samples were not included in the scope of work described in the RFP sent by the MOD, therefore, this investigation did not include the collection of samples for laboratory analysis, nor QA/QC samples, such as trip blanks, field blanks, equipment blanks, and sample duplicates.

Other than drilling and collecting one additional sample, no deviations from the WSP occurred during the execution of the Limited assessment activities.

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## **2.0 SUMMARY OF FIELD SAMPLING & INVESTIGATION ACTIVITIES**

Field activities were conducted by CES personnel on October 4, 2023, under the direction of engineer Luis Raúl Colón Morales, CES Senior Engineer. CES personnel included Engineer Luis Raúl Colón Morales and environmental technicians José Rivera and Angel Baez. Sampling activities were conducted by CES personnel following applicable CES Standard Operation Procedures (SOPs). Procedures and protocols applicable to the sampling activities included:

- Decontamination procedures of non-disposable sampling equipment were conducted following CES SOP 1000.
- Field activities were documented in a field notebook following CES SOP 1200.
- Soil sampling was conducted following the procedures of CES SOP 2000.
- Samples preservation was conducted following CES SOP 3000.

The field drilling, soil sample collection, and vapor/visual soil screening were conducted following the procedures described in *Section 2.2* of the WSP. The proposed assessment activities were designed to determine the following:

- Detection of potential impacts on the soils underlying the area of concern.

### **2.1 DTOP Notification**

On September 19, 2023, CES prepared and submitted an application for a Notice of Excavation to the “Dirección de Excavaciones, Demoliciones y Tuberías of the Departamento de Transportación y Obras Públicas de Puerto Rico (DTOP)”. Electrical, CLARO, and PRTC underground lines were marked along the area to be investigated. Soil drilling was conducted in areas outside the marked locations.



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## **2.2 Soil Drilling and Soil Sampling Activities**

On October 4, 2023, CES conducted the soil drilling and sampling activities at the areas of concern. The following six soil borings were drilled at the Subject Site: SB-1, SB-2, SB-3, SB-4, SB-5, and SB-6. Soil borings were drilled to depths of 12 inches-bgs. Drilling was conducted using a manual steel hand auger.

The approximate locations of the soil borings drilled are presented in **Figure 3**. One soil sample per boring was collected and sent for laboratory analysis. Soil samples were identified as:

- S-1 collected from 4 to 12 inches bgs.
- S-2 collected from 4 to 12 inches bgs.
- S-3 collected from 4 to 12 inches bgs.
- S-4 collected from 5 to 12 inches bgs.
- S-5 collected from 6 to 12 inches bgs.
- S-6 collected from 3 to 12 inches bgs.

The collected soil samples were screened in the field using a Photo-Ionization Detector (PID). Prior to conducting the sampling activities, the PID was calibrated using standard calibration gases of 0.0 and 100 ppm concentrations.

The soil samples' lithological description, PID readings, and sample depth are presented in the soil boring logs included in **Appendix B**. As shown in this appendix, all of the PID readings for the soil samples collected at these soil borings showed non-detect concentrations. None of the soil samples showed any visual signs of suspect discoloration or suspect odors.

**Photographs 1 to 33**, included in **Appendix C**, show representative views of the drilling and sampling activities.

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### **2.3 Health and Safety Procedures**

During the site investigation and sampling activities, health and safety procedures were implemented following the CES Health and Safety Plan included as part of the WSP. Health and Safety procedures that were considered by CES for this project included items such as:

- Personal protective equipment;
- Potential chemical and physical hazards;
- Emergency procedures;
- Work procedures;
- Site and personnel monitoring.

Health and Safety Procedures for this project were prepared as a guideline for conducting the assessment activities. All personnel who entered the area, including workers, inspectors, and approved visitors were briefed on the contents and adhered to all the minimum requirements of this plan. A mandatory health and safety meeting was held at the beginning of each workday.

Engineer Luis Raúl Colón Morales, as the Field Safety Coordinator, performed site inspection at the beginning of the project and confirmed on a daily basis that conditions as described in the Health and Safety Plan were accurate. The primary purpose of this reconnaissance was to finalize all planning and logistics for site work. In addition, during all the drilling and excavation, the air within the working areas was regularly monitored with a PID instrument. No PID readings were detected during the monitoring of the ambient air.

During the Limited activities, no emergency procedures or accidents/injuries occurred.

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**3.0 SITE TOPOGRAPHY, GEOLOGY AND HYDROGEOLOGY**

**3.1 Topography**

According to the Topographic Map of the Dorado Quadrangles, the elevation at the Subject Property is approximately 10 meters above mean sea level (MSL). The closest surface water body to the Subject Property is the Bahía de Dorado located approximately 0.85 miles southwest of the Subject Property.

**3.2 Regional Geology and Hydrogeology**

According to the Topographic Map of the Vega Alta Quadrangle, the elevation at the Subject Property is approximately 15 meters above mean sea level (MSL). The closest surface water body to the Subject Property is the Río La Plata located approximately 1,200 meters to the east of the project site.

According to the Geologic Map of the Vega Alta Quadrangle, the site's shallow geology is described as silica sand (Qss).

According to the Soil Survey of the San Juan Area, Puerto Rico, the Site is classified as Urban Land (U1).

According to the Atlas of Ground-Water Resources in Puerto Rico and the US Virgin Islands, regional ground-water flow in the coastal water table upper aquifer is generally toward the ocean coast in the Vega Baja-Toa Baja region. In addition, this report indicates that the Subject Site is located overlying at the Toa-Coloso-Bajura soils. The Toa-Coloso-Bajura association is formed by deep, nearly level, well-to poorly-drained, loamy to clayey soils (Acevedo, 1982, p.4). Soil permeability ranges from 0.06 to 0.20 inches per hour.



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According to "Principal aquifers of Puerto Rico and the U.S. Virgin Islands" by Robert A. Renken, January 11, 1998, U.S. Geological Survey, the Subject Property is located overlying unconsolidated sand and gravel aquifers part of the Alluvial-valley aquifer system.

Groundwater is expected to be located more than 15 feet below the ground surface. The groundwater flow direction will not be determined during this assessment. Based upon our review of surficial topography at the property and its vicinity, and assuming that groundwater conditions are uniform, a regional groundwater flow towards the Rio La Plata to the east would be expected.

The depth and gradient of the water table likely vary seasonally with changes in precipitation and may change significantly over time in response to the development, including impervious surfaces, stormwater controls, and pumping wells (domestic, industrial or irrigation). Based upon our experience during other groundwater investigations conducted in similar areas in Puerto Rico, it is not uncommon to encounter perched or local groundwater conditions in which the groundwater flow direction may be different from the expected and regional groundwater flow direction.

### **3.3 Site Geology and Hydrogeology**

Soil lithological description at each soil boring drilled during this investigation is included in *Appendix B*. Based upon the data presented in the soil boring logs the shallow geologic material encountered underlying the area of concern consistently showed a layer of slightly humid brown silty sand. Based upon the data presented in the soil boring logs included in *Appendix B* the geologic material encountered at the Subject Site is, in general, consistent with the regional system described by the USGS

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**4.0 EVALUATION OF FIELD SCREENING RESULTS AND CONCLUSION**

As part of the assessment, six soil samples were collected from the soils underlying the area of concern. Soil samples depths collected ranged from 4 to 12 inches below ground surface. All of the collected soil samples were visually assessed by the environmental professional and field screened with a MiniRAE 3000 Photo Ionization Detector (PID).

No suspect odors were perceived in any of the soil samples collected. Also, no suspect or visual discolorations or evident visual indications of impacted soils were observed in any of the soil samples. No vapor concentrations were detected by the PID in any of the soil samples.

Therefore, we can conclude that the area investigated does not appear to have been impacted by the potential migration downstream of the area where several pails and oil stains, on the asphalt of the parking lot were observed.

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**5.0 RECOMMENDATIONS**

Based upon the conclusions of this limited investigation, no additional investigation or remedial activities are warranted. However, if during the proposed Project CRP-000557 Rotonda, suspect or impacted soils are identified in the area of concern, these soils should be properly managed and disposed of.



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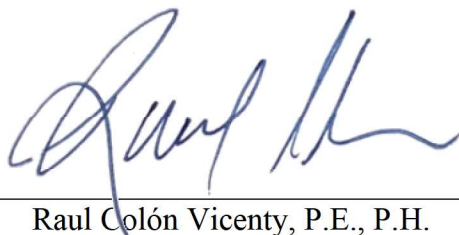
**6.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS**

The following personnel have prepared and/or reviewed this report for accuracy, content, and quality of presentation.

*I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR 312, and I have the specific qualifications based on education, training, and experience to conduct a Phase II in general conformance with the scope and limitations of ASTM E1903-19 standard (Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process).*



Luis R. Colon Morales, P.E., M.E.  
Project Engineer



Raul Colón Vicenty, P.E., P.H.  
Principal

October 10, 2023  
**Date**

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**7.0 QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

The Phase II assessment was performed by CES personnel experienced in these types of services. The field activities and report preparation were performed by Eng. Luis R. Colón Morales. Eng. Colón Morales is a licensed professional engineer with more than 16 years of experience in the environmental field. In accordance with CES quality assurance protocols, the Phase II report was revised by Eng. Raúl Colón to comply with CES QA/QC Corporate policies. Mr. Colón is a licensed professional engineer with more than 45 years of environmental work experience.

The resumes of Eng. Colón Morales and Eng. Colón are provided in *Appendix D* of this report.

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**8.0 REFERENCES**

*Topographic Map of the Vega Alta Quadrangle, U.S. Geological Survey (Photorevised 1982).*

*Geologic Map of the Vega Alta Quadrangle; U.S. Geological Survey.*

*Atlas of Ground-Water Resources in Puerto Rico and the US Virgin Islands.* 1996. U.S. Geological Survey. Water Resources Investigations Report 94-4198

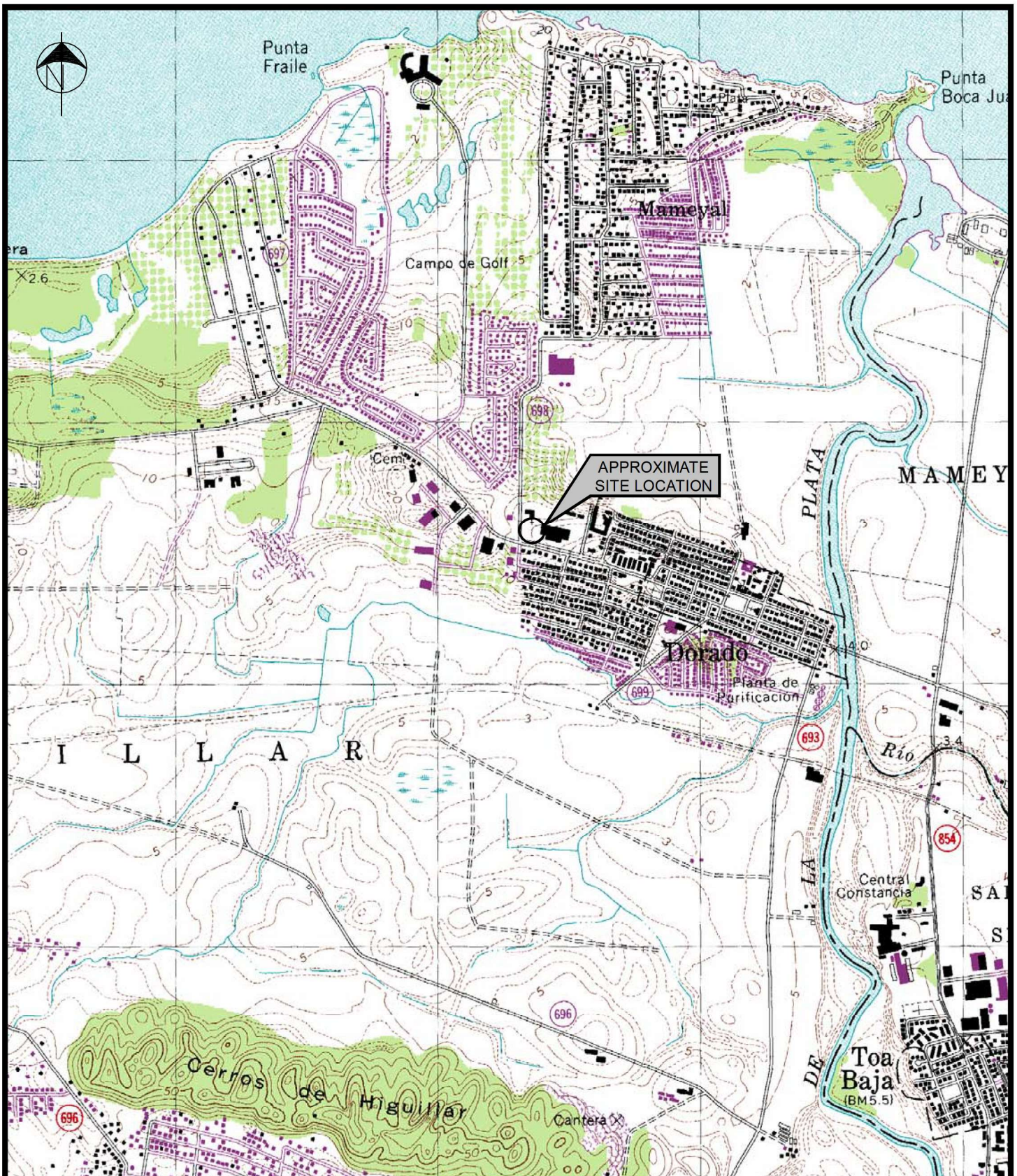
*Google Earth Pro,*

*Limited Environmental Site Assessment Report*  
*Project CRP-000557 Rotonda*  
*Community Development Block Grant*  
*Disaster Recovery*  
*Municipality of Dorado, Puerto Rico*  
*CES Project No. 23-0059*

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## **FIGURES**





SOURCE: USGS TOPOGRAPHIC MAP OF VEGA ALTA  
QUADRANGLES 1969 (PHOTOREVISED 1982)

SCALE: 1:20,000



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PROJECT CRP-000557 ROTONDA  
COMMUNITY DEVELOPMENT BLOCK GRANT -  
DISASTER RECOVERY

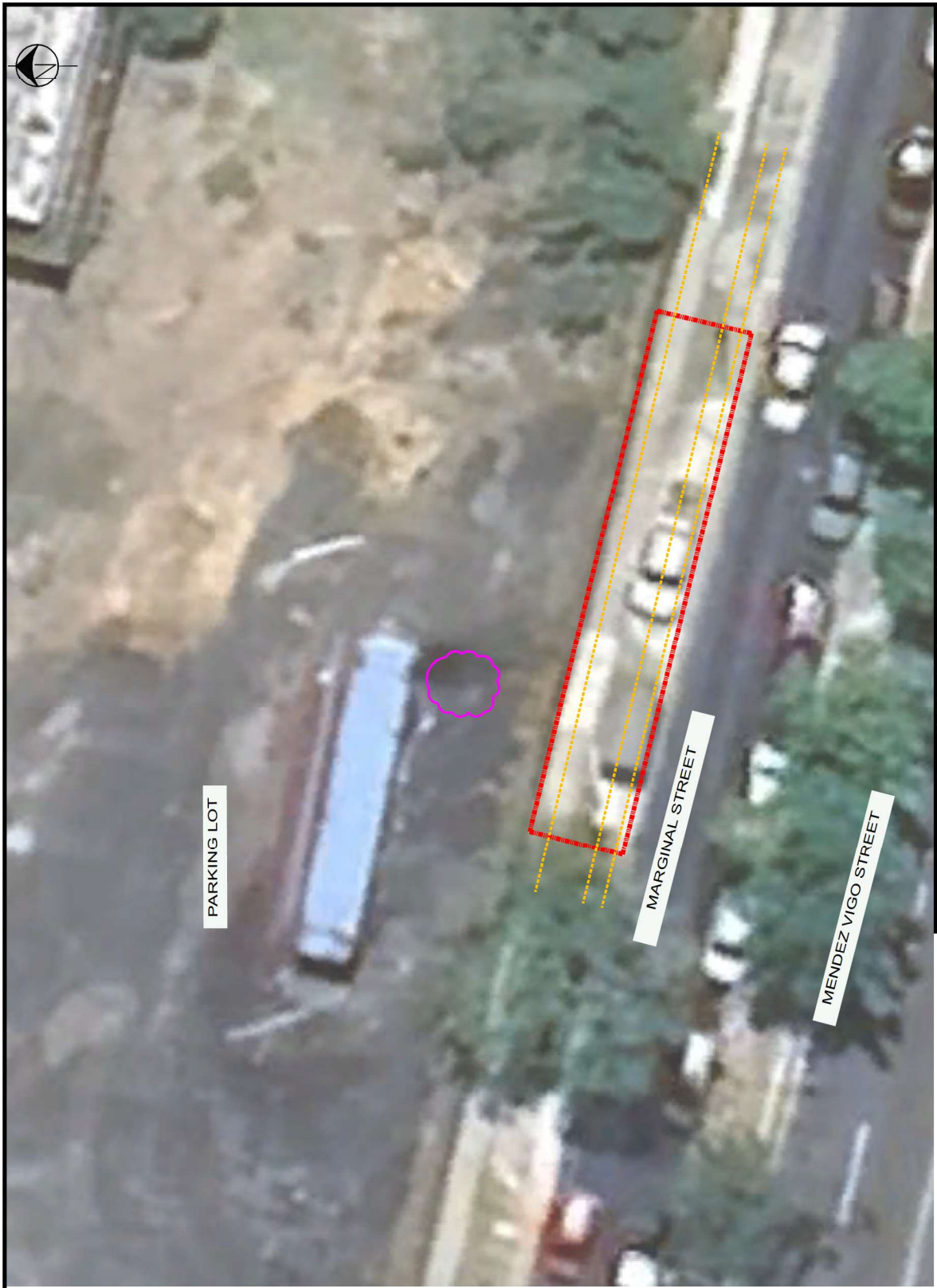
DORADO, PUERTO RICO

APPROXIMATE  
SITE LOCATION




PROJECT  
NO. 23-0059

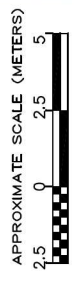
FIGURE 1





LEGEND:

-  AREA OF CONCERN
-  PAILS AND OIL STAINS, ON THE ASPHALT OF ADJOINING PARKING LOT APPROXIMATE LOCATION
-  APPROXIMATE UNDERGROUND UTILITIES MARKED IN THE FIELD



NOTE:

ALL LOCATIONS SHOWN ARE APPROXIMATE AND ARE ACCOMMODATED TO FIT THIS FIGURE  
 SOURCE: GOOGLE EARTH, MAY 10, 2023, AREA OF CONCERN PROVIDED BY MOD IN THE RFP



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LIMITED ENVIRONMENTAL ASSESSMENT ACTIVITIES  
 PROJECT CRP-000557 ROTONDA  
 COMMUNITY DEVELOPMENT BLOCK GRANT -  
 DISASTER RECOVERY  
 MUNICIPALITY OF DORADO, PUERTO RICO

AREA OF CONCERN

PROJECT NO.  
 23-0059

FIGURE 2





**LEGEND:**

- AREA OF CONCERN
- SB-1
- SOIL BORING APPROXIMATE LOCATION
- PAILS AND OIL STAINS, ON THE ASPHALT OF ADJOINING PARKING LOT APPROXIMATE LOCATION
- APPROXIMATE UNDERGROUND UTILITIES MARKED IN THE FIELD
- ESTIMATED SURFACE DRAINAGE FLOW PATTERN



**NOTE:**  
 ALL LOCATIONS SHOWN ARE APPROXIMATE AND ARE ACCOMMODATED TO FIT THIS FIGURE  
 SOURCE: GOOGLE EARTH, MAY 10, 2023, AREA OF CONCERN PROVIDED BY MOD IN THE RFP



LIMITED ENVIRONMENTAL ASSESSMENT ACTIVITIES  
 PROJECT CRP-000557 ROTONDA  
 COMMUNITY DEVELOPMENT BLOCK GRANT -  
 DISASTER RECOVERY  
 MUNICIPALITY OF DORADO, PUERTO RICO

APPROXIMATE SOIL BORING  
 LOCATIONS  
 PROJECT NO.  
 23-0059

*Limited Environmental Site Assessment Report*  
*Project CRP-000557 Rotonda*  
*Community Development Block Grant*  
*Disaster Recovery*  
*Municipality of Dorado, Puerto Rico*  
*CES Project No. 23-0059*

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## **APPENDICES**

*Limited Environmental Site Assessment Report*  
*Project CRP-000557 Rotonda*  
*Community Development Block Grant*  
*Disaster Recovery*  
*Municipality of Dorado, Puerto Rico*  
*CES Project No. 23-0059*

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## **APPENDIX A**

### **WORK AND SAMPLING PLAN (WSP)**

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**WORK AND SAMPLING PLAN  
LIMITED ENVIRONMENTAL ASSESSMENT ACTIVITIES  
PROJECT CRP-000557 ROTONDA  
COMMUNITY DEVELOPMENT BLOCK GRANT  
DISASTER RECOVERY  
MUNICIPALITY OF DORADO, PUERTO RICO**

**PREPARED FOR:**

**MUNICIPIO DE DORADO  
DORADO, PUERTO RICO**

**PREPARED BY:**

**CARIBE ENVIRONMENTAL SERVICES  
CAGUAS, PUERTO RICO**

**PROJECT NO. 23-0059**

**OCTOBER 2023**



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**FIGURES**

Figure 1	Approximate Site Location
Figure 2	Area of Concern
Figure 3	Proposed Soil Boring Locations
Figure 4	Route to Nearest Hospital Facility

**APPENDICES**

Appendix 1	CES SOP 1000 – Decontamination
Appendix 2	CES SOP 1200 – Field Log Book
Appendix 3	CES SOP 1300 – Sample Identification and Chain of Custody
Appendix 4	CES SOP 2000 – Soil Sample Collection



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### **1.0 INTRODUCTION**

#### **1.1 Background Information and Site Description**

According to the information provided to us, it is our understanding that, as part of the development of the roundabout under CDBG-DR Project CRP-000557, the Municipality of Dorado (MOD) requested inspection services of an Environmental Specialist. The services are associated to the findings recorded in the Phase 1 environmental study assessment procured in compliance with the Department of Housing procedures, prepared by CMA on November 1, 2022.

According to the MOD, the Phase I identified at the industrial area (Playtex Lot) close to the project perimeter, several pails and oil stains, on the asphalt of the parking lot. Due to the location of the stains, inside a private lot, the Municipality could only inspect within project boundaries. This finding was considered by the MOD as a concern for the “rotonda” project.

A Site Vicinity Map is provided in **Figure 1**. A Site Aerial Photograph, showing the Site’s features, general settings, and surroundings is provided in **Figure 2**. The area to be investigated included in **Figure 2** is approximate based upon the information provided to CES. The approximate coordinates of the center portion of the Subject Property are: 18°27'42.12"N; 66°16'09.28"W.

The MOD requested to conduct a physical inspection of current conditions and activities at the project site and immediate vicinity and to evaluate the possibility of the substance migration downstream of the area where several pails and oil stains, on the asphalt of the parking lot were observed. Therefore, the scope of work included in this Work and Sampling Plan (WSP) will be limited to a physical inspection of the area most likely to have been impacted.

The proposed investigation does not include the collection of samples for laboratory analysis and is not intended to provide detailed data for conducting any remedial action(s) at the site, if needed. If as a result of the proposed investigation, the evaluated area is impacted or appears to be

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impacted, then further assessment should be conducted including among others, the collection of soil samples. However, this additional assessment is not part of this WSP.

We understand that this investigation is been conducted by MOD as a requirement from the Community Development Block Grant program. However, the proposed scope included herein is not intended to obtain a No Further Action (NFA) or “release letter” from the DNER or the United States Environmental Protection Agency (EPA), or any other agency. However, we understand that the Puerto Rico Department of Housing (PRDOH) or the grant manager may be reviewing this limited investigation report.

This WSP addresses the environmental concern mentioned above and includes the following activities:

- Assessment of the existing subsoil conditions underlying the areas of concern to determine the potential presence of impacted soils.
- Provide MOD with recommendations for additional investigation or remedial actions, if necessary.

## **1.2 Purpose**

The purpose of this WSP is to present a detailed description of the investigation procedures to be implemented during the execution of the proposed investigation activities. The purpose of the investigation is to assess the potential presence of impacted soils underlying the area of concern.

## **1.3 Statement of Objectives and Limitations**

The objective of the limited assessments is to assess whether the soils underlying the area of concern may have been impacted. The proposed scope of work does not include sampling.

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The proposed limited investigation presented herein is not intended to obtain a No Further Action (NFA) letter from the DNER or EPA. Measurements data will only represent sub-soil conditions in the assessed areas at the time of data collection. Therefore, the usability of data collected as part of the proposed assessment may have a finite spatial and lifetime depending on the application and use being made of the data.

The proposed work assumes that this phase of the work would not need to be consulted nor submitted to the DNER, EPA, or any other regulatory agency. Obtaining a “release letter” from the DNER or EPA requires following very structured processes and the involvement of the agencies along the complete project execution process, which requires much more budget and time than included in our estimate for the proposed work.

### **1.4 Areas of Concerns and Rationale**

The proposed investigation will be concentrated on the area where the Fiona vegetative debris was staged by the MOD. The area of concern selected for investigation and its rationale is presented next:

<b>Area of Concern</b>	<b>Rationale</b>
Project perimeter closest to pails and oil stains, on the asphalt of the adjoining parking lot	Determine the potential presence impacted soils underlying this area.

### **1.5 Expected Hydrogeology**

According to the Topographic Map of the Vega Alta Quadrangle, the elevation at the Subject Property is approximately 15 meters above mean sea level (MSL). The closest surface water body to the Subject Property is the Río La Plata located approximately 1,200 meters to the east of the project site.



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According to the Soil Survey of the San Juan Area, Puerto Rico, the Site is classified as Urban Land (U1).

According to the Atlas of Ground-Water Resources in Puerto Rico and the US Virgin Islands, regional ground-water flow in the coastal water table upper aquifer is generally toward the ocean coast in the Vega Baja-Toa Baja region. In addition, this report indicates that the Subject Site is located overlying at the Toa-Coloso-Bajura soils. The Toa-Coloso-Bajura association is formed by deep, nearly level, well-to poorly-drained, loamy to clayey soils (Acevedo, 1982, p.4). Soil permeability ranges from 0.06 to 0.20 inches per hour.

According to "Principal aquifers of Puerto Rico and the U.S. Virgin Islands" by Robert A. Renken, January 11, 1998, U.S. Geological Survey, the Subject Property is located overlying unconsolidated sand and gravel aquifers part of the Alluvial-valley aquifer system.

Groundwater is expected to be located more than 15 feet below the ground surface. The groundwater flow direction will not be determined during this assessment. Based upon our review of surficial topography at the property and its vicinity, and assuming that groundwater conditions are uniform, a regional groundwater flow towards the Rio La Plata to the east would be expected.

The depth and gradient of the water table likely vary seasonally with changes in precipitation and may change significantly over time in response to the development, including impervious surfaces, stormwater controls, and pumping wells (domestic, industrial or irrigation). Based upon our experience during other groundwater investigations conducted in similar areas in Puerto Rico, it is not uncommon to encounter perched or local groundwater conditions in which the groundwater flow direction may be different from the expected and regional groundwater flow direction.

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## **1.6 Potential Release Mechanisms for Contaminants**

It is expected that contaminant releases could have occurred at the surface level where the pails and oil stains were observed on the asphalt of the adjoining parking lot.

## **1.7 Evaluation of migration pathways**

It would be expected that the soils located underlying potential releases at the subsurface could have been impacted by contaminants that migrated downward into the underground.

The volume and the age of the release are the factors that largely control the potential extent of contamination in the subsurface. Small volumes of hydrocarbons or releases detected soon after release tend to be located near the source and can be remediated by direct removal. Large volumes or older releases may lead to more extensive subsurface contamination. The extent of contamination is also controlled by the potential pathways of migration (EPA 510-R-96-001).

According to the EPA documentation, when released into the subsurface environment, liquid hydrocarbons tend to move downward under the influence of gravity and capillary forces. As the source continues to release petroleum liquids, the underlying soil becomes more saturated and the leading edge of the liquid migrates deeper leaving a residual level of immobile hydrocarbons in the soil behind and above the advancing front. If the volume of petroleum hydrocarbons released into the subsurface is small relative to the retention capacity of the soil, then the hydrocarbons will tend to sorb onto soil particles and essentially the entire mass will be immobilized. For petroleum hydrocarbons to accumulate as free product on the water table, the volume of the release must be sufficient to overcome the retention capacity of the soil between the point of release and the water table. Without sufficient accumulation of free product at the water table, there is no need for a free product recovery system (EPA 510-R-96-001).

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## **1.8 Scope of Work**

This plan presents a detailed description of the investigation activities, QA/QC protocols, and procedures to be implemented during the execution of the proposed investigation activities. The scope of work presented herein includes the requirements made by the MOD. Following is a summary of the sampling activities proposed:

### **DTOP Notification**

- As a regulatory requirement, to identify if an underground utility (typically owned by utility company such as cable, water, electric power, and telephone) could be present near the investigation area, prior to conducting any invasive investigation a DTOP Notification is needed.

CES will prepare and submit an application for Notice of Excavation to the “Directoría de Excavaciones, Demoliciones y Tuberías of the Departamento de Transportacion y Obras Publicas de Puerto Rico (DTOP)”.

### **Soil Drilling and Sampling Activities**

- Drilling of 5 soil borings to a depth of approximately 1 feet-bgs or until refusal distributed within the area of concern.
- Soil samples will be collected using manual hand auger.
- The extracted soil samples will be placed inside dedicated zip-lock bags and left under direct sunlight.
- Lithological description of soils. Soil boring logs will be included in the report.
- Collection of 5 soil samples (1 soil sample per boring above groundwater table) for soil screening using a photo ionization device (PID).
- Visual assessment of the soil samples for sing of stains, odors or evidence of potential contamination.
- Upon project completion, the drilled soil boreholes will be grouted with a grout-cement mix.



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**Report Preparation**

- Written report to document the objectives of the assessment, describing the work performed, explaining the rationale followed, and documenting the information and data acquired.

A detailed description of the scope of work to be implemented is presented in *Section 2.2* of this plan.

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### **2.0 FIELD SAMPLING PROGRAM**

This section of the WSP presents a detailed description of the proposed field work. Field sampling activities will be conducted following applicable CES Standard Operation Procedures (SOPs). We note that CES SOPs are considered proprietary information and must not be used, reproduced or distributed without the written consent of CES.

Sampling activities will be conducted by qualified personnel. *Section 6.0* of this plan presents CES sampling personnel qualifications. Procedures and protocols applicable to the sampling activities include:

- Decontamination procedures of non-disposable sampling equipment will be conducted following CES SOP 1000 (*Appendix 1*).
- Field activities will be documented in a field notebook following CES SOP 1200 (*Appendix 2*).
- Samples identification will be conducted in accordance with CES SOP 1300 (*Appendix 3*) described in *Section 3.1.1* of this Plan.
- Soil sampling will be conducted following the procedures of CES SOP 2000 (*Appendix 4*).

#### **2.1 Field Assessment Activities**

The proposed assessment activities are designed to determine the following:

- Detection of potential impacts at the soils underlying the area of concern.

#### **2.2 Soil Drilling and Sampling Activities**

The soil borings will be advanced by using a manual steel hand auger. If suspect underground utilities are identified or indicated to us near the proposed drilling area may be adjusted.

Prior to starting drilling activities and after each borehole, the reusable drilling equipment will be

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decontaminated using one of the procedures described in CES SOP 1000. If refusal is encountered, drilling will be discontinued. The cutting of concrete and/or asphalt at the surface will be conducted by using a concrete core cutter, chipping hammer or similar equipment.

As part of the proposed assessment activities, **5** soil borings will be drilled. The approximate locations of the proposed soil borings are presented in **Figure 3**. However, these proposed boring locations may change, based upon site conditions encountered during the site activities. We note that the locations included in this figure are approximate and subject to modification based upon site observations and due to site conditions encountered.

The soil borings will be drilled to approximate depths of 1 feet-bgs or to refusal, whichever is encountered first. Soil samples will be collected at continuous one-foot intervals to the determined depth or less as determined by the field professional. The soil sample collected in each boring will be placed in a dedicated zip-lock bag for visual evaluation and field screening using a Photo-Ionization Detector (PID).

The borings observations will be documented to assist in the determination of the potential vertical extent of impacts, during the data evaluation process. The health and safety procedures that will be followed during field activities, as required by OSHA 29 CFR 1910.120, will be implemented as described in *Section 5.0* of this plan.

### **2.3 Investigation Derived Wastes**

No investigation derive wastes are anticipated to be generated. Residues of the soil sample will be placed in the same soil boring from which it was extracted from. Soil borings will be cement grouted after soil samples are collected. However, if any assessment-derived wastes are generated, they will be placed in DOT-approved containers and left on site under MOD custody for disposal.

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## **2.4 Report Preparation**

A written report will be prepared to document the assessment activities conducted. The report will include a summary of the field activities, conclusions, and recommendations, if necessary.

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**3.0 FIELD AND QA/QC PROCEDURES**

The samples to be collected will be obtained by using disposable latex or nitrile gloves. At each sampling point, new pairs of gloves will be worn by the sampling personnel. Samples will be carefully transferred in the field from the sampling equipment directly into the dedicated zip lock bags.

**3.1 Field Quality Assurance and Quality Control Program**

The collection of QA/QC samples was not included in the scope of work described in the RFP sent by the MOD, therefore, this investigation does not include the collection of QA/QC samples, such as trip blanks, field blanks, equipment blanks, and sample duplicates.

**3.2 Samples Handling, Preservation, Identification, Shipping and Chain of Custody Control**

The collection of samples for laboratory analysis was not included in the scope of work described in the RFP sent by the MOD, therefore, this investigation does not include Samples Handling, Preservation, Identification, Shipping or Chain of Custody Control procedures.



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**4.0 MAINTENANCE AND CALIBRATION  
PROCEDURES AND FREQUENCY**

Maintaining the electronic equipment in operating conditions will ensure that the data obtained from that equipment will be reliable. To accomplish this, the equipment has to be well-maintained and calibrated. The electronic equipment proposed to be used during sampling activities includes the PID meter. The maintenance and calibration procedures to be followed will be those included in the manufacturer's manuals. The calibration of the equipment will be verified in the field prior to initiating the field activities.

The field equipment will be calibrated prior to commencement field activities and on a daily basis, as applicable, using calibration standards to be provided by the equipment supplier. Field equipment will be considered calibrated if instrument readings are within 10% of the calibration standard values.

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**5.0 HEALTH AND SAFETY PROCEDURES**

During all phases of the project, health and safety procedures will be implemented following the CES Health and Safety Corporate Policy. All CES personnel involved in the sampling and field activities will comply with the OSHA training requirements included in 29 CFR 1910.120. We note that support personnel not involved in the sampling or field activities may be included.

Health and Safety procedures to be considered by CES for this project will include items such as:

- Personal protective equipment;
- Potential chemical and physical hazards;
- Emergency procedures;
- Work procedures;
- Site and personnel monitoring.

Health and Safety (H&S) Procedures for this project have been prepared as a guideline for conducting the assessment activities at the subject facility. The following sections address emergency procedures to be followed during the execution of the assessment activities.

The provisions of this H&S Plan are mandatory for all on-site activities undertaken by CES (and contractors) personnel for the project during sampling activities. All personnel who enter the area, including workers, inspectors, subcontractors and approved visitors must be briefed on the contents and adhere to all the minimum requirements of this plan.

By CES voluntarily sharing this information with any subcontractors and visitors, they are not relieved of the responsibility to provide their personnel with adequate and proper supervision, safety information, instructions and equipment. CES assumes no responsibility for the safety of any personnel, other than CES employees.

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Prior to begin operations at the site, the Field Safety Coordinator (FSC), will perform a site inspection to verify that conditions as described in the Health and Safety Plan are accurate. The primary purpose of this reconnaissance is to finalize all planning and logistics for site work.

### **5.1 Required Personnel Protective Equipment (PPE)**

The selection of the PPE is based on potential contaminant levels, the work to be performed, and the work location within the site. Levels of personal protection are briefly outlined as follows:

#### **Level D**

- Coveralls
- Chemical resistant safety boots/shoes
- Chemical resistant gloves
- Safety glasses or chemical splash goggles
- Hard hat (optional)

#### **Level C**

- Half-face respirator, air-purifying respirator fitted with a HEPA/Organic Vapor/combination cartridge (NIOSH approved)
- Chemical resistant clothing (long sleeved overalls, one or two-piece chemical resistant splash suit; disposable chemical resistant one-piece suit)
- Inner and outer chemical-resistant gloves
- Safety boots/shoes
- Hard-hat (optional)

#### **Level B**

- Positive pressure, full-face SCBA or positive pressure airline egress system with escape bottle (NIOSH Approved)
- Chemical-resistant clothing (long-sleeved coveralls, hooded chemical splash suit; disposable chemical-resistant one-piece suit)
- Inner and outer chemical-resistant gloves
- Chemical-resistant safety boots/shoes
- Hard-hat (optional)



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The site activities for this project will be conducted outside buildings in open spaces where ventilation is adequate. Based upon the aforementioned, the information available for the site potential contaminants at the areas to be assessed and the media to be sampled, the minimum basic safety personnel equipment at the open spaces area may consist of hard hat, safety glasses or goggles, boots and latex/nitrile gloves. However, as described in *Section 5.3*, periodically monitoring of the ambient air will be conducted during the site activities with a PID for presence of volatile organic compounds. If determine to be necessary, a half-face respirator, air-purifying respirator fitted with a HEPA/Organic Vapor/ combination cartridge (NIOSH approved) will be required as part of the safety personnel equipment.

Samples will be collected using protective latex/nitrile gloves. Gloves will be changed prior to each sample collection. Each member of the sampling team must use the basic personnel protection equipment as prescribed herein before executing sampling activities.

### **5.2 Site Hazard Evaluation**

Based upon the activities proposed to be performed the assessment as described in *Section 2.0* of this plan, the primary hazards associated with the sampling activities are possible organic vapors that may be present in the soils underlying the Subject Property

In addition, if as a result of the DTOP notification, underground utilities maps, or information regarding where potential underground utilities might be located, this will be taken into consideration before conducting any drilling.

We understand that no information may be available regarding underground utilities at the site. Based upon site conditions, if needed, CES may advance the soil boring using manual hand auger in order to minimize the possibility of impacting any underground utility.

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Routes of potential exposure are by inhalation, and ingestion. In addition, possible skin contact with the materials could be possible. Potential hazards associated with drilling activities include the ingestion or skin contact with soils potentially affected with volatile organic compounds.

### **5.3 Site Personnel Monitoring Procedures**

This section describes the methods and equipment that may be used to monitor the ambient air within the working zone (i.e., breathing zone of personnel) for airborne concentrations of hazardous substances, using direct-reading (real-time) air monitoring. The breathing air zone will be monitored periodically and with every change in task or location.

Personnel monitoring will be performed using a photo-ionization detector (PID) for presence of volatile organic compounds. The following action guidelines will be used at the site:

<b><u>PID Readings</u></b>	<b><u>Action Guideline for PPE Level of Protection</u></b>
0 -25 ppm	Level D
25 ppm – 100 ppm	Level C
>100 ppm	Evacuate Area (HSO will determine how to proceed)

Workers will continually be observed (through the buddy system and by on-site managers) for signs of adverse health effects. Sufficient equipment will be maintained on-site for immediate equipment upgrade.

### **5.4 Heat Stress**

Signs of heat stress include heat rash, heat cramps (muscle spasms), and heat exhaustion (pale, cool, moist skin, heavy sweating, dizziness, nausea, and fainting). Extreme heat stress can result in heat stroke, as temperature regulation fails and the body temperature rises to critical levels. Symptoms of heat stroke include red, hot, usually dry skin; lack of or reduced perspiration; nausea, dizziness, and confusion; strong, rapid pulse and coma.



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If symptoms of heat stress are exhibited by the workers or the temperature increases significantly, the pulse rate and body temperature will be monitored during all tasks (as deemed necessary or appropriate by the HSO or PM). The action guidelines are as follows:

### Pulse Rate

- Determine normal resting pulse rate.
- Monitor pulse rate as soon as possible at beginning of rest period.
- If the rate is greater than 40 beats per minute (BPM) above the normal rate, shorten the next work period by one-third (1/3) without changing the rest period.
- If the pulse rate is greater than 40 BPM above normal at beginning of next rest period, shorten the following work cycle again by 1/3.
- Repeat.

### Body Temperature

- Determine body temperature at the end of the work cycle and before drinking.
- If the temperature is greater than 99.6°F (37.6°C), shorten the next work cycle by 1/3 without changing the rest cycle.
- Repeat.

***Do not*** allow a worker to wear semi permeable or impermeable clothing when his/her body temperature exceeds 100.6°F (38.1°C).

The Heat Index is a measure of how hot it really feels when relative humidity is factored in with the actual air temperature. To find the Heat Index temperature, look at the Heat Index Chart below. As an example, if the air temperature is 96°F and the relative humidity is 65%, the heat index (how hot it feels) would be 121°F. The air temperature and humidity should be obtained by the HSO prior to field activities and as work progress. Weather information can be obtained from the National Weather Service webpage (<http://www.weather.gov/sju/>). The red area without numbers indicates extreme danger.

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**NOAA's National Weather Service**

**Heat Index**

Temperature (°F)

	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

**Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity**

Caution
  Extreme Caution
  Danger
  Extreme Danger

To minimize the possibility of heat stress, field personnel will have access to water and electrolyte replacement fluids, and will maintain scheduled rest periods as necessary. The field personnel will be monitored as the temperature increases using working condition intervals included in the following table as guidance:

Temperature (of)*	Normal Work Time(Min)	PPE Conditions Time (Min)
90 +	45	15
87 +	60	30
82+	90	60
77+	120	90
72+	150	120

\* Adjusted temperature = air temperature + 13x % sunshine Source: OSHA Manual for Hazardous Waste Site Activities

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## **5.5 Work Procedures**

CES personnel will follow CES Standard Operating Procedure during samples collection. Soil and liquid samples will be collected using disposable sampling equipment, if available. In case that non-disposable sampling equipment is used, decontamination of the equipment, prior to sampling, will be conducted using the CES decontamination SOP. Samples identification, handling, preservation, chain of custody protocol and shipping will also be conducted following CES SOPs. Contingent upon the ambient air monitoring results described in *Section 5.3*, sampling activities will be conducted using either Level D or C PPE.

### **5.5.1 Emergency Equipment**

The following emergency equipment may be required on site during field operations:

- Fire Extinguishers
- First Aid Kits
- Communication Equipment

All equipment will be maintained on site for immediate use in case of an emergency.

Whenever there is a potential threat of fire at hazardous waste site, fire extinguishers will be readily available and on hand throughout the site work. All fire extinguishers will be 20-pound Class ABC. The fire extinguishers will be kept with the field crew during work.

Emergency telephone numbers are included in the following table. A copy of this plan will be available at the site for use as needed. A mobile phone will be kept at the site for emergency use.



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<b>Contact:</b>	<b>Position</b>	<b>Telephone</b>
Luis R. Colón Morales	Site Manager PM/FSC)	(787) 998-7262 (787) 469-2714
Eng. Ramon Perez	Alternate (PM/FSC)	(787) 380-6044
Eng. Raúl Colón	Project Principal/Engineer	(787) 998-7262 (787) 559-2002
Luz Mignelia Torres Pérez	Municipio de Dorado	(787) 796-1230 ext.3338

### 5.5.2 Work Precautions and Emergency Procedures

The following work procedures will be implemented at the site:

- When applicable the "buddy system" shall be enforced for field activities involving the potential overexposure to hazardous or toxic materials. Each person should observe their partner for symptoms of chemical over exposures, heat stress, and provide assistance when warranted.
- No eating, drinking, using tobacco products or putting hands in mouth while on the site.
- Wash all exposed skin areas with soap and water before departing from the site.
- Remove and change any non-impervious clothing that becomes contaminated during site activities.
- Do not go anywhere on the site other than where directed by the field professional.
- Confined spaces (if any) shall not be entered without prior consent of the Health and Safety Officer and Principal.
- Safety belts with lifelines shall be worn whenever there is a potential for falling into, out of, or off of a vessel, elevated work platform, etc.

The following emergency procedures would be implemented if needed:

- **Skin Contact**                      Remove any contaminated equipment and clothing. Thoroughly wash area with soap and water.
- **Inhalation**                        Move to fresh air, remove any respiratory protection equipment.

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- Eye Contact** Flush with water or eye wash solution for at least 15 minutes. Seek medical help if necessary.
- Ingestion** Seek medical help if necessary.
- Personnel Injury** A first aid kit would be readily available in the case of an injury. Administer first aid and/or seek medical help, if necessary. Medical emergencies take precedence over decontamination procedures. Know route to nearest telephone and medical facility.
- Potential or Actual** If it is safe to do so, on-site personnel may use available Firefighting Fire/Explosion equipment to control or extinguish the fire, and remove or isolate materials which may contribute to the fire. Contact the fire department, project manager and/or client company officials as appropriate.
- Spill or Release of Hazardous Material** Clean up, isolate or contain spill as appropriate. Contact emergency response personnel, project manager, and/or client company officials as appropriate.
- Evacuation Procedures** In the event of an emergency that requires an evacuation of the verbal instruction will be given by the FSC or field professional to evacuate the area. The FSC or field professional will account for all personnel, and will advise personnel of further instructions if necessary. The FSC or field professional will also advise responding off-site emergency personnel if necessary. Personnel shall not re-enter the site until the emergency conditions have been corrected, and the Field Safety Coordinator has authorized re-entry.
- Route to nearest Medical Facility** The DOCTORS' CENTER HOSPITAL ORLANDO HEALTH – DORADO is the nearest hospital, located PR-696, Km. 3.2 *Figure 4* shows the route to the emergency room.

### Emergency Numbers

The following is a list of emergency numbers within the site:

#### Name

#### Telephone No.

Hospital  
 Dorado Municipal Police  
 State Police

(787) 625-5050  
 (787) 278-2020  
 (787) 343-2020



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Fire Department	(787) 725-3444
DNER	(787) 766-2823
(Emergency Line)	(787) 274-8037
	(787) 274-0124
Environmental Protection Agency	1-800-424-8802
(National Response Center, Emergency Line)	
Environmental Protection Agency	1-800-424-9346
(Puerto Rico)	1-800-424-8802
Poison Control Center (New Jersey)	1-800-962-1253
Caribe Environmental Services	(787) 998-7262

### 5.6 COVID19 Emergency

According to the OSHA guidelines, CES's consulting work is considered to have a low exposure risk (caution). CES jobs do not require contact with people known to be, or suspected of being, infected with SARS-CoV-2 nor frequent close contact with (i.e., within 6 feet of) the general public. CES's workers in this category have minimal occupational contact with the public and other coworkers. CES's office and field work can be accomplished by meeting the social distancing requirements as set forth by OSHA and PROSHA.

A summary of the procedures that will be followed by CES personnel during the field activities:

- All employees must wear the necessary PPE
- All personnel must maintain the social distancing strategy (minimum of 6 feet between personnel). If for any reason this distance cannot be maintained during a specific period of time, each employee must be fitted with the necessary PPE to avoid exposure.
- No-touch trash cans, hand soap, alcohol-based hand rubs containing at least 60 percent alcohol, disinfectants, disposable towels for workers to clean their work surfaces and alcohol.
- Gloves, goggles or face shields, and face masks will be provided by CES to its employees.
- Personnel must stay home, if feeling sick, or have any of the symptoms associated with the COVID-19.
- Employees are required to maintain respiratory etiquette, including covering coughs and sneezes.
- Employees must not use other employee's phones, desks, offices, or other work tools and equipment, unless these are properly disinfected.

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- To minimize contact among workers and clients, face-to-face meetings will be replaced, as much as possible, with virtual communications and by implementing telework if feasible.

### **5.7 Field Safety Coordinator Responsibilities**

The FSC is responsible for formulating and enforcing health and safety requirements. His responsibilities include:

- Ensuring that all site team members have received the required health and safety training,
- Ensuring that all team members have been successfully fit-tested for respirators,
- Ensuring that all equipment used on site is suitable and adequate,
- Addressing any unusual problems or conditions that may be encountered,
- Ensuring that site standard operating procedures are followed at all times.

The FSC will have direct responsibility for reviewing, approving and administering the Health and Safety Procedures relative to all site activities.

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**6.0 ORGANIZATION AND RESPONSIBILITY**

CES will assign qualified and experienced personnel for the execution of the activities presented in *Section 2.0* of this Plan.

Mr. Raúl Colón will be the Project Principal Engineer. Mr. Colón has more than 45 years of experience in environmental engineering and has successfully implemented and directed several remediation and site assessment projects in Puerto Rico. As the Project Principal Engineer, Mr. Colón will be responsible for the technical integrity, execution and direction of the project. Mr. Colón will be responsible for providing technical guidance to field personnel and for the final preparation and certification of the project report.

The field project manager will be either Mr. Luis R. Colón or Mr. Valentín Félix. Mr. Félix is a chemical engineer with more than 40 years of environmental experience. Mr. Félix will be responsible of executing and supervision of the field activities. Mr. Colón Morales is a civil engineer with more than 15 years of environmental experience

Other experienced and qualified CES personnel may be assigned by Eng. Colón to the project, as needed. We note that based on the office workload at the time the proposed investigation is executed, CES reserves the right to assign other qualified professionals to act as the Project Manager and/or FSC for this work.

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**7.0 PROPOSED TIME SCHEDULE**

The following is an estimated time schedule of the proposed activities:

<b><u>Task Description</u></b>	<b><u>Estimated Duration (Working Days)</u></b>
Project start-up	5 working days*
Field Activities	1 working days**
Final Report Preparation	15-20 working days+

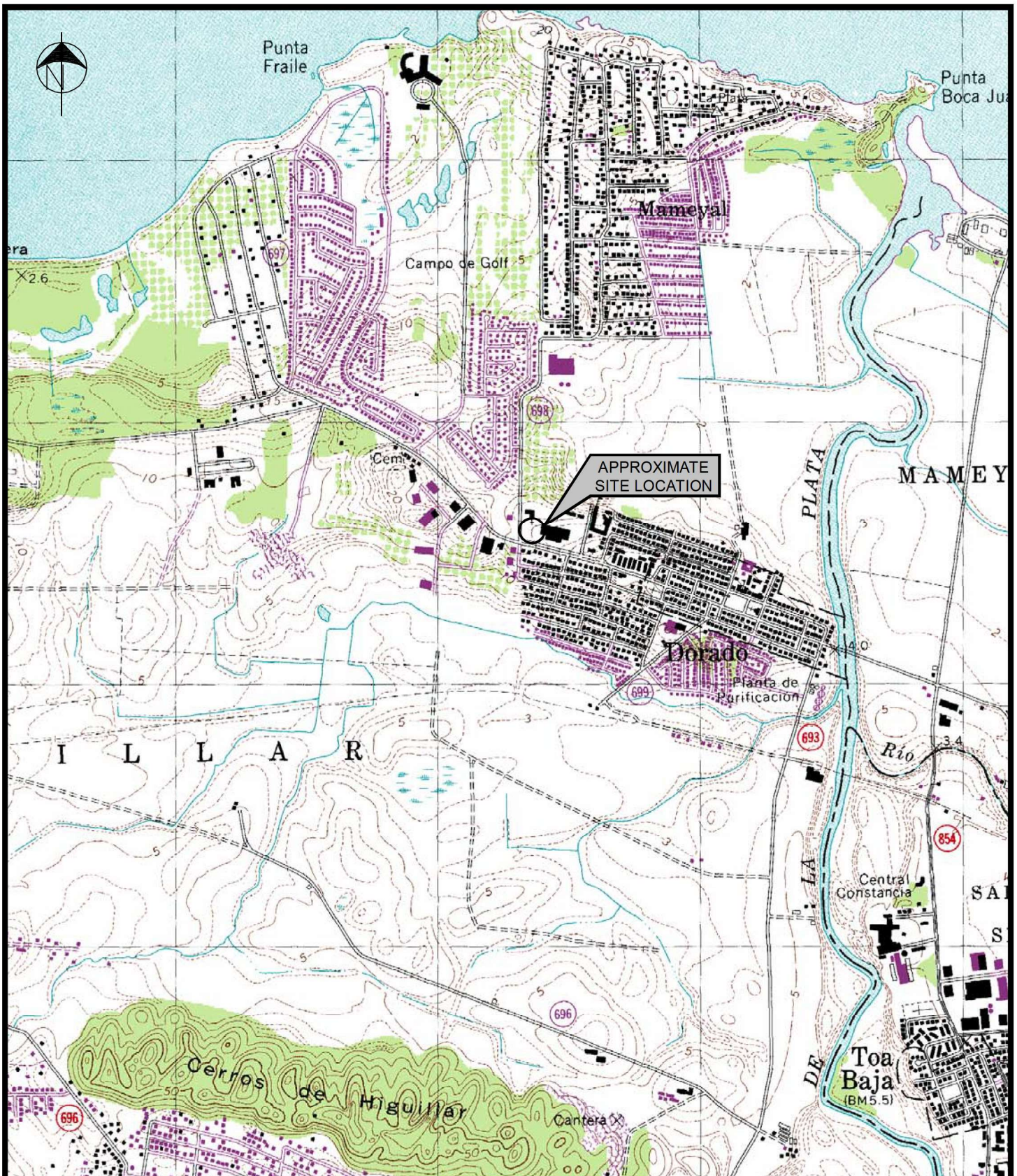
*Notes: \*after authorization  
\*\* after project set-up and site access is provided  
+ after Field Activities*

*Work and Sampling Plan*  
*Limited Environmental Assessment Activities*  
*Project CRP-000557 Rotonda*  
*Community Development Block Grant –*  
*Disaster Recovery*  
*Municipality of Dorado, Puerto Rico*  
*CES Project No. 23-0059*

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## **FIGURES**





SOURCE: USGS TOPOGRAPHIC MAP OF VEGA ALTA  
QUADRANGLES 1969 (PHOTOREVISED 1982)

SCALE: 1:20,000



WORK AND SAMPLING PLAN  
LIMITED ENVIRONMENTAL ASSESSMENT ACTIVITIES  
PROJECT CRP-000557 ROTONDA  
COMMUNITY DEVELOPMENT BLOCK GRANT -  
DISASTER RECOVERY

DORADO, PUERTO RICO

APPROXIMATE  
SITE LOCATION

PROJECT  
NO. 23-0059

FIGURE 1



LEGEND:

AREA OF CONCERN

PAILS AND OIL STAINS, ON THE ASPHALT OF ADJOINING PARKING LOT APPROXIMATE LOCATION



APPROXIMATE SCALE (METERS)  
2.5 0 2.5 5

NOTE:

ALL LOCATIONS SHOWN ARE APPROXIMATE AND ARE ACCOMMODATED TO FIT THIS FIGURE  
SOURCE: GOOGLE EARTH, MAY 10, 2023, AREA OF CONCERN PROVIDED BY MOD IN THE RFP



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WORK AND SAMPLING PLAN  
LIMITED ENVIRONMENTAL ASSESSMENT ACTIVITIES  
PROJECT CRP-00057 ROTONDA  
DEVELOPMENT BLOCK GRANT -  
COMMUNITY DISASTER RECOVERY  
MUNICIPALITY OF DORADO, PUERTO RICO

AREA OF CONCERN

PROJECT NO.  
23-0059

FIGURE 2



**LEGEND:**

- ▬ AREA OF CONCERN
- SB-1 PROPOSED SOIL BORING APPROXIMATE LOCATION
- PAIRS AND OIL STAINS, ON THE ASPHALT OF ADJOINING PARKING LOT APPROXIMATE LOCATION



**NOTE:**

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 SOURCE: GOOGLE EARTH, MAY 10, 2023, AREA OF CONCERN PROVIDED BY MOD IN THE RFP



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 MUNICIPALITY OF DORADO, PUERTO RICO

**PROPOSED SOIL BORING LOCATIONS**

PROJECT NO.  
 23-0059







*Work and Sampling Plan*  
*Limited Environmental Assessment Activities*  
*Project CRP-000557 Rotonda*  
*Community Development Block Grant –*  
*Disaster Recovery*  
*Municipality of Dorado, Puerto Rico*  
*CES Project No. 23-0059*

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**APPENDICES**



*Work and Sampling Plan*  
*Limited Environmental Assessment Activities*  
*Project CRP-000557 Rotonda*  
*Community Development Block Grant –*  
*Disaster Recovery*  
*Municipality of Dorado, Puerto Rico*  
*CES Project No. 23-0059*

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## **APPENDIX 1**

### **CES SOP 1000 – DECONTAMINATION**

## **SOP 1000**

### **DECONTAMINATION**

#### **I PURPOSE AND APPLICABILITY**

This SOP describes the methodology to be used for the decontamination of items which may become contaminated during field operations. Decontamination is performed as a quality assurance measure and as a safety precaution. It minimizes the possibility of cross contamination between samples and also helps maintaining a clean working area. Equipment that require decontamination may include hand tools, drilling tools, sampling equipment, monitoring and testing equipment, personal protective equipment, or heavy equipment (eg., loaders, backhoes, drill rigs, geo-probes, etc.).

Decontamination is achieved mainly by rinsing liquids which may include: soap, and/or detergent solutions, tap water, distilled water, organic solvent (i.e. isopropanol, methanol, hexane) and acids (i.e. nitric acid). Other rinsing liquids may be used depending upon the type of material being decontaminated and the availability of decontamination liquids. Equipment may be allowed to air dry after cleaning or may be wiped dry with paper towels or chemical-free cloths.

Sampling equipment will be decontaminated prior to use and between samples collection. Waste products derived by the decontamination procedures such as rinse liquids, solids, rags, gloves, etc. will be collected and disposed of properly based on their nature of contamination and site protocols. Reusable materials and/or equipment should be decontaminated or properly protected before being taken off site.

Specific project requirements as described in approved documents such as Work Plan, Sampling Plan, Quality Assurance Project Plan or Health & Safety Plan will take precedence over the procedures described in this SOP.

#### **II RESPONSIBILITIES**

It is the responsibility of the field sampling coordinator to ensure that proper decontamination procedures are followed by CES' sampling personnel and that waste materials produced by decontamination are properly managed and left on site under the client's custody. It is the responsibility of any subcontractors (e.g., drilling or sampling contractors) to follow the designated decontamination procedures stated in their contracts or outlined in the project H&S Plan.

#### **III SUPPORTING MATERIAL**

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The following materials may be on hand in sufficient quantity to ensure that proper decontamination methods and procedures may be followed:

- Cleaning liquids as necessary and dispensers (soap and/or detergent solutions, tap water, distilled water, methanol, or isopropyl, nitric acid - 10% solution, etc.)
- Personal safety gear, as defined in the project H&S Plan
- Paper towels or chemical-free cloths
- Waste storage containers (e.g., drums, boxes, plastic bags)
- Drum labels if necessary
- Cleaning Containers (e.g., plastic and/or stainless steel bowls or buckets)
- Cleaning brushes
- Plastic sheeting

#### **IV METHODOLOGY**

The extent of visual contamination will determine the degree of decontamination required. If the content of contamination cannot be readily determined, cleaning should be done according to the assumption that the tools are highly contaminated.

The standard procedure presented below describes the sequence of a complete field decontamination protocol. The following process may be varied as described in the project plans and/or as required for the type of contaminant that should be removed. If different technical procedures are required for a specific project, they should be described in the project plans. Such variations in decontamination may include all or an expanded scope of the decontamination procedure included in this SOP.

- Remove gross contamination from the tools equipment by scrubbing and brushing, followed by rinsing with tap water.
- Wash with a phosphate free detergent or soap solution (e.g., Alconox and tap water).
- Rinse with tap water.
- Rinse with a 10% nitric acid solution (if regulated metals are concerned).
- Rinse with distilled water.
- Rinse with isopropyl alcohol or methanol.
- Rinse with distilled water.
- If necessary, repeat entire procedure or any parts of the procedure to ensure proper decontamination process.
- After decontamination procedure is completed, place tools/equipment over protected surface (i.e. over: aluminum foil velostat bag, chemical free cloth) to avoid re-contamination.
- Allow to air dry or wipe off with paper towel or chemical free cloth.

Bore hole drilling equipment such as augers, split spoons and Shelby tubes may be decontaminated with pressurized hot water or steam or by scrubbing and brushing with a detergent, followed by a



fresh water rinse. No additional decontamination will be required if the equipment appears visually clean. If evident contamination is observed after hot water/steam cleaning, the equipment will be decontaminated by scrubbing or brushing with a detergent.

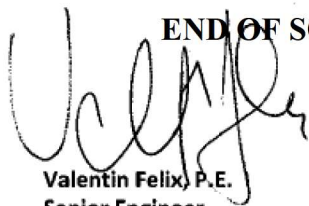
## **V QA/QC PROCEDURES**

To assess the adequacy of decontamination procedures, rinsate blanks should be collected and analyzed for the same parameters as the field samples. The specific number of blanks will be defined in the project sampling or work plans.

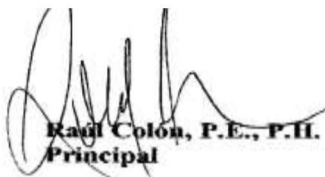
## **VI DOCUMENTATION**

Field notes describing the procedures used to decontaminate tools and equipment, personnel conducting the decontamination and description of blank samples taken will be documented by on-site personnel in a dedicated field log or notebook. Field notes will be kept in the project files.

Prepared by:

  
**END OF SOP 1000**  
**Valentin Felix, P.E.**  
**Senior Engineer**

Revised and approved by:

  
**Raul Colon, P.E., P.H.**  
**Principal**

*Work and Sampling Plan*  
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## **APPENDIX 2**

### **CES SOP 1200 – FIELD LOG BOOK**



## **SOP 1200**

### **FIELD LOGBOOK**

#### **I PURPOSE AND APPLICABILITY**

This SOP describes the methodology to be used for keeping a field logbook. A field logbook or any other similar field record will be kept for every project that requires the execution of field activities.

Specific project requirements as described in approved documents such as Work Plan, Sampling Plan, Quality Assurance Project Plan or Health & Safety Plan will take precedence over the procedures described in this SOP.

#### **II RESPONSIBILITIES**

The field logbook is issued by the Project Professional (or his designee) to the Site Coordinator for the duration of the project. The Site Coordinator may release the field logbook to his designer responsible for the direction of on-site activities. It is the responsibility of the site Coordinator (or his designee) to keep the field logbook current while in his possession and return it to the Project Professional upon completion of field activities. The field logbook will be kept in a secure place during the field activities. A field logbook should not be kept in a personal file, desk, automobile, or other location except during actual use. Following the completion of fieldwork, the field logbook will be returned to the Project Professional for inclusion in the job file.

#### **III SUPPORTING MATERIAL**

The following materials should be available prior to initiating field activities:

- Bound notebook with sewn up pages or similar field record
- Ballpoint pen and/or water resistant pen

#### **IV METHODOLOGY**

##### **IV.1 General**

The cover of each project logbook will contain the following information:

- Project name
- Project number
- Project Principal, Project Professional and Site Coordinators names, if different and phone numbers
- Sequential book number, if more than one log book is required
- Start date of field activities

- Completion date of field activities

Daily entries into the logbook may contain different types of information. However, the following information must be recorded for each field working day.

- Date
- Arrival time
- Weather conditions, if appropriate
- All field personnel present
- Any visitors present
- Departure time

During the day a summary of site activities should be recorded in the logbook. The level of personal protection used should be included in the logbook and if any changes to the protection is made during the course of the field activities it should also be documented in the logbook. At a minimum, the following activities/events will be recorded in the site logbook:

- Arrival/departure of site visitors
- Arrival/departure of equipment
- Sample pickup data
- Sampling activities summary
- Start or completion of borehole/trench/monitoring well installation or sampling activities
- Health and Safety issues, if appropriate

If measurements are made at any location, the measurements and equipment used must be recorded in the field logbook or reference must be made to the logbook and page number(s) on which they are recorded.

All entries will be recorded in non-erasable ink (if available waterproof). No erasures or “white outs” should be entered in the book. If incorrect information is entered, this information will be crossed out with strike marks, initialed, and dated by the person making the correction. As necessary, entries should be dated and timed of entry recorded. The field notes portion of the logbook should be completed in a sequential order. No blank pages should be found within the daily notes section of the logbook. At the end of each day of activity, or entry of a particular event if appropriate, the field Individual responsible for the logbook should draw a diagonal line at the conclusion of the entry and sign at the end of the page indicating the conclusion of the entry or the days activities.

All entries in the field logbook shall be dated, be legible and contain accurate and inclusive documentation of an individual's project activities. Since field records are the basis for later written report, language should be objective, factual and free of personal feeling or other terminology which might prove inappropriate.



## **IV.2 Sampling**

When field activities includes sampling, sample collection and handling as well as visual observations shall be documented in the field logbook. Sample collection equipment (where appropriate), field analytical equipment, and equipment to make physical measurements shall be identified in the field logbook. Calculations, results, and calibration data for field sampling field analytical, and field physical-measurement equipment shall also be recorded in the field logbook. All field analyses and measurements must be traceable to the specific piece of field equipment used and to the field team personal collecting the sample, making the measurement or analyses.

For sampling activities, specific details for each sample must be recorded on designated sampling form or the field logbook. In addition to the items listed above, the following information may need to be included as appropriate in the logbook:

- Type and number of samples collected
- Sample location and identification number
- Sample collection date and time
- Laboratory analysis required per sample
- Sampling methodology and tools equipment used
- Deviations from the work plan or the SOP, if appropriate
- Chain of custody data
- Sampling, handling and packaging labeling and shipping information, including destination

## **IV.3 Photographs**

The record of photographs taken at a site for the purpose of project documentation must be included in the field logbook or any other suitable record for further identification of the photographs. The information that should be recorded may include photographer name, date, time, site locations, site description and orientation of the photograph. The photographer is not required to record the aperture settings and shutter speeds for photographs taken. The use of special lenses, films, filters and other image enhancement techniques other than the ones that are normally part of the equipment used, should be avoided. If any additional special device is used, it should be described in the logbook with an explanation of the reasoning of using such device. Adequate logbook notations and receipts should be used to account for routine file processing. Once processed, the slides or photograph should be described and identified and the information placed on the back of each photograph or in the photograph documentation form.

If a digital camera is used photographs should be download into the CES central computer, on a frequent basis or at the end of the field activities, at a folder created for the project. Digital photographs should not be managed or altered except for the printout of the photograph at a suitable scale. Copies of the photographs should be printed and a description of each photograph or group of photographs should be included and kept on the project file.

## **V REFERENCES**

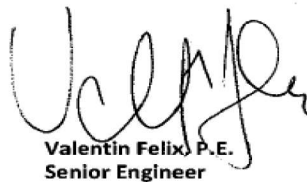
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Environmental Protection Agency, 1987, REM III Program Guidelines, Field Technical Guideline 13.03, Region. II

Environment. Protection Agency 1987, A Compliance of. Superfund Field Operation Methods EPA-540001.

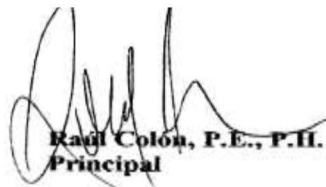
**END OF SOP 1200**

Prepared by:



**Valentin Felix, P.E.**  
**Senior Engineer**

Revised and approved by:



**Raul Colon, P.E., P.H.**  
**Principal**

*Work and Sampling Plan  
Limited Environmental Assessment Activities  
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### **APPENDIX 3**

#### **CES SOP 1300 – SAMPLE IDENTIFICATON AND CHAIN OF CUSTODY**



## **SOP 1300**

### **SAMPLE IDENTIFICATION AND CHAIN OF CUSTODY**

#### **I PURPOSE AND APPLICABILITY**

This SOP describes the methodology to be used during field sampling activities for sample identification, sample control chain-of-custody and document control.

A sample is defined as physical evidence collected from a facility, site, or the environment. For the purposes of this section, the term "physical evidence" also includes photographs, records, or any other tangible article collected from the environment, facility, or site.

All sample identification, field records, and chain-of-custody records shall be recorded in ink and if available waterproof non-erasable ink. If errors are made in any of these documents, responsible personnel will make corrections by simply crossing lines through the error and entering the correct information. All corrections shall be initialed and dated by the author of the correction.

Specific project requirements as described in approved documents such as Work Plan, Sampling Plan, Quality Assurance Project Plan or Health & Safety Plan will take precedence over the procedures described in this SOP.

#### **II RESPONSIBILITIES**

It is the responsibility of the field sampling coordinator to ensure that proper sample identification and chain of custody procedures are followed.

#### **III SUPPORTING MATERIAL**

The following materials may be on hand in sufficient quantity to ensure that proper methods and procedures are followed:

- Sample containers and labels
- Chain of custody forms
- Waterproof indelible pens or ink pens

## **IV METHODOLOGY**

### **IV.1 Sample and Evidence Identification**

#### **IV.1.1 General**

The method of sample identification utilized depends on the type of sample collected. Samples collected for in-situ field analyses are those collected for specific field analyses or measurements where the data are recorded directly in bound field logbooks or recorded directly on the Chain-of-Custody Record, with identifying information, while in the custody of the sampling team. Examples of such in-situ field measurements and analyses include, but are not limited to, pH, temperature, and conductivity. Also included in this category are those field measurements or analyses such as flow measurements, geophysical measurements, surveying measurements, etc. that are made with field instruments or analyzers, where no sample is actually collected.

#### **IV.1.2 Sample Identification**

Samples, other than those collected for in-situ field measurements or analyses, are identified by using a standard sample label which is attached to the sample container. In some cases, particularly with biological samples, the sample label may have to be included with or wrapped around the sample. The sample labels are sequentially numbered and are accountable documents after they are completed and attached to a sample or other physical evidence. The following information may be included on the sample label:

- Project name
- Sample identification number
- Date and time of sample collection
- Designation of the sample as a grab or composite
- Type of sample (water, wastewater, leachate, soil, sediment, etc.) and sample source
- Name or initials of the sampler(s) or of the designated sampling team leader (a team leader is a field investigator assigned by the project leader to be present during the collection of a specific sample and to be responsible and knowledgeable of all activities directly related to the collection of that sample)
- Sample preservative
- Analyses to be conducted
- Any relevant comments (such as readily detectable or identifiable odor, color, or known toxic properties)

Other information may be added or some of the information listed above may be omitted based upon site conditions encountered, without affecting the traceability of the sample collection process.

The sample identification number is assigned by the project professional or field coordinator. This number is ordinarily an alpha-numeric identification or any other unique identification designed for a

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particular inspection or investigation. For example, if a sample is collected from a monitoring well installed during a site screening investigation conducted at the ABC Company, the alpha-numeric sample identification number could be ABC-MW-1. A surface soil sample from this facility might be identified as ABC-S-1. Each separate monitoring location should have a different numerical designation. Frequently, water and sediment samples are collected from the same sampling station and could have the same numerical designation. For example, water and sediment samples collected from the same location in the Plata River at Station 001 could be identified as PR-W-1 and PR-S-1, respectively. The project professional or field coordinator shall exercise due caution to insure that sample identification numbers are not duplicated during studies. The exact description of all sampling stations associated with the sample identification numbers shall be documented in the bound field logbooks.

If a sample is split with a facility, state regulatory agency, or other party representative, sample labels with identical information should be attached to each of the sample containers by the party receiving the split sample. Also, all labels for blank or duplicate samples will be marked "blank" or "duplicate," respectively. This requirement does not apply to "blind" spiked or blank samples which are to be submitted for laboratory quality control purposes. "Blind" spiked or blank samples shall not be identified as such. The identifying information and correlation to split, duplicate and blind samples, shall be recorded in the bound field logbooks. This information shall also be recorded on the Chain-of Custody Record, except for blind samples.

#### **IV.1.3 Identification of Physical Evidence**

Physical evidence, other than samples, shall be identified by utilizing a sample tag or recording the necessary information on the evidence. When samples are collected from vessels or containers which can be moved (barrels for example), the field coordinator shall mark the vessel or container with a pre-assigned container identification number or sample identification number for future identification, if necessary. The vessel or container shall be marked by utilizing a sharp instrument, spray paint or similar system. The vessel or container need not be marked if it already has a unique marking or serial number; however, these numbers shall be recorded on the sample tag and in the bound field logbooks. In addition, photographs may be collected of any physical evidence (markings, etc.) and the necessary information recorded in the field logbook.

Occasionally, it is necessary to obtain recorder and/or instrument charts from facility owned analytical equipment, flow recorders, etc., during field investigations and inspections. Field investigators should mark the charts and write the following information on these charts while they are still in the instrument or recorder (along with the field coordinator initials):

- If possible, starting and ending time(s) and date(s) for the chart
- If possible, the field coordinator shall take an instantaneous measurement of the media being measured by the recorder. The instantaneous measurement shall be entered at the

appropriate location on the chart. The field coordinator shall enter the date and time of the measurement and then enter his/her initials

- A description of the location being monitored and any other information required to interpret the data such as type of flow device, chart units, factors, etc.

After the chart has been removed, the field coordinator shall indicate on the chart who collected the chart (or copy of the chart) who received it and enter the date and time, as well as the field coordinator initials.

Documents such as technical reports, laboratory reports, etc., should be marked with the field coordinator's signature, the date, the number of pages, and from whom they were received.

## **IV.2 Chain-of-Custody Procedures**

### **IV.2.1 General**

The possession of samples or other physical evidence shall be traceable from the time they are obtained until the project is completed.

### **IV.2.2 Sample Custody**

A sample or other physical evidence is in custody if:

- It is in the field coordinator's or the transferee's actual possession; or
- It is in the field coordinator's or the transferee's view, after being in his/her physical possession; or
- It was in the field coordinator's or the transferee's physical possession and then he/she secured it to prevent tampering; or
- It is placed in a designated secure area

### **IV.2.3 Chain-of-Custody Record**

The field Chain-Of-Custody Record, provided by the laboratory designated to perform required the analysis, will be used to record the custody of all samples or other physical evidence collected and maintained by field personnel. The Chain-Of-Custody Record also serves as a sample logging mechanism for the sample custodian.

Usually the following information is supplied to complete the field Chain-Of-Custody Record.

- Project number
- The project name

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- All samplers and /or sampling coordinator must sign in the designated signature block
- The sample identification number for each sample and any needed remarks are to be supplied in the indicated column
- The sample identification number, date, and time of sample collection, grab or composite sample designation, and a brief description of the type of sample and the sampling location must be included on each line (each line shall contain only those samples collected at a specific location)
- The sampling coordinator's name should be recorded in the right or left margin of the Chain-Of-Custody Record when samples collected by more than one sampling team are included on the same form. The sampling coordinator is an individual designated by the project professional or project principal to be responsible for all activities related to the collection of samples by a specific team of sampling personnel
- The total number of sample containers must be listed in the indicated space for each sample. The total number of individual containers must also be listed for each type of analysis under the indicated media or miscellaneous columns. Note that it is impossible to have more than one media type per sample
- The field coordinator and subsequent transferee(s) must document the transfer of the samples listed on the Record in the spaces provided at the bottom of the Record. One of the samplers documented under the sampler(s) section must be the person that originally relinquished the samples or evidence or a designated field sample custodian who receives secured samples from sampling teams and maintains these samples under secure conditions. Both the person relinquishing the samples and the person receiving them must sign the form; the date and time that this occurred must be documented in the proper space on the Record. Usually, the last person receiving the samples or evidence should be a laboratory sample custodian or other evidence clerk
- The remarks column at the bottom of the Record is used to record air bill numbers, registered or certified mail serial numbers or other pertinent information (i.e., specific instructions to be laboratory)

The above listed information may vary depending on the chain-of custody form provided by the laboratory. The Chain-Of-Custody Record is a serialized document. Once the Record is completed, it becomes an accountable document and must be maintained in the project file. The suitability of any other form for chain-of-custody should be evaluated based upon its inclusion of all of the above information in a legible format.



#### **IV.2.4 Field Custody Procedures**

- To simplify the Chain-Of-Custody Record and eliminate potential litigation problems, as few people as possible should handle the sample or physical evidence during the investigation or inspection
- The field coordinator is responsible for the proper handling and custody of the samples collected until they are properly and formally transferred to another person or facility
- Sample labels shall be completed for each sample, using ink pens or waterproof non-erasable ink pens.
- All samples shall be sealed immediately upon collection. If appropriate custody seals should be put on each sample container. The field coordinator may write the date and his/her signature on the seal. This requirement shall be waived if the field coordinator keeps the samples in his/her continuous custody from the time of collection until they are delivered to the laboratory analyzing the samples.
- All samples must be documented in bound field logbooks or similar recording form.
- A Chain-Of-Custody Record will be completed for all samples or physical evidence collected. A separate Chain-Of-Custody Record will be utilized for each final destination or laboratory utilized during the investigation
- In general, project personnel shall not accept samples from other sources unless the sample collection procedures used are known to be acceptable, can be documented, and the sample chain-of-custody can be established. If such samples are accepted by the project principal, a standard sample label containing all relevant information and the Chain-Of-Custody Record, shall be completed for each set of samples

#### **IV.2.5 Transfer of Custody and Shipment**

- All physical evidence or sample sets shall be accompanied by a Chain-Of-Custody Record. When transferring the possession of samples, the individual receiving the samples shall sign, date, and note the time that he/she received the samples on the Chain-Of-Custody Record. This Chain-Of-Custody Record documents transfer of custody of samples from the field coordinator to another person, to the selected laboratory, or other organizational elements.
- Samples shall be properly packaged for shipment and delivered or shipped to the designated laboratory for analysis. If samples are to be shipped, shipping containers may be secured, as necessary, by using nylon strapping tape and custody seals. The custody seals shall be placed on the container so that it cannot be opened without breaking the seals. The seal shall be signed and dated by the field coordinator
- When samples are split with a facility, state regulatory agency, or other government agency, a facility, state regulatory agency, or other government agency representative receiving the samples should sign the Chain-Of-Custody Record.

- All samples shall be accompanied by the Chain-Of-Custody Record. The original and one copy of the Record will be placed in a plastic bag inside the secured shipping container if samples are shipped. One copy of the Record will be retained by the field coordinator or project professional. The original Record will be transmitted to the field coordinator or project professional after samples are accepted by the laboratory. This copy will become a part of the project file.
- If sent by mail, the package shall be registered with return receipt requested. If sent by common carrier an Air Bill should be used. Receipts from post offices, and copies of Air Bills shall be retained as part of the documentation of the chain-of-custody. The Air Bill number, or registered mail serial number shall be recorded in the remarks section of the Chain-Of-Custody Record or in the field logbook.

## **V QA/QC PROCEDURES**

Any required QA/QC procedure applicable to the sample identification and chain of custody activities, if applicable, should be defined in the project sampling or work plans.

## **VI DOCUMENTATION**

Field notes describing the procedures used and data obtained during sample identification and chain of custody activities will be documented by on-site personnel on a dedicated field log or notebook. We note that information included in the sampling and chain of custody forms may not need to be repeated in the field logbook. Field notes will be kept in the project files.

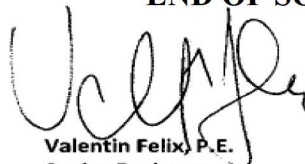
## **VII REFERENCES**

Environmental Protection Agency, 1987, REM III Program Guidelines Field Technical Guidelines, Region II

Environmental Protection Agency, 1987, A Compendium of Superfund Field Operations Method, EPA 540-001

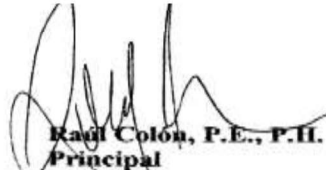
### **END OF SOP 1300**

Prepared by:



**Valentin Felix, P.E.**  
**Senior Engineer**

Revised and approved by:



**Raul Colon, P.E., P.H.**  
**Principal**

*Work and Sampling Plan*  
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## **APPENDIX 4**

### **CES SOP 2000 – SOIL SAMPLE COLLECTION**



## **SOP 2000**

### **SOIL SAMPLE COLLECTION**

#### **I PURPOSE AND APPLICABILITY**

This SOP describes the methods used in obtaining soil samples for physical testing, lithological description and chemical analysis. Soil samples are obtained in conjunction with surface sampling, test pit excavation, soil borings, monitoring well installation and underground injection facilities sampling. The procedures included herein provide direct information as to the physical makeup of the surface and subsurface environment as well as to estimate the extent of the potential presence of chemical constituents of concern (CCOC) at selected project site areas, if present. This SOP will discuss sampling of the surface material with hand tools and sampling of the subsurface material by using augers and split spoons, direct push equipment and within test pits using backhoes and hand tools.

Specific project requirements as described in approved documents such as Work Plan, Sampling Plan, Quality Assurance Project Plan, or Health & Safety Plan will take precedence over the procedures described in this SOP.

#### **II RESPONSIBILITIES**

The project professional will be responsible for the proper use and maintenance of the types of equipment used for obtaining soil samples. The project professional will determine the location, total depth, and overall size of each surface sample collection point and test pit, and the location and depth of all subsurface borings based on the project specific sampling and/or work plans. CES will make every effort possible to prevent affecting underground utilities during sample collection. However, CES will not be responsible for underground utilities not properly shown by the client on accurate drawings or marked on the field. Prior to initiating sample collection activities, the location of overhead utilities and potential obstructions relative to the sampling locations will be assessed by the project professional.

It shall be the responsibility of the project professional to observe all activities pertaining to soil sampling and subsurface investigations to ensure that the standard procedures are followed properly, and to record all pertinent data on a field log or field book. The collection, handling, and storage of all samples will be the responsibility of the project professional.

It is the responsibility of the contractors, if any is used, or the project professional to provide the necessary equipment for obtaining subsurface samples in borings and for the decontamination of the equipment, test pit construction, split-spoon sampling, and subsurface augering. In addition, the contractor, if used, or the project professional will be responsible for containment of drill cuttings and decontamination wash waters, if required.



### **III SUPPORTING MATERIALS**

In addition to materials provided by the contractor or by CES, the following materials may be available at the sampling location:

- Sample bottles/containers and labels
- Boring or test pit logs
- Field notebook
- Chain of custody forms
- Depth-measurement device
- Stakes and/or fluorescent flagging tape
- Decontamination solutions and/or equipment
- Digital Camera
- Sampling equipment (e.g., knives, spoons, shovels, hand auger, aluminum foil, and plastic garbage bags)

### **IV METHODOLOGY**

Sampling equipment and methodology will be dictated by the characteristics of the soil to be sampled, the type of soil samples required and by the analytical procedures to be employed. Soil samples obtained at the surface may be collected using a shovel, stainless steel spoon, hand auger or any other suitable device. A hand auger can be used to extract shallow soil samples up to 10 feet below the surface. Sampling to obtain uniform coverage within a specified area may require the use of an area grid. If this type of sampling is required, it will be conducted following project specific requirements as described in the project sampling and/or work plans.

There are two types of samples that may be required by the project sampling plan: grab or composite. A grab sample is collected from a specific location or depth and placed in the appropriate sample container. A composite sample consists of several discrete locations (or depths) mixed to provide a homogeneous, representative sample. To ensure that the sample is representative, the soil volume and collection method from each discrete location should be as identical as possible. We note that samples analyzed for volatile organic compounds cannot be composited to minimize the loss of volatile components due to exposure of the soil to the atmosphere prior to transfer into the sample container.

The sampling depth interval in borings is typically one sample for every four feet with additional samples taken at the discretion of the project professional when significant color, textural, or odor changes are encountered. Alternatively, soil samples can be obtained continuously using power augers and split spoons or direct push technology. Typically, the soil sample method is described in the project specific plans. If not, the project professional can select the method that best fit the project conditions.

Prior to commencing subsurface exploration, CES will work with the client or his representative to locate any subsurface utilities or structures. However, CES will not be responsible for damages to underground utilities not properly identified by the client or his representative. Overhead lines must also be kept in consideration when a drilling rig is used. As a rule of thumb, the rig and derrick should be at least 25 feet away from overhead lines unless special shielding and grounding are provided.

#### **IV.1 General**

General locations should be mapped by the field professional using a stationary reference point. Specific locations for test pits and sampling locations will be documented by surveys or by using topographic maps and/or plans. A preliminary log of the test pit, or boring shall be prepared in the field by the field professional. A sketch of the test pit may be necessary to depict the strata encountered. Before measuring the depth to groundwater, if encountered, the field professional will allow sufficient time for stabilization of the water table in the excavation or boring. All information shall be recorded on the field log or the field book.

#### **IV.2 Surface Sampling**

Prior to surface sampling, remove all surface materials that are not to be included in the sample such as rocks, debris, and leaves. For sample collection within the upper two to three feet use a shovel, spoon, trowel, hand auger or similar device. When using the hand auger, auger the hole to the required depth, then slowly remove the auger and collect the soil sample from the auger flight or auger bucket at the point corresponding to the required depth. A tube sampler can be attached to the auger rods after angering to the desired depth, inserted into the open borehole, and then advanced into the soil at the base of the boring. If sampling is in sandy or noncohesive soil, a shovel may be necessary to collect samples. Sample logging as described in Section IV.5. Alternatively, shallow soil samples can be collected using direct push technology.

Photographs of specific geologic features or sample location may be required for documentation purposes. A scale or device providing a size perspective may be placed in each photograph, if necessary. The frame number and picture location should also be documented in the field book or any other sample identification to reference to the picture. Equipment used shall be decontaminated following CES SOP 1000 between sample locations unless otherwise specified in the project specific sampling and/or work plans.

#### **IV.3 Test Pit Excavation and Sampling**

The test pits shall be excavated in compliance with applicable safety regulations. Walls should be cut as near vertical as possible to facilitate stratigraphic logging. Field personnel will not enter an open test pit deeper than four feet without shoring or benching present. Samples shall be collected from the backhoe bucket with a spoon or similar device from the side of the test pit wall or bottom (depending upon the depth of the test pit and the safety precautions in place). The size, depth, and orientation of the test pit shall be recorded on a test pit log of field book. Sample logging is



described in Section IV.5.

Photographs of specific geologic features or sample location may be required for documentation purposes. A scale or device providing a size perspective may be placed in each photo, if necessary. The frame number and picture location shall also be documented in the field book or any other appropriate location for further photo referencing.

The test pit shall be inspected and the test pit log reviewed to ensure that all the appropriate and/or required data and samples have been collected. Test pits will be backfilled to original grade and compacted. Equipment used shall be decontaminated following CES SOP 1000 between sample locations unless otherwise specified in the project specific sampling and/or work plans.

#### **IV.4 Subsurface Sampling**

Borings are typically advanced by two methods: augering or direct push techniques. The hollow stem augers shall be of the flush-joint or flush-couple type and of sufficient size to allow for soil sampling, coring, and/or well installation. All casing sections shall be straight and free of any obstructions. Hollow-stem augers or solid-flight augers with casing may be used according to specific project requirements. Direct push requires macro-cores of a selected diameter that is pushed into the ground by a Geo-Probe or similar drilling equipment.

Generally subsurface soil samples shall be obtained using a split type sampler (split spoon) or disposal plastic liners, however, other devices (Shelby tubes, core, etc.) may be used as specified in the project specific sampling and/or work plans. If augering methods are used samples shall be obtained using the standard penetration test (SPT), which allows for qualitative determination of mechanical properties and aids in identification of material type. The number of hammer blows shall be recorded on the boring log for each 6-inch drive distance.

The split spoon shall be opened immediately upon removal from the casing. If the recovery is inadequate (i.e. sampling material is not retained in the sampler), a note will be included on the boring log stating that “no recovery” was obtained at that particular depth. In the event that gravel, rocks or other material prevent penetration by the split spoon, samples may be collected from the auger flights. Slowly remove the auger and collect the sample at the point corresponding to the required depth. Samples collected in this manner must be documented on the boring log. Sample logging is described in Section IV.5.

Disposable plastic liners used in the direct push macro-core shall be either cut immediately upon removal from the core or capped at both ends for later cutting. If the recovery is inadequate (i.e. sampling material is not retained in the sampler), a note will be included on the boring log stating that “no recovery” was obtained at that particular depth. Sample logging is described in Section IV.5. If volatile organic compounds or semi-volatile organic compounds are of concern, as soon as the plastic liner is opened, organic vapors will be measured using a Photo Ionization Device (PID) or similar field screening device/equipment.



To obtain the most representative monitor reading, use a dedicated wooden “tongue depressor” stick or decontaminated stainless-steel spoon, knife or other appropriately constructed device and make a longitudinal score deep enough to expose a porous surface the length of the core. Or optionally, make very small divots at six-inch intervals to expose a porous surface. Simultaneously, place the probe of the PID immediately above the opened area being careful not to touch the sample, and move the probe slowly above the lateral scoring and note any peaks. Record results of peaks in 6-inch intervals to determine sample location. Instrument readings will be biased low and not representative of in-situ conditions if the soil core is not scored or inner core not exposed for proper field screening. If, instead of a dedicated wooden stick a reusable steel spoon or similar non-dedicated equipment is used to make the small cutting on the retrieve soils, this equipment will be properly decontaminated before cutting the soils.

Photographs of specific geologic features or sample location may be required for documentation purposes. A scale or device providing a size perspective may be placed in each photograph, if necessary. The frame number and picture location shall also be documented in the field book or other appropriate place for further photograph referencing. Equipment used will be decontaminated following CES SOP 1000 between sample locations and sample depths unless otherwise specified in the project specific sampling and/or work plans.

Upon completion of the boring, backfill may be required. The backfill may consist of native material, hydrated bentonite chips/pellets, Portland cement/bentonite grout, or other low permeability material as specified in the project specific sampling and/or work plans.

#### **IV.5 Sample Logging**

As applicable, the following information should be included in the field logs to ensure that a description of soil or rock material is reliable and representative of field conditions encountered:

- Soil or rock type
- Depth ranges
- Grain size
- Moisture
- Organic Vapor Equipment reading
- Visual presence of chemical compounds
- Remarks

Examples of soil would be gravel, sand, silt, and clay. The soil types should be based on the Unified Soil Classification System (USCS). We note that soil classifications made in the field may be subject to change based upon laboratory test or further sample evaluation by qualified professionals. Grain size and other physical characteristics should be included on the log if they are visibly discernible. In addition to composition, blow counts (if collected) and the length of the sample recovered should also be recorded on the Sampling log. The degree of sample moisture should be described as wet, dry and moist.

The color(s) or range of color(s) of the soil or rock type should be defined. If a Munsell color chart is used, the number designation of the color will also be recorded in the description. The degree of visual presence of potential chemical compounds in the sample should also be noted in the sample log. The potential presence of contamination should be noted as high (greater than 40 %), medium (15-40 %), low (1-15 %), or none. If the potential chemical compound could be assessed a note regarding the type of chemical compound should be noted in the sample log.

Remarks may include anything pertinent to the sample description or sample collection that is not described above. Other information that can be placed on the logs as appropriate is:

- Appearance of potential contamination (consistency)
- Degree of fracturing or weathering in the rock
- Drilling equipment used (rod size, bit type, pump type, rig manufacturer and model, direct push equipment, etc.)
- Special problems and their solution (hole caving, recurring problems at a particular depth, sudden tool drops, excessive grout take, drilling fluid losses, lost casing, etc.)
- Dates for start and completion of boring
- Depth of first encountered free water and
- Definitions of special abbreviations used on log

#### **IV.6 Sample Handling**

Procedures regarding to the handling and shipment of samples shall be in accordance with CES SOP 1100. A clean pair of gloves and decontaminated sampling tools will be used when handling the sample during collection to minimize the possibility of cross contamination. A representative sample will be placed in the sampling container. Sample containers (jars or bags) should have at least the following information on the label:

- Client or project name, or unique identifier, if needed
- Unique sample description (i.e., test pit, boring, or sampling point number and horizontal/vertical location)
- Sample collection date and time
- Sampler's name or initials and
- Analyses to be performed



These data shall also be recorded on the field logs and/or field book. Larger, bulk samples shall be placed in cloth bags with plastic liners or plastic 5-gallon buckets. Sample bags shall be marked with at least the information listed above.

## **V QA/QC PROCEDURES**

QA/QC requirements include but are not limited to field duplicates, trip blanks, rinse blanks and field blanks. In general, field duplicates will be collected on a frequency of one QA/QC sample per 20 field samples, trip blanks one per samples shipment, field blanks one per day of sampling and rinse blanks one per reusable equipment used. However, the collection of the QA/QC samples are typically described in the project specific sampling and/or work plans.

## **VI DOCUMENTATION**

Documentation may consist of all or part of the following:

- Test pit or boring log
- Sample log forms
- Chain-of custody forms
- Shipping receipts

All documentation shall be placed in the project files and retained following completion of the project.

## **VII REFERENCES**

Procedures Manual for Groundwater Monitoring at Solid Waste Disposal Facilities, United States Environmental Protection Agency, Office of Water and Waste Management, SW-611, 1977.

Water Quality Monitoring at Solid Waste Disposal Sites in Minnesota, Minnesota Pollution Control Agency, Solid Waste Division, 1979.

Manual of Ground-Water Sampling Procedures, United States Environmental Protection Agency, Robert S. Kerr Environmental Research Laboratory, 1981; and Waste Management, SW-611, December 1980.


Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells, EPA 600/4-89/034, published by National Water Well Association. 1989.

RCRA Ground Water Monitoring Technical Enforcement Guidance Document, published by National Water Well Association, 1986.

Field Sampling Procedures Manual, New Jersey Department of Environmental Protection August 2005

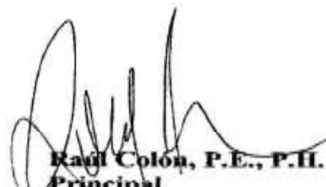
**END OF SOP 2000**

Prepared by:



**Valentin Felix, P.E.**  
**Senior Engineer**

Revised and approved by:



**Raul Colon, P.E., P.H.**  
**Principal**

*Limited Environmental Site Assessment Report  
Project CRP-000557 Rotonda  
Community Development Block Grant  
Disaster Recovery  
Municipality of Dorado, Puerto Rico  
CES Project No. 23-0059*

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## **APPENDIX B**

### **SOIL BORING LOGS**

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<b>SB-1</b>		
<b>Depth (inches)</b>	<b>Description</b>	<b>PID (ppm)</b>
0 – 4	Concrete sidewalk * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
4 - 12	Brown silty sand * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
END OF BORING		

<b>SB-2</b>		
<b>Depth (inches)</b>	<b>Description</b>	<b>PID (ppm)</b>
0 – 4	Concrete sidewalk * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
4 - 12	Brown silty sand * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
END OF BORING		

<b>SB-3</b>		
<b>Depth (inches)</b>	<b>Description</b>	<b>PID (ppm)</b>
0 – 4	Concrete sidewalk * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
4 - 12	Brown silty sand * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
END OF BORING		

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<b>SB-4</b>		
<b>Depth (inches)</b>	<b>Description</b>	<b>PID (ppm)</b>
0 – 5	Concrete sidewalk * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
5 - 12	Brown silty sand * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
END OF BORING		

<b>SB-5</b>		
<b>Depth (inches)</b>	<b>Description</b>	<b>PID (ppm)</b>
0 – 6	Concrete sidewalk * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
6 - 12	Brown silty sand * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
END OF BORING		

<b>SB-6</b>		
<b>Depth (inches)</b>	<b>Description</b>	<b>PID (ppm)</b>
0 – 3	Gravel with silt * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
3 - 12	Brown silty sand * No suspect odor * No suspect or visual discolorations * No evident visual indications of impacted soils * Slightly humid	0.0
END OF BORING		



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## **APPENDIX C**

### **SITE PHOTOGRAPHS**

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Photograph 1: Underground utilities marked in the area (see yellow lines)



Photograph 2: PID calibration.



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Photograph 3: Equipment decontamination process



Photograph 4: Concrete breaking at SB-1.



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Photograph 5: Soil drilling using a hand auger at SB-1.



Photograph 6: Soil sample collected at SB-1.



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Photograph 7: Concrete breaking at SB-2.



Photograph 8: Soil drilling using a hand auger at SB-2.



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Photograph 9: Soil sample collected at SB-2.



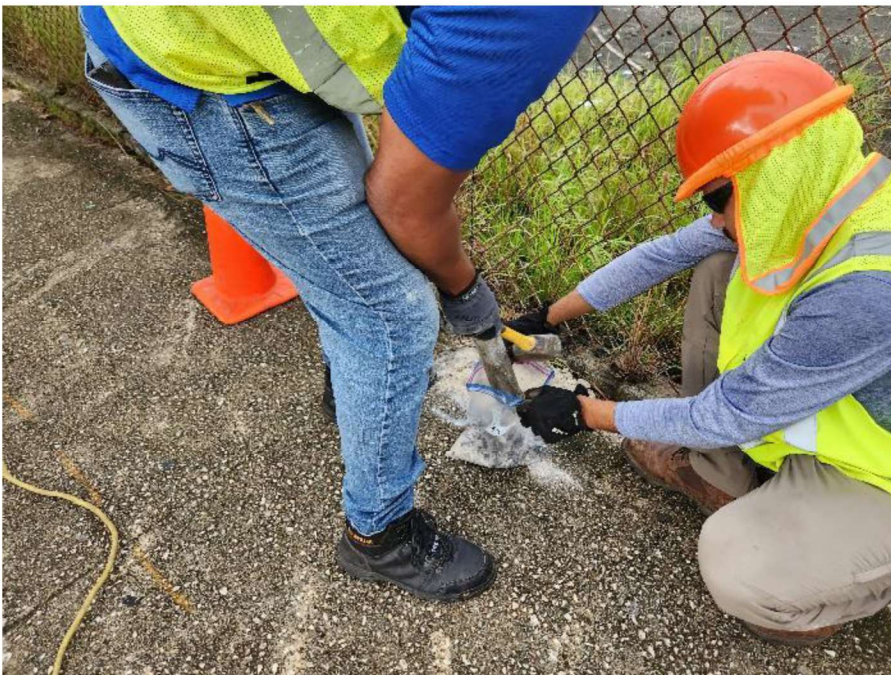
Photograph 10: Concrete breaking at SB-3.



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Photograph 11: Soil drilling using a hand auger at SB-3.



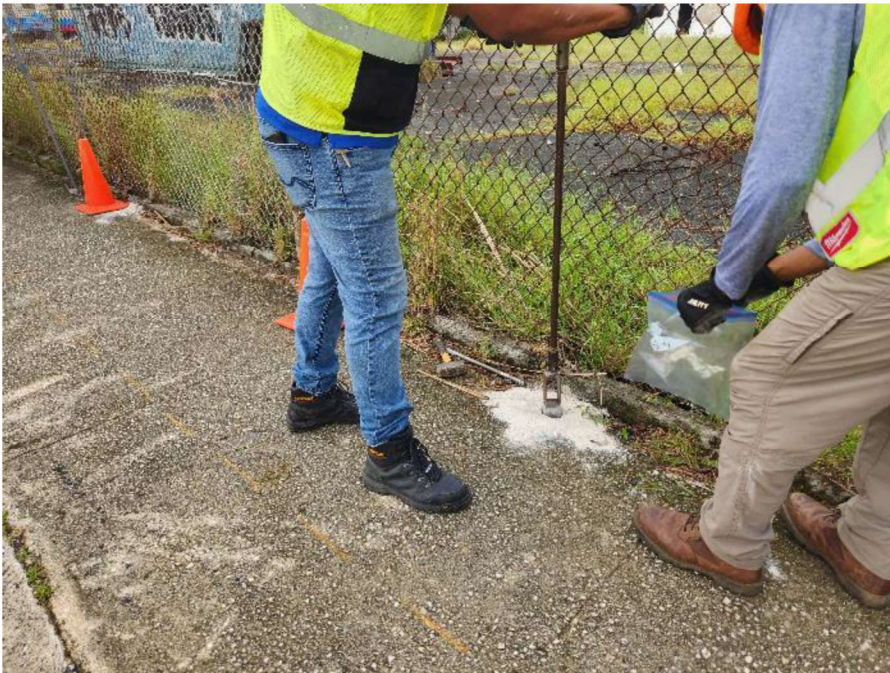
Photograph 12: Soil sample collected at SB-3.



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Photograph 13: Concrete breaking at SB-4.



Photograph 14: Soil drilling using a hand auger at SB-4.



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Photograph 15: Soil sample collected at SB-4.



Photograph 16: Concrete breaking at SB-5.



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Photograph 17: Soil drilling using a hand auger at SB-5.



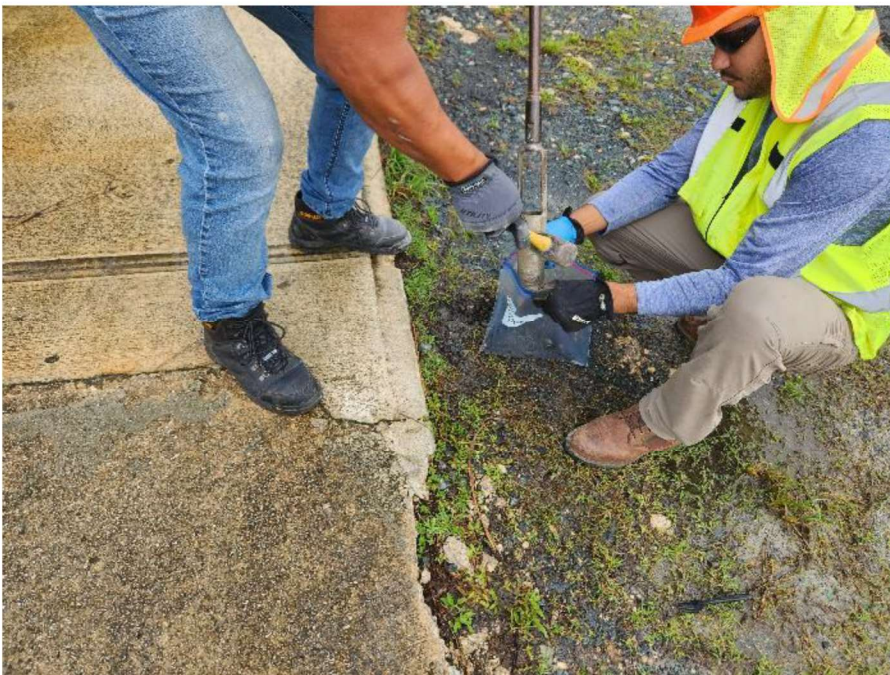
Photograph 18: Soil sample collected at SB-5.



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Photograph 19: Soil drilling using a hand auger at SB-6.



Photograph 20: Soil sample collected at SB-6.



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Photograph 21: Soil samples collected placed in dedicated zip lock bags.



Photograph 22: PID screening in soil sample SB-1. PID = 0.0 ppm.

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Photograph 23: PID screening in soil sample SB-2. PID = 0.0 ppm.



Photograph 24: PID screening in soil sample SB-3. PID = 0.0 ppm.



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Photograph 25: PID screening in soil sample SB-4. PID = 0.0 ppm.

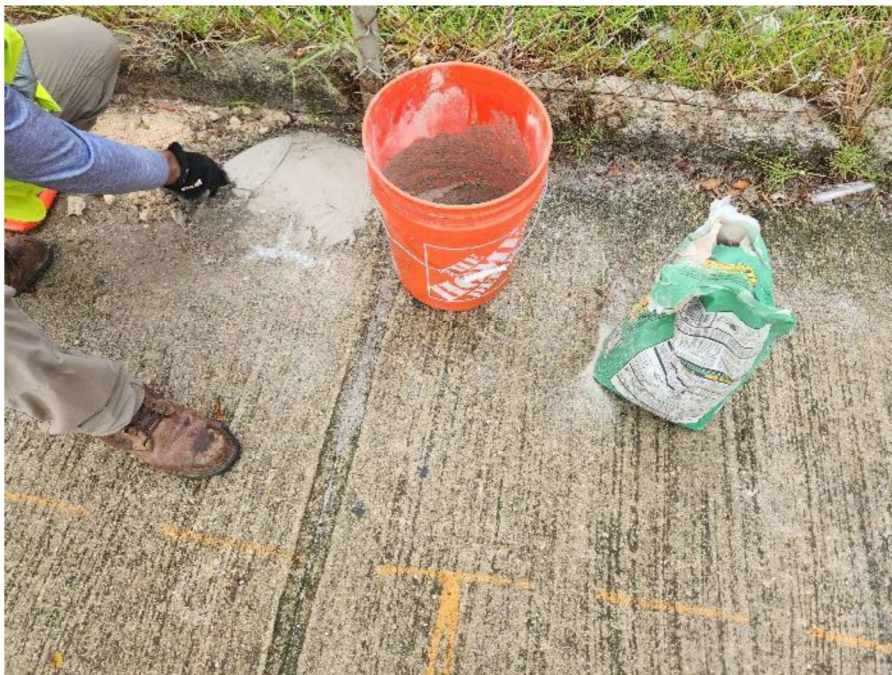


Photograph 26: PID screening in soil sample SB-5. PID = 0.0 ppm.

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Photograph 27: PID screening in soil sample SB-6. PID = 0.0 ppm.



Photograph 28: Cement grouted at SB-1.



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Photograph 29: Cement grouted at SB-2.



Photograph 30: Cement grouted at SB-3.



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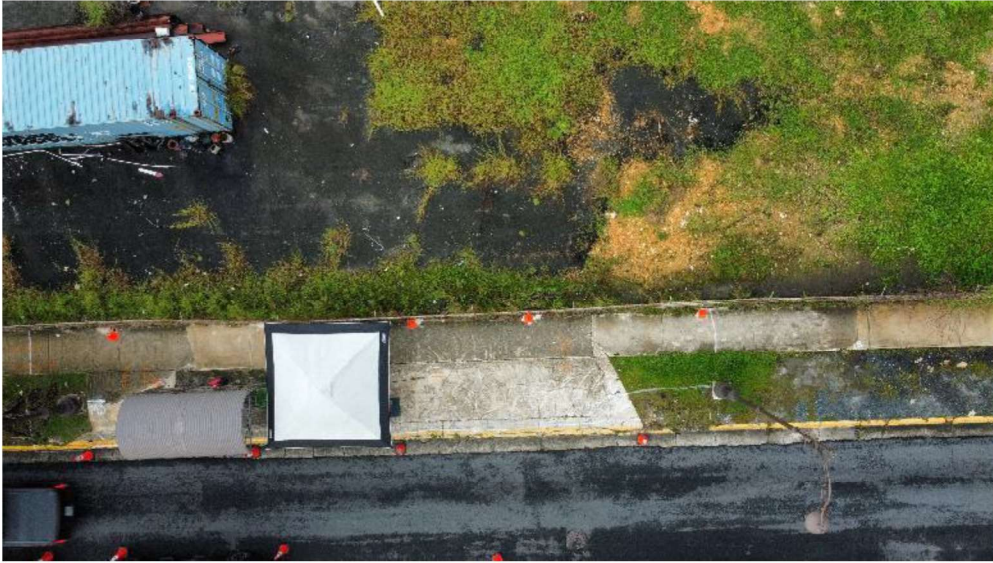


Photograph 31: Cement grouted at SB-4.



Photograph 32: Cement grouted at SB-5.

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Photograph 33: Aerial view of the assessed area.

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## **APPENDIX D**

### **RESUMES OF ENVIRONMENTAL PROFESSIONALS**



**RESUME OF  
RAÚL COLÓN VICENTY  
*PRINCIPAL ENGINEER***

**EDUCATION**

University of Puerto Rico  
Mayaguez Campus - B. S., Civil Engineering, 1975  
Mayaguez Campus - M. S., Civil Engineering, 1977

**PROFESSIONAL AFFILIATIONS**

College of Engineers and Surveyors of Puerto Rico  
American Institute of Hydrology  
American Society of Civil Engineers  
Environmental Assessment Association  
National Groundwater Association

**PROFESSIONAL REGISTRATIONS/CERTIFICATIONS**

Professional Engineer in Puerto Rico, License 8119  
Professional Hydrologist, AIH, Certification No. 674  
Certified Environmental Specialist, Environmental Assessment Association, Certification No. 13969  
Certified Environmental Consultant, Environmental Assessment Association, Certification No. 13969

**CAREER SUMMARY**

Mr. Colón has more than 40 years of experience in Water Resources and Environmental Engineering. Mr. Colon is a registered Engineer with the College of Engineers and Surveyors of Puerto Rico and a certified Professional Hydrologist with the American Institute of Hydrology. Mr. Colón has been involved in a variety of water resources and environmental projects including surface and ground water hydrologic investigations as well as soil and groundwater contamination assessments and remediation projects. Mr. Colón has also conducted several groundwater/soil pollution investigations associated with hydrocarbon products and Dense Non-Aqueous Phase Liquids (DNAPLs). He has conducted dam safety investigations, hydrologic/hydraulic studies for a variety of projects, bridge scouring evaluations, sediment transport studies, real time flood forecasting projects in Puerto Rico and the United States, due diligence site evaluations, environmental site assessments, environmental compliance audits, environmental permitting projects and hazardous waste characterizations. Mr. Colón is very familiar with the Federal Emergency Management (FEMA) Flood Insurance Program, since its beginnings in the late 1970's. He conducted several Flood Insurance Studies in Puerto Rico and the United States. These studies included the hydrologic and hydraulic evaluations as well as the preparation of the base maps used by FEMA for the development of the flood maps and flood insurance rate maps published in the Flood Insurance Studies. Eng. Colón has participated in several expert witness cases and has been named as the Court Special Commissioner in three court cases in the Mayaguez, Carolina and Aguadilla Courts.

## **CONTINUING EDUCATION SEMINARS**

“Planes de Control Temporero de Tráfico para Carreteras”, UPR Mayaguez Centro de Transferencia de Tecnología en Transportación, August 1-2, 2018

“ASTM 1527-13 Standard for Environmental Site Assessments for Commercial Real Estate”, ASTM Technical Training and E- Learning, October 7-8, 2014

“EPA’s 2012 Construction General Permit (CGP)”, US EPA Stormwater Program’s Webcast Series, March 15, 2012

“Two Experts Share Data on Vapor Intrusion in the Real World”, Environmental Data Resources, Inc., February 7, 2012

“The Remediation Course, 38 hour continuing education course”, Princeton Groundwater, Inc., October 24-28, 2011

“Debida Diligencia Ambiental y Efectos en la Compraventa y Ocupación de Propiedades en Puerto Rico”, CIAPR and AIDIS, August 11, 2011

“Nuevo Sistema de Permisos: Reglamento Conjunto de Permisos para Obras de Construcción y Usos de Terrenos”, CIAPR, March 18, 2011.

“Cambios Recientes a Leyes y Reglamentos Ambientales y Propuestas Inmediatas de Energia Verde”, CIAPR and AIDIS, October 29, 2009.

“Plan para Agilizar los Permisos en Puerto Rico”, CIAPR and AIDIS, June 25, 2009.

2008 Final NPDES General Permit for Storm Water Discharges from Industrial Activities, CIAPR and AIDIS, November 20, 2008.

Assessment of Vapor Intrusion into Structures on Property Involved in Real Estate Transactions, ASTM International, April 29, 2008

HEC-RAS for Unsteady Flow Applications, American Society of Civil Engineers, Atlanta, GA, September 12-14, 2007.

Streambank Stabilization for Restoration and Flood Control Projects, July 25-27, 2007, American Society of Civil Engineers, Charlotte North Carolina.

“Implantación del Nuevo Permiso General Consolidado de la Junta de Calidad Ambiental de Puerto Rico”, College of Engineers and Surveyors of Puerto Rico, San Juan, Puerto Rico, April 30, 2007.

Fundamentals of Spray Polyurethane Foam and Covering Systems for the Independent Inspector, Spray Polyurethane Foam Alliance, Tampa, Florida, February 22, 2007.

Environmental Site Assessments for Commercial Real Estate, ASTM Standard E-1527-05 and EPA All Appropriate Inquiry Rule, ASTM Training Course, Orlando, Florida, April 25-26, 2006.



Storm Water Management and Site Solution Workshop, College of Engineers and Surveyors of Puerto Rico, San Juan, Puerto Rico, April 6, 2006.

Design and Implementation of Effective Soil Gas Monitoring and Sampling Programs, The Nielsen Environmental Field School, Columbus, Ohio, November 29, 2005.

“Como queda el Ambiente con la Nueva Ley Núm. 416 sobre Política Pública Ambiental”, Collage of Engineers and Surveyors of Puerto Rico, San Juan, Puerto Rico, April 28, 2005.

Hydrologic Modeling Using HEC-HMS Computer Model, American Society of Civil Engineers, San Diego, California, February 24-25, 2005

Micropurge Low-Flow Purging and Groundwater Sampling, The Nielsen Environmental Field School, Tampa Florida, March 12, 2004

Risk-Based Corrective Action at Petroleum Release Sites, ASTM Standard E1739, Sponsored by the ASTM, Lansing, Michigan, May 13-14, 2003.

Hydrogeology of Fracture Rock: Characterization, Monitoring, Assessment and Remediation, Niagara Falls, NY, December 2-5, 2002.

“Reglamentación Actual para el Tratamiento de las Aguas de Escorrentías”, College of Engineers and Surveyors of Puerto Rico, San Juan, Puerto Rico, November 26, 2002.

National Pollutant Discharge Elimination System – Storm Water Regulations and NPDES Permit Seminar, Sponsored by the Environmental Protection Agency (EPA), San Juan, Puerto Rico, November 8, 2002.

Improving Hydrogeologic Analysis of Fracture Bedrock Systems, 2002 Workshop, University of Massachusetts (UMASS), Amherst, Massachusetts, June 18 and 19, 2002.

Highway Traffic Noise Workshop, Sponsored by The Federal Highway Administration and the P.R. Highway and Transportation Authority, San Juan Puerto Rico, June 12-14, 2001

EPA Storm Water Management Model (SWMM) Training Course, Sponsored by Camp Dresser & McKee, Edison New Jersey, May 3-5, 2001

“Seminario sobre Nuevo Permiso Federal para Descargas de Aguas de Escorrentia y Desarrollos Recientes en Reglamentación Ambiental”, AIDIS/CIAPR, San Juan, Puerto Rico, May 2, 2000.

Phase II Environmental Site Assessment Process - ASTM E 1903 Standard Guide, ASTM Technical & Professional Training, New York, NY, September 14-15, 1999

Environmental Site Characterization, ASTM Technical and Professional Training in the Performance, Use and Application of ASTM Standards, Orlando Florida, August 13-14, 1998

Field Based Site Characterization Technologies - Short Course, U.S. Environmental Protection Agency's Technology Innovation Office, Westborough, MA, March 30, 1998

HEC-RAS for Experienced HEC-2 Users, Center for Research in Water Resources, The University of Texas at Austin, March 23-25, 1998.

EPA Brownfields Workshop, Sponsored by PRIDCO, San Juan, Puerto Rico, January 29, 1998.

Brownfields 97 Conference, Sponsored by the EPA, Kansas City, Mo., September 3-5, 1997.

Sedimentation in Stream Networks Training Seminar Using the HEC-6 Computer Model, by William A. Thomas, Mobile Boundary hydraulics, May 3 - 5, 1995

Fundamentals of Puerto Rico Environmental Law Compliance, Government Institutes Inc., April 1992.

Project Management, Law Environmental, Inc., Kennesaw, Georgia, May 1989.

Liability and Loss Prevention, Law Environmental Inc.; December 1988.

OSHA Health and Safety 40 Hrs. Training and OSHA Refresher Courses on a yearly basis, April 1988.

Mitigation of Hazard Due to Extreme Natural Events in America; University of Puerto Rico - Mayaguez Campus; January 20-22, 1987.

Unsteady Flow Modeling Using DAMBRK and DWOPER Computer Models - University of Texas at Austin; October 6-10, 1986.

Computer Applications in Water Resources; Sponsored by the ASCE; Buffalo, New York; June 1985.

Dam Safety Seminar, Application of DAMBRK and HEC-1 Models in the Analysis of Flood Waves Produced by Dam Failure; Sponsored by the Federal Emergency Management Agency (FEMA); Atlanta, Georgia; May 1984.

Project Management for Architectural and Engineering Firms; Sponsored by the Institute of Chemical Engineers, College of Engineers and Surveyors of P. R. - April 1981.

Pumps and Piping Systems; Design and Maintenance, Sponsored by the Institute of Mechanical Engineers, College of Engineers and Surveyors of P.R.; March 1981

Flood Plain Hydraulics by Application of HEC-2 Model; University of Texas at Austin; April 1979.

Small Wastewater Treatment Systems and Sludge Treatment and Disposal; Sponsored by the Environmental Protection Agency (EPA); San Juan, Puerto Rico; February 1978.

## **LIST OF PROFESSIONAL PUBLICATIONS**

Colón R., Wallace J.R., Olson R.W. and Massey K. L., "Flood Forecasting - An Alternate Response for PMF at the Saluda Dam, Proceedings of the American Power Conference, Chicago, Illinois, April 1989.



Editor for the Puerto Rico Water Resources Association Bulletin, 1988.

Raúl Colón and George F. McMahon, "BRASS Model: Application to Savannah River Reservoir System", ASCE - Journal of Water Resources Planning and Management, Vol. 113, No. 2 March 1987.

Raúl Colón; Robert Olson and James R. Wallace; "Increasing Revenues of Existing Hydro Power Reservoirs", A Law Environmental professional publication, September 1987.

Bras, R. L. and Colon R., "Time Average Areal Mean of Precipitation: Estimation and Network Design, Water Resources Research, Volume 14 - No. 5, October 1978.

### **LIST OF TECHNICAL PRESENTATIONS**

Seminario Ambiental (Legal y Técnico) "Debida Diligencia Ambiental y Efectos en la Compraventa y Ocupación de Propiedades en Puerto Rico", CIAPR and AIDIS, August 2011 and July 2012.

Site Assessment Techniques and Technologies for Brownfields, Brownfields Pilot Program, Technical Session, Sponsored by PR Industrial Development Company, February 3, 1999

Flood Forecasting - An Alternate Response for PMF at the Saluda Dam"; 51th Power Conference, Chicago, Illinois; April 25, 1989.

Dam Safety Studies - A General Overview; Presentation given at the College of Engineers and Surveyors of Puerto Rico; Sponsored by APRA; February 3, 1989

Flood Forecasting- Basic Elements; Presentation given at the Puerto Rico's Fourth Hurricane Conference; Sponsored by the Department of Natural Resources; Caribe Hilton Hotel; June 15, 1988.

Moderator for the APRA Seminar; "Hazardous Wastes in Puerto Rico: Impact in Water Resources, College of Engineers and Surveyors of Puerto Rico; April 15, 1988.

Bolivia's Rio Mamore and Rio Parapeti: Flood Forecasting and Sedimentation Control Projects presentation given to the Puerto Rico's Speleology Society, March 4, 1988, San Juan, Puerto Rico.

Dynamics of Ground Water Contamination - A typical case study for Puerto Rico, presentation given to the P. R. Industrial Development Company as part of a Real Estate Transactions Seminar, February 1988.

Dynamics and Control of Aquifer Contamination - APRA Symposium June 1987, San Juan, Puerto Rico.

Brass Model Applications - presentation given as part of the Seminar: Unsteady Flow Modeling Using DAMBRK and DWOPER Computer Models, October 6-10, 1986, Austin, Texas.

Basin Runoff and Stream flow Simulation Model Workshop; presentation given to the Army Corps of Engineers Savannah District, October 16, 1984, Savannah, Georgia.

## **LIST OF PROJECTS**

The following list shows a representative sample of Mr. Colón's professional work experience throughout his professional career.

### **EXPERT WITNESS PROJECTS**

- Expert Witness consultation - Papelera Puertorriqueña Superfund Site, Utuado Puerto Rico, ongoing.
- Expert Witness consultation – San German Superfund Site, San German Puerto Rico, ongoing.
- Expert Witness consultation – Cabo Rojo Superfund Site, Cabo Rojo Puerto Rico, ongoing.
- Expert Witness - CIVIL CASE NO. 07-CIV-10470 MTBE PRODUCTS LIABILITY LITIGATION COMMONWEALTH OF PUERTO RICO, ET.AL V. SHELL OIL CO., ET.AL – on going
- Expert Witness consultation – Cidra Superfund Site, Cidra Puerto Rico, 2015.
- Expert Witness – Court Special Commissioner Aguadilla Court– Anel Guzman Urbina V. Victor Bellaflores Hernandez, Aguadilla – July 2012
- Expert Witness – Court Special Commissioner Carolina Court - Blasina Lagoon Contamination, Municipio de Carolina V. Autoridad de Acueductos y Alcantarillados, Carolina – June 2010.
- Expert Witness – Court Special Commissioner Mayaguez Court – PCB Horizon Hazardous Wastes Site, San German Puerto Rico, PRIDCO v. PCB Horizon, July 2008.
- Expert Consultation Groundwater Contamination with Dense Non-Aqueous Phase Liquids (DNAPLs), Puerto Rico Industrial Development Company GE Palmer, Rio Grande, Puerto Rico, 2010.
- Expert Witness – MAPFRE PRAICO Insurance Company V. Sucesion de Jesus Guzman, et. al., Bayamon (McV/Shell/Sol).
- Expert Witness - Supermercados Econo Facundo V. Esso, Site Contamination Assessment in Carolina, 2007.
- Expert Witness Court Case - Loco Dam 1987 Flood Impact on Agricultural Properties Downstream, Guanica, Puerto Rico, March 2007.
- Expert Witness – Eloina Colon v Shell Company Puerto Rico, Mayaguez, January 2007.
- Expert Witness Court Case - Palmas Doradas Developers V. Treasury Point, Dorado, Groundwater Impact by Sanitary Waste Waters, October 2006.
- Expert Witness Court Case – Rio Guamani Guayama Flood, Villa Monte Río y la Academia Regional Adventista del Sur V. Municipio de Guayama, Guayama, June 2006.
- Expert Witness Court Case - Isla del Rio Corco Tallaboa site, Peñuelas, Puerto Rico, December 2005.
- Expert Witness - Hydrologic and Hydraulic Study, Undeveloped lot, Proposed Toyota Facility, Cataño, Puerto Rico, November 2004.
- Expert Witness Court Case - Iglesia Defensores de la Fe, Bayamón Puerto Rico, Surface Hydrology/Hydraulics, October 2004.
- Expert Witness – Felix Albert hydrologic/hydraulic impacts of construction activities adjacent to his residence, Guaynabo, Puerto Rico, November 2003.
- Expert Witness, WORA TV Hacienda Igualdad, Guanica, Puerto Rico, March 2003



- Expert Witness - Alta Vista Development Court Case V. Orchid Paradise, Mayaguez, Surface Hydrology/Hydraulics, March 2003.
- Expert Witness - Hydrogeologic Impacts of Proposed Regional Landfill in Salinas, Puerto Rico, 2002.

## **HYDROLOGY AND HYDRAULICS**

### ***Surface Hydrology/Hydraulics***

- Hydrologic Assessments for bridges in Puerto Rico impacted by the Irma and Maria Hurricanes, Project PR ST FEMA PR Contract C3, On-going
- Hydrologic/Hydraulic Study for the proposed Flamboyán Village Residential project, Caguas, Puerto Rico, On-going
- Hydrologic/Hydraulic Study for the proposed Rio Village Residential project, Trujillo Alto, Puerto Rico, On-going
- Hydrologic/Hydraulic Study for locations in Isabela, Las Marias, and Barranquitas, Puerto Rico for the Landslides and Road Damage PRHTA Emergency Relief Program, On-going
- Hydrologic/Hydraulic Study for the AES Guayama facility, Guayama, Puerto Rico, On-going
- Hydrologic/Hydraulic Study for the Bacardi facility, Guaynabo, Puerto Rico, 2017
- Hydrologic/Hydraulic Study for the Cayey Municipal Landfill, Cayey, Puerto Rico, January 2017
- Hydrologic/Hydraulic Study for the proposed One Planet Solar Farm, Vega Baja, UNIPRO, 2015.
- Hydrologic/Hydraulic Study for the Cooper Vision industrial facility, Juana Diaz, Puerto Rico, December 2015
- Hydrologic/Hydraulic Study for the proposed commercial development to be located in Caguas, Puerto Rico, July 2014
- Hydrologic/Hydraulic Study for the Quebrada Prieta and Pueblo Indio Sectors as requested by FEMA, Canovanas, Puerto Rico, June 2013
- Preliminary Hydrologic/Hydraulic Evaluation for the Solar PV Generating Plant Project, San German, Puerto Rico, July 2013
- Hydrologic/Hydraulic Study for the Alternate Temporary Channel/Rio La Plata Flood Control Project, Dorado, Puerto Rico, Construcciones Jose Carro, S.E., October 2011
- Hydrologic/Hydraulic Study for the Turabo River, Caguas, Puerto Rico, as requested by the Puerto Rico Highway and Transportation Authority, September 2012.
- Hydrologic/Hydraulic Study for the AD Bayamon site owned by Mendez & Co., Bayamon, Puerto Rico, 2008.
- Hydrologic/Hydraulic Study for a proposed Mixed-Uses Development Complex, LAIF LLC, Guaynabo, Puerto Rico, 2009
- Hydrologic/Hydraulic Study for a proposed Universal Insurance facility as requested by Sierra Cardona Ferrer, Hatillo, Puerto Rico, 2007.
- Hydrologic/Hydraulic Study, Villa Franca Residential Development, Palmas del Mar, Humacao, Puerto Rico, 2007.
- Hydrologic/Hydraulic Study and Sinkholes Hydraulic Evaluation, Las Americas Technology Industrial Park, Moca, Puerto Rico, January 2007.

- Hydrologic/Hydraulic Study for a Camaseyes parcel of land, Aguadilla, Puerto Rico, 2007.
- Hydrologic/Hydraulic Study for La Vereda Residential Development, Chupacallos Ward, Ceiba, Puerto Rico, 2007.
- Hydrologic/Hydraulic Study for the proposed Redemptorists Fathers Notre Dame School, Caguas, Puerto Rico, 2007.
- Hydrologic and Hydraulic Study for the Degetau Avenue to the Turabo River and FEMA Conditional Letter of Map Revision Request, Caguas, Puerto Rico, June 2005.
- Hydrologic/Hydraulic Study Betterroads Cupey Facility, San Juan, Puerto Rico, April 2006.
- Hydrologic/Hydraulic Study Jardin Central Residential Development, Humacao, Puerto Rico, June 2005.
- Hydrologic/Hydraulic Study La Hacienda Residential Development, Caguas Puerto Rico, October 2004.
- Hydrologic/Hydraulic Study Villa Franca Residential Development, Palmas del Mar, Humacao, Puerto Rico, January 2004.
- Hydrologic and Hydraulic Study for the IPR Pharmaceuticals new facilities, Canovanas, Puerto Rico, July 2004.
- Hydrologic and Hydraulic Study, Ariel Rivera Supermarket, Jayuya, Puerto Rico, June 2002
- Hydrologic and Hydraulic Study, Sun Bay Recreational Complex, Vieques, Puerto Rico, March 2003
- Hydrologic and Hydraulic Study, Villas de Montecielo Residential Development, Guaynabo, Puerto Rico, September 2009.
- Hydrologic and Hydraulic Study, Blasina Estates Residential Development, Carolina, Puerto Rico, October 2001.
- Hydrologic and Hydraulic Study, Aventura Residential Development, Gurabo, Puerto Rico, December 2003
- Sinkhole Hydrologic and Hydraulic Study, School Development, Florida, Puerto Rico, November 1999
- Sinkhole Hydrologic and Hydraulic Study, Residential Development, Barceloneta, Puerto Rico, November 1999
- Sinkhole Hydraulic Capacity Study, School Development, Isabela, Puerto Rico, December 1999
- Hydrologic and Hydraulic Study, School Development, Culebra, Puerto Rico, October 1999
- Hydrologic and Hydraulic Study, Paseo del Prado Residential Development, Barceloneta, Puerto Rico, January 1999
- Hydrologic and Hydraulic Study, Commercial and Residential Complex Development, Bayamon, Puerto Rico, July 1999
- Hydraulic and Bridge Scouring Study, Tren Urbano Bridge Over Bayamón River, January 2005.
- Hydrologic and Hydraulic Study, Tren Urbano Dowels Manufacturing Facility, Bayamón, June 1997
- Unsteady Flow Hydraulic Study, San Juan Emergency Center Complex, Caño Martin Peña, Santurce, Puerto Rico, January 1998
- Hydrologic Study PR-10 Road Sinkholes 2N, 5N, 6 and 7 Utuado, Puerto Rico, December 1996
- Hydraulic and Sediment Transport Study, - PR-151 Bridge Over Jacaguas River, Villalba, Puerto Rico, January 1996



- Hydrologic/Hydraulic Study PR Road 140 Relocation Project - Cancel Creek, Bayamón, Puerto Rico, August 1995
- Unsteady State Flow Modeling - Piñero Avenue Site, Rio Piedras, Puerto Rico, March 1995
- Sinkhole Capacity Evaluation - Proposed Public School Development, Florida, Puerto Rico, September 1994
- Hydrologic/Hydraulic Study - Valle Húcares Residential Development, Juana Diaz, Puerto Rico, July 1994
- Hydrologic Study for Sinkhole Area - Proposed Police Station Development, Florida, Puerto Rico, July 1994
- Hydrologic/Hydraulic Study - Elite Valley Development, Mayaguez, Puerto Rico, March 1993
- Hydrologic/Hydraulic Study - La Matilde Residential Development, Ponce, Puerto Rico, August 1993
- Hydrologic Study Hacienda Lubamex, Manati, Puerto Rico, October 1993
- Hydrologic Study Sinkhole at PR De Diego Expressway, Bayamón, Puerto Rico, December 1993
- Preliminary and Final Design Embankment and Spillway Rehabilitation Project Carite Dam, Puerto Rico Electric Power Authority, Cayey - Guayama, Puerto Rico, April 1989
- Hydrologic/Hydraulic Studies for Drainage System Design - PR Road 9, Ponce, Puerto Rico, August 1992
- Hydrologic/Hydraulic Study - Los Caobos Residential Development, Ponce, Puerto Rico, April 1992
- Wave Height Study - Proposed COGENTRIX C0- Generation Facility, Mayaguez, Puerto Rico, December 1992
- Unsteady Flow Hydraulic Simulation Tivoli Building Complex Development, Hato Rey, Puerto Rico, May 1992
- Real Time Flood Forecasting BRASS Model for the Carraiso Dam, Trujillo Alto, Puerto Rico, March 1991
- Dam Safety Investigation - Carite Dam, Puerto Rico Electric Power Authority, Cayey - Guayama, Puerto Rico, April 1989
- Preliminary and Final Design Melania Dam Rehabilitation Project, Guayama, Puerto Rico; November 1989
- Unsteady State Hydraulic Study for Parque de Loyola Development Hato Rey, Puerto Rico, May 1989
- Unsteady Flow Hydraulic Simulation San Ignacio Building Complex Development, Hato Rey, Puerto Rico, May 1989
- Melania Reservoir Dam Safety Investigation and Dam Rehabilitation Project, Guayama, Puerto Rico; December 1988.
- Unsteady State Flow Simulation Study for the Caguas Central Federal Bank Building Complex, Pueblo Viejo Suburb, Guaynabo, Puerto Rico; June 1988.
- Unsteady State Hydraulic Study for Luis Muñoz Marin Park Phase II- San Juan, Puerto Rico, December 1987.
- Flood Forecasting System Strategy - Rio Mamore Watershed - Bolivia, South America, December 1987.
- Erosion Control Management Plan for the Rio Parapeti Watershed - Bolivia, South America, December 1987.

- Basin Runoff and Streamflow Computer Model Simulation -Clarks Hill Reservoir Drainage Basin, Savannah River, Georgia - South Carolina; September 1984
- Basin Runoff and Streamflow Computer Model Database Development - Hartwell Reservoir Drainage Basin, Savannah River, Georgia - South Carolina - North Carolina; December 1983
- Savannah River Dam Safety Plan, June 1985.
- Flood Frequency Evaluation for the Etowah River Downstream of the Allatoona Dam, Bartow County, Georgia, 1985.
- Flood plain Study for Trobridge Development, Fulton County, Georgia; September 1985.
- Bridge Sizing Study for Turkey Creek - Rivermist Development, Gwinnett County, Georgia, March 1984.
- Hydrologic Study for Overlook at Riverview II - Cobb County, Georgia; June 1983
- Wave Height Study and Dune Enhancement Program for Broadmoor Towers II-Baldwin County, Alabama; June 1984.
- Hydrologic Study for Weatherstone Development - Dekalb County, Georgia; May 1983
- Hydrologic Study for Townsend Place Condominiums Greystone Office Condominiums - Fulton County, Georgia; October 1983.
- Flood Insurance Study - Unincorporated Areas Chatham County, Georgia; Federal Emergency Management Agency; February 1984.
- Hydrologic Study for Martin's Landing Condominiums - Fulton County, Georgia; May 1983
- Hydrologic Study for Morgan's Ferry - Fulton County, Georgia; January 1983.
- Wave Heights Study for Perdido Key Beach Condominiums - Baldwin County, Alabama; October 1983.
- Unsteady Flow Modeling Ocmulgee River - Bibb, Jones Counties, Georgia; August 1986.
- Hydrologic Study for Indian Trail Development - Gwinnett County, Georgia; May 1983.
- V-Zone Location and Delineation for Perdido Key Hilton Hotel Site - Baldwin County, Alabama; February 1984.
- Flood Insurance Study - Unincorporated Areas Charleston County, South Carolina; Federal Emergency Management Agency; May 1984.
- Flood Control Study Lawson's Fork Creek - Spartanburg, South Carolina; February 1986
- Hydrologic Study for Long Island Square, Phase II - Fulton County, Georgia; June 1983.
- Flood Plain Study for Boy Scout Lake Apartments - Richmond County, Georgia; March 1984.
- Bridge Sizing Study for Bear Creek, South Fulton Highway - Fulton County, Georgia; May 1986.
- Drainage Study for Beltway 8 - Houston Texas; December 1985.
- Flood Insurance Studies for Eleven Water sheds in Puerto Rico Including Jacaguas, Piedras, Culebrinas, Camuy, Blanco, Dagua, Mameyes, Fajardo, Inabon, and Anton Ruiz Rivers; Federal Emergency Management Agency; 1979 to 1982.

### ***Groundwater Hydrology/Hydrogeology***

- Groundwater Sampling, Brownfields Hazardous and Petroleum sites at the Enlace del Caño Martin Peña, San Juan, Puerto Rico, On-going
- Groundwater Sampling at Metro Pavia Hato Rey Hospital, San Juan, Puerto Rico, 2019
- Groundwater Sampling, Parking Lot Identified as Parcel B, Martin Peña Sector, Santurce Ward, San Juan, Puerto Rico, December 2018



- Groundwater Sampling, Silo No. 2, Central Mercedita Property, Ponce, Puerto Rico, May 2017
- Groundwater Sampling, Former Puerta de Tierra Public Housing Development, San Juan, Puerto Rico, July 2016
- Groundwater Sampling, Former Las Gladiolas Public Housing Development, San Juan, Puerto Rico, February 2016
- Assessment of Dense Non-Aqueous Phase Liquids (DNAPLs) in Groundwater, Former Biovail Facility, Carolina, Puerto Rico, 2016.
- Groundwater Sampling, Choice Liberty facilities in various locations in Puerto Rico, 2016.
- Site Characterization of Soil and Groundwater, former Hospital Dr. Pila owned by Metro Pavia, Ponce, Puerto Rico, 2012
- Site Characterization of Soil and Groundwater, Patheon Facility for EDIC College, Caguas, 2011.
- Groundwater Study, IPR Pharmaceuticals, Canovanas, Puerto Rico, December 2010.
- Site Characterization of Soil and Groundwater, Dense Non-Aqueous Phase Liquids (DNAPLs), Confidential Client, Carolina, Puerto Rico, July 2009
- Aquifer Investigation at the former Hanes Facility for the proposed Cervezas del Sur project, Ponce, Puerto Rico, 2009.
- Groundwater and deep well sampling at the IPR Canovanas Facility, Canovanas, Puerto Rico, 2007.
- Groundwater and Clean-up Verification Sampling at the former Shell Yabucoa facility, Yabucoa, Puerto Rico, 2007.
- Hydrogeologic Characterization Assessment, Quality Electroplating Facility, Caguas, Puerto Rico, January 2007.
- Preliminary Hydrogeologic Investigation, Baños de Coamo, Thermal Springs, Coamo, Puerto Rico, January 2005.
- Hydrogeologic Characterization Assessment, Villas del Faro Punta Tuna Beach Resort, Maunabo, Puerto Rico, November 2001
- Hydrogeologic and Groundwater Characterization Assessment - Former Manufactured Gas Plant (MGP) Facility, Miramar, San Juan, Puerto Rico, June 1997.
- Sinkhole Hydraulic Capacity Evaluation - Sinkholes 2N and 5N PR-10 Road, Utuado, Puerto Rico, March 1997.
- Subsurface and Groundwater Contamination Assessment - Air Liquid Facility, Cataño, Puerto Rico, October 1996
- Subsurface and Groundwater Contamination Assessment - General Gases Facility, Bayamón, Puerto Rico, October 1996
- Preliminary Subsurface Site Assessment - Former Fortiflex Manufacturing Facility, Bayamón, Puerto Rico
- Hydrogeologic Assessment and Groundwater Characterization - Former Metal Finishing Facility, Toa Baja, Puerto Rico, June 1996
- Subsurface and Groundwater Contamination Assessment ACERVO Transportation and Maintenance Facility, Hato Rey, Puerto Rico, January 1996
- Dye Tracing Study - PR-10 Five Sinkholes Connection to Los Chorros, Utuado, Puerto Rico, February 1991
- Preliminary Subsurface Assessment at Three Gasoline Service Stations - PR Road No.2 Expansion Project, Arecibo, Puerto Rico, July 1995

- Remedial Action Plan Preparation and Plan Implementation - Diesel Spill Hewlett Packard Facility, Aguadilla, Puerto Rico, August 1995
- Preliminary Hydrogeologic Assessment Former Manufactured Gas Plant Site, Miramar, San Juan, Puerto Rico, July 1994.
- Hydrogeologic and Groundwater Contamination Assessment Leaseaway Properties in Ponce and Cataño, Puerto Rico, December 1994
- Evaluation of Potential Aquifer Development - Baxter Healthcare Corp. Carolina Facility, Carolina, Puerto Rico, September 1994
- Groundwater Sampling and Analysis - Rayo Farm Site, Pfizer Pharmaceuticals, Barceloneta, Puerto Rico, July 1994
- Groundwater Resources Availability Evaluation - US Postal Office, Hato Rey Puerto Rico, March 1994
- Remedial Action Plan Preparation and Plan Implementation PCE Remediation Project-Former Pharmaseal Facility, Baxter Healthcare Corp., Toa Alta, Puerto Rico, April 1994
- Subsurface Investigation Underground Storage Tank Area - Palmas del Mar Resort, Humacao, Puerto Rico, September 1994
- Groundwater Production Wells Data Search and Evaluation - Metal Finishing Facility Surroundings, Toa Baja, Puerto Rico, June 1994
- Corrective Action Plan for Hydrocarbon Affected Soils, Former Baxter V. Muller Facility, Sabana Grande, Puerto Rico, October 1991
- Subsurface Investigation and UST Closure - Baxter Healthcare Facility, Maricao, Puerto Rico, June 1992
- Preliminary Hydrogeologic Assessment and Final Hydrogeologic and Groundwater Characterization - Several Navy s Sites, Roosevelt Roads Base, Ceiba, Puerto Rico, April 1992
- Subsurface Investigation and Remedial Action Implementation - Kayser Roth Facility, Arecibo Puerto Rico, November 1990
- Subsurface Characterization and Remedial Action - U.S. Coast Guard Air Station Borinquen, Aguadilla, Puerto Rico, July 1989
- Preliminary Subsurface Assessment Program f or the Jesus Ramirez Esso Service Center, June 1989.
- Hydrogeologic Assessment Chevron-Gulf Facility, Caguas, Puerto Rico, April 1987
- Final Hydrogeologic Assessment Chevron Facility No. 54270100, Cayey, Puerto Rico, January 1989
- Hydrogeologic Assessment and Ground Water Monitoring Program, Seven-up Bottling Co. Inc. Minillas Industrial Park, Bayamón Puerto Rico, July 1989
- Remedial Action Plan for Gulf Service Station Facility No. G-121-11, Mayagüez, Puerto Rico, May 1988
- Remedial Action Plan Gulf Service Station Facility No. G-123-11, Hormigueros, Puerto Rico, December 1988
- Analysis of Irrigation Alternatives, La Gorce Gulf Country Club - City of Miami Beach, Florida, June 1982.
- Dyer Boulevard Sanitary Landfill - Hydrogeologic Investigation, Phase III, August 1982.
- Test of Second Artesian and Floridan Aquifers - Engineering Report Prepared for City of Venice, September 1982



## **ENVIRONMENTAL ENGINEERING**

- Phase I Environmental Site Assessments for Commercial/Industrial facilities in Puerto Rico, Pavia Hospital and First Medical facilities, on-going.
- Phase I and Phase II Environmental Site Assessments for various Choice Liberty facilities in Puerto Rico, on-going.
- Phase I Environmental Site Assessments for Commercial/Industrial/Residential Developments in Puerto Rico, CPG Financial, on-going.
- Phase I Environmental Site Assessments for Commercial/Industrial/Residential Developments in Puerto Rico, Oriental Bank, on-going.
- Phase I and Phase II Environmental Site Assessments for Commercial/Industrial/Residential Developments in Puerto Rico, First Bank, on-going.
- Phase I and Phase II Environmental Site Assessments for the Las Gladiolas Public Housing, McCormack Baron Puerto Rico Developer, 2017.
- Phase I and Phase II Environmental Site Assessments for the Puerto de Tierra Public Housing, McCormack Baron Puerto Rico Developer, 2017.
- Phase I and Phase II Environmental Site Assessments for the Carioca Palo Seco Site, Cataño, 2015.
- Phase I Environmental Site Assessments for Commercial/Industrial/Residential Developments in Puerto Rico, Blackpoint/Doral Bank, 2014.
- Phase I and Phase II Environmental Site Assessments for Hermanos Melendez Hospital Complex and Puerto Rico Childrens Hospital located at Bayamon, October 2014.
- Phase I Environmental Site Assessment at Commercial Property in St. Thomas, USVI, November 2011.
- Phase I and Phase II Environmental Site Assessment for the Ramallo Brothers Printing facility, Caguas, Puerto Rico, November 2010.
- Phase I Environmental Site Assessments for six airports facilities in the Dominican Republic, 2008
- Phase II Environmental Site Assessments at the Las Americas and Gregorio Luperon Airports Facilities, Dominican Republic, November 2014.
- Phase I Environmental Site Assessment for the Former Westernbank Plaza Building, Hato Rey, San Juan, Ferraiuoli LLC, 2012.
- Soil Investigation, Baxter Healthcare Facility, Aibonito, Puerto Rico, 2012.
- Phase I Environmental Site Assessment for the BBA Aviation/Signature Flight Support Facility at the Princess Juliana International Airport, St. Maarten, Netherlands Antilles, September 2011.
- Phase I Environmental Site Assessments for various schools as part of the Schools for the 21 Century Project, as requested by the Autoridad para el Financiamiento de la Infraestructura, September 2011.
- Environmental Site Investigation, Shellfoam Facility, Puerto Rico Industrial Development Company (PRIDCO), Cidra, Puerto Rico, June 2010.
- Soil Sampling Investigation, PCB Horizon Facility, Puerto Rico Industrial Development Company (PRIDCO), San German, Puerto Rico, 2009.
- Phase I and Phase II ESA for various locations at the Peninsula de Cantera, San Juan, Puerto Rico, on-going.
- Environmental Assessment for soil contamination, Becton Dickinson Affirm Expansion, Cayey, Puerto Rico, March 2010.

- Environmental Assessments and Permitting Compliance for the PR Maritime Transportation Authority facilities around Puerto Rico, including Vieques and Culebra, 2012.
- Site Inventories and Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Canovanas, Puerto Rico, on-going.
- Site Inventories and Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Toa Baja, Puerto Rico, December 2018.
- Site Inventories and Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Aguadilla, Puerto Rico, November 2018.
- Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Caguas, Puerto Rico, 2017.
- Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Salinas, Puerto Rico, 2017.
- Phase I ESA for the San Jorge Children's Hospital for First Bank, Santurce, Puerto Rico, June 2010.
- Environmental Audits and Permitting Compliance for the LANCO Group Facilities located in San Lorenzo, Cidra and Rio Piedras, on-going.
- Phase I ESA for a parcel of land owned by Doral Bank, Rincon, Puerto Rico, July 2010.
- Phase I ESA for a parcel of land owned by Doral Bank, Loiza, Puerto Rico, July 2010.
- Phase I ESA for former gasoline station owned by Banco Popular de PR, Corozal, 2011.
- Phase I ESA for former gasoline station owned by Banco Cooperativo de Puerto Rico, Ciales, 2012.
- Phase I Environmental Site Assessment and Environmental Audit, Patheon Facility for EDIC College, Caguas, 2011.
- Environmental Assessments of parcel of lands for the proposed Capobella Tourist Development, Republica Dominicana, January 2010
- Transaction Screening for the Buffalo Wings facility at the Luis Muñoz Marin International Airport, Carolina, Puerto Rico, December 2009.
- Phase I ESA for the Dollar Rent a Car facility, owned by Empresas Alberic Colon, Ponce, Puerto Rico, 2009
- Phase I ESA for the former Gulf Gasoline Station as requested by First Bank, Camuy, Puerto Rico, 2009.
- Phase I ESA for the Hospital Episcopal San Lucas and Torre Media, as requested by First Bank, Ponce, Puerto Rico, 2009.
- Phase I and Phase II ESA for former Union Carbide Caribe Facility, as requested by Peerless Oil and Chemicals, Peñuelas/Guayanilla, Puerto Rico, 2009.
- Environmental Audit and Permitting Compliance, Papelera Puertorriqueña, Utuado, Puerto Rico, 2009.
- Phase I ESA for the proposed Sun Microsystems facility, as requested by McConnell Valdez, Ponce, Puerto Rico, 2009.
- Baseline Assessment for the Texaco Farm Tank, as requested by Peerless Oil and Chemicals, Guayanilla, Puerto Rico, 2009.
- Phase I and Limited Phase II ESA for the Biovail Laboratories facilities, Dorado, Puerto Rico, 2009.
- Environmental Road Map and Permitting Compliance at the Hanes facility for the proposed Cervezas del Sur project, Ponce, Puerto Rico, 2011.
- Phase I ESA for a parcel of land for a proposed Walgreens Facility, Bayamon, Puerto Rico, 2008.



- Environmental Assessments and Remediation for the ACERVO Facility for the proposed Villas El Paraiso Project, Hato Rey, Puerto Rico, 2008.
- Phase I and Phase II ESA for the former Schering Plough manufacturing facility, Manati, Puerto Rico, 2008, Environmental Coordination, Observation and documentation of the activities conducted at the Puerto de Ponce, as requested by an Administrative Order of the EPA, Municipality of Ponce, Puerto Rico, 2008.
- Environmental Assessment, proposed American Micro Steel facility, Guayanilla, Puerto Rico, 2008.
- Phase I ESA for various facilities around Puerto Rico owned by the Banco Gubernamental de Fomento para Puerto Rico, 2009.
- Environmental Assessment and Remediation at the Warner Chilcott Facility, Fajardo, Puerto Rico, 2008.
- Phase I ESA for various facilities owned by Ponce Resources to be transferred to Schnitzer Corporation, 2008.
- Phase I ESA for 15 facilities around Puerto Rico owned by Empresas Alberic Colon, 2008.
- Environmental Assessment and Remediation at the former Junco Steel Facility, ENTECH, Guaynabo, Puerto Rico, 2008.
- Phase I ESA and Soil Assessment at the former Filtertek Facility, for a proposed Camera Mundi project, Caguas, Puerto Rico, 2008.
- Phase I ESA for 6 airports facilities at various Dominican Republic, owned by AERODOM, 2008.
- Environmental Audit at the Hertz Facility, Carolina, Puerto Rico, 2008.
- Phase I ESA for two parcels of land, First Bank, Manati, Puerto Rico, 2008.
- Phase I for a former PRIDCO facility for a proposed Curtis Instrument project, Luquillo, Puerto Rico, 2008.
- Environmental Assessment, Environmental Audit and Permitting compliance for a proposed Model Offset Printing expansion, Humacao, Puerto Rico, 2008.
- Phase I ESA of former Empresas Santana facilities at the Luis Muñoz Marín International Airport and Base Muñoz, Carolina, Puerto Rico, 2008.
- Phase I ESA for four facilities owned by Borinquen Memorial Funeral Home, First Bank, various locations in Puerto Rico, 2008.
- Phase I ESA for the San Juan Marriott Hotel & Casino, First Bank, San Juan, Puerto Rico, 2008.
- Phase I and Phase II ESA for the Aguas Puras project at the PRASA Treatment Plant, First Bank, Bayamon, Puerto Rico, 2008.
- Phase I ESA for a parcel of land for a proposed Home Depot facility, Ponce, Puerto Rico, 2007.
- Phase I ESA for the Imacaca facility as requested by Banco Popular, Bayamon, Puerto Rico, 2007.
- Phase I ESA for the La Fuente Motel as requested by First Bank, Caguas, Puerto Rico, 2007.
- Environmental Assessment for a proposed Universal Insurance facility as requested by Sierra Cardona Ferrer, Hatillo, Puerto Rico, 2007.
- Phase I ESA, Environmental Assessment and Permitting compliance for the proposed Becton Dickinson Biosciences facility, Cayey, Puerto Rico, 2007.
- Technical Consultant for Shell Puerto Rico, Luis Muñoz Marín International Airport, EPA Consent Order, Carolina Puerto Rico, July 2006.



- Phase II Site Characterization Shell Puerto Rico Former Gasoline Station, Mayaguez, Puerto Rico, August 2005.
- Phase II Site Characterization Shell Puerto Rico Gasoline Station, Ponce, Puerto Rico, March 2005.
- Phase II Site Characterization Almetco Facility, Canovanas, Puerto Rico, April 2008.
- Assessment and Remediation Activities, EPA Brownfields Program, Hato Rey Electroplating PRIDCO Facility, Hato Rey, Puerto Rico, September 2005.
- Assessment and Remediation Activities, EPA Brownfields Program, National Circuit PRIDCO Facility, Fajardo, Puerto Rico, September 2005.
- Phase II - Soil Assessment at Property to be Acquired by Junco Steel, Vega Baja, Puerto Rico, June 2005.
- Soil Assessment Cardinal Health Facility, Humacao, Puerto Rico, August 2005.
- Remedial Action Plans Preparation for the ACERVO Facility (Villas del Paraiso Residential Development), Hato Rey, Puerto Rico, February 2004
- Environmental Sampling Assessment, Taller Bufalo, Barceloneta, Puerto Rico, October 2003
- Closure of Septic Tank System, US Navy, Vieques, Puerto Rico, 2007.
- Phase I Environmental Site Assessment, El Mundo Broadcasting 10 properties in various locations in Puerto Rico, April 2003
- Phase I Environmental Site Assessment, Proposed Home Depot facility, Arecibo, Puerto Rico, 2003
- Phase I, Phase II, and Remediation Activities, Saint Luke's Memorial Hospital, Former Hospital Regional de Ponce, Ponce, Puerto Rico, September 2003
- NPDES Storm Water Pollution Prevention Plan and Permitting, Las Cascadas Residential Development, Toa Alta, Puerto Rico, November 2012.
- Assessment and Remediation Activities, EPA Superfund Program, Metal Finishing Toa Baja Facility, Toa Baja, Puerto Rico, February 2004
- Corps of Engineers and Environmental Permits, Torre Cibeles Residential Development, Hato Rey, Puerto Rico, April 2004.
- Phase II Environmental Assessment Activities, Covadonga Road Connector, San Juan, Puerto Rico, January 2004
- Technical Assistance, Former San Juan Gas Facility, San Juan, Puerto Rico, December 2000
- Phase I Environmental Site Assessment, Former Digital Facility, San German, Puerto Rico, December 2002
- Environmental Impact Statement, Aventura Residential Development, Gurabo, Puerto Rico, April 2006.
- Environmental Assessment, Ext. Degetau Improvements, Caguas, Puerto Rico, 2007.
- Environmental Assessment, Periferal Avenue Construction, Caguas, Puerto Rico, September 2007.
- Phase II Environmental Site Assessment (Soil and Groundwater, Septic Tank Characterization, PCB Testing, Asbestos and Lead-based Paint Limited Surveys, ACERVO Facility, Hato Rey, Puerto Rico, February 2002
- Phase I Environmental Site Assessment, Undeveloped property, Guayama, Puerto Rico, January 2003
- Phase I Environmental Site Assessment, San Juan and Carolina properties, January 2003
- Environmental Assessment, Isla Grande Site 36 Site, San Juan, Puerto Rico, January 2010.
- Underground Injection Control System Closure, Former Mayaguez Filter Facility, Mayaguez, Puerto Rico, January 2005.



- Phase II Environmental Assessment Activities, PR 122 Gulf Station, San Germán, Puerto Rico, 2003.
- Phase I Environmental Site Assessment, Plaza Tropical Facility, Bayamon, Puerto Rico, January 2003
- Phase I and Phase II Assessments, Revitalizacion Centro Urbano de Santurce, San Juan, Puerto Rico, February 2003.
- NPDES and CES Permits, Monticielo Residential Development, Caguas, Puerto Rico, January 2003.
- NPDES Permit, Coatings industrial facility, Bayamon, Puerto Rico, November 2002.
- Environmental Monitoring, Cidra River, Adjuntas, Puerto Rico, December 2002.
- Phase I Environmental Site Assessment, Beckton Dickinson Facility, Juncos, Puerto Rico, October 2002.
- NPDES Permitting, Laderas de San Juan Residential Development, San Juan, Puerto Rico, October 2004.
- Environmental Consulting Services, Mendez & Co. Carlos Malave Site, Cataño, Puerto Rico, February 2006.
- Environmental Impact Statement, Los Machos Beach Improvements, Ceiba, Puerto Rico, 2002.
- Phase II Environmental Assessment, Bard Undeveloped Lot, Humacao, Puerto Rico, November 2002.
- Phase I Environmental Site Assessment, Leaseway facilities, Cataño and Toa Baja Site, Puerto Rico, September 2002.
- Phase I Environmental Site Assessment, Mountain Union Telecommunication Towers, various location in Puerto Rico, November 2002.
- Environmental Evaluation Widening of PR-901, Yabucoa, Puerto Rico, August 1998.
- Environmental Evaluation PR-20 Toll Plaza, Guaynabo, Puerto Rico, October 1998.
- Environmental Analysis ERIKA Manufacturing Facility, Fajardo, Puerto Rico, November 1998.
- Phase I and Phase II Assessments for Yauco, Guayama and San Pablo Medical Facilities, From 1997 to 1998.
- Phase I and Phase II Site Assessment - Confidential Manufacturing Facility, Guaynabo, Puerto Rico, December 1997.
- Septic System UIC Closure Plan - Baxter Sales Facility, Guaynabo, Puerto Rico, February 1997.
- Underground Injection Control Permitting - Parque Las Cavernas de Camuy, Camuy, Puerto Rico, November 1996.
- Phase I Environmental Site Assessment Air Liquid Facility, Cataño, Puerto Rico, October 1996.
- Phase I Environmental Site Assessment 3 General Gases Facilities, Cataño, Bayamón and Ponce, Puerto Rico, October 1996.
- Phase I Environmental Site Assessment - Peninsula de Cantera Proposed Development Project, Santurce, Puerto Rico, November 1996.
- Phase I Environmental Site Assessment Tropical Fruit Property, Guanica, Puerto Rico, November 1996.
- PDES Storm Water Pollution Prevention Plans for 12 Ready Mix Concrete and 5 Aggregates Facilities Throughout the Island, September 1996.

- NPDES Storm Water Permitting - Comprehensive Site Compliance Evaluation - Intel Facility, Las Piedras, Puerto Rico, January 1996.
- Environmental Permitting Coordination and Management - Super Aqueduct PRASA Project, North Coast of Puerto Rico, From January to July 1996.
- Phase I Environmental Site Assessment - Caribbean Containers Inc., Arecibo, Puerto Rico, April 1996.
- NPDES Storm Water Permitting - Comprehensive Site Compliance Evaluation - Bumble Bee Facility, Mayaguez, Puerto Rico, May 1996.
- Storm Water Pollution Prevention Plan - Arecibo Coliseum Development, Arecibo, Puerto Rico, May 1996.
- Baseline Environmental Evaluation - PR Highway 22 Corridor - Hatillo to Hormigueros, February 1996.
- CEST Plan Arecibo Coliseum Development, Arecibo, Puerto Rico, May 1995.
- Hazardous Waste Characterization - Former Robert Cylinders Manufacturing, Canovanas, Puerto Rico, November 1995.
- Pretreatment Compliance Action Plan - OSI Puerto Rico. Corp., Santa Isabel, Puerto Rico, November 1995.
- CEST Plan Verde Luz Residential Development, Caguas, Puerto Rico, October 1995.
- Storm Water Pollution Prevention Plan - Verde Luz Development, Caguas, Puerto Rico, November 1995.
- Storm Water NPDES Evaluation - Timberland Facility, Isabela, Puerto Rico, October 1995.
- Inventory and Characterization of Chemical Wastes - Former Gulf Medical Technologies Inc. Facility, Cidra, Puerto Rico, February 1995.
- Phase I Environmental Site Assessment ACERVO Transportation and Maintenance Facility, Hato Rey, Puerto Rico, October 1995.
- Phase I Environmental Site Assessment and Limited Regulatory Compliance Audit - OSI Facility, Santa Isabel, Puerto Rico, February 1995.
- Regulatory Compliance Audit - Basic Industries Facility, Caguas, Puerto Rico, March 1995.
- Regulatory Compliance Audit - Manufacturera Berrios, Caguas, Puerto Rico, January 1995.
- Spill Prevention Control and Countermeasure Plan (SPCC) for Five Shopping Center Facilities in Fajardo, Aguadilla, Arecibo, Vega Baja and Guayama, Puerto Rico, May 1995.
- Storm Water Pollution Prevention Plan: NPDES General Permit Compliance - Valle del Lago Development, Rio Cañas, Caguas, Puerto Rico, June 1995.
- Phase I Environmental Site Assessment - Radio Station, Canovanas, Puerto Rico, June 1995.
- Phase I Environmental Site Assessment Mendez & Co. Commercial Facilities at Guaynabo, Ponce and Mayaguez, Puerto Rico, June 1995.
- Underground Injection Control Facility Closure Plan, Lugo Gulf Service Station, Utuado, Puerto Rico, May 1995.
- Environmental Impact Statement Torre Tivoli Residential Tower, Hato Rey, Puerto Rico, August 1995.
- Phase I Environmental Site Assessment Real Estate Transaction - 5 Hotel Properties in San Juan, Ponce and Mayaguez, Puerto Rico, March 1994.
- Phase I Environmental Site Assessment Real Estate Transaction - 15 Mueblerias Berrios Facilities Around the Island, December 1994.
- Phase I Environmental Site Assessment - Vasallo Industries Warehouse, Bo. Sabana Abajo, Carolina, Puerto Rico, September 1994.



- Storm Water Pollution Prevention Plan - OSRAM SYLVANIA Facility, Fajardo, Puerto Rico, April 1994.
- Phase I Environmental Site Assessment - Property Where the Baxter Healthcare San German Facility was Proposed, San German Puerto Rico, February 1993.
- Storm Water NPDES Storm Water Pollution Prevention Plan - Warner Lambert Facility, Vega Baja, Puerto Rico, August 1993.
- Storm Water Pollution Prevention Plan - Filterteck Inc. Facility, Patillas, Puerto Rico, February 1994.
- Inventory and Characterization of Hazardous Wastes - Former National Circuits Facility, Fajardo, Puerto Rico, November 1993.
- Storm Water Pollution Prevention Plan - La Sierra del Sol Development, Rio Piedras, Puerto Rico, July 1993.
- Storm Water NPDES Storm Water Pollution Prevention Plan - Warner Lambert Facility, Fajardo, Puerto Rico, August 1993.
- Storm Water Pollution Prevention Plan - Camino del Sol Development, Ponce, Puerto Rico, November 1993.
- Storm Water Pollution Prevention Plan - Bumble Bee Facility, Mayaguez, Puerto Rico, February 1993.
- Phase I Environmental Site Assessment - Finca Joaquina, Isla Verde, Puerto Rico, June 1994.
- Background Noise Measurements for the Puerto Rico Junior College, Carolina, Puerto Rico; June 1989.
- NPDES Storm Water Group Permit Application - Ready Mix Concrete Association Facilities, July 1992.
- NPDES Storm Water Pollution Prevention Plan - Holsum Bakers of Puerto Rico Facility, Toa Baja, September 1992.
- NPDES Storm Water General Permit Evaluation - Intel Manufacturing Facility, Las Piedras, Puerto Rico, June 1992.
- Environmental Impact Statement South Connector Road Project, Mayaguez, Puerto Rico, July 1991.
- Environmental Impact Statement Gonzales Clemente (PR 102) Road Expansion, Mayaguez, Puerto Rico, February 1992.
- Wood Treating Facilities Compliance with RCRA Subpart W - Assessment and Certification of Drip Pads, Several Facilities Around the Island, 1992.
- Ashland Hazardous Waste Storage Area Closure Certification, Cataño, Puerto Rico, March 1991.
- Environmental Evaluation - Mercedita Airport Access Roads, Ponce, Puerto Rico, January 1990.
- Environmental Phase I Site Assessment - A.H. Robins Manufacturing Company, Barceloneta, Puerto Rico, May 1989.
- Certification of Completion of Closure - Hazardous Waste Container Storage Unit (PRD-091049262), Ciales, Puerto Rico, April 1989.
- Searle & Co. RCRA Part B Permit Application: Response to EPA Comments; April 1987.
- Environmental Impact Statement, Caguas Center Shopping Center - Caguas, Puerto Rico; December 1978.
- Environmental Assessment, Sheering Industrial Development Corporation, Building Expansion (Beta IV) - Manati, Puerto Rico; August 1981.

- Environmental Evaluation State Road PR-102 - Mayaguez, Puerto Rico; August 1981.
- Infiltration/Inflow Study of the Sanitary and Storm Sewer Systems of the City of Rio Piedras - San Juan, Puerto Rico; June 1981.
- Water Quality Management Plan for the Island of Puerto Rico - Mining Pollution Control Study; August 1979.
- Preliminary Environmental Impact Statement - State Rd. PR-187 Boca de Cangrejos Avenue - San Juan, Puerto Rico; June 1987.



**RESUME OF  
LUIS RAUL COLON MORALES**

***Project Engineer/Project Manager***

**EDUCATION**

University of Puerto Rico

Mayaguez Campus - B. S., Civil Engineering, 2005, Magna Cum Laude, GPA 3.85

University of Florida

Gainesville – Master in Civil Engineering, Water Resources, 2007, Summa Cum Laude GPA 4.00

**PROFESSIONAL AFFILIATIONS**

College of Engineers and Surveyors of Puerto Rico (CIAPR)

American Society of Civil Engineers (ASCE)

National Groundwater Association

**PROFESSIONAL REGISTRATIONS/CERTIFICATIONS**

Professional Engineer (PE), License 21864, Puerto Rico

**CAREER SUMMARY**

Mr. Colón is a Project Engineer with the environmental consulting firm of Caribe Environmental Services since 2007. Mr. Colón is a registered Professional Engineer with the College of Engineers and Surveyors of Puerto Rico. Mr. Colón has been involved in a variety of water resources and environmental projects including surface and ground water hydrologic modeling and investigations as well as soil and groundwater contamination assessments. Mr. Colón is also continuously developing potentiometric and contaminant concentration surface maps as well as GIS Inventory databases. Also Mr. Colón has participated in the preparation of multiple environmental site assessments, environmental compliance audits and environmental permitting projects.

**LIST OF PROJECTS**

The following list shows a representative sample of Mr. Colón's professional work experience throughout his professional career.

**ENVIRONMENTAL ENGINEERING**

- Expert Witness – Blasina Lagoon Contamination, Municipio de Carolina V. Autoridad de Acueductos y Alcantarillados, Carolina, Puerto Rico – on-going.
- Soil Investigation, Baxter Healthcare Facility, Aibonito, Puerto Rico, on-going.

- Sampling activities, former Caguas Uniform facility, Caguas, Puerto Rico, on-going
- Environmental assessment, EFA Investment for Paseo Samaritano residential development, on-going
- Phase I and Groundwater sampling at Hospital Dr Pila, Ponce, Puerto Rico; on-going
- Phase I for Salichs Pou and Associates of former gas station at Toa Baja, Puerto Rico; October 2010
- Phase I Environmental assessment at Bacardi, Palo Seco facility; February 2011
- Phase I Environmental assessments of two sites (Arecibo and Carolina) for Battery Recycling; on-going
- Environmental Site Investigation, Shellfoam Facility, Puerto Rico Industrial Development Company (PRIDCO), Cidra, Puerto Rico, June 2010.
- Environmental Assessment for soil contamination, Becton Dickinson Affirm Expansion, Cayey, Puerto Rico, March 2010.
- Site Inventories and Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Canovanas, Canovanas, Puerto Rico, on-going.
- Site Inventories and Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Toa Baja, Toa Baja Puerto Rico, on-going.
- Site Inventories and Environmental Assessments for Brownfields Petroleum and Hazardous Sites for the Municipality of Aguadilla, Aguadilla, Puerto Rico, on-going.
- Phase I ESA for the San Jorge Children's Hospital for First Bank, Santurce, Puerto Rico, June 2010.
- Environmental Audits and Permitting Compliance for the LANCO Group Facilities located in San Lorenzo, Cidra and Rio Piedras, on-going.
- Phase I ESA for a parcel of land owned by Doral Bank, Rincon, Puerto Rico, July 2010.
- Phase I ESA for a parcel of land owned by Doral Bank, Loiza, Puerto Rico, July 2010.
- Phase I ESA for former gasoline station owned by Banco Popular de PR, Corozal, July 2010
- Phase I ESA for former gasoline station owned by Banco Cooperativo de Puerto Rico, Ciales, on-going.
- Phase I Environmental Site Assessment, Groundwater Sampling and Environmental Audit, Patheon Facility for EDIC College, Caguas, February 2011
- Soil Sampling Investigation, PCB Horizon Facility, Puerto Rico Industrial Development Company (PRIDCO), San German, Puerto Rico, 2009.
- Soil Investigation According to an Administrative Order of Consent Issued by the EPA PRIDCO, San Germán, Puerto Rico, On-going
- Phase I ESA for the Dollar Rent a Car facility, owned by Empresas Alberic Colon, Ponce, Puerto Rico, 2009
- Phase I ESA for the former Gulf Gasoline Station as requested by First Bank, Camuy, Puerto Rico, 2009.
- Phase I ESA for the Hospital Episcopal San Lucas and Torre Media, as requested by First Bank, Ponce, Puerto Rico, 2009.
- Phase I and Phase II ESA for former Union Carbide Caribe Facility, as requested by Peerless Oil and Chemicals, Peñuelas/Guayanilla, Puerto Rico, 2009.
- Environmental Audit and Permitting Compliance, Papelera Puertorriqueña, Utuado, Puerto Rico, on-going



- Phase I ESA for the proposed Sun Microsystems facility, as requested by McConnell Valdez, Ponce, Puerto Rico, 2009
- Phase I and Limited Phase II ESA for the Biovail Laboratories facilities, Dorado, Puerto Rico, 2009.
- Phase I Environmental Site Assessment & Phase II Site Characterization First Bank, Cataño, Puerto Rico, 2008.
- Phase I Environmental Site Assessment Borinquen Memorial, Caguas, Puerto Rico, 2008.
- Phase I Environmental Site Assessment Leaseway, Cataño, Puerto Rico, 2008.
- Phase I ESA of former Empresas Santana facilities at the Luis Muñoz Marín International Airport and Base Muñiz, Carolina, Puerto Rico, 2008.
- Phase I and Phase II ESA for the Aguas Puras project at the PRASA Treatment Plant, First Bank, Bayamon, Puerto Rico, 2008.
- Phase I Environmental Site Assessment (4 SITES) Alberic Colon, San Juan, Puerto Rico, 2008.
- Phase I Environmental Site Assessment Banco Gubernamental de Fomento, San Juan, Guaynabo & Ponce, Puerto Rico, 2008.
- Site Characterization of Soil and Groundwater, Dense Non-Aqueous Phase Liquids (DNAPLs), Confidential Client, Carolina, Puerto Rico.
- Assessment of Dense Non-Aqueous Phase Liquids (DNAPLs) in Groundwater, Confidential Client, Carolina, Puerto Rico.
- NPDES Storm Water Management Plan, Peerless Oil and Chemical, Peñuelas & Guayanilla, Puerto Rico, Ongoing
- NPDES Storm Water Management Plan, Quality Electroplating, Caguas, Puerto Rico, January 2009.
- NPDES Storm Water Management Plan, University of Puerto Rico, Aguadilla Campus.
- NPDES Storm Water Management Plan, University of Puerto Rico, Humacao Campus.
- NPDES Storm Water Management Plan, University of Puerto Rico, Carolina Campus.
- Consumption of Energy Analysis, Ext. Degetau Improvements, Caguas, Puerto Rico, 2007
- Erosion and Sedimentation Control Plan UPR Bayamón, Bayamón, Puerto Rico, 2007

## **HYDROLOGY AND HYDRAULICS**

### ***Surface Hydrology/Hydraulics***

- Hydrologic/Hydraulic Study for the Turabo River, Caguas, Puerto Rico, as requested by the Puerto Rico Highway and Transportation Authority, on-going.
- Hydrologic/Hydraulic Study for the AD Bayamon site owned by Mendez & Co., Bayamon, Puerto Rico, on-going.
- Hydrologic/Hydraulic Study for a proposed Mixed-Uses Development Complex, LAIF LLC, Guaynabo, Puerto Rico, 2009
- Hydrologic Study Degetau Avenue Extension, Caguas, Puerto Rico, On-going
- Hydrologic/Hydraulic Study La Vereda Residential Development, Ceiba, Puerto Rico, 2008

- Hydrologic/Hydraulic Study Notre Dame Elementary School, Caguas, Puerto Rico, 2008
- Hydrologic/Hydraulic Study and Sinkholes Hydraulic Evaluation, Las Americas Technology Industrial Park, Moca, Puerto Rico, January 2007
- Hydrologic/Hydraulic Study Betterroads Cupey Facility, San Juan, Puerto Rico, 2007.
- Hydrologic and Hydraulic Study, Villas de Montecielo Residential Development, Guaynabo, Puerto Rico.
- Hydrologic and Hydraulic Study for the Degetau Avenue to the Turabo River and FEMA Conditional Letter of Map Revision Request, Caguas, Puerto Rico, June 2005.

### ***Groundwater Hydrology/Hydrogeology***

- Aquifer Investigation at the former Hanes Facility for the proposed Cervezas del Sur project, Ponce, Puerto Rico, on-going
- DNER Permitting of monitoring wells, former Patheon facility, Caguas, Puerto Rico, on-going.
- Groundwater study and slug/chemical testing, IPR Pharmaceuticals, Canóvanas, Puerto Rico, on-going
- Site Characterization of Soil and Groundwater, former Hospital Dr. Pila owned by Metro Pavia, Ponce, Puerto Rico, on-going.
- Site Characterization of Soil and Groundwater, Dense Non-Aqueous Phase Liquids (DNAPLs), Confidential Client, Carolina, Puerto Rico, July 2009
- Subsurface-Groundwater Contamination Assessment – PRHTA Site 36, Puerto Rico, On-Going
- Hydrologic/Hydraulic Study and Sinkholes Hydraulic Evaluation, Camaseyes Residential Area, Aguadilla, Puerto Rico, 2007
- Groundwater and deep well sampling Monitoring Event, IPR Pharmaceuticals, Canovanas, Puerto Rico, 2007.
- Hydrogeologic Characterization Assessment, Villas del Faro Punta Tuna Beach Resort, Maunabo, Puerto Rico, November 2001 (during summer part-time job)

### **GIS INVENTORY DATABASE**

- Brownfield Inventory Database for Municipality of Aguadilla; on-going
- Brownfield Inventory Database for Municipality of Toa Baja; on-going
- Brownfield Inventory Database for Municipality of Canóvanas; on-going
- Location Inventory of sampling points for:
  - Soil Investigation, Baxter Healthcare facility, Aibonito, Puerto Rico; on-going
  - Phase I and Groundwater sampling at Hospital Dr Pila, Ponce, Puerto Rico; on-going
  - Environmental Site Investigation, Shellfoam Facility, Puerto Rico Industrial Development Company (PRIDCO), Cidra, Puerto Rico, June 2010
  - Phase I and Phase II ESA for former Union Carbide Caribe facility, as requested by Peerless Oil and Chemicals, Peñuelas/Guayanilla, Puerto Rico; 2009
  - Aquifer Investigation at the former Hanes facility for the proposed Cervezas del Sur project, Ponce, Puerto Rico; on-going



- Groundwater study and slug/chemical testing, IPR Pharmaceuticals, Canóvanas, Puerto Rico; on-going
- Storm & Sanitary Water Sewers Location and/or Characteristics Identification, Expert Witness Contamination Assessment Municipio de Carolina vs. Autoridad de Acueductos y Alcantarillados, Carolina, On-Going.
- Location and Characteristics Identification of Water Wells, Groundwater Investigation, Cervezas del Sur, Ponce, Puerto Rico, 2009

## **CONTINUING EDUCATION SEMINARS**

“ASTM 1527-13 Standard for Environmental Site Assessments for Commercial Real Estate”, ASTM Technical Training and E- Learning, September 23-24, 2014

“EPA’s 2012 Construction General Permit (CGP)”, US EPA Stormwater Program’s Webcast Series, March 15, 2012

“Two Experts Share Intell on Vapor Intrusion in the Real World”, Environmental Data Resources, Inc., February 7, 2012

“The Remediation Course, 38 hour continuing education course”, Princeton Groundwater, Inc., October 24-28, 2011

“Reglamentos y Permisos Ambientales ante el Cuerpo de Ingenieros de Estados Unidos”, Universidad Puerto Rico, Div Educación Continua, December 13, 2010

“Reglamentos y Permisos Ambientales Parte II”, Universidad Puerto Rico, Div Educación Continua, December 3, 2010

“Cambios Recientes a Leyes y Reglamentos Ambientales y Propuestas Inmediatas de Energia Verde”, CIAPR and AIDIS, October 29, 2009.

Seminar about “2008 Final NPDES General Permit For Stormwater Discharges From Industrial Activities”, Asociacion Interamericana De Ingenieria Sanitaria Y Ciencias Del Ambiente, November 20, 2008

Hydrologic Modeling Using HEC-HMS Computer Model, American Society of Civil Engineers, Orlando, Florida, January, 2008

“Taller sobre Sistema de Información Geográfica: Puerto Rico Interactivo y el Expediente Digital”, Puerto Rico Planning Board and College of Engineers and Surveyors of Puerto Rico, Hato Rey, Puerto Rico, May 11, 2007.

## **SKILLS**

Proficient with the following softwares:

- Microsoft's computer software, such as: Power Point, Excel and Word.
- Hydrologic and Hydraulic software, such as: HMS, HEC-RAS, Hydraflow Storm Sewer, HY-8
- Software that can be applied to groundwater modeling, such as: Rockworks 2006, Surfer, AQTESOLV and Modflow Packages.
- AutoCad
- Arc GIS.
- Virtual Basic Programming.

## **LANGUAGE CAPABILITY:**

<u>Language</u>	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
English	Excellent	Excellent	Excellent
Spanish	Excellent	Excellent	Excellent

**Attachment 10: Endangered Species information**



## Self-Certification

<http://www.fws.gov/caribbean/ES/Index.html>

### Endangered Species Act Certification

The U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office developed a Blanket Clearance Letter in compliance with Endangered Species Act of 1973, as amended, and the Fish and Wildlife Coordination Act for federally funded projects.

The Service determined that projects in compliance with the following criteria are not likely to adversely affect federally-listed species.

Puerto Rico Department of Housing (PRDOH) certifies that the following project Intersection Improvements Roundabout PR-693 and PR-698, PR-CRP- 000557, consisting of the construction of a roundabout at the intersection of PR-693 and PR-698, along with the reconstruction of curbs, sidewalks, and gutters along PR-693 and PR-698, improvements to underground telephone and electrical systems on PR-693, and improvements to the rainwater system on PR-693 and at the intersection of PR-698 located at the intersection of PR-693 and PR-698 complies with:

Check	Project Criteria
<input type="checkbox"/>	1. Street resurfacing.
<input type="checkbox"/>	2. Construction of gutters and sidewalks along existing roads.
<input type="checkbox"/>	3. Reconstruction or emergency repairs of existing buildings, facilities and homes.
<input type="checkbox"/>	4. Rehabilitation of existing occupied single-family homes, and buildings; provided that equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation and that the lighting associated to the new facilities is not visible directly or indirectly from a beach.
<input type="checkbox"/>	5. Demolition of dilapidated single-family homes or buildings; provided that the demolition debris is disposed in certified receiving facilities; equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation.



<input type="checkbox"/>	6. Rebuilding of demolished single-family homes or buildings, provided that the new construction is within the existing footprint of the previous structure and/or within pre- existing grassed or paved areas, and that the lighting associated to the new facilities are not visible directly or indirectly from a beach.
<input type="checkbox"/>	7. Activities within existing Right of Ways (ROWs) of roads, bridges and highways, when limited to actions that do not involve cutting native vegetation or mayor earth moving; and are not located within, or adjacent to, drainages, wetlands, or aquatic systems. These activities include the installation of potable water and sanitary pipelines.
<input type="checkbox"/>	8. Improvements to existing recreational facilities, including the installation of roofs to existing basketball courts, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input checked="" type="checkbox"/>	9. Construction of electric underground systems in existing towns and communities, provided that the property is not a wetland area and the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input checked="" type="checkbox"/>	10. Construction of facilities on vacant properties covered with grasses in urban areas, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input type="checkbox"/>	11. Construction of houses, buildings or acquiring lands in urban areas covered by grass for relocation of low-income families and/or facilities that have been affected by weather conditions.

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Ángel G. López-Guzmán  
Deputy Director  
Permits and Environmental Compliance Division  
  
Office of Disaster Recovery  
**Address:** P.O. Box 21365 San Juan, PR 00928  
**Telephone and Ext:** 787-274-2527 ext. 4320  
**Email:** [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov)

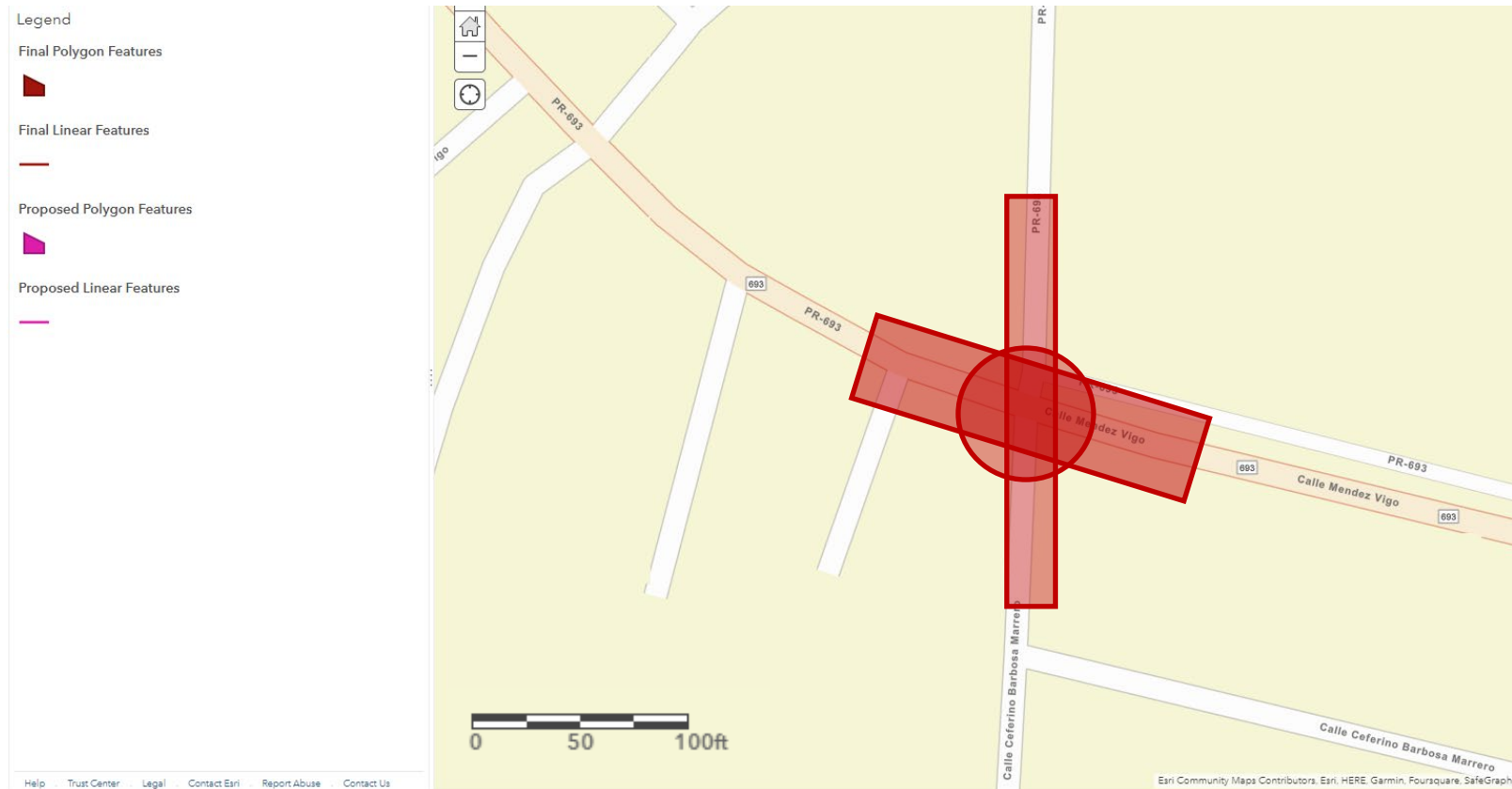
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Date



Figure 1. Aerial view of project area

## Critical Habitat for Threatened & Endangered Species [USFWS]



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, HERE, Garmin, INCREMENT P, USGS, METI/NASA

**PUERTO RICO DEPARTMENT OF HOUSING  
CDBG-DR PROGRAM  
CITY REVITALIZATION PROGRAM**

**PROJECT DEVELOPMENT DOCUMENTATION PROCESS - WORKPLAN**

**SECTION 9.2 – Project Description**

<b>Subrecipient Name:</b>	Municipio de Dorado
<b>Project Name:</b>	Mejoras Intersección Rotonda PR-693 y PR-698
<b>Project ID Number:</b>	PR-CRP-000557
<b>Location:</b>	Lat. 18.462004, Long. -66.268678

The Municipality of Dorado proposes improvements to the roadway that leads to the town center by the construction of a roundabout. This improvement will be designed to facilitate traffic flow in the intersection between Mendez Vigo Street (PR-693) and Seferino Barbosa Street (PR-698). This action is aimed at reducing the risk of accidents when there is no electricity in the area's traffic signals, improving pedestrian and vehicular safety, and embellishment and improvement of the environment along the roadways. Among the improvements, there will be a reconstruction of sidewalks and curbs, landscaping, and improvements to the electrical and stormwater systems in the area. The project will require acquisitions, demolitions of structures, and new construction.

For the project to be developed, the municipality will need to acquire two portions of land: an area of 447.65 square meters in the northeast corner of the intersection and an area of 61.683 square meters located in the northwest corner of the intersection (see attachment 1). Another portion of land will be affected at the southwest corner of the intersection where structures will be demolished and some of the parcel will be reused for public transit. This last one is part of the property owned by the municipality where a total of 694.972 square meters will be impacted by demolition of existing structures and reconfiguration of the parcel.

The project will also require the demolition of two structures in a property that is owned by the municipality. These structures served as a public educational facility and community center for youth. This portion of the project is being designed and performed by a third party. Thus, funds from the CRP program will not be allocated for demolition, debris removal or disposal. However, it will be addressed in the environmental review record as it is an essential part of the project.

According to design data, the total project area encompasses 10,785.489 square meters. In total, 1,203.92 square meters will change land use. This represents a total of change in land use of 11.2%. Therefore, the project can be evaluated as a CEST. See attachments for calculations and drawings.

**Details of proposed work**

The project requires the following activities:

- 1- Medians: Each entrance to the circle will have concrete curbed median separating the opposite flows of traffic. The two-lane entrances will flow into the circle: one, right hand lane, for traffic making a right-hand turn and the other, left-hand lane, for traffic continuing through the circle.



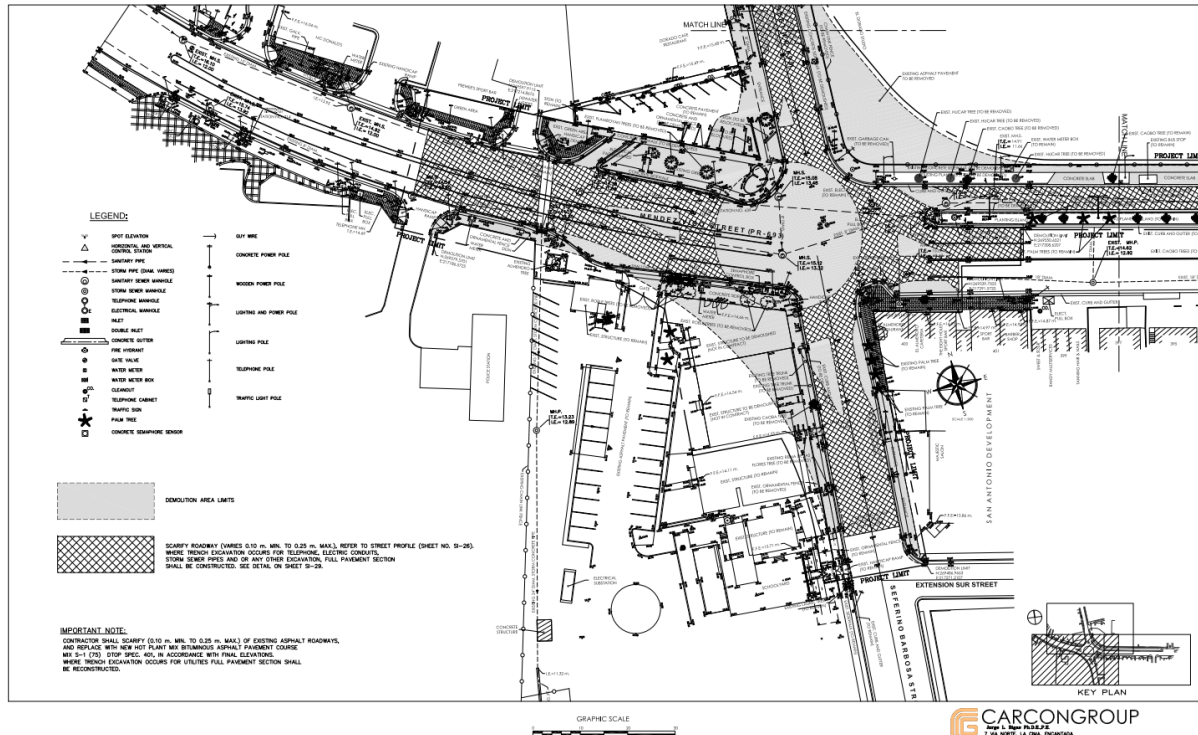
- 2- Curb and Gutter: The curb around the circle will be mountable, reinforced concrete, 2-Ft wide. Following PR-DTOP specifications. The curb and gutter along the impacted roadway totaling 600 linear Ft will follow PR-DTOP specifications.
- 3- Sidewalk: A total of 600 linear feet of Impacted sidewalk will be rebuilt of reinforced concrete, 4 Ft wide following PR-DTOP specifications.
- 4- Green area: The interior of the circle will have a raised, 3 Ft high at the center, 25 Ft diameter planting area inside the curb. This will be landscaped.
- 5- Lighting: The interior of the circle will have 10, solar powered, 45 watt, LED lights illuminating the roadway. There will also be one solar powered, LED, streetlight at each of the four entrances to the circle (4 total).
- 6- Roadway: The circle will have two lanes, 12.5 Ft wide each, 25 Ft wide total. The roadway within the circle and 50-Ft of the roadway approaching the circle from each direction will be 6-inch-thick reinforced concrete, following PR-DTOP specifications.
- 7- Signage: Will follow PR-DTOP specifications and will include:
- 8- Pavement markings: Lanes will be stripped following PR-DTOP specifications.
  - Traffic direction arrows will be painted in each lane at 4 locations within the circle. (8 total).
  - Pedestrian crossings will be striped (10 crossings total)
- 9- Existing traffic signals: will be removed and stored for future use by MOD.
- 10- Utilities: Existing overhead and underground utilities (water, electric, telecommunication, storm drains, sewer, Etc) will be located and identified on the drawings.
  - The existing overhead electrical and telecommunication utility will be relocated underground either trenched or by horizontal drilling. This activity will be coordinated with Luma and Claro.
  - Impacted storm drains will be rebuilt with reinforced concrete pipe and sized appropriately following PR-DTOP specifications.
  - Impacted water & sewer lines will be protected during construction.
  - Significant underground features (pipe, bends, valves, manholes, duct banks, conduit, Etc.) will be located on the as-built drawing with GPS coordinates, depth from surface and description of the feature.
- 11- Temporary detour construction: A temporary 2-lane asphalt roadway 25 Ft wide x 300 Ft long following PR-DTOP specifications will be constructed as a detour around the construction area. Construction of the temporary asphalt roadway will take place during off-peak traffic hours. The temporary roadway will be demolished once it is no longer needed.
- 12- Building Demolition

### Change in area calculation

Total project area 10785.489

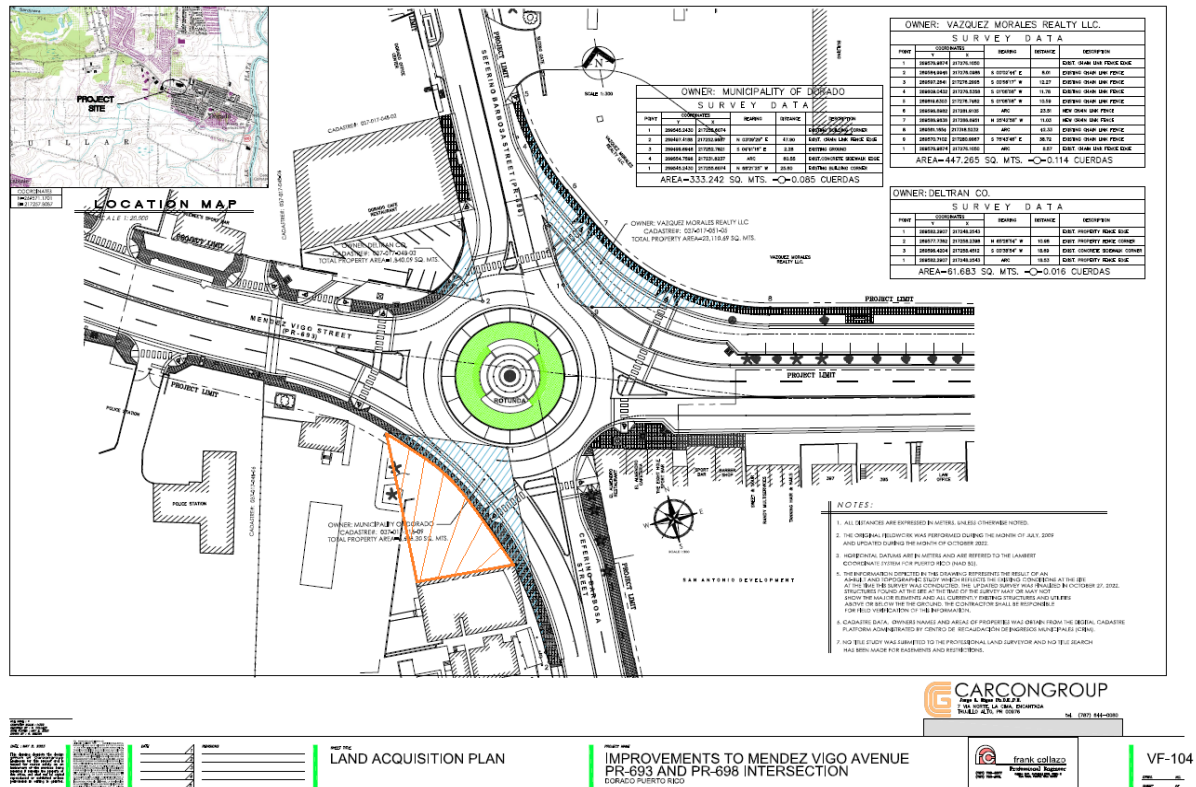
Acquisitions (changes in use)		Sq meters
037-017-048-03	Deltran co. (blue)	61.683
037-017-051-05	Vázquez Morales Realty LLC (blue)	447.265
Non-acquisitions with changes in use		Sq meters
037-011-216-09	Municipality of Dorado (blue shade)	333.242
037-011-216-09	Demolition (orange shade)	361.73
Total change in use		1203.92
Total change in percentage		11.2%

## Attachment 1



### Illustration of project footprint over actual uses

Attachment 2



Proposed footprint with acquisitions and changes in use (shaded areas)

### Attachment 3 Demolition information



Figure 1- Photos with buildings to be demolished

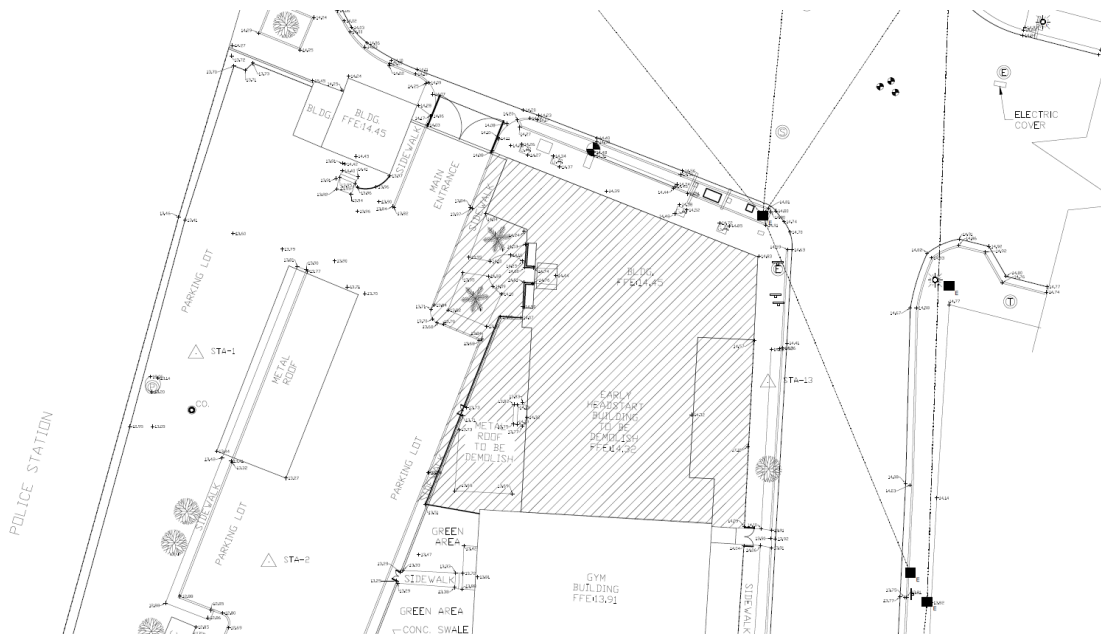


Figure 2 – Detail of drawing showing demolition area in municipal-owned property





Based on the information provided, we determined the project proposed qualifies for the blanket clearance letter. Nevertheless, if the project is modified this office should be contacted concerning the need for the initiation of consultation under section 7 of Endangered Species Act of 1973.

Reviewer \_\_\_\_\_

Caribbean ES Field Supervisor

July 18, 2022

Mr. Edwin Muñíz  
Field Supervisor  
U.S. Fish & Wildlife Service  
Boquerón Field Office  
PO Box 491  
Boquerón, PR 00622

**RE: Self-Certification under Blanket Clearance Letter for federally sponsored projects, Housing and Urban Development, for Intersection Improvements Roundabout PR-693 and PR-698, PR-CRP-000557, Intersection of PR-693 and PR-698 in Dorado, PR.**

Dear Mr. Muniz:

We submit for your review the enclosed Self-Certification to fulfill requirements related with the Blanket Clearance Letter dated January 14, 2013. This information is submitted to comply with Section 7 of the Endangered Species Act (ESA). The project is a CDBG-DR funded project; allocated by HUD to PRDOH as the grantee of the funds and the municipality of Dorado as the subrecipient of the funds.

The municipality of Dorado is proposing the construction of a roundabout at the intersection of PR-693 and PR-698, along with the reconstruction of curbs, sidewalks, and gutters along PR-693 and PR-698, improvements to underground telephone and electrical systems on PR-693, and improvements to the rainwater system on PR-693 and at the intersection of PR-698. The project also proposes the acquisition of a portion of three adjacent lots, which are developed for commercial or public use and are either asphalted for parking or improved with a building. The project activity is limited to a previously developed urban property and roadway and thus the proposed action has no effect on any natural habitats or federally protected species. Please refer to enclosed maps and project description for details.

Should you require any additional information, please contact me at [yomayra.maldonado@dorado2025.com](mailto:yomayra.maldonado@dorado2025.com) or at the following phone number (787) 796-1230, ext. 3339

Cordially,

Yomaira Maldonado Cortés  
Director of Planning



## Self-Certification

### Endangered Species Act Certification

The U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office developed a Blanket Clearance Letter in compliance with Endangered Species Act of 1973, as amended, and the Fish and Wildlife Coordination Act for federally funded projects.

The Service determined that projects in compliance with the following criteria are not likely to adversely affect federally listed species.

The Municipality of Dorado, Puerto Rico, certifies that the following project, PR-CRP-000557, funded by the Department of Housing and Urban Development and located at the intersection of PR-693 and PR-698 (Lat. 18.462004, Lat. -66.268678) complies with:

Check	Project Criteria
X	1. Street resurfacing.
X	2. Construction of gutters and sidewalks along existing roads.
	3. Reconstruction or emergency repairs of existing buildings, facilities and homes
	4. Rehabilitation of existing occupied single-family homes, and buildings; provided that equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation and that the lighting associated to the new facilities is not visible directly or indirectly from a beach.
	5. Demolition of dilapidated single-family homes or buildings; provided that the demolition debris is disposed in certified receiving facilities; equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation
	6. Rebuilding of demolished single-family homes or buildings, provided that the new construction is within the existing footprint of the previous structure and/or within pre-existing grassed or paved areas, and that the lighting associated to the new facilities are not visible directly or indirectly from a beach
	7. Activities within existing Right of Ways (ROWs) of roads, bridges and highways when limited to actions that do not involve cutting native vegetation or mayor earth moving; and are not located within, or adjacent to, drainages, wetlands, or aquatic systems. These activities include the installation of potable water and sanitary pipelines.
	8. Improvements to existing recreational facilities, including the installation of roofs to existing basketball courts, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
X	9. Construction of electric underground systems in existing towns and communities, provided that the property is not a wetland area and the lighting associated to the facilities are not visible directly or indirectly from the beach.
X	10. Construction of facilities on vacant properties covered with grasses in urban areas, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
	11. Construction of houses, buildings or acquiring lands in urban areas covered by grass for relocation of low-income families and/or facilities that have been affected by weather conditions.

Yonaira Maldonado Cortés  
POC

PO Box 588, Dorado, PR, 00646

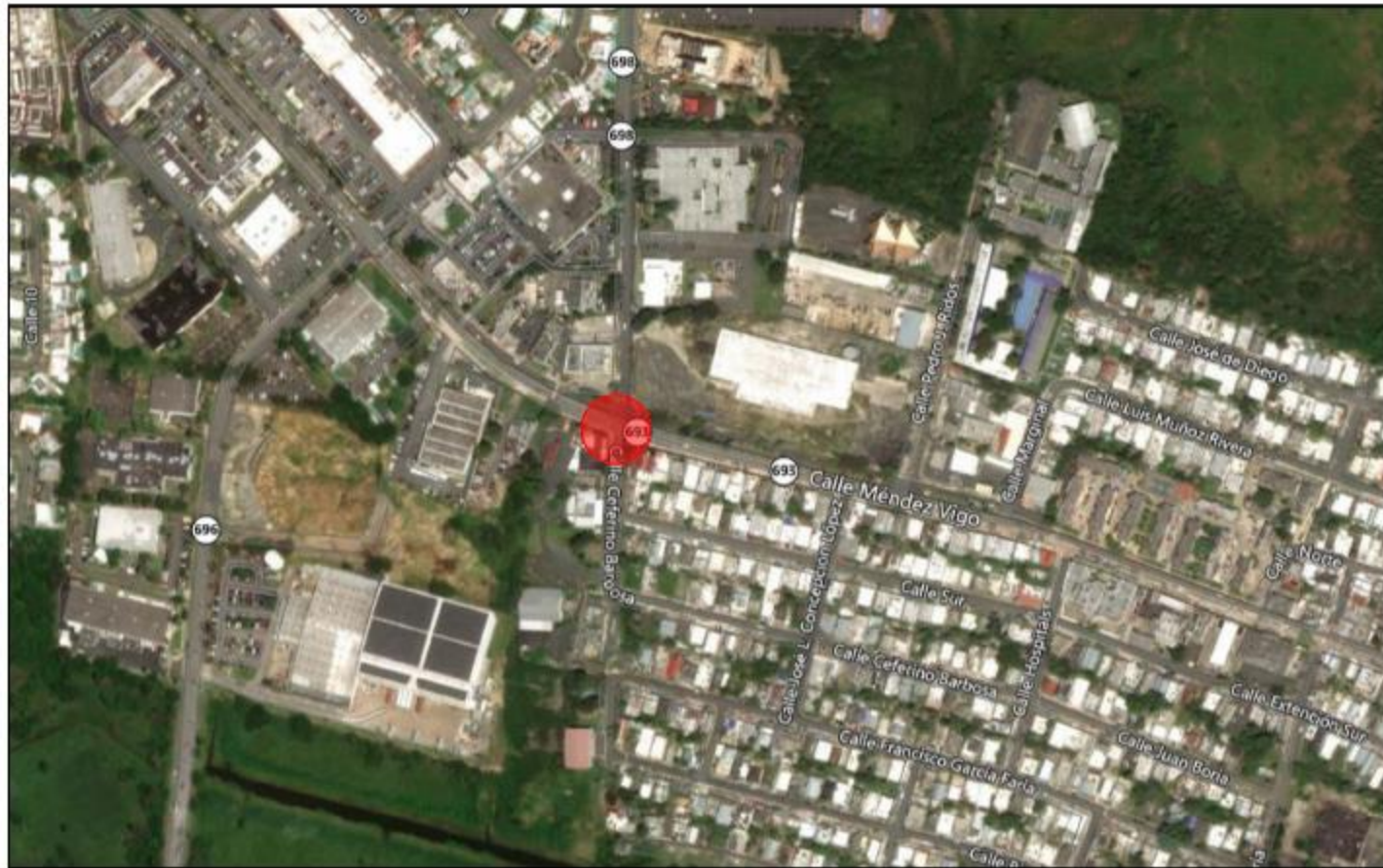
July 18, 2022

Date



Attachment 1: Project Location Map

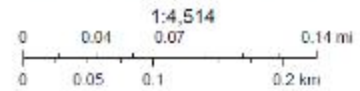
Project Location 2 - PR-CRP-000557



June 29, 2022



PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698

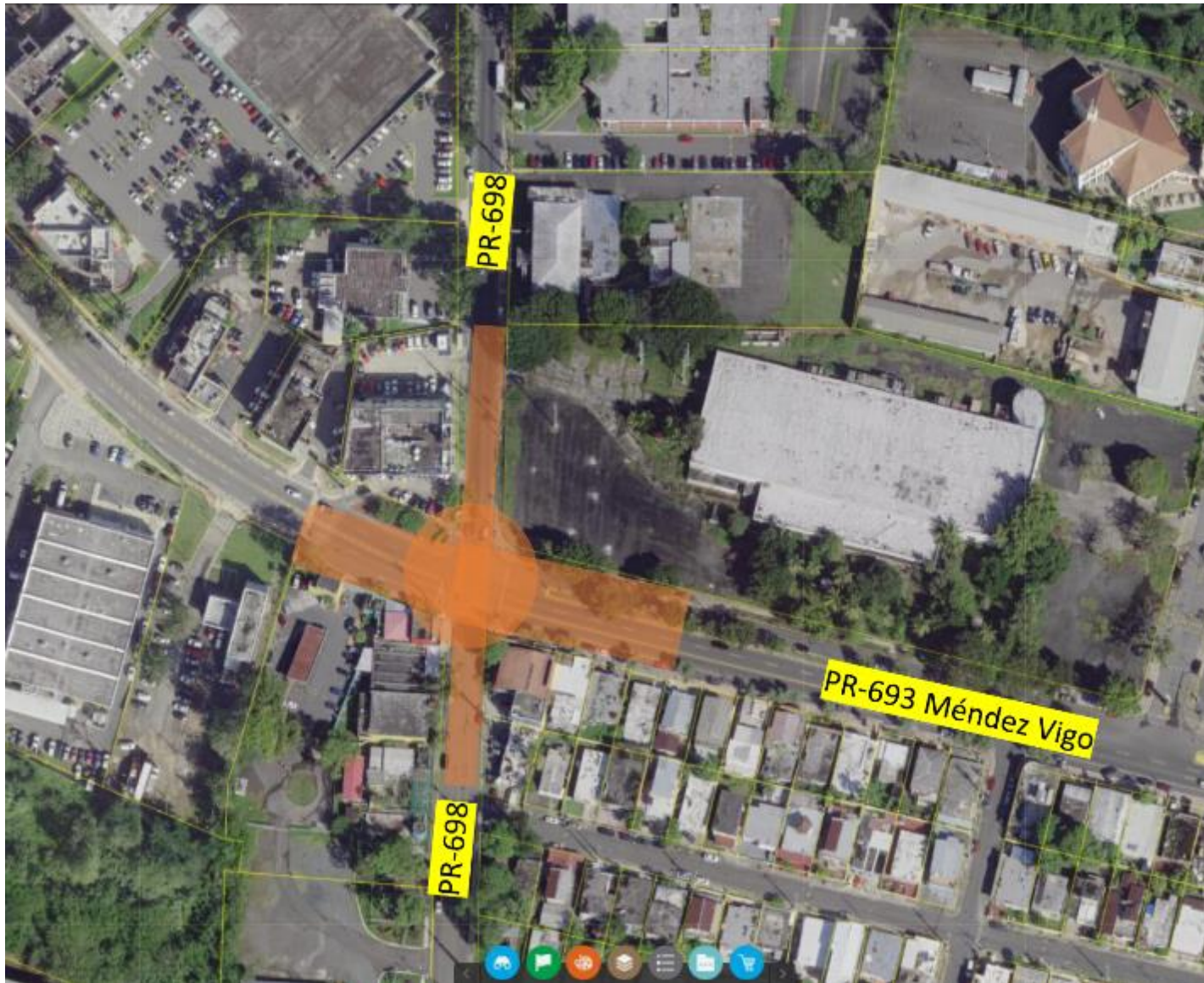


© 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS © 2022 TomTom

Map Generated by ICF

Project Location: Intersection of PR-693 and PR-698 (Lat. 18.462004, Long. -66.268678)

Attachment 2: Proposed Project





Attachment 3: Site Photograph 1 of 4 (View of intersection looking west along PR-693)





Attachment 3: Site Photograph 2 of 4 (View of northwestern segment of intersection; portion of commercial lot to be acquired)





Attachment 3: Site Photograph 3 of 4 (View east along PR-693)





Attachment 3: Site Photograph 4 of 4 (View of northeastern segment of intersection; portion of asphalt lot to be acquired)





#### Attachment 4: Project Description

The Municipality of Dorado is proposing the construction of a roundabout at the intersection of PR-693 and PR-698, which would facilitate the flow of traffic at intersections between roads and reduce the danger of accidents. In addition to the construction of a roundabout, several improvements are proposed as part of the project:

- Reconstruction of sidewalks, curbs, and gutters along Mendez Vigo Street (PR-693) and PR-698 with proper signage and pedestrian crossings clearly marked.
  - Curbs will be mountable, reinforced concrete, two feet wide and following PR-DTOP specifications.
  - 600 linear feet of curbs and gutters along the roadway will follow all PR-DTOP specifications.
  - 600 linear feet of sidewalks will be rebuilt with reinforced concrete, four feet wide, following PR-DTOP specifications.
  - The interior of the roundabout will have a raised, three-foot-high, 25-foot diameter planting area.
  - Installation of 10 solar powered, 45-watt, LED streetlights at each of the four entrances to the roundabout.
- Improvements to telephone and electrical systems on Mendez Vigo Street (PR-693), including burying utilities underground.
  - Existing electrical and telecommunication lines will be moved underground through either trenching or by horizontal drilling. The work would be coordinated with Luma (power company) and Claro (telecommunications company).
- Improvements to street drainage at the intersection.
  - Storm drains will be rebuilt with reinforced concrete pipe.
  - Existing water and sewer lines will be protected during construction.
- Improvements to the rainwater system on Mendez Vigo Street (PR-693) and at the intersection of PR-698.

To facilitate the construction of the roundabout, the Municipality proposes to acquire a 453.111 square meter (4,877.25 square feet) portion of land in the northeast corner of the intersection of PR-693 and PR-698, a 62.174 square meter (669.24 square feet) portion of land at the northwest corner of the PR-693 and PR-698 intersection, and a 332.609 square meter (3,580.17 square feet) portion of land located at the southwest corner of the intersection. The land that is proposed for acquisition would be used for the expansion of the roadway required by the installation of the proposed roundabout. The project would include the demolition of an existing concrete building on the southwestern parcel of land and the removal of some asphalted areas, curbs, gutters, and existing sidewalks. All construction would take place within the existing right of way.

During construction of the proposed project, a temporary two-lane asphalt road, approximately 25 feet wide and 300 feet long, would be constructed as a detour around the construction area. Construction of the temporary roadway would take place during off-peak traffic hours and would be demolished once all construction activities are completed. Construction of the proposed project would require the removal of several existing trees, street signs, the relocation of an existing bus stop, and removal/relocation of several other road and sidewalk features.

The total project area would be 8,000 square meters (86,111.28 square feet or 1.98 acres). The extent of project activities is highlighted in red in **Attachment 2: Proposed Project**.

Attachment 5: IPaC Report

(See next page)

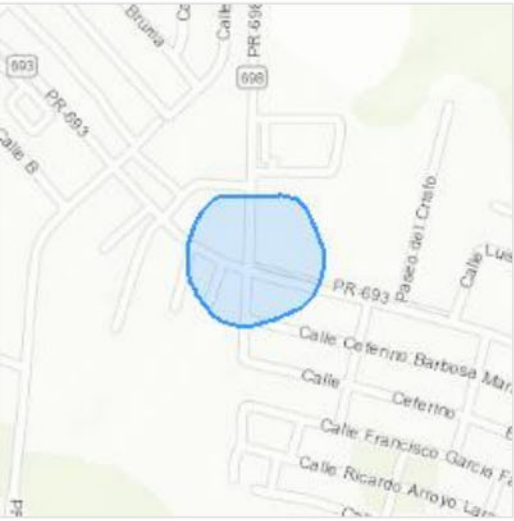
# IPaC resource list

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

Dorado County, Puerto Rico



## Local office

Caribbean Ecological Services Field Office

☎ (787) 851-7297

📠 (787) 851-7440

MAILING ADDRESS

Post Office Box 491

Boqueron, PR 00622-0491

PHYSICAL ADDRESS

Carr 301, Km 5.1, Bo Corozo

Boqueron, PR 00622-0510

# 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 species<sup>1</sup> 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 Fisheries<sup>2</sup>).

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:

## Reptiles

NAME	STATUS
<div><div>Puerto Rican Boa</div><div>Epicrates inornatus</div><div>Wherever found</div><div>No critical habitat has been designated for this species.</div><div><a href="https://ecos.fws.gov/ecp/species/6628">https://ecos.fws.gov/ecp/species/6628</a></div></div>	Endangered

## Amphibians

NAME	STATUS
------	--------



Puerto Rican Crested Toad *Peltophryne lemur*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3958>

## 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.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- 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>

THERE ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCUR AT THIS LOCATION.

**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 migratory birds potentially occurring 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 [AKN Phenology 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 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, migrating or present year-round in my project 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 refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). 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 Spiegel](#) 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.

## Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

### Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

### Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact [CBRA@fws.gov](mailto:CBRA@fws.gov).

## 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

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](#).

THERE ARE NO KNOWN 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.



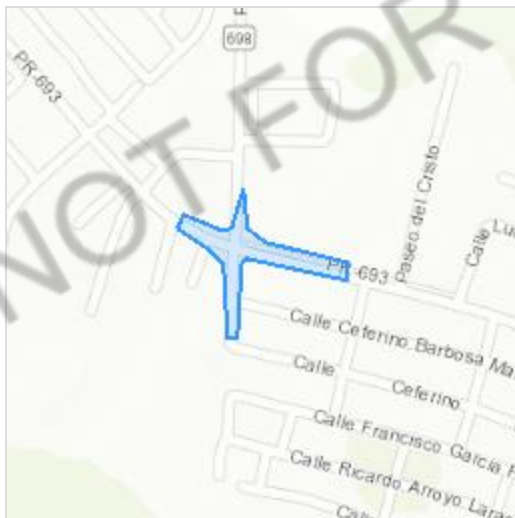
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## Location

Dorado County, Puerto Rico



## Local office

Caribbean Ecological Services Field Office

☎ (787) 834-1600

📅 (787) 851-7440

✉ [CARIBBEAN\\_ES@FWS.GOV](mailto:CARIBBEAN_ES@FWS.GOV)

MAILING ADDRESS

Post Office Box 491

Boqueron, PR 00622-0491

PHYSICAL ADDRESS

Office Park I

State Road #2 Km 156.5, Suite 303}

Mayaguez, PR 00680

NOT FOR CONSULTATION

# 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 species<sup>1</sup> 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 Fisheries<sup>2</sup>).

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](#).

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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:

## Reptiles

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

## Amphibians

NAME	STATUS
<b>Puerto Rican Crested Toad</b> <i>Peltophryne lemur</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/3958">https://ecos.fws.gov/ecp/species/3958</a>	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 Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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-incidental-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 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 Spiegel](#) 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.

NOT FOR CONSULTATION

**Attachment 11: Farmlands Protection Map**

# Farmland 'A' Ud'

ÚR-CRP-000557

7ccfX. Lat. 18.462004, Long. -66.268678

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5°W

18° :

Farmland Classification—San Juan Area, Puerto Rico

23° N



18° :

13° N



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

Prepared by ICF


3/8/2023  
Page 1 of 6



Farmland Classification—San Juan Area, Puerto Rico  
(PR-CRP-000557, Dorado)









## MAP LEGEND








### Area of Interest (AOI)






 Area of Interest (AOI)








### Soils



#### Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  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
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  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

-  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 drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  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 irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or 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
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

### Soil Rating Lines
















-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

**X** PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698

Farmland Classification—San Juan Area, Puerto Rico  
(PR-CRP-000557, Dorado)

	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	<b>Soil Rating Points</b>			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		Not prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if thawed		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of local importance		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 local importance, if irrigated		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						Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated

Farmland Classification—San Juan Area, Puerto Rico  
(PR-CRP-000557, Dorado)

<p> Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season</p> <p> Farmland of statewide importance, if irrigated and drained</p> <p> Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season</p> <p> Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer</p> <p> Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</p>	<p> Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium</p> <p> Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season</p> <p> Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season</p> <p> Farmland of statewide importance, if warm enough</p> <p> Farmland of statewide importance, if thawed</p> <p> Farmland of local importance</p> <p> Farmland of local importance, if irrigated</p>	<p> Farmland of unique importance</p> <p> Not rated or not available</p> <p><b>Water Features</b></p> <p> Streams and Canals</p> <p><b>Transportation</b></p> <p> Rails</p> <p> Interstate Highways</p> <p> US Routes</p> <p> Major Roads</p> <p> Local Roads</p> <p><b>Background</b></p> <p> Aerial Photography</p>	<p>The soil surveys that comprise your AOI were mapped at 1:20,000.</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: San Juan Area, Puerto Rico Survey Area Data: Version 16, Sep 12, 2022</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>
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## Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AmB	Almirante clay, 2 to 5 percent slopes	All areas are prime farmland	109.8	10.1%
Ba	Bajura clay, 0 to 2 percent slopes, frequently flooded	Farmland of statewide importance	223.1	20.6%
Cs	Coloso silty clay loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland if drained	68.7	6.3%
To	Toa silty clay loam, 0 to 2 percent slopes, occasionally flooded	All areas are prime farmland	64.9	6.0%
TrB	Torres loamy sand, 2 to 5 percent slopes	Not prime farmland	179.5	16.5%
Ud	Urban land-Durados complex	Not prime farmland	406.6	37.5%
W	Water	Not prime farmland	32.9	3.0%
<b>Totals for Area of Interest</b>			<b>1,085.5</b>	<b>100.0%</b>

## 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



Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.


For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The majority of soil attributes are associated with a component of a map unit, and such an attribute has to be aggregated to the map unit level before a thematic map can be rendered. Map units, however, also have their own attributes. An attribute of a map unit does not have to be aggregated in order to render a corresponding thematic map. Therefore, the "aggregation method" for any attribute of a map unit is referred to as "No Aggregation Necessary".

*Tie-break Rule:* Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

**Attachment 12: Historic Preservation: SHPO consultation package**


<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>		
<b>Subrecipient: Municipality of Dorado</b>		
<b>Project Name: Roundabout PR-693 &amp; PR-698</b>		
<b>Project Number: PR-CRP-000557</b>		
<b>Project Location: Carretera PR 693 y la intersección PR-698</b>		
<b>Project Coordinates:</b> Coordinates of limits of projects as provided by designers: For all specific limits refer to attached plans (marked in NAD83) North: 18.4627601, -66.2697801 South: 18.4610630, -66.2698213 East: 18.4612335, -66.2677924 West: 18.4619078, -66.2706218		
<b>TPID (Número de Catastro):</b> Road does not have cadaster number. The following numbers correspond to properties where segments of the parcels will be acquired for the project development: 037-017-051-05, 037-017-048-03 This corresponds to municipality-owned facility: 037-017-216-09 (Head Start)		
<b>Type of Undertaking:</b> <input checked="" type="checkbox"/> Substantial Repair <input type="checkbox"/> New Construction		
<b>Construction Date (AH est.):</b> n/a		<b>Property Size (acres):</b> 2.7
<b>SOI-Qualified Architect/Architectural Historian:</b> Carmen Marla Lopez		
<b>Date Reviewed:</b> 06/12/2023		
<b>SOI-Qualified Archaeologist:</b> Marisol Rodriguez Miranda		
<b>Date Reviewed:</b> 06/05/2023		

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.

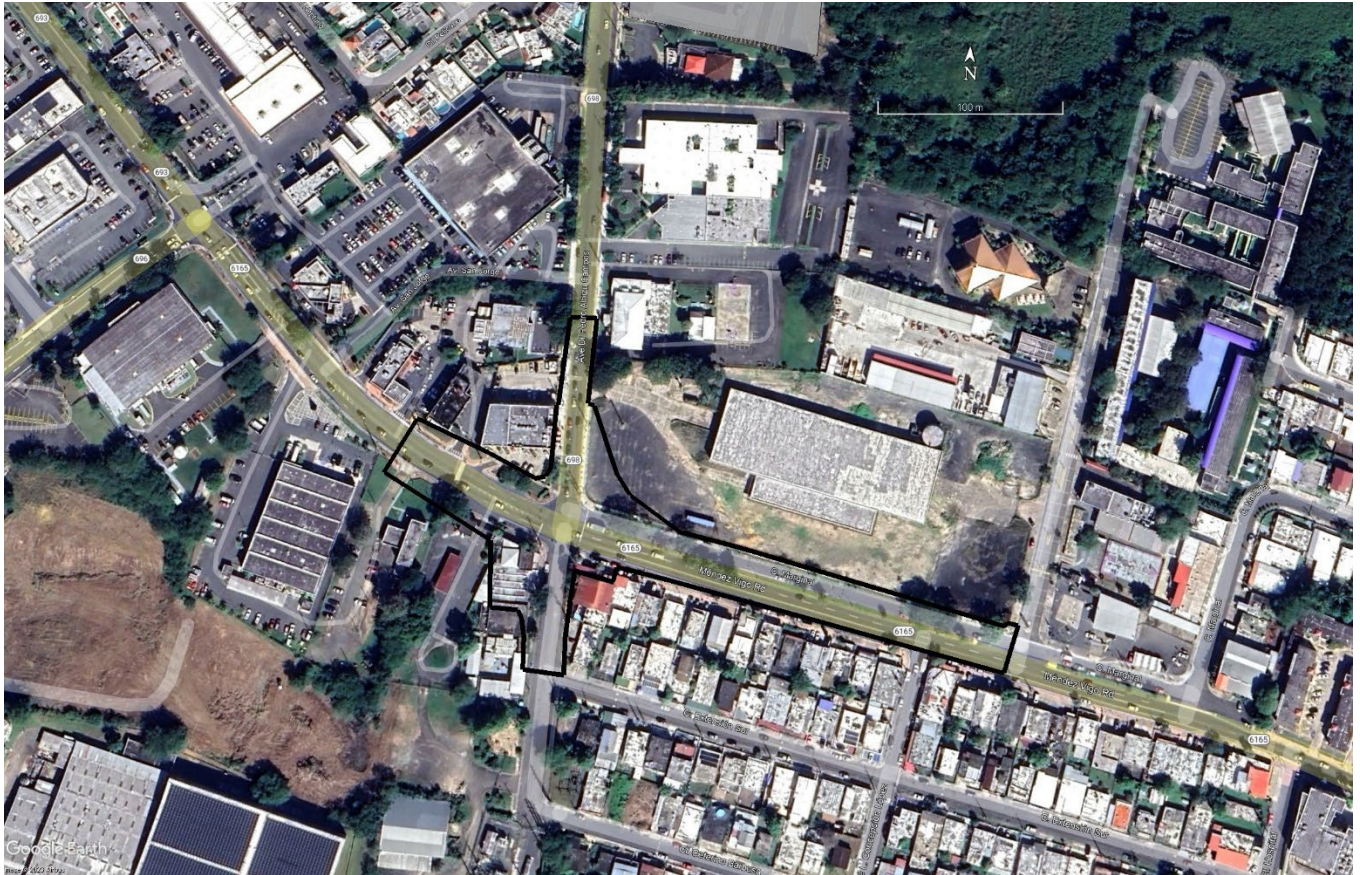
## 1. Project Description (Undertaking)

This reconstruction and improvements will be made to the existing right-of-way or public highway between the intersections. The land area covered is approximately 2.7 acres (10,785 square meters), with the center located at the intersection of roads PR-693 and PR-698.

The Municipality plans to acquire two portions of land: an area of 447.65 square meters in the northeast corner of the intersection and an area of 61.683 square meters located in the northwest corner of the intersection. The property in the northeast corner of the intersection is part of an industrial facility of the Higuillar neighborhood. The northwest corner of the intersection is currently occupied by a commercial facility. The project also includes part of a lot in the southwest corner of the intersection currently occupied by Escuela Amiga, which is owned by the municipality. This area will require demolition of a building and the remainder of the property will remain in use. Figure 1 illustrates the project

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location. A description of this area will be detailed in the architecture section of this document.




*Figure 1 Location of limits of the project in google earth satellite image 2023 (source: google earth system accessed June 2023)*

The activities required for the project include:


- 1- Medians: Each entrance to the circle will have concrete curbed median separating the opposite flows of traffic. The two-lane entrances will flow into the circle: one, right hand lane, for traffic making a right-hand turn and the other, left-hand lane, for traffic continuing through the circle.
- 2- Curb and Gutter: The curb around the circle will be mountable, reinforced concrete, 2-Ft wide. Following PR-DTOP specifications.
  - a. The curb and gutter along the impacted roadway totaling 600 linear Ft will follow PR-DTOP specifications.
- 3- Sidewalk: A total of 600 linear feet of Impacted sidewalk will be rebuilt of reinforced concrete, 4 Ft wide following PR-DTOP specifications.

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- 4- Green area: The interior of the circle will have a raised, 3 Ft high at the center, 25 Ft diameter planting area inside the curb. This will be landscaped.
- 5- Lighting: The interior of the circle will have 10, solar powered, 45 watt, LED lights illuminating the roadway. There will also be one solar powered, LED, streetlight at each of the four entrances to the circle (4 total).
- 6- Roadway: The circle will have two lanes, 12.5 Ft wide each, 25 Ft wide total. The roadway within the circle and 50-Ft of the roadway approaching the circle from each direction will be 6-inch-thick reinforced concrete, following PR-DTOP specifications.
- 7- Signage: Will follow PR-DTOP specifications and will include:
  - a. Temporary construction detour signs will be maintained during the construction period. As required.
  - b. Street names and directions on each road (4 total)
  - c. Intersection (Ex: INT PR-693): (4 total)
  - d. Yield: at each entrance (4 total)
  - e. Arrows: indicating direction of traffic flow (4 total)
  - f. Pedestrian crossing: (4 total)
  - g. Speed limit: 15 MPH at entrances to the circle (4 total)
- 8- Pavement markings: Lanes will be striped following PR-DTOP specifications.
  - a. Traffic direction arrows will be painted in each lane at 4 locations within the circle. (8 total).
  - b. Pedestrian crossings will be striped (10 crossings total)
- 9- Existing traffic signals: will be removed and stored for future use by MOD.
- 10- Utilities: Existing overhead and underground. utilities (water, electric, telecommunication, storm drains, sewer, Etc) will be located and identified on the drawings.
  - a. The existing overhead electrical and telecommunication utility will be relocated underground either trenched or by horizontal drilling. This activity will be coordinated with Luma and Claro.
  - b. Impacted storm drains will be rebuilt with reinforced concrete pipe and sized appropriately following PR-DTOP specifications.
  - c. Impacted water & sewer lines will be protected during construction.
  - d. Significant underground features (pipe, bends, valves, manholes, duct banks, conduit, Etc.) will be located on the as-built drawing with GPS coordinates, depth from surface and description of the feature.
- 11- Temporary detour construction: A temporary 2-lane asphalt roadway 25 Ft wide x 300 Ft long following PR-DTOP specifications will be constructed as a detour around the

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construction area. Construction of the temporary asphalt roadway will take place during off-peak traffic hours. The temporary roadway will be demolished once it is no longer needed.

## 12- Building Demolition



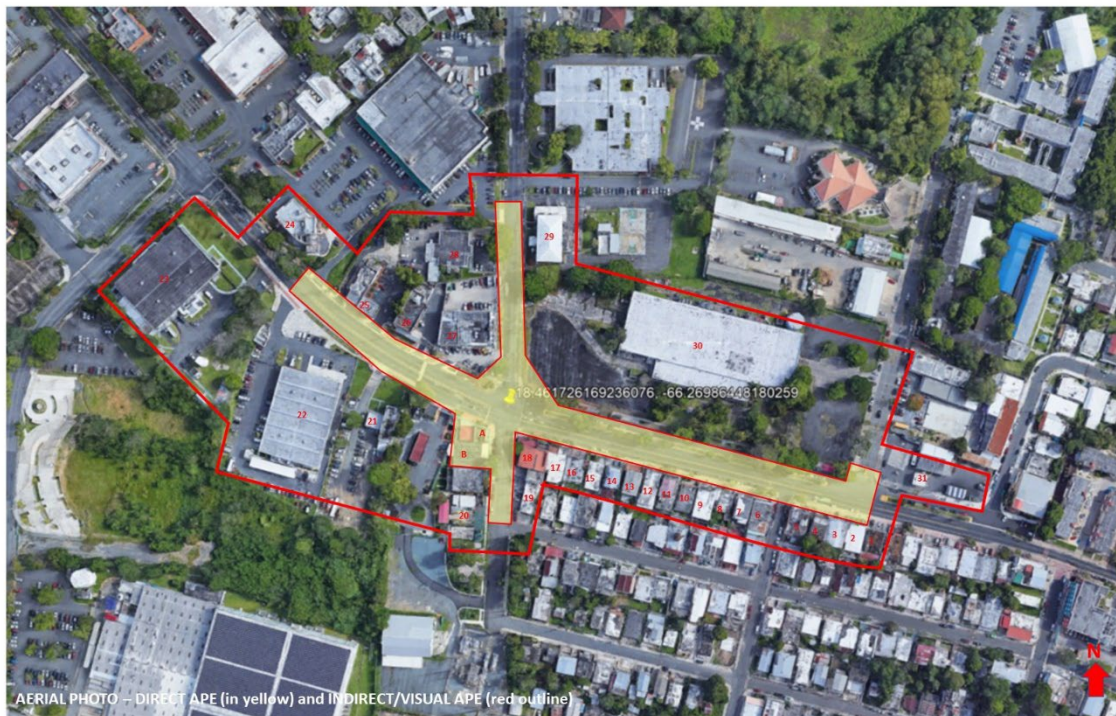
*Figure 2 Location of project in relation of the Traditional urban Center as defined by PR SHPO (source of information PRSHPO layer)*




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### 3. Area of Potential Effects (APE)

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 Undertaking, the Program has determined that the Direct APE for this project as described in the construction documents, covers 340 meters along PR 693 (from intersection of PR 693 with Pedro J. Ridos Street (east), to intersection of PR693 with entrance to Dorado District Police Station (west), and 195 meters along PR 698 (from intersection of PR698 with the with the first entrance to parking lot of the Dorado Diagnostic and Treatment Center (north), to intersection of PR 698 with South Extension St. (south)). The roundabout will be built in the intersection of both roads and will include parts of lots to the north to be acquired. The Indirect/Visual APE is the viewshed of the proposed project which has been defined as the surrounding properties along the Direct APE (see Figure 3).



*Figure 3 Area of Potential Effect limits. The yellow area is the Direct APE and the red line shows the Indirect /Visual APE. Images of the properties within the Indirect APE are shown in Table 3 (Source: Google Earth, defined by Arch. Marla Lopez)*

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### 3.1 Properties within the Direct APE

The ICP, PR-SHPO, and National Register databases were reviewed. This review revealed, the property is not listed nor determined eligible for listing as a historic property or district in the National Register, nor the buildings within the property are individually listed nor have been determined eligible. Neither have the property being listed as a historic district and the buildings within the property been listed individually, or determined eligible, in the PR Register of Historic Sites and Zones (PRRHSZ). The property in evaluation has not been identified in any survey list of eligible properties of the municipality of Dorado.

The property in evaluation, is an urban lot, owned by the municipality of Dorado, with an area or 6,698.36 square meter<sup>3</sup> (5,994.3903 square meter according to MIPR interactive map). The lot's neighboring properties consist of road PR693 (Mendez Vigo St.) to the north; road PR698 (Ceferino Barbosa St.) to the east; Autoridad para el Financiamiento de la Vivienda, to the south; and Puerto Rico Police towards the west.

From records research and information from personnel of Mi Escuela Amiga program, indicates the property to have been developed initially for the Defensa Civil, Dorado Office around the end of 1977, after the creation of the Defensa Civil de Puerto Rico entity in 1976, to manage emergencies and disasters in Puerto Rico. It is in the 1982 USGS topography map that we see additional buildings being developed in what is the property in evaluation, with a high probability of responding to the creation of the Defensa Civil Dorado Office. Around 1999, the Defensa Civil became known as the Dorado Office of Emergency Management, as one of the offices for the Puerto Rico Emergency Management State Agency. The property's use later changed to education with a Head Start Program school.

Today the education complex consists of six reinforced concrete, one-story buildings, except the Mi Escuela Amiga building, which is a two-story building, wood/metal structures, open areas, covered open spaces and canopy structures. Four of the buildings continue to house the Head Start Program (Head Start Center San Antonio I, II, III and Early Head Start Paraiso Infantil), one building houses a boxing gym center, and the other building, Mi Escuela Amiga. All the buildings within the complex present a local interpretation of a modern architectural style, with somewhat postmodern features; variety of materials, geometric shapes, and planes, painted in bright colors, with a minimum number of openings. The main




### 2.1.1 Building 1 - Mi Escuela Amiga

The Mi Escuela Amiga building is a two-story reinforced concrete building, built approximately c.2000-2004 (according to topographic maps and aerial photos) and consisting of:



*Figure 2.1.1 Location of Mi Escuela Amiga within the parcel.*

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**Location:** Cadastral Number 037-017-216-09 (Calle Mendez Vigo, esq. calle Ceferino Barbosa Marrero); Coordenadas 18.461588, -66.270076; Zoning DT-G.

**Foundations:** Reinforced concrete

**Roof:** Flat roof in reinforced concrete and metal/aluminum (over interior patio)

**Walls:** Reinforced concrete and block, metal/aluminum, glass/glass

**General finishes:** Walls: Portland cement plaster

**Exterior elements/distinctive features:** *square volumes painted in bright colors, round columns, rectangular security aluminum windows (jalousie types) and doors, metal gates/grilles,*

**Interior:** Mi Escuela Amiga building consists of 5 rooms: 2 offices, 1 reception area, 3 small group meeting/classrooms (one is located on the second floor), and 2 rest rooms. The interior patio served as a playroom and space for gathering. Recently the Mi Escuela Amiga program has moved to another location and the building is empty.

**Style:** Modern Expression / **Features:** Postmodern-like / Popular

### 2.1.2 Building 2 – Paraiso Infantil

The Head Start program in the United States was created by federal law 45 CFR, part 34 in 1964 and initiated in 1965, as part of President Lyndon B. Johnson's public policy program "war against poverty". As a result of research done on the impacts of poverty in education, the government felt obligated to help people in disadvantaged groups, compensating for inequality in social or economic conditions. During this period most of the people living in poverty were children under 12 years of age. The program specifically supports children from birth to 5 years of age, providing services in early learning, development, health, and family well-being.

In Puerto Rico, the Head Start program, also started in 1965 and its model was

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based on the “maternal schools” established by then San Juan major, Doña Felisa de Rincon, as a response to more or less the same problem Puerto Rico had back in the 1940s. It is unknown when the Head Start program was established in Dorado.

Nevertheless, it is known that the Head Start program occurs in several locations in Dorado, the property in evaluation being one of them.

The Paraiso Infantil building is a one-story reinforced concrete building, built approximately c.1980s (according to topographic maps and aerial photos) and consisting of:



Figure 2.1.2- Location of Paraiso Infantil Building within the parcel.

**Location:** Cadastral Number 037-017-216-09 (Calle Mendez Vigo, esq. calle Ceferino Barbosa Marrero); Coordenadas 18.461468, -66.270095; Zoning DT-G.


**Foundations:** Reinforced concrete

**Roof:** Flat roof in reinforced concrete and metal/aluminum (over exterior areas, east and west of the building)

**Walls:** Reinforced concrete and block, metal/aluminum, glass/glass

**General finishes:** Walls: Portland cement plaster



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**Exterior elements/distinctive features:** round and square volumes painted in bright colors, round columns, rectangular security aluminum windows (jalousie types) and doors, metal gates/grilles,

**Interior:** The Paraiso Infantil building consists of 4 rooms: 2 offices, 1 storage, and 1 conference room. The east and west covered exterior areas serve as a playroom and space for gathering. The municipality will be relocating the Early Head Start program to a new/existing building.

**Style:** Modern Expression / **Features:** Postmodern-like / Popular

#### 4. Identification of Historic Properties - Archaeology

As for known archaeological sites identified on the Dorado Municipality, most are located along the coast or along the riverbanks of La Plata River. Also, in the karst area that begins at the end of the norther coastal plain (mogotes) investigations have detected settlements and possible ceremonial sites in the caves of the area. The project is located within the geological the northern coastal plain The soils are characteristic of these plains as Almirante Clay, Bajura Clay and Torres loamy sand, Bu most of the area is classified as Urban Land Durados complex (Figure 4).



Map Unit Symbol	Map Unit Name
AmB	Almirante clay, 2 to 5 percent slopes
Ba	Bajura clay, 0 to 2 percent slopes, frequently flooded
TrB	Torres loamy sand, 2 to 5 percent slopes
Ud	Urban land-Durados complex

Figure 4 Soil data downloaded from the Web soil data base  
(Source: <https://www.nrcs.usda.gov/>)



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Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within or near the APE of this undertaking. The review of this existing information, by the PM archaeologist shows that there are no known archaeological sites located within or near the APE. The nearest archaeological sites are located outside of the 400 mts buffer zone considered for this project DO 100040 is the remains of a site located to the north and discovered as scattered material during an investigation described below. (Figure 5) The other is located 700 mts to the south (Dorado 100047). The "Plaza de Recreo" (Townsquare) is located approximately 600 mts to the east and Casa del Rey is in the same street but approx. 800 mts to the east along the main road.



Figure 5 Archaeological sites nearest to the undertaking are located outside the 0.25-mile buffer zone

During the research we reviewed the archaeological investigations requested by the agencies for the Dorado municipality. There are 44 archaeological investigations in SHPO

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archives for Dorado. The ICP/ CAT archive shows 161 investigations. From SHPO archive only two are in the Pueblo ward, both for the Plaza de los Artesanos located 385 mts approx. of the east end of the project over the Mendez Vigo Street (PR 693). (Figure 6) The Phase I archaeological investigation was negative but during the Monitory they found three historic elements (latrine, foundations, and garbage) dated to early XX century. The other investigations nearby are located at Higuillar ward. The two-Phase IA\_IB archaeological assessments for the Centro de Envejecientes, located 100 and 120 mst to the north end of the project over PR 698. Dated 1989 and 2015 both were negative.

At 225 to the north over the same road the "Construcción de Planta de Ensamblaje de Equipo Electrónica" (SHPO-07-26-89-01) has a positive result. The author reported that they found archaeological material in the upper part of the lot, but they said this material can be a "transitory or esporadic" site. The other explanation is that the site was impacted during PR 698 construction. That conclusion was based that in the west of the road profile, the cut suggests that the upper side of the dune was removed and very small fragments of prehispanic pottery were found.

At 500 mts to the north in the Dorado del Mar Tourist Complex, they also have a positive result, but the findings were to the north of the lot near the coast, so they are far away from the present undertaking. The nearest investigation located to the west is the Municipal Cemetery located about 280 mts to the west of the end of the project, it has a negative result.

In the CAT archive we found five archaeological investigations near the project, all with a negative result. The nearest ones are CAT-95-04-07 by Ethel Schlafer that is located at the north of the west end of the project. This was made for a Grande Supermarket. To the north of PR 693 and east of PR 698 south of the Centro de envejecientes that we already have mentioned we have three projects (Daubón, CAT-86-01-03, Ortiz CAT 91-03-07m and González CAT 91-03-10) All have a negative result. Ortiz mentioned in his 1991 project that he did a project in 1989 for the Academia Paraiso that limits with the project he was doing, but we don't find it on the maps. To the south of the project Ethel Schlafer performs the lates project in 2022, at 20 mts to the south of the south end of the project in PR 698. This project also has a negative result (Figure 6).



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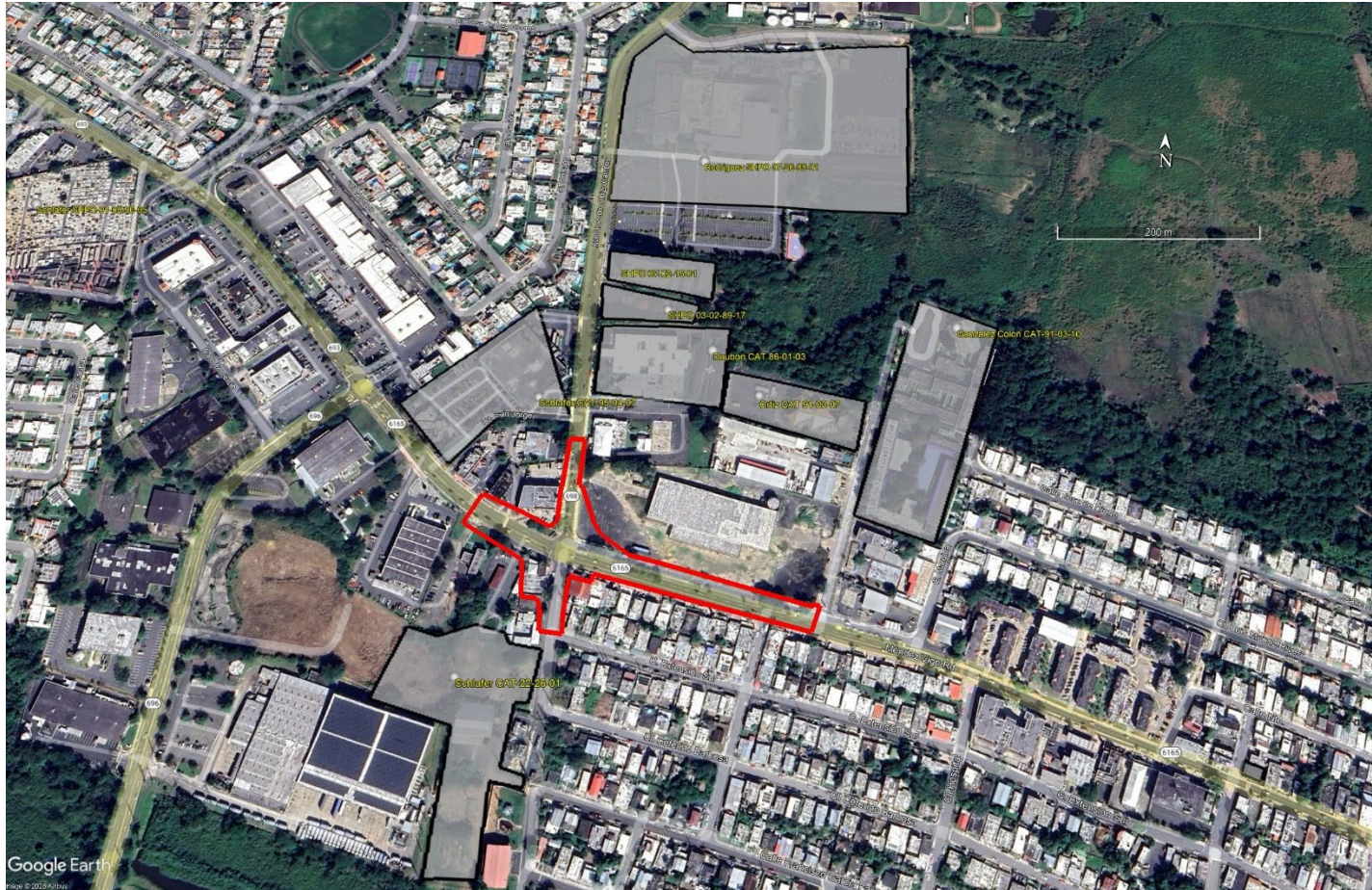



Figure 6 Location of the archeological investigations in the SHPO and CAT archives near the undertaking (Source: SHPO and CAT 2022)

### 3.1 Municipality General History

The History of this municipality is tied from the beginning to Ta Baja. The Toa area developed early in the Spanish invasion, mostly along the La Plata River where the crown first established the Hato Real del Toa settlement. This location possibly was where a yucayeque or Indian village existed on what is now Dorado northern area, known as Rio Lajas. Francisco Moscoso points out that these were the lands of the Cacique Aramana that covered the north central coast area of the island, Toa being the original name of La Plata River. <sup>1</sup> It was established as a farm, so by late XVI Century the area has a great

<sup>1</sup> Francisco Moscoso 2019 El negro Duarte de la Hazienda Real del Toa, 1514-1519, Cuadernos de Investigación Histórica núm.. 8, Departamento de Historia , Centro de Investigaciones Históricas, Universidad de Puerto Rico, Río Piedras. 606 Barbosa Avenue, Building Juan C. Cordero Dávila, Río Piedras, PR 00918 | P.O. Box 21365 San Juan, PR 00928-1365 Tel: (787)274-2527 | [www.vivienda.pr.gov](http://www.vivienda.pr.gov)

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agricultural activity with one of the biggest “encomiendas”, that was the name the crown gives to the assignment of lands and people. Until 1542, when the “encomiendas” system was “abolished”, the island economic activity was centered in gold mining, but the “hatos” were established for experimentation mostly for the goods that they introduced from Europe, but mainly for production of “yuca” in the taíno technique of “montones”. This technique produces a lot of goods and allow the Spanish colonialist to maintain in a cheap basis the Indians that they enslaved. In the early XVI century three hatos were described in the island, being one the Hato del Rey. The other ones being Hato de Humacao and the Hato de Río Piedras.

The montón was also used as an economic measure, when they “entrusted” (encomienda) a series of people, they added the amount of “montones” they were allowed to cultivate, and that was the equivalent to the amount of land there were granted. <sup>2</sup> The land was granted in “caballerías” that translate in a land that allows 120,000 montones (the equivalent of 45 cuerdas) <sup>3</sup>

For that reason, when gold mining diminished, by the end of the 16th century, Toa Baja had a growing agricultural and livestock activity. The Ribera del Toa attracted numerous settlers during the century who came to the region for the richness of its alluvial lands and the abundant fishing. The first to populate it came from the Canarias Islands. Originally, the municipality was composed of the wards: Candelaria, Pajaros, Río Lajas, Espinosa, Tamarindo, Mucarabón and Dorado. In Figure 7 and later in this report we show that the area that is now the Dorado town, west of the La Plata River has settlements identified as “estancias” circa 1660.

In the next centuries the area remained the same. The period between XVII-XVIII century is known as the time with the less demographic level in the island. <sup>4</sup> Even so, the cattle farm developed mostly in the northern coastal plains. The farms known as hatos were the fundamental agrarian unit in those centuries. At that moment most of those lands were used for cattle farms, that subsist with minor fruits, coffee in the mountain, and sugar cane. Moscoso says that until 1770 most part of Puerto Rico was occupied by cattle “latifundios.” <sup>5</sup> In the Miguel De Mueas census in 1775 he registered 234 hatos, based on that we can

<sup>2</sup> Marisol Rodriguez Miranda 2017 “La Yuca en montones o el montón de yuca” Tercer Foro Asociación Puertorriqueña de Estudios de la Ruralía, Caguas, Puerto Rico

<sup>3</sup> Moscoso Francisco, 2021 Agricultura y ganadería de Puerto Rico Siglos XVI al XVIII, Biblioteca de Puerto Rico , accessed 10/13/2022.

<sup>4</sup> Martin Cruz Santos, 2015 Sociedad rural en el Siglo XVII, Biblioteca de Puerto Rico , accessed 10/14/2022

<sup>5</sup> Moscoso ibid..

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positively think that this area located in those plains and in the riverbanks of the La Plata River was part of a hato or hatos for cattle.

In 1831, Dorado was part of the municipality of Toa Baja. The ward had grown enough to form its own town center. By the XIX century, every year, the flooding of the river caused serious damage to the neighbors and their crops, for which the inhabitants were economically affected. In 1841, the crisis was such that a group of neighbors requested to move from the town to the "Altura del Dorado", but most of them opposed.

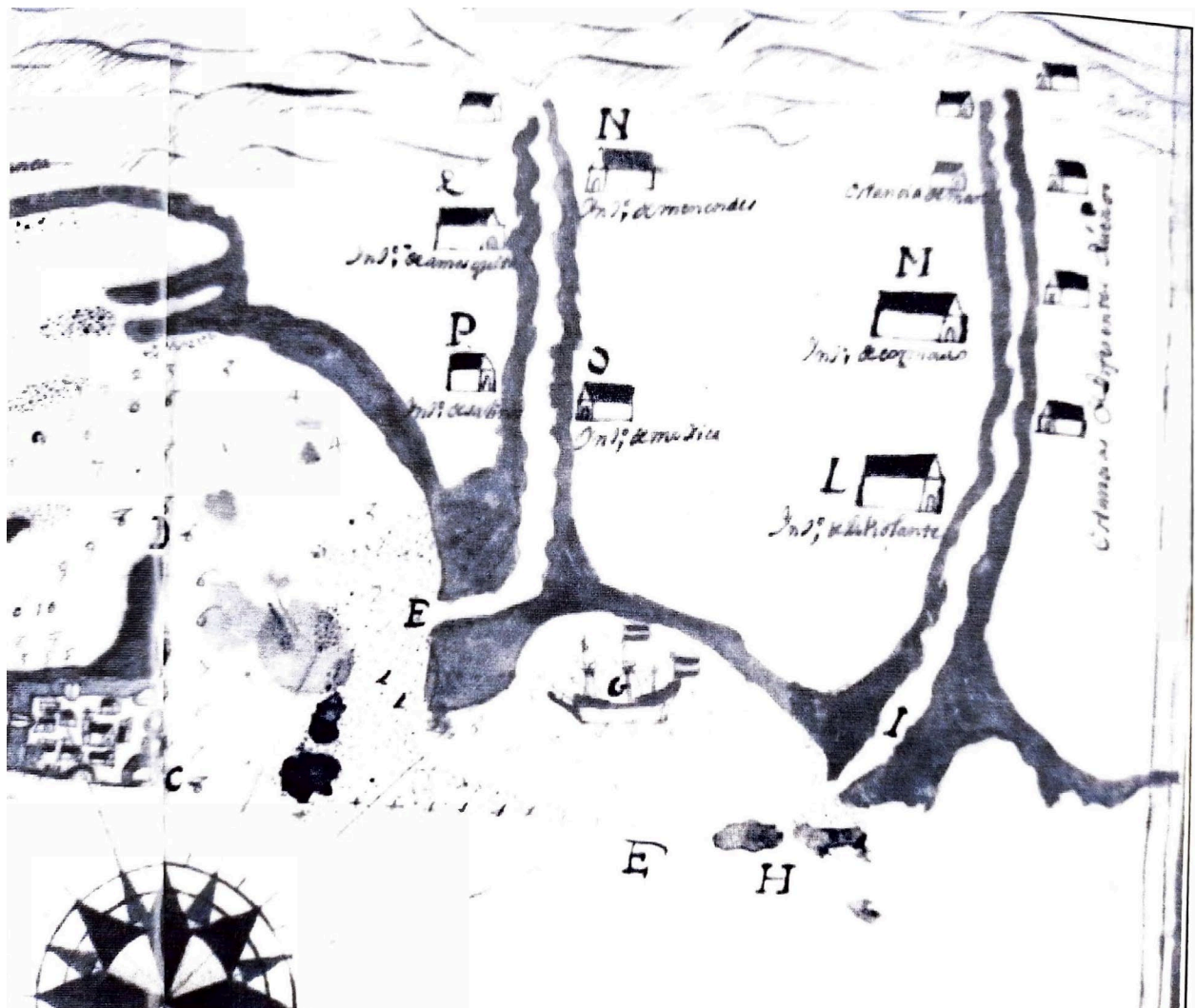



Figure 7 Fragment of a 1660 map showing the settlements in the riverbanks and shore of the La Plata River. To the west we can observe some Farms without name in what now is Dorado (Source Sepulveda, 1998)

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That's why the following year (1842) residents of the Dorado, Iguillar, Mameya, and other Toa Baja wards petitioned the governor to establish an independent municipality. That year, Governor Santiago Méndez Vigo authorized the foundation of the town on the condition that the necessary works be carried out and the territory of the wards be demarcated: Dorado Pueblo, Espinosa, Iguillar, Maguayo, Mameyal and Río Lajas. By 1860 the inhabitants of Toa Baja requested to be annexed to the town of Dorado, since their town was suffering a crisis due to the decline of trade and agriculture. This transfer never took place.

By 1878, Dorado had undergone changes in its wards. The Mameyal ward had disappeared and Iguillar was renamed Jiguillar. Years later, the Mameyal ward reappeared under the name of Mameyal and Jiguillar changed to Higuillar. Throughout its development, Dorado depended on an agricultural economy concentrated on the cultivation of sugar cane, the production of some minor fruits, livestock and fishing. Several sugar mills were in operation and tiles and bricks were manufactured.

In the "Expediente de Anexión de los Pueblo de Toa Baja y Dorado" the villagers of both towns were asking the governor the towns to join because they can't afford to pay the municipal expenses or cover the deficits in their budgets. The petition was denied, but curiously the Toa Baja town was going to be annexed to el Dorado.<sup>6</sup>

Today, Dorado's economy revolves around the hotel industry, pharmaceuticals, and electronic equipment manufacturing. On the other hand, the municipality has remained active in the agricultural field, with the planting of minor fruits and with the traditional livestock industry, dedicated to the production of meat and milk for the country.

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<sup>6</sup> Expediente de Anexión de los pueblos de Toa Baja y el Dorado para constituir un solo municipio. Sobre unificación de los pueblos de **Toa-Baja** y el Dorado, 1893-1894 ES.28079.AHN/16//ULTRAMAR,346,Exp.5




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Figure 8 Fragment of a 1784 map showing the northern coast from Bayamon to Vega Alta.  
(Source Sepulveda 1998)

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*Figure 9 Fragment of a 1791 map showing the Toa area between Rio Bayamon and Sibuco (Source Puerto Rico National Archive accessed 2022)*



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### 3.2 The Road

As we pointed earlier the Dorado municipality history is tied to Toa Baja, but the settlement that later came to be the municipality was more tied to the Road that came from San Juan in the north that was known as the El Dorado Road from the Palo Seco area. According to Marcelino Canino, Dorado's historian, the communication of the capital with the towns that developed in the north occidental coast were established crossing from San Juan to Palo Seco. At this point a horse road begins along the littoral to the crossing of the Toa River near the sea mouth known as Boca Habana. In a map date 1660 showing the lands between San Juan and the Toa River the lands in the occidental part of the Toa River were identified as small farms (estancias) of various owners. That lets us infer that that area was already divided into small lands. (Figure 7)

In 1784 a map described the Toa Baja Area and to the west a site named Vegas and to the north Las Marismas (See Figure 7) But in the 1791 map of San Juan y la Division de sus partidos" that área is clearly shown to the east of Toa Baja. To the North it shows the Boca de Havana crossing (now Boca Juana) and then to the west of the Toa River, Toa Alta, El Dorado and an area named in this case las Marasmas in the coast (see Figure 9). To the south of the Dorado name, we can appreciate the roads and the houses that now is the main road, (Mendez Vigo or PR 693) that goes through the area and then unites to the other road (now PR 2) at the crossing over the Sibuco River. Marcelino Canino says that this was a place (paraje) of rests and a change of horses. There was no bridge at this site and the crossing was made by a boat platform (ancón).

"The traffic of transciendes (sic) attracted the neighboring merchants of the Partido del Toa, who, together with the fishermen who had established their bohios in the vicinity, gradually created a small neighborhood of no small importance" (Canino 1993, page 13)

The first mention of Dorado was in 1735 when a neighbor asks for a permit to establish a fishing corral between Boca Havana and Boca del Dorado". In 1776 maps by O'dally the area between the Bayamon River and the Toa River in what now is known as Rio Cocal, were marked as property of the Davila family (Canino,1993).

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We found a document in the Spanish National Archive from 1862 named “Sobre la construcción de carretera de Bayamon a Vega Baja<sup>7</sup>. The road was divided in eight parts (trozos)”

“Trozo num 1 From Bayamon to the jurisdiction of the first bridge over Rio Hondo River (4.155. kms)

Trozo num 2 From the bridge to the Toa Baja jurisdiction or passage (abra) of the fluco bridge.

Trozo 3 Ongoing work of the Reyes Católicos Bridge and by the passage (or abra) of the Nuevo River (2.594 kms)

Trozo num 4 From the Rio Nuevo crossing to the jurisdiction of Dorado (3.818 kms)

Trozo num 5 From the Dorado jurisdiction to the Vega Alta site with the travel to the town (6.118 kms).

Trozo num 6 From the jurisdiction of Vega Alta to the works of the Ynfantes bridge over the Sibuco River, Vega Baja jurisdiction (2.70 kms).

Trozo num 7 The Ynfantes bridge works under execution.

Trozo num 8 From the Ynfantes bridge to the jurisdiction of Vega Baja by the way of this town.”

Although the segments refer to the Real Road (Carretera Real) or current P.R. 2, the segment corresponds to the topography south of the karst. Segment number 5 is similar to the area site that was located south of the Carretera Real.

In the 1886 croquis that is part of the document created by the Spanish Army for the roads in the island the town have its characteristic shape along the road to Vega Alta from the river. To the west end there is a fork and another one with a road marked as “a la Sardinera”. The area of the undertaking is located between those two points (Figure 10).

<sup>7</sup> Pares Sobre la construcción de carretera de Bayamón a Vega Baja ES.28079.AHN/16//ULTRAMAR,356,Exp.17, EXP 18, EXP 19. (consulted online October 4,2022)  
 606 Barbosa Avenue, Building Juan C. Cordero Dávila, Río Piedras, PR 00918 | P.O. Box 21365 San Juan, PR 00928-1365  
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Figure 10 Fragment of Croquis de Carretera 1886 (source adnpr.net)

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A better description is found in the 1899 visit of William Armstrong Book 2 where he described the road from the La Plata River to Dorado.

"After crossing the river either at the ford by the ruined bridge or by a steel bridge 1 mile up the river, two culverts are crossed and near an old mill the road turns to the right, follows parallel to the river into Dorado. Before reaching Dorado, a new railroad track crosses and follows the road. This runs from the Dorado sta. through the cane fields west to Vega Alta thence to the Finley cane mills. The road is a narrow gauge and has modern Ame,. Equipment. A small wooden bridge about 10' long over a dry brook is passed before going into Dorado" (Figure 11).

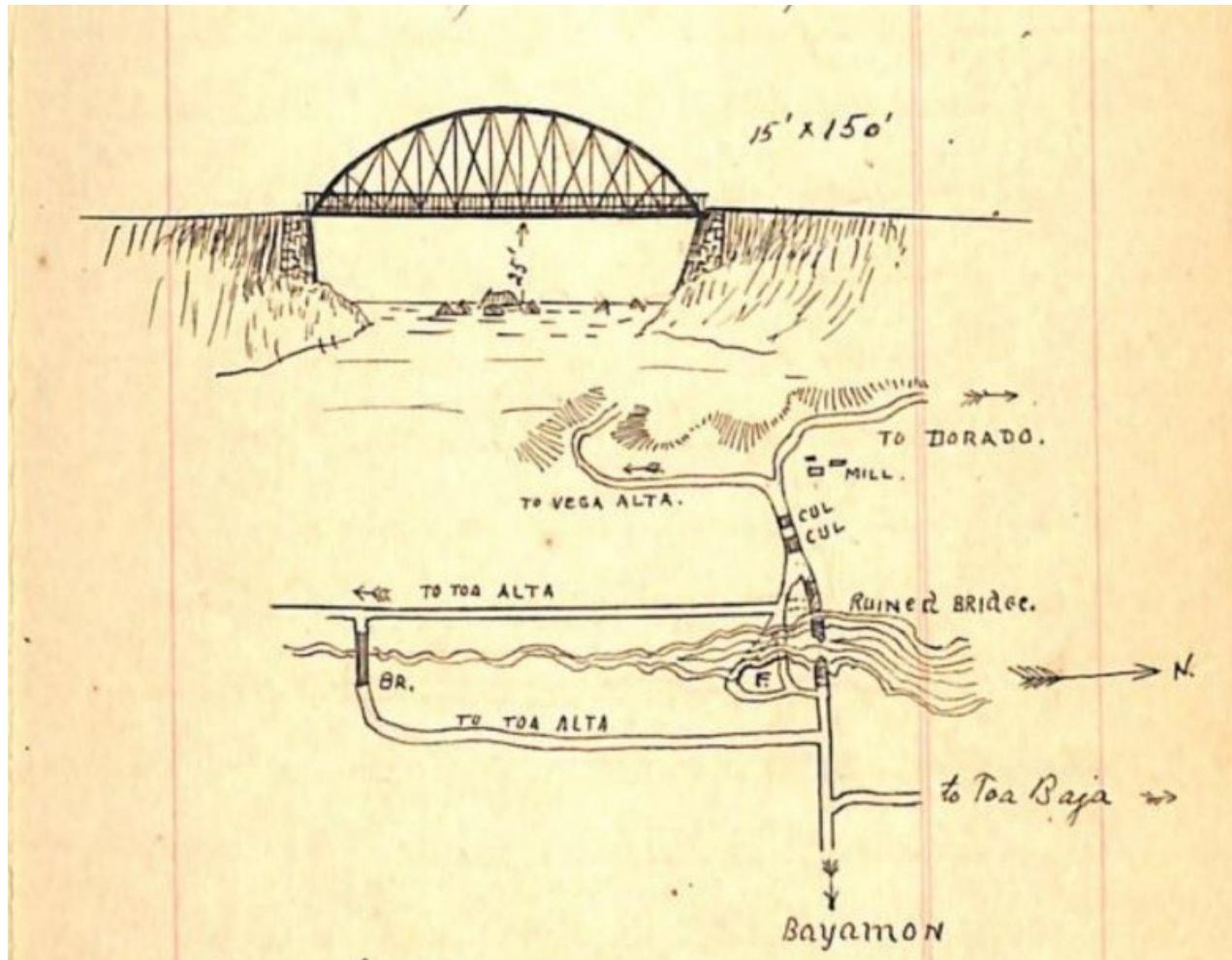



Figure 11 Image from Armstrong Note Book 2 (Source UPR Colección Puertorriqueña accessed online)



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He described the town as a:

"...sand heap, Its streets are nothing but a mass of sea sand and in places very steep. All the buildings of this town are of wood except the church. There is no wood in this section. Natives burn charcoal from elsewhere. Water is taken from the river. Town has a telephone system to Bayamon the central sta.

The country between the river and Dorado is a fertile grass or cane district. Excellent campgrounds anywhere about the bridges or along the road."

Armstrong continue describing the land:

"This section of the country is a flat country for miles to and along the coast. It is strictly sugar cane section. Many cattle are found grazing over the old cane lands:<sup>8</sup>

A little earlier (1892) there some haciendas are described in the area.

Soledad - Dorado. Was established in 1892 by Pedro López with an oxen driven mill. It had only about 20 acres planted with sugarcane producing a mere 50 hogsheds of muscovado sugar annually. Was located North of Rio de la Plata on the trail from Maguayo to the Southern side of Dorado. Has two buildings, one for the hoise ena the other one for the storage, It has 20 sugar cane acres and the other with pasture. And had 20 labors<sup>9</sup> (Biografía de las Riquezas de Puerto Rico, Ferreras Pagan)

Hacienda Media Luna Jose Nevares. Located to the south of the town of Toa Baja, near the Bayamon a Vega Alta Road near the La Plata River 2 kilometers from Toa Baja. It was a hogsheds factory and the factory is close because they processed the canes in Central Constancia, It has 300 cuerdas with 60 dedicated to sugar cane and the other to pastures.

Although they do not describe the specific area of the undertaking, we can assume all farms are the same in the zone. At this moment they all processed the sugar at Central Constancia.

<sup>8</sup> William Armstrong Book 2 , page 18-19. [https://issuu.com/coleccionpuertorriquena/docs/2v\\_libro](https://issuu.com/coleccionpuertorriquena/docs/2v_libro)

<sup>9</sup> Biografía de las Riquezas de Puerto Rico , Ferreras Pagan V. 1 accesed online 9/28/2022



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Figure 12 Project located in 1930 Aerial photo (Source: <https://prgeoref.weebly.com/georeferenced north D> accessed October 2022)

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From this information we can conclude that this part of the town for most of the first decades of XX century was mostly a sandy flat with pastures. In the 1930 aerial photograph the road that goes to Vega Alta has what seems a coconut plantation to the north and is unoccupied to the south. The main road that goes from the crossing that is now the Mendez Vigo streets has extended to two blocks west of the Town square and the area that now is the undertaking appears as wasteland. No change are noted in the 1940 USGS Quadrangle (Figure 13) . In the 1946 USGS quadrangle is the first time that PR 698 appears as an official road. There's no change in the 1950 aerial photo.

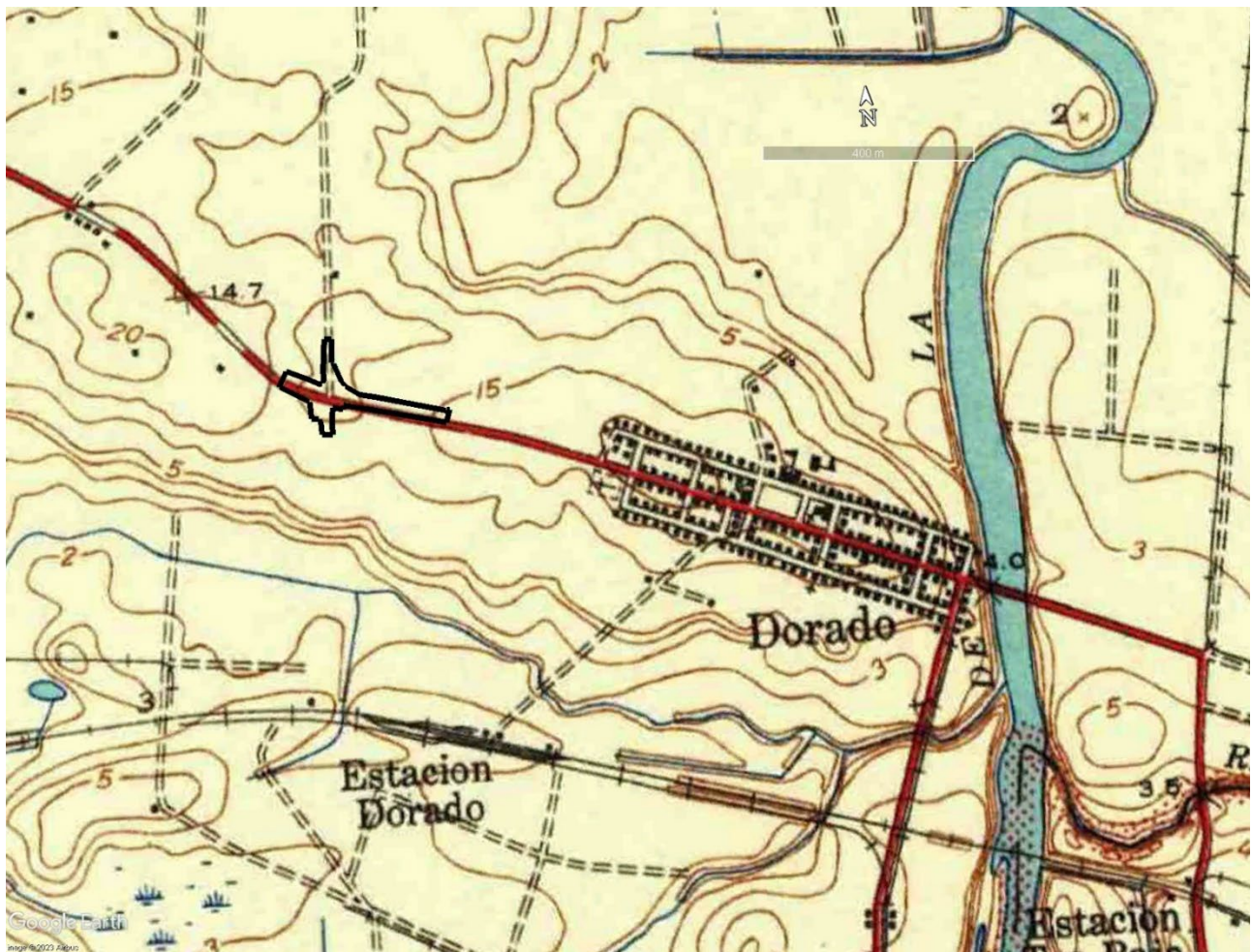


Figure 13 Fragment USGS Quadraangle Vega Alta 1940 showing the area of the undertaking. PR 698 is marked as a dirt road that runs to the north. (Source: <https://ngmdb.usgs.gov/topoview/> accessed mayo 2023)





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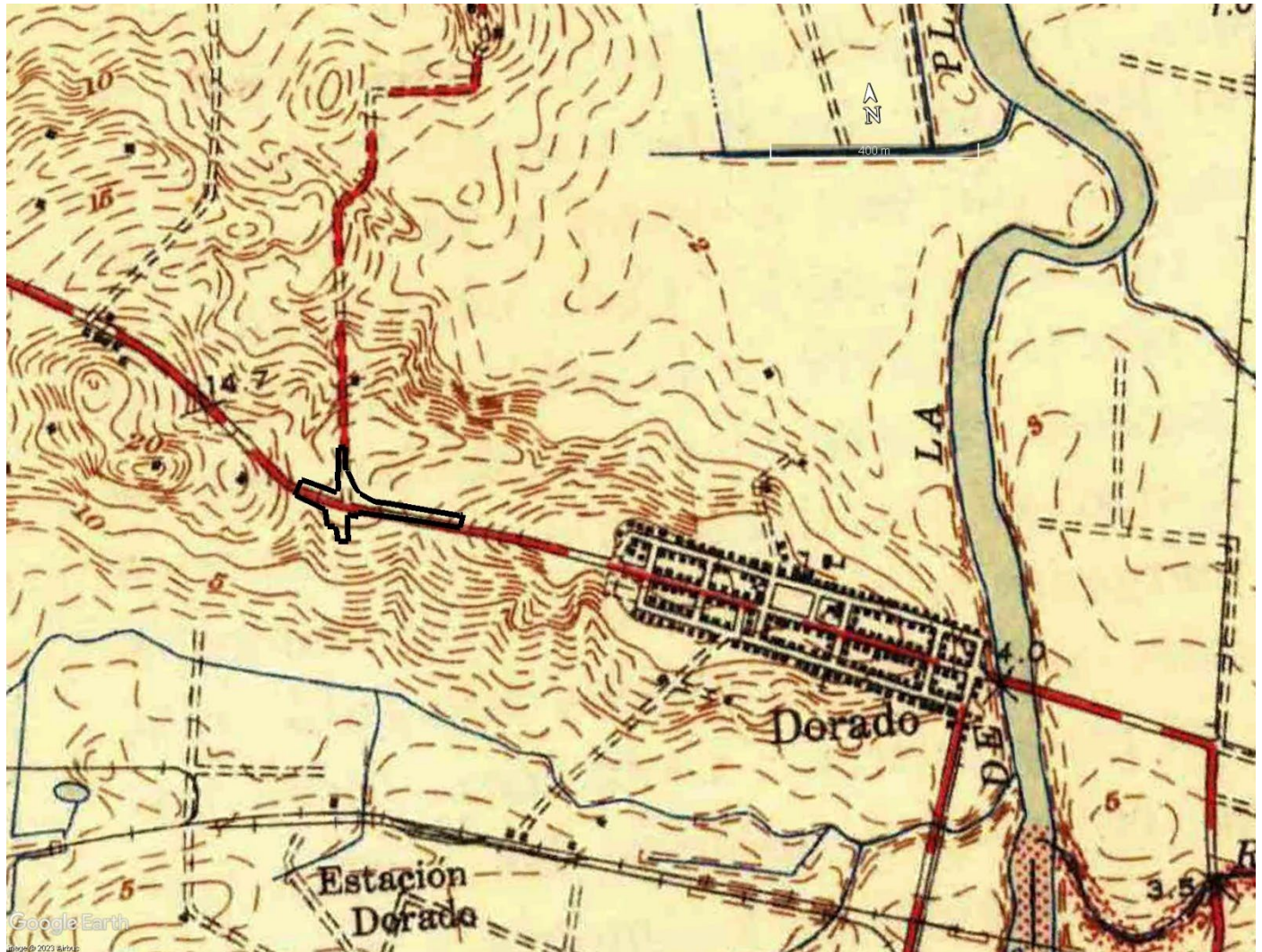



Figure 14 Fragment of USGS Quadrangle Vega Alta 1946. This is the first date that we see PR 968 identified as a road (source: <https://ngmdb.usgs.gov/topoview/> accessed mayo 2023)


In 1958 we can notice a change with an expansion of the city to the West. According to the USGS Quadrangle published for that date. The area known as Martorell shows a set of large buildings near the town to the north, To the south and west is the first development. Also, along the road some buildings are observed. Some of them in the area to the south of the east part of the undertaking including the area where the roundabout is proposed.



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*Figure 15 Fragment of 1950 aerial photography showing the location of the undertaking. (Source: [prgeoref.weebly.com/georeferencednorth D](http://prgeoref.weebly.com/georeferencednorthD), accessed 2022)*

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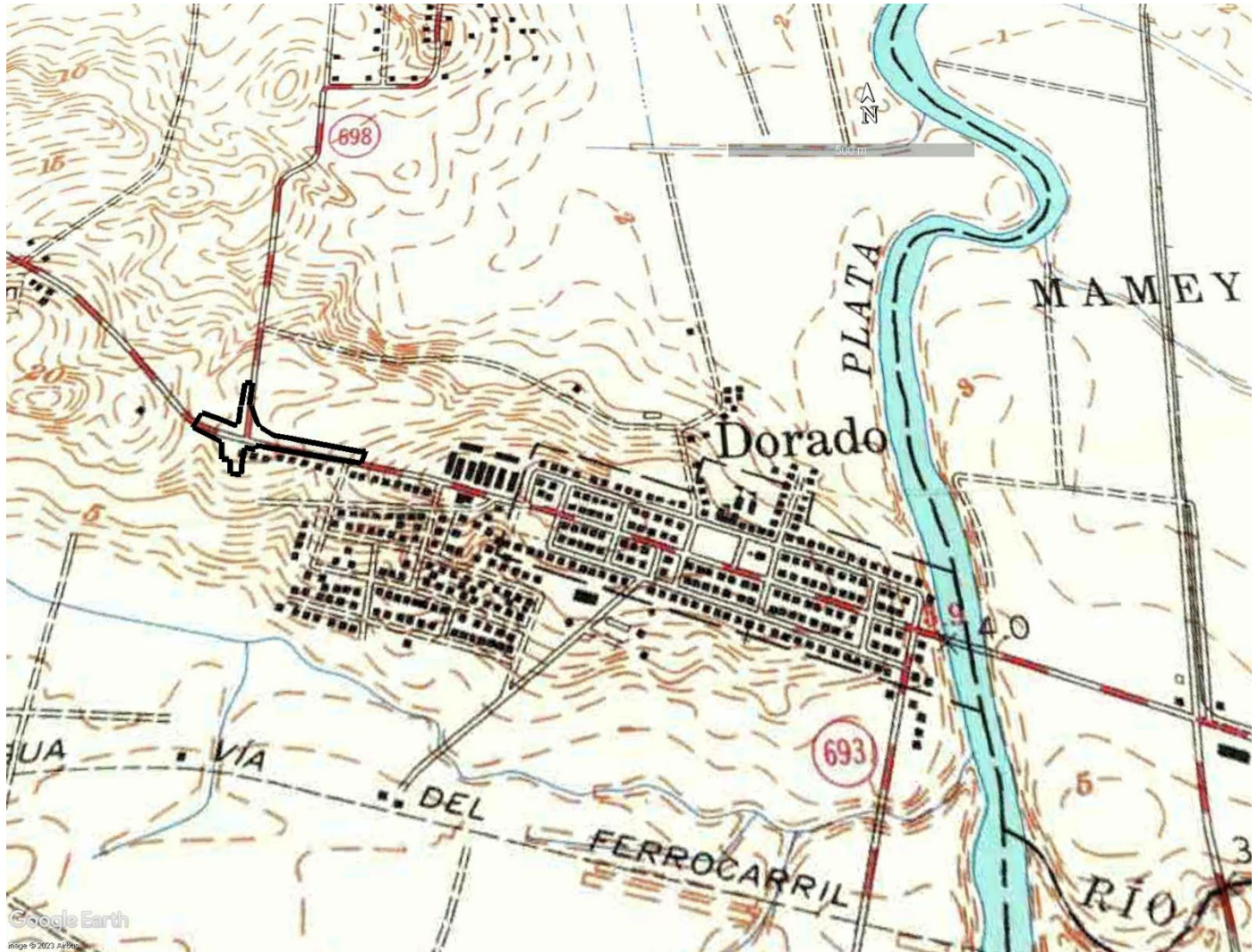


Figure 16 1958 USGS Quadrangle. In this map we can see the town growing to the west. At the south of PR 693 houses are appreciated all the way to the intersection with PR. 698. (Source: <https://ngmdb.usgs.gov/topoview/> accessed mayo 2023)

Then in 1969 we can appreciate that additional large buildings appear to the north of PR 693 and west of PR 698. A church is located to the north of this corner. To the west and to the area of the cemetery some large buildings are shown along the south part of the road (Figure 8). No changes in the 1994 and 2022 satellite images.



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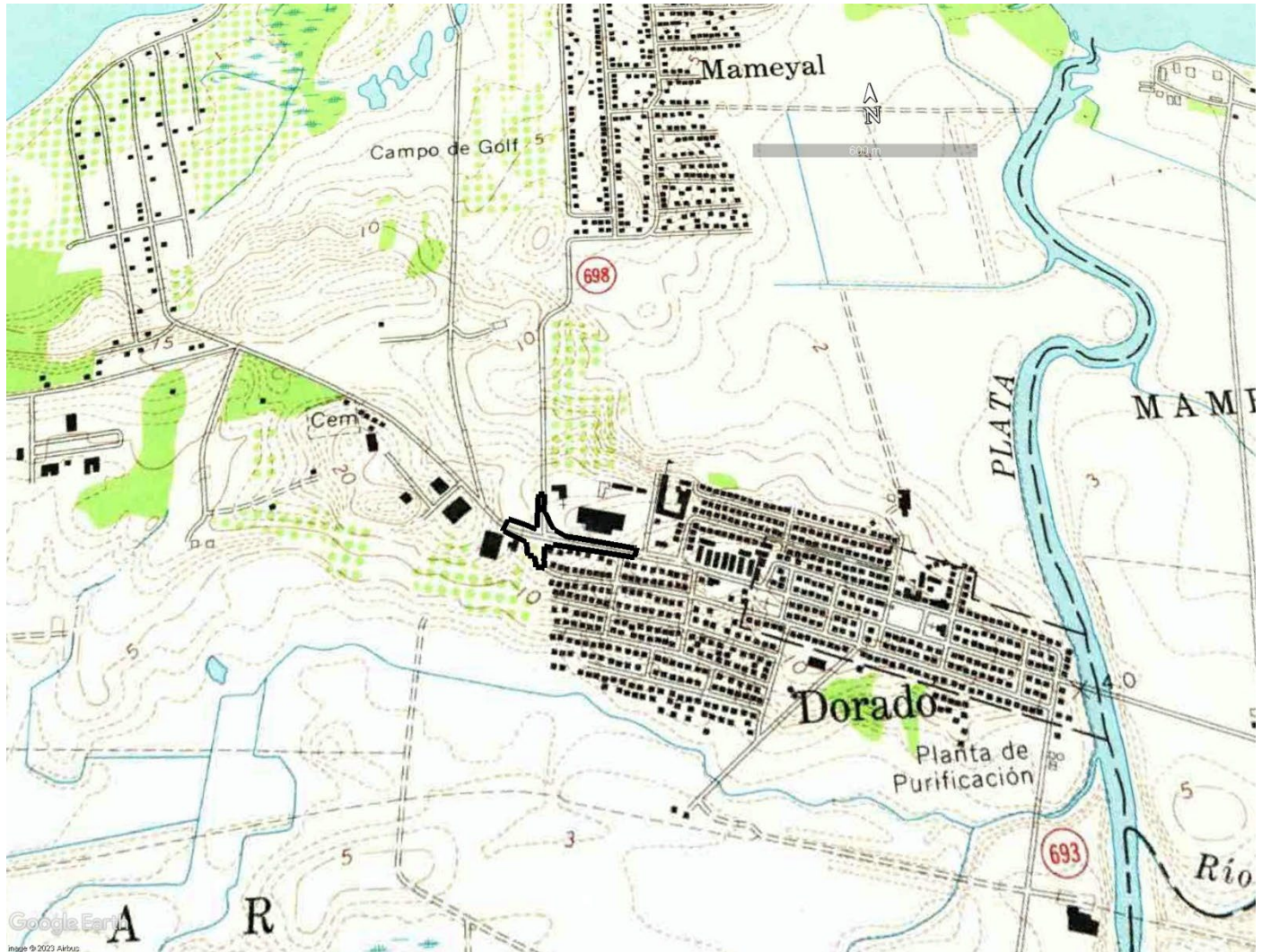



Figure 17 Fragment of 1969 USGS Quadrangle showing the undertaking. Buildings to the northeast and southwest of the intersection are shown. The church to the north.

From that perspective we can conclude the area remains as farmland until the late 1950's or early 1960's when the town begin its expansion to the west. PR 698 to the North was built, according to the images, between 1950 and 1958. To the south the portion that includes the undertaking is not shown until 1968.


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Based on that, we can conclude the probabilities of finding cultural remains is low. The area was never developed in the Spanish colonial era. The only remains found nearby are dated in the early XX century. Then when the area begins to develop, construction along all the roads disturbed the whole area. The only area that may present remains of archaeological settlements is the one to the north of PR 698 where prehispanic material was identified, but in that case the archaeological site appears to be destroyed by construction in the area. If there was a dune and the site was at the top, the area was leveled for the road and the existing constructions.



*Figure 18 Fragment of the 1994 aerial photo showing the undertaking (Source: Google Earth accessed June 2023)*



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## 5. Identification of Historic Properties – Architecture

The evaluation methodology carried out for the architectural study was based on the search and compilation of information and data from different records; previous historical surveys, maps, photographs of the area and other sources in archives and Internet, including but not limited to the United States Geological Survey (USGS), Instituto de Cultura Puertorriqueña, Programa de Patrimonio Histórico Edificado (Institute of Puerto Rican Culture-Built Heritage Program or ICP-PPHE), Puerto Rico State Office of Historic Preservation (PR-SHPO), and National Register of Historic Buildings (National Register). A reconnaissance-level field visit was also carried out to document peculiarities and distinctive features of the resources and its context and the impacts the proposed project might have in them.


### 4.1 Analysis of the lots around intersection of roads PR639 and PR698 in topographic quadrangles and historic aerial photographs

#### USGS Historical Topographic Maps<sup>10</sup>

Historic topographical maps of the area are the USGS Vega Alta, PR maps from 1940 (the earliest map), 1940, 1946 (no changes in the area from 1940 map), 1953, 1958, 1969, and 1983. (See Figures 19 & 20)

- 1940 map: Shows PR693 (today Mendez Vigo Road) with improvements to an intersection with road PR698, north (today Dr. Pedro Albizu Campos Ave.). No properties shown around the intersection.
- 1953 map: Shows PR693 (today Mendez Vigo Road) and intersection with road PR698, north (today Dr. Pedro Albizu Campos Ave.). No properties shown around the intersection.
- 1958 map: Shows PR693 (today, Mendez Vigo Road) and intersection with road PR698, north (today, Dr. Pedro Albizu Campos Ave.). Some properties are shown on the south side of road PR693.
- 1969 map: Shows PR693 and intersection with road PR698, north. Major developments shown around the intersection are: at northeast, Commercial Center/Dorado Health Center and

<sup>10</sup> USGS Historical Topographic Map Explorer. <https://livingatlas.arcgis.com/topoexplorer/index.html>  
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Disciples of Christ church; at southwest, Emergency Management complex (two buildings shown); and additional properties south of the properties along the PR639 road.

- 1982 map: Shows PR693 and intersection with road PR698, north. Major developments shown around the intersection are: improvements to the extension of road PR698 south, to connect with today's streets, Ext. Sur and Ceferino Barbosa; at southwest, Head Start buildings,

#### CostaVis<sup>11</sup>

CostaVis aerial photo of 1950 shows the urban core's, west limit, up to NorthSt. The following aerial photo, 1994 shows development along the four corners of intersection PR693 with PR698: northeast, Commercial Center/Dorado Health Center; southeast, commercial, and residential properties; southwest, San Antonio Head Start complex; northwest, no. 410 Commercial Center. (See Figures 15).

#### Google Earth

USGS Earth Explorer from 1977 shows the United State Postal Service building, northwest of the intersection. (See Figure 21).

Google Earth image from 1994 shows the same information previously indicated. The following aerial image is from 2002.

Google Earth images from 2002, 2004, 2006, 2009, 2010, 2012, 2013 and 2015 show the new Mi Nueva Escuela building (protruding volume at southwest corner of intersection PR 6165 with PR 698) with interior patio. The new red metal hip roof is shown in the Google Earth image of 2016. (See Archaeology Section).

<sup>11</sup> CostaVisPR: Vista aérea de la transformación costera de Puerto Rico (<https://costavispr.org/>). From project "Puerto Rico georeferenciado: Un mosaico de la costa" (<http://www.prgeoref.org/>).  
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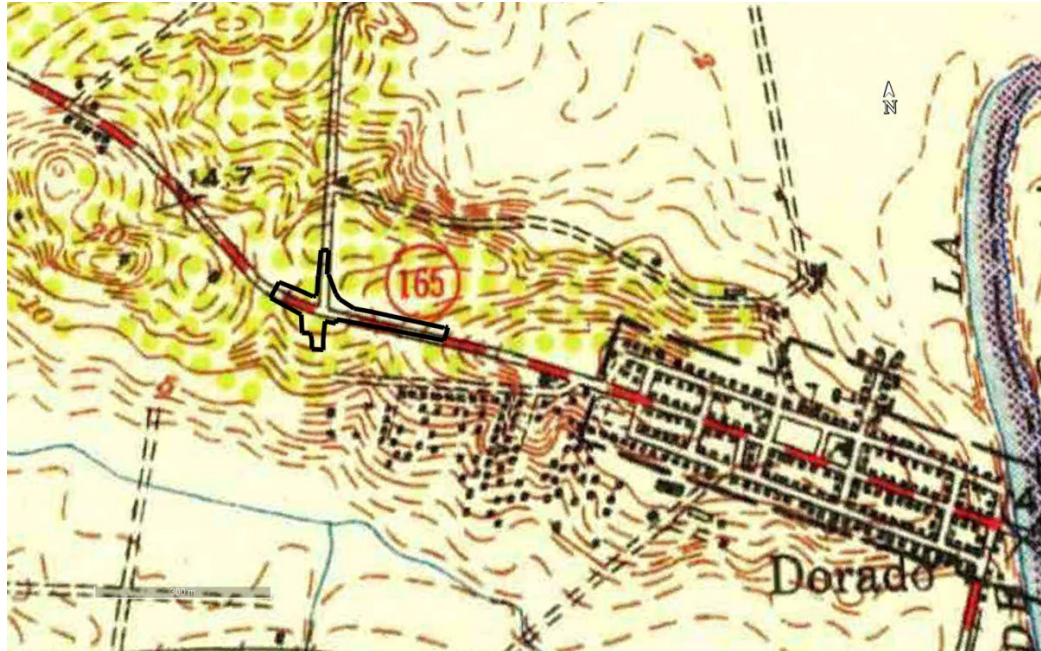



Figure 19 USGS Historical Topographic Map, 1953



Figure 20 USGS Historical Topographic Map, 1982




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*Figure 21 USGS Earth Explorer Aerial of 1977, DI# ARH770100050248*



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#### 4.2 Nearest Historic Properties

A records search of historic surveys, photographs and maps revealed that the intersection is located outside the boundaries of the urban core as delimited by PR- SHPO. (Figure 22). The intersection is approximately 310.33 meters from the western-most urban core boundary and approximately 811.38 meters from the southwest corner of the "plaza" or public square; foundational center of the municipality of Dorado. Beyond the plaza towards the east, the following PR-SHPO identified cultural resources can be found (See Table 1):

**(LEFT BLANK INTENTIONALLY)**

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## DORADO



Survey area    Parcels


Survey area acreage: 42



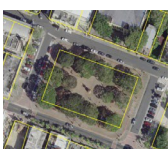
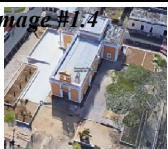
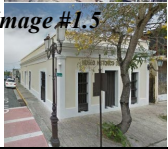

Total parcels within survey area: 412

0 100 200 m


PR State Historic Preservation Office  
December 16, 2020

Figure 22 The project location is outside urban core as delimited by PR-SHPO

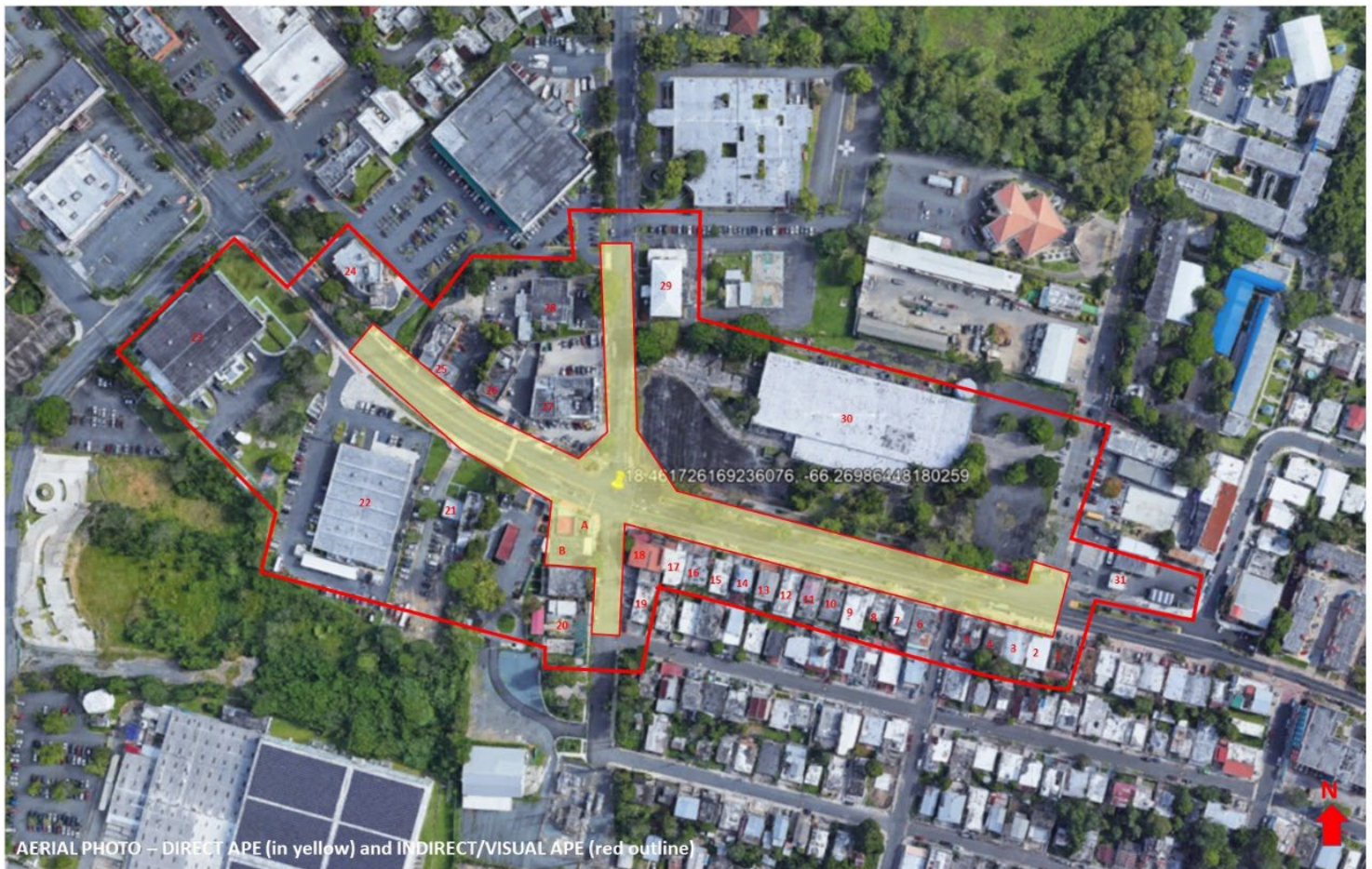
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<b>Table 1</b>						
<b>PR-SHPO Cultural Resources located in the blocks surrounding the plaza</b>						
<b>Image**</b>	<b>Parcel or Lot No./Coordinates</b>	<b>Address</b>	<b>Name (if any)</b>	<b>Approx. Constr. Date</b>	<b>NRHP Status/ NRHP Eligibility</b>	<b>Comments***</b>
<i>Image #1.1</i> 	037-029-016-08	Mendez Vigo St.	Casa del Rey	1823	NRHP #89000408	No effect. Dist. from intersection 1.04 km
<i>Image #1.2</i> 	037-029-004-20	North St.	Jacinto Lopez Martinez Grammar School	1925	NRHP #88001846	No effect. Dist. from intersection 919 m
<i>Image #1.3</i> 	037-029-010-01	Mendez Vigo St. (North); San Francisco St. (east); North St. (north); Pedro Lopez St. (west)	Plaza (Public Square)	Early 1800's	Previously Surveyed* / Eligible	No effect. Dist. from intersection 821 m
<i>Image #1.4</i> 	037-029-013-01	Pedro López Canino St., Dorado, 00646	San Antonio de Padua Parrish	1826	Previously Surveyed* / Eligible	No effect. Dist. from intersection 905 m
<i>Image #1.5</i> 	037-029-016-29	Pedro López Canino St., Dorado, 00646	Escuela de Arte Marcos J. Alegria (Old Parrish House)	1826	Previously Surveyed* / Eligible	No effect. Dist. from intersection 962 m
<i>Image #1.6</i> 	037-029-016-26	263 Mendez Vigo St.	Casa Capita Marrero	1920	Previously Surveyed* / Eligible	No effect. Dist. from intersection 1.00 km
* 1987 Survey, "Dorado: Una Estudio en contrastes" ** Photos from Google Imagery 2022 ***Project will not have an impact on the historic property identified; distance from project is more than 200m.						




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Beyond the plaza towards the west, the following properties were found and eligibility to the National Register was determined for each (See Tables 2 and 3):





*Figure 23 Direct and Indirect APE*




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**Table 2**

**Properties within the Direct APE**

Image	Parcel or Lot No./Coordinates	Address	Name (if any)	Approx. Constr. Date	NRHP Status/ NRHP Eligibility
	<b>037-017-216-09</b> (18.461582, -66.270052)	<b>Mendez Vigo St., Higuillar, corner of PR Road 698, Dorado</b>	<b>Mi Escuela Amiga</b>	<b>2000-2004</b>	<b>Ineligible</b>
	<b>Building to be demolished – No historic properties affected.</b>				
	<b>037-017-216-09</b> (18.461483, -66.270096)	<b>Ceferino Barbosa St. (south PR Road 698), Higuillar, Dorado</b>	<b>Paraiso Infantil</b>	<b>c.1980s</b>	<b>Ineligible</b>
	<b>Building to be demolished – No historic properties affected.</b>				

**Note: Historic Significance Certification (Certificación de Valor Histórico) by the Built Heritage Program of ICP.** For the property in evaluation proposed to be demolished, the Historic Significance Certification from ICP was received July 5, 2022, indicating property Ineligible. The certification highlights two main issues: (point 4) the property is located outside the historic urban core and, (point 5) the property does not present visible components (above ground) of historic significance. See *Certificación de Valor Histórico* for the buildings within the property, attached to this document.


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**Table 3**

**Properties within the Indirect/Visual APE**

\* Buildings south of PR-693 (Mendez Vigo Ave.) first appear in USGS topographic map of 1958. Photographs show that most of the properties have been renovated, for commercial use, throughout the years.

Image	Property Index No. / Parcel or Lot No.	Address	Name (if any)	Approx. Constr. Date	NRHP Status/ NRHP Eligibility
<b>Image #3.1</b> 	037-018-155-16-001 (top image) 037-018-155-15-001 (bottom image)	BO SAN ANTONIO 367 (320), CALLE MENDEZ VIGO, PR	Jenny Oquendo Santiago Wilfredo Oquendo Lopez	c.1958*	Ineligible
No historic properties affected					
<b>Image #3.2</b> 	037-018-155-14-001 (Lat: 18.46098886, Lon: -66.26779257)	BO SAN ANTONIO 318, CALLE MENDEZ VIGO, PR	Huberto Negrón Santiago	c. 2016	Ineligible
No historic properties affected					
<b>Image #3.3</b> 	037-018-155-13-001 (Lat: 18.46101523, Lon: -66.26790315)	BO SAN ANTONIO 316, CALLE MENDEZ VIGO, PR	Felix Matos Aponte	c.1958*	Ineligible
No historic properties affected					

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	037-018-155-12-853 (Lat: 18.46104072, Lon: -66.26801627)	BO SAN ANTONIO 314, CALLE MENDEZ VIGO, PR	Carmen Perez Cruz	c.1958*	Ineligible
	No historic properties affected				
	037-018-155-11-001 (Lat: 18.46106697, Lon: -66.26813136)	BO SAN ANTONIO 312, CALLE MENDEZ VIGO, PR	Lazaro J. Granado Esteves	c.1958*	Ineligible
	No historic properties affected				
	037-018-154-24-001 (Lat: 18.46111572, Lon: -66.26835621)	BO SAN ANTONIO 310, CALLE MENDEZ VIGO, PR	Benito Lugo Soto	c.1958*	Possibly eligible (see note below)
	No historic properties affected. Requires more research.				
	037-018-154-23-852 (Lat: 18.46114246, Lon: -66.26846769)	BO SAN ANTONIO 308, CALLE MENDEZ VIGO, PR	Pedro Rodriguez Martinez	c.1958*	Ineligible
	No historic properties affected				
	037-017-154-22-001 (Lat: 18.46114246, Lon: -66.26846769)	BO SAN ANTONIO 306, CALLE MENDEZ VIGO, PR	Ramon Pitre Fernandez	c.1958*	Ineligible

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<b>Image #3.8</b> 	No historic properties affected				
<b>Image #3.9</b> 	037-017-154-21-001  (Lat: 18.46119171, Lon: -66.26868560)	BO SAN ANTONIO 304, CALLE MENDEZ VIGO, PR	Clear Pearl Inc.	c.1958*	Ineligible
<b>Image #3.10</b> 	037-017-154-20-001  (Lat: 18.46121618, Lon: -66.26879338)	BO SAN ANTONIO 302, CALLE MENDEZ VIGO, PR	Julio Mena Santana	c.1958*	Ineligible
<b>Image #3.11</b> 	037-017-154-19-001  (Lat: 18.46124252, Lon: -66.26890552)	BO SAN ANTONIO 300, CALLE MENDEZ VIGO, PR	Miguel Etal Garcia	c.1958*	Ineligible
<b>Image #3.12</b> 	037-017-154-18-001  (Lat: 18.46126799, Lon: -66.26901898)	BO SAN ANTONIO 298, CALLE MENDEZ VIGO, PR	Yolanda Negron Miranda	c.1958*	Ineligible




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	No historic properties affected				
	037-017-154-17-001				
	037-017-154-16-001 (Lat: 18.46129303, Lon: -66.26912944) / (Lat: 18.46131825, Lon: -66.26923866)	BO SAN ANTONIO 296 and 294, CALLE MENDEZ VIGO, PR	Ricardo Kuilan Franco Jannette Feliciano Gaetan (294)	c.1958*	Ineligible
	No historic properties affected				
	037-017-154-15-001	BO SAN ANTONIO 292, CALLE MENDEZ VIGO, PR	Rafael Pagan Rivera	c.1958*	Ineligible
	(Lat: 18.46134317, Lon: -66.26935033)				
	No historic properties affected				
	037-017-154-14-001	BO SAN ANTONIO 399, CALLE MENDEZ VIGO, PR	Luis Geigel Fuentes	c.1958*	Ineligible
	(Lat: 18.46136910, Lon: -66.26946167)				
	No historic properties affected				
	03177-017-154-13-001	BO SAN ANTONIO 288, CALLE MENDEZ VIGO, PR	Victor Narvaez Cruz	c.1958*	Ineligible
	(Lat: 18.46139260, Lon: -66.26957087)				


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<b>Image #3.17</b> 	No historic properties affected				
<b>Image #3.18</b> 	037-017-154-12-001 (Lat: 18.46143452, Lon: -66.26972854)	BO SAN ANTONIO 286, CALLE MENDEZ VIGO, PR	Jose Santana Gil (El Almendro)	c.1958*	Ineligible
	Building to remain. No historic properties affected.				
<b>Image #3.19</b> 	037-017-154-11-001	522, CALLE EXTENSION SUR, PR	Aracelis Alamo Colon	c.1969	Ineligible
	No historic properties affected				
<b>Image #3.20</b> 	037-017-216-09 (18.461113, -66.270128)	Ceferino Barbosa St. (south PR Road 698)	Head Start Center San Antonio I, II, III	c.1994s	Ineligible
	No historic properties affected. Building next to Paraiso Infantil -building, to be remain - No adverse effect.				
<b>Image #3.21 &amp; #3.22</b> 	037-017-216-05	BO SAN ANTONIO 410 CARR. 693, PR	Policía de Puerto Rico Oficina Municipal para el Manejo de Emergencia	c.1965-1967	Ineligible
<b>Source: Google image (2016)</b> 	No historic properties affected				

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 <p><i>Image #3.23</i></p> <p><i>Source: Google image (2016)</i></p>	037-017-216-04	BO SAN ANTONIO 415 CARR. 693, PR	Heraeus Medical Components Caribe	c.1966-1967	Eligible Possibly eligible (See note below)
	<p>PRIDCO building #T-0638-0-66, renovated for industrial/pharmaceutical use in 2008 (Souce: LinkedIn) with the founding of Heraeus in Dorado, PR. The building was built in 1966, outside of the 1948-1958 period (See National Register of Historic Places Multi-Property Documentation Form "Early Prototypes for Manufacturing Plants in PR: 1948-1958")<sup>12</sup>. The building plan is a prototype T but does not conform to the typical dimensions of the type within that period. It maintains its typical volumetric expression and some typical distinctive features of its façade profile.</p> <p>No Adverse Effect on historic property No historic properties affected. Requires more research.</p>				
 <p><i>Image #3.24</i></p>	037-017-048-04-000	BO SAN ANTONIO Km. 8 CARR. 693, PR	CONSTRUCTOR A MHG INC (Firehouse Subs and Supermax Dorado del Mar)	c.1994s	Ineligible
	No historic properties affected				
 <p><i>Image #3.25</i></p>	037-017-048-07-000	BO SAN ANTONIO Km. 8 CARR. 693, PR	Miguel Sanabria Garcia (Mc Donald's)	c.1994s	Ineligible
	No historic properties affected				

<sup>12</sup> National Park Service. "National Register of Historic Places Multi-Property Documentation Form "Early Prototypes for Manufacturing Plants in PR: 1948-1958". Retrieved from, <https://npgallery.nps.gov/nrhp>.  
606 Barbosa Avenue, Building Juan C. Cordero Dávila, Río Piedras, PR 00918 | P.O. Box 21365 San Juan, PR 00928-1365  
Tel: (787)274-2527 | [www.vivienda.pr.gov](http://www.vivienda.pr.gov)

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Source: Google image (2016)

037-017-048-06-000	BO SAN ANTONIO CARR. 693, PR	Hermanos Sanchez Inc.	c.1994s	Ineligible
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No historic properties affected



Source: Google image (2016)

037-017-048-03-000 (18.462180, -66.270095)	410 Mendez Vigo St., Higuillar, Dorado	Commercial Center #410 (Deltran Co., owner)	c.1994s	Ineligible
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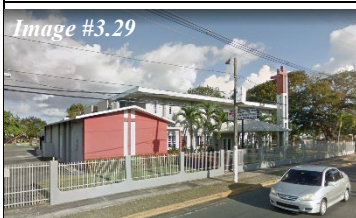
No historic properties affected.



Source: Google image (2016)

037-017-048-02-001	BO SAN ANTONIO Km. 3.7 CARR. 695, PR	Realty Company Valley (United States Postal Service)	c.1977	Eligible
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No historic properties affected.






Source: Google image (2016)

037-017-051-04 18.462829, -66.269605	BO SAN ANTONIO Km. 3.7 CARR. 695, PR	Iglesia Cristiana Discípulos de Cristo	c. 1969	Ineligible
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No historic properties affected.



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 <p>Image #3.30</p>	037-017-051-05-001 (18.4621104, -66.2686467)	PR693, 0, Mendez Vigo St, Higuillar, Dorado	Commercial Center (Vazquez Morales Realty LLC, owner)	c.1969	Ineligible
	No historic properties affected.				
 <p>Image #3.31</p> <p>Source: Google image (2023)</p>	037-018-040-01-001	URB MARTORELL, ESQ INDUSTRIAL, PR	SOL PUERTO RICO LIMITED (Gasolinera Mobil)	c.1982	Ineligible
	No historic properties affected				

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## 6. Determination

Based on the information evaluated, the properties proposed to be demolished are less than 45 years old and are located outside the historic foundational center of town and outside the PR-SHPO delimitation of the Dorado urban core. Based on the National Register Criteria for Evaluation and Criteria Considerations (36 CFR 60.4), there may be properties under the age of 50 to be considered to the National Register, but they must have exceptional significance/importance, meet one of the four National Register Criteria for Evaluation, and have integrity. The properties under evaluation are not significant under the National Register Criteria for Evaluation.

Three properties were identified as eligible to the National Register, but the proposed activities will not affect them.


Based on the results of our historic properties identification efforts, the Program has determined that project actions will not affect historic properties as defined in 36 CFR800.16(1) within the Area of Potential Effect. Therefore, the effect of the proposed undertaking is **No Historic Properties Affected**.

No archaeological sites are located within or near the undertaking. The nearest pre-Columbian archaeological site was defined in a report as scattered materials, but the context is not clear. Although the alignment and development of the road is the same since the area began to be occupied by the early Spanish settlers, the area that will be affected by the proposed project was over the years part of the cattle and farmlands (*hatos*) that developed early in the conquest along the north plains of the island. In the colonial period the area had no development.

The archaeological sites known in the Toa were located near the ocean and the riverbanks. The first buildings are from the middle of the XX century and the area began to be developed in the late 1990's. So, the probabilities of identifying a historic property within the area of potential effect is low.

Based on the results of our historic property identification efforts, the Program has determined that project actions will not affect the historic properties within the Area of Potential Effect.

The alignment and development of the road is the same since the area began to be occupied by the early Spanish settlers. In the colonial period the area had no development. The first buildings are from the middle of the XX century.

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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"/> <b>Concurs</b> with the information provided. <input type="checkbox"/> <b>Does not concur</b> with the information provided.	
<b>Comments:</b>          	
Carlos Rubio-Cancela State Historic Preservation Officer	Date:



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



General Key Photo map



**Subrecipient: Municipality of Dorado**

**Project Name: Roundabout PR-693 & PR-698**

**Project Number: PR-CRP-000557**



**Photo #: 1**

**Description (include direction): View of PR 693 from the east limit of the undertaking looking to the west**

**Date: 5/6/2023**



**Photo #: 2**

**Description (include direction): View of the East limit of the undertaking from the south sidewalk to the north.**

**Date: 5/6/2023**

**PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM**  
**CITY REVITALIZATION PROGRAM (CRP)**  
**Section 106 NHPA Effect Determination**



**Subrecipient: Municipality of Dorado**

**Project Name: Roundabout PR-693 & PR-698**

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**Photo #: 3**

**Description (include direction): View of the PR.693 from the south sidewalk to the west. Showing the two south lanes**

**Date: 5/6/2023**



**Photo #: 4**

**Description (include direction): View from the south limit of the undertaking in PR 698 to the intersection with PR 693 (red arrow). To the left the buildings of the Head Start.**

**Date: 5/6/2023**



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

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Photo #: 5

Description (include direction): View to the north from the south side of the intersection.

Date: 5/6/2023



Photo #: 6

Description (include direction): PR 698 from the west. To the right is the Police Headquarters.

Date: 5/6/2023

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: 7

Description (include direction): View of the intersection to the east from PR 698 south lanes

Date: 5/6/2023



Photo #: 8

Description (include direction): View from the north limit of the project. Blue arrow shows the school, red arrow the intersection.

Date: 5/6/2023



**Subrecipient: Municipality of Dorado**

**Project Name: Roundabout PR-693 & PR-698**

**Project Number: PR-CRP-000557**



**Photo #: 9**

**Date: 5/6/2023**

**Description (include direction): View of the intersection from PR 698 north to south. To the right Hijole Restaurant. Crossing the intersection to the right Escuela Amiga**



**Photo #: 10**

**Date: 5/6/2023**

**Description (include direction): Vie of the intersection from the Escuela Amiga entrance to the northeast.**

**PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM**  
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**Section 106 NHPA Effect Determination**



**Subrecipient: Municipality of Dorado**

**Project Name: Roundabout PR-693 & PR-698**

**Project Number: PR-CRP-000557**



**Photo #: 11**

**Description (include direction): View from the northeast corner of the intersection to Escuela Amiga**

**Date: 5/6/2023**



**Photo #: 12**

**Description (include direction): View of the intersection from the southeast corner to the north.**

**Date: 5/6/2023**



**PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM**

**CITY REVITALIZATION PROGRAM (CRP)**

**Section 106 NHPA Effect Determination**



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**Project Number: PR-CRP-000557**



**Photo #: 13**

**Date:** 5/6/2023

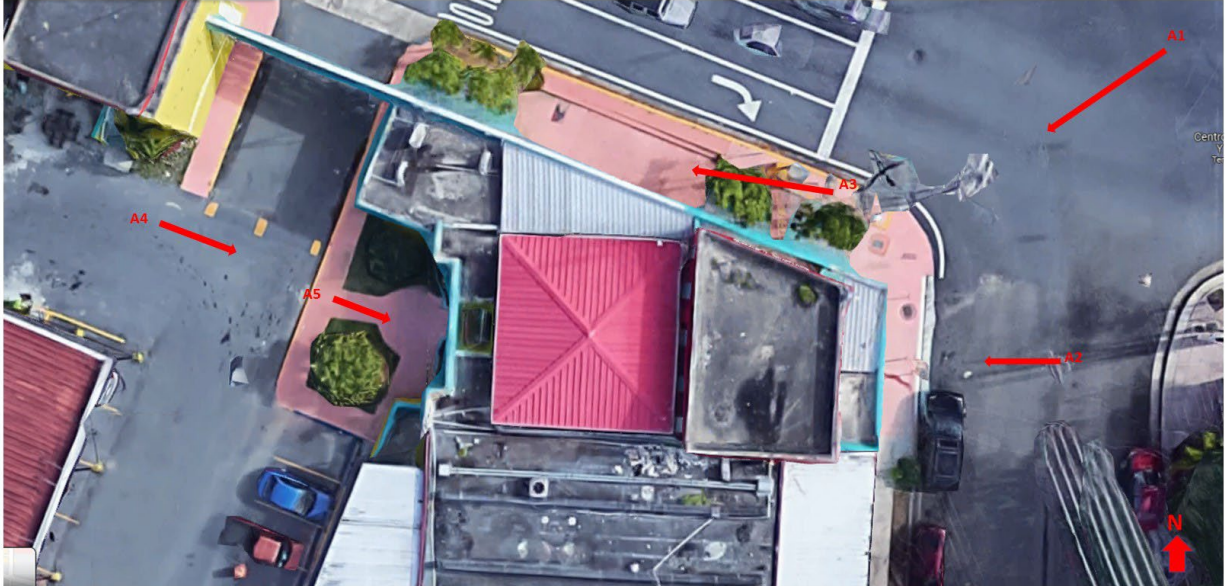
**Description (include direction): View to the east from the northeast corner of the intersection showing the north lanes of PR 693 in this area.**

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557

### Photograph Key (On Google Earth imagery)



BUILDING 'A' – MI ESCUELA AMIGA (aerial photo Google Earth)

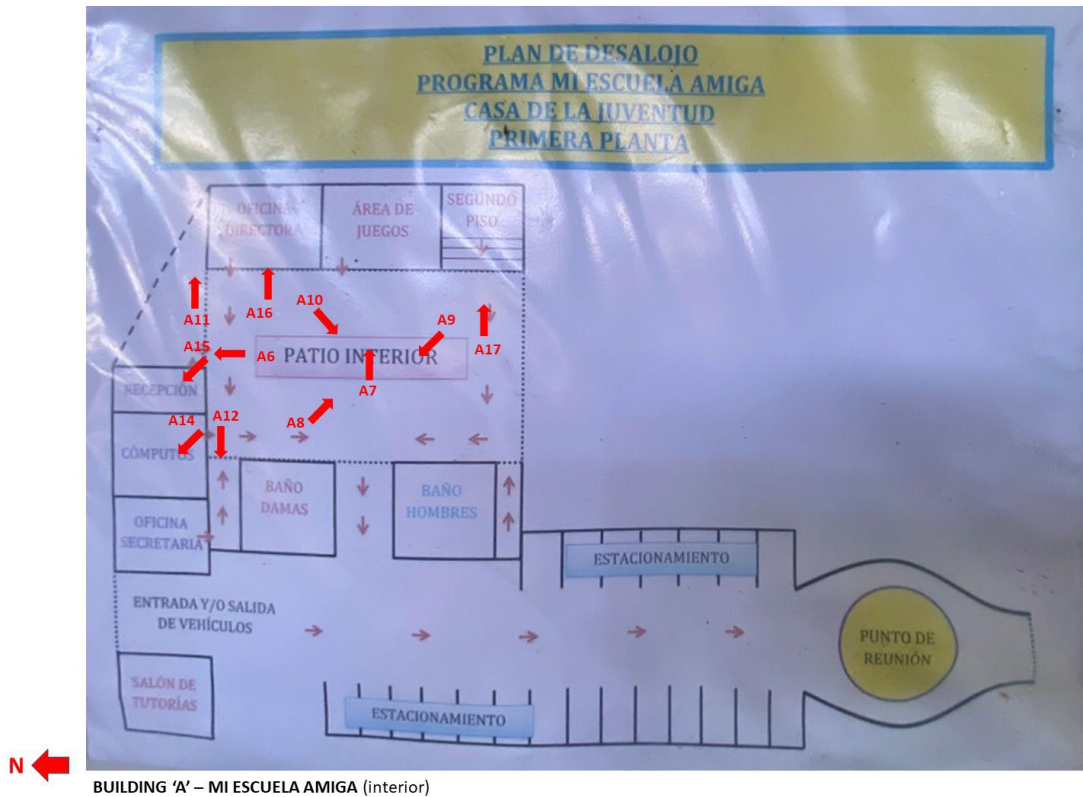


Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557

### Photograph Key (Evacuation Plan of 1st level at facility)



BUILDING 'A' - MI ESCUELA AMIGA (interior)

All photos taken by Carmen Marla Lopez.

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A1

Description (include direction): Looking at the southwest corner of intersection PR-693 and PR-698

Date: 11/03/2022



Photo #: A2

Description (include direction):

Date: 11/03/2022

Mi Escuela Amiga building (east facade)

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A3

Description (include direction): North facade

Date: 11/03/2022



Photo #: A4

Description (include direction): West facade

Date: 11/03/2022



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A5

Description (include direction): West entrance

Date: 11/03/2022



Photo #: A6

Description (include direction):

Date: 11/03/2022

Interior courtyard looking north



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A7

Description (include direction): Interior covered courtyard (looking east)

Date: 11/03/2022



Photo #: A8

Description (include direction): Interior covered courtyard

Date: 11/03/2022

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A9

Description (include direction): Interior covered courtyard (looking northwest)

Date: 11/03/2023



Photo #: A10

Description (include direction):

Date: 11/03/2023

Interior covered courtyard (looking southwest)

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A11

Description (include direction): Interior view (north corridor)

Date: 11/03/2023



Photo #: A12

Description (include direction): Interior view towards public restrooms

Date: 11/03/2023



**Subrecipient: Municipality of Dorado**

**Project Name: Roundabout PR-693 & PR-698**

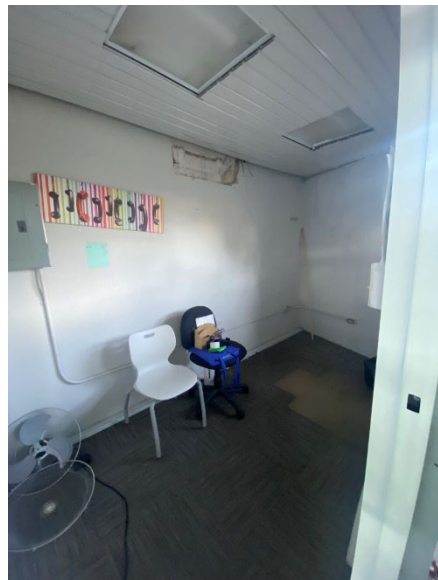
**Project Number: PR-CRP-000557**



**Photo #: A14**

**Description (include direction):** 1<sup>st</sup> level computer room

**Date:** 11/03/2023



**Photo #: A15**

**Description (include direction):** 1<sup>st</sup> level reception office

**Date:** 11/03/2023



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A16

Description (include direction): 1<sup>st</sup> level director's office

Date: 11/03/2023

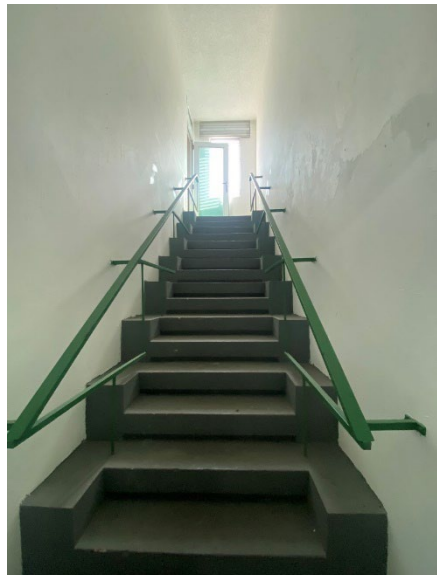


Photo #: A17

Description (include direction): Stairs to 2<sup>nd</sup> level

Date: 11/03/2023

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: A18

Description (include direction): 2<sup>nd</sup> level classroom 2

Date: 11/03/2023

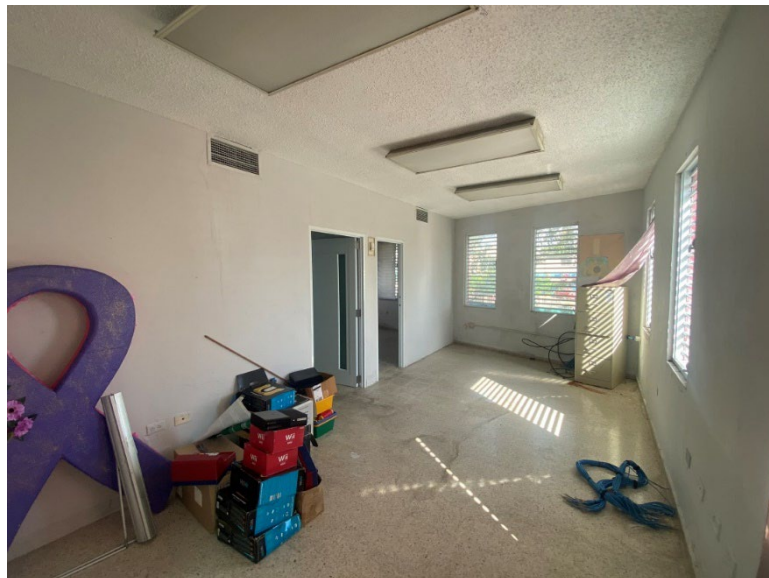


Photo #: A19

Description (include direction): 2<sup>nd</sup> level classroom 1

Date: 11/03/2023

**Project Number: PR-CRP-000557**



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B1

Description (include direction): Head Start - East façade – Main entrance

Date: 03/08/2023



Photo #: B2

Description (include direction): Head Start - East façade looking towards intersection PR-693 & PR-698

Date: 03/08/2023



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B3

Description (include direction): Head Start – East façade – closer look

Date: 03/08/2023



Photo #: B4

Description (include direction): Head Start – East façade – closer look other entry

Date: 03/08/2023

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B5

Description (include direction): Paraiso Infantil (Building 2) covered patio (east) looking north

Date: 03/08/2023

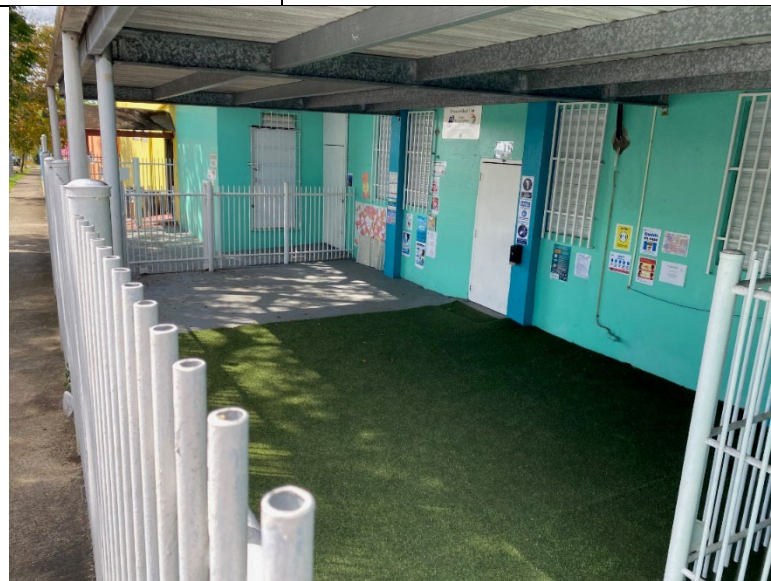


Photo #: B6

Description (include direction): Paraiso Infantil (Building 2) covered patio (east) looking south

Date: 03/08/2023



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B7

Description (include direction):

Date: 03/08/2023



Photo #: B8

Description (include direction): Paraiso Infantil (Building 2) covered patio (east) looking north

Date: 03/08/2023

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B9

Description (include direction): Paraiso Infantil (Building 2) (west façade)

Date: 03/08/2023



Photo #: B10

Description (include direction): Paraiso Infantil (Building 2) (west façade looking south)

Date: 03/08/2023



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B11

Date: 03/08/2022

Description (include direction): - Paraiso Infantil (Building 2) (west façade looking north)



Photo #: B12

Date: 03/08/2022

Description (include direction): Paraiso Infantil (Building 2) covered patio (west)

Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B13

Description (include direction Paraiso Infantil (Building 2) covered patio (west)

Date: 03/08/2022



Photo #: B14

Description (include direction): Paraiso Infantil (Building 2) covered patio (west)

Date: 03/08/2022



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557



Photo #: B15

Description (include direction): Paraiso Infantil (Building 2) covered patio (west)

Date: 03/08/2022



Photo #: B16

Description (include direction): Paraiso Infantil (Building 2) covered patio roof detail (west)

Date: 03/08/2022



Subrecipient: Municipality of Dorado

Project Name: Roundabout PR-693 & PR-698

Project Number: PR-CRP-000557

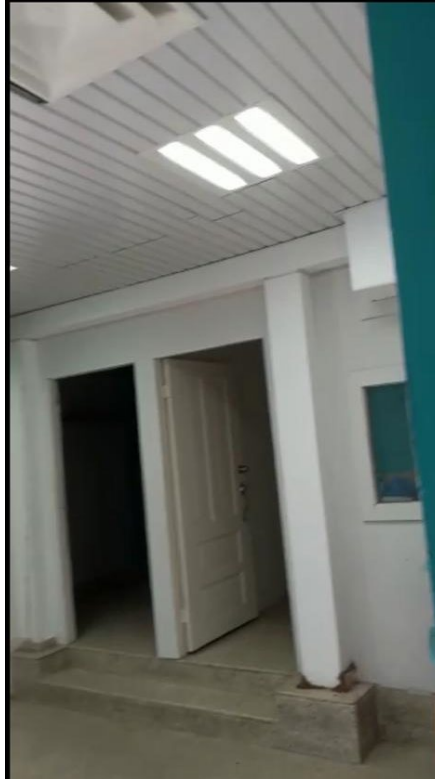


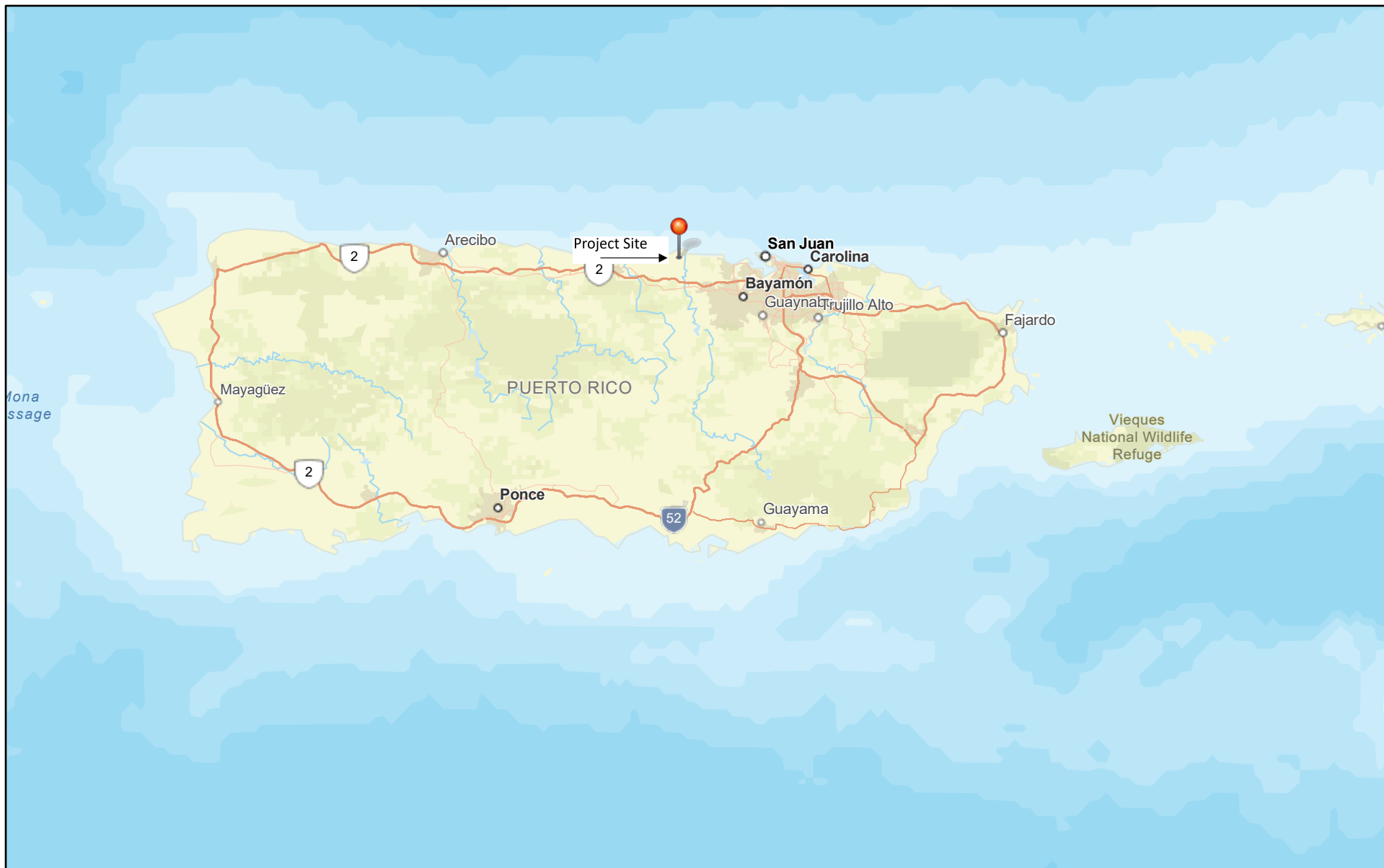
Photo #: B17

Date: 03/08/2022

Description (include direction): Paraiso Infantil (Building 2) covered patio (west). Photo taken by Municipality of Dorado.



**Attachment 13: Sole Source Aquifers Map**



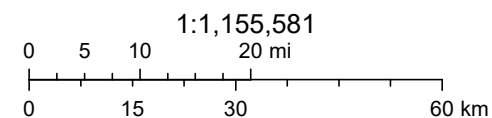
July 26, 2023



PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698



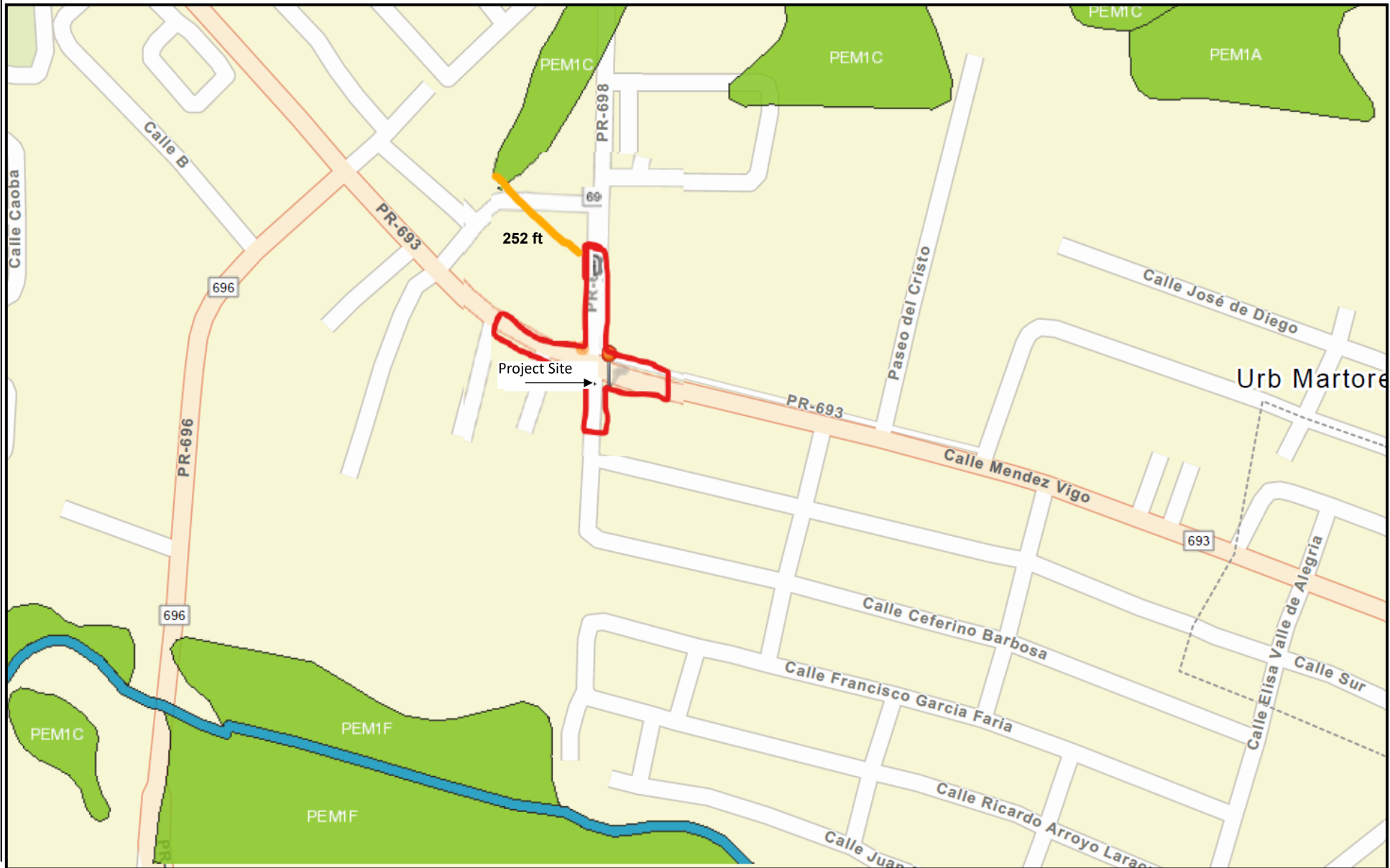
Sole Source Aquifers



Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, NPS

Project Location: Intersection of PR-693 and PR-698 (Lat. 18.462004, Long. -66.268678)

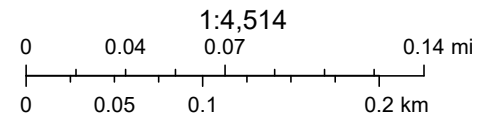
**Attachment 14: Wetlands Map**



October 20, 2023

- Wetlands
- Estuarine and Marine Deepwater
  - Estuarine and Marine Wetland
  - Freshwater Emergent Wetland
  - Freshwater Forested/Shrub Wetland
  - Freshwater Pond
  - Lake

PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands\_team@fws.gov, Esri Community Maps Contributors, Esri, HERE,



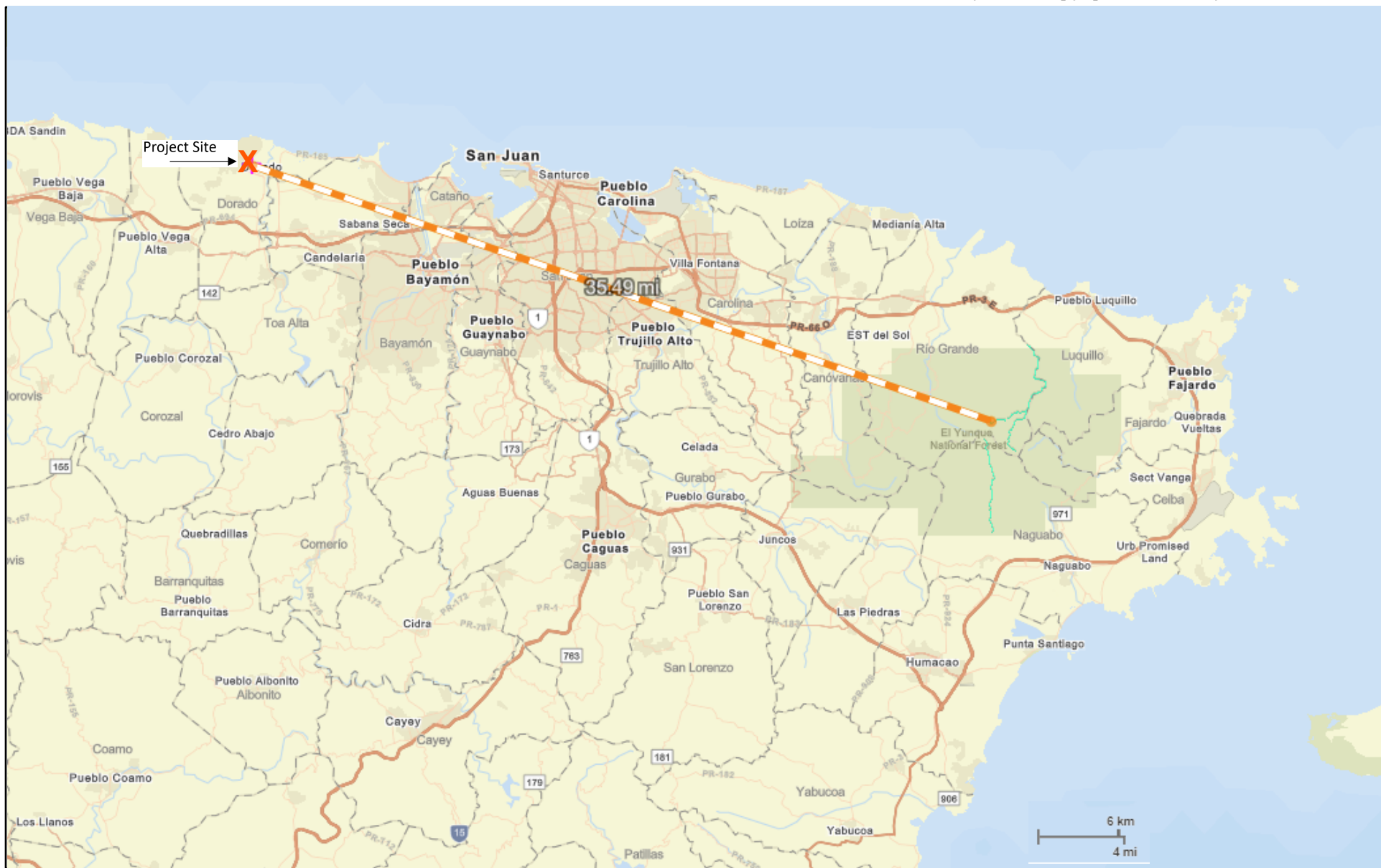
**Attachment 15: Wild and Scenic Rivers Map**

K J'X'UbX'GWbJWFJj Yfg'A Ud'

ÚR-CRP-000557

7ccfX. Lat. 18.462004, Long. -66.268678

Qc'!^&q } Á ÁÜË JHÁ } áÁÜË Jì



July 26, 2023

Wild and Scenic River



Source: U.S. EPA, 2023, NEPassist, accessed July 26, 2023, at URL <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>

Prepared by ICF

X PR-CRP-000557--Intersection Improvements Roundabout PR-693 and PR-698

**Attachment 16: Escuela Amiga ACM Test Results**



## CERTIFICACION DE NO PRESENCIA DE ASBESTO EN ESTRUCTURAS A DEMOLERSE

(Deberá completarse en letra de molde o impresa)

PGC-\_\_\_\_\_  
PARA USO OFICIAL

Yo, Emanuel Ortiz Vega, mayor de edad, casado, y vecino de Guaynabo, Puerto Rico  
(Nombre) (Estado Civil) (Municipio)

Dirección Postal P.O. Box 366457, San Juan P.R. 00936-6457  
(Pueblo) (Zip Code)

Teléfonos: Residencial (939) 273-9898 Oficina (787) 420-0220  
Fax (787) N/A

### Certifico que:

1. La estructura "Early Headstart & Escuela Amiga" localizada en Casa De la Juventud, Calle Méndez Vigo, Dorado, P.R., la cual será objeto de una demolición se encuentra libre de asbesto.
2. La información antes indicada es cierta y correcta.
3. Afirmo y reconozco las consecuencias de incluir y someter información falsa en este documento.
4. Para que así conste, firmo la presente certificación en Caguas de Puerto Rico,  
hoy día 1ro de mayo de 2023. (Municipio)

Firma y Sello del Profesional o  
Firma del Inspector de Asbesto registrado por la JCA (Original)

**Nota: Ingenieros o Arquitectos deberán someter evidencia de que se encuentra al día en el pago de sus cuotas de colegiación e Inspectores de Asbesto deberán someter evidencia de la tarjeta de registro provista por la JCA.**



	<p>TARJETA DE REGISTRO PARA LA REMOCION DE ASBESTO</p> <p>Esta tarjeta autoriza a:</p> <p><b><i>Emanuel Ortiz Vega</i></b></p> <p><b>Inspector</b></p> <p>A trabajar en la remoción de asbesto en Puerto Rico. Esta persona <b>NO</b> es un empleado del DRNA.</p> <p></p> <p>Firma Autorizada - Departamento Recursos Naturales y Ambientales</p>
<p><b>ASB-0123-0061-SI</b></p> <p>Número de Registro</p> <p><b>19-ene-2024</b></p> <p>Fecha de vencimiento</p>	

PR Asbestos Inspector Accreditation



# ASBESTOS-CONTAINING MATERIALS SURVEY

## EARLY HEADSTART & MI ESCUELA AMIGA BUILDING

Casa de Juventud, Calle Méndez Vigo  
Dorado, Puerto Rico 00646



Inspection Date: April 26, 2023

Prepared for: SEM AE Design

Prepared by: Nortol Environmental &  
Occupational Safety, Inc.

Inspector:

Emanuel Ortíz  
Asbestos Inspector  
ASB-0123-0061-SI



*NORTOL has performed this survey in a thorough and professional manner consistent with commonly accepted industry standards.*

*This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.*

## Table of Contents

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Attachment 1 – Inspector’s Credentials

Attachment 2 – Table Asbestos Summary Findings

Attachment 3 – Representative Pictures\Photograph Log

Attachment 4 – Asbestos Laboratory Report and Chain of Custody

Attachment 5 – Laboratory Certificates

Attachment 6 – Diagram: Bulk Sample Approximated Location

Attachment 7 – Certification Non-Presence of Asbestos (PGC-009)



## **Acronyms**

A/C	=	Air Conditioning
ACM	=	Asbestos-containing Material
ACBM	=	Asbestos-containing Building Material
AHERA	=	Asbestos Hazard Emergency Response Act
ASHARA	=	Asbestos School Hazard Abatement and Reauthorization Act
CFR	=	Code of Federal Regulations
CPSC	=	Consumer Product Safety Commission
EPA	=	Environmental Protection Agency
Ft2	=	square feet
HA	=	Homogeneous Area
HUD	=	Department of Housing and Urban Development
LF	=	Linear Feet
NESHAP'S	=	National Emission Standards for Hazardous Air Pollutants
NIOSH	=	National Institute for Occupational Safety and Health
OSHA	=	Occupational Safety and Health Administration
PLM	=	Polarized Light Microscopy
PRDOH	=	Puerto Rico Department of Housing
PRDNER	=	Puerto Rico Department of Natural and Environmental Resources
SACM	=	Suspect ACM
SOW	=	Scope of Work
TEM	=	Transmission Electron Microscopy
TSI	=	Thermal System Insulation
VFT	=	Vinyl floor tiles





## **I. INTRODUCTION**

As part of the environmental due diligence, this survey is intended to assess the general presence, quantity, and location of suspected asbestos-containing materials (SACM) at the *Early Headstart & Mi Escuela Amiga Building* property located at Casa De la Juventud, Calle Méndez Vigo, Dorado, P.R.

The SACM survey was conducted on April 26, 2023, by Mr. Emanuel Ortíz (ACM inspector num. ASB-0123-0061-SI) from Nortol. Inspector's credential is included in **Attachment 1**. Nortol's survey areas and report are limited to the details provided in Section II part D.

Nortol identified SACM and bulk samples were collected and submitted for laboratory analysis. The bulk sample's results were reported by the laboratory as "None Detected" or <1%. Table of asbestos summary findings is included as **Attachment 2**.

There is concrete, metal, drywall, and wood structural components. The floors have terrazzo/ceramic tiles, rubber, painted or are bare concrete. Also, ceramic tiles are present on some walls.

## **II. ASBESTOS SURVEY REPORT**

### **A. Survey Protocol:**

This activity was conducted following the latest protocol for assessing materials suspected of containing asbestos as defined by the U.S. Environmental Protection Agency (EPA). It involved a visual walk-through inspection of the accessible areas of the building to develop an inventory of suspect ACM homogeneous materials. During the sampling activities, suspected ACM was touched and observed by the inspector to determine its friability and physical condition. A friable material is defined as a material that when dry, can be crumbled, or reduced to powder by hand pressure. The friability of a material causally relates to the potential of the asbestos fibers to be released. The inspector assessed the suspect ACM according to their physical condition and potential damage.

### **B. Sampling Procedure:**

The technique used for sampling the suspected accessible materials was designed to minimize possible fiber release and in turn possible contamination of surrounding areas. Representative suspected material samples were collected in accordance with the EPA's AHERA/ASHARA guidelines and procedures presented in the *Guide for Controlling Asbestos Containing Materials in Building* (EPA 560-6-85-024, June 1985) and characterized following the *National Emission*



*Standard for Hazardous Air Pollution (NESHAP)*, subpart M-Asbestos, 40 CFR Part 61-Standard for Demolition and Renovation. Samples of the homogeneous accessible materials were collected in quantities enough to determine asbestos content, and then placed in airtight bags. The bagged samples were properly collected, labeled, and identified. A Chain of Custody form was completed for collected bulk samples which were analyzed by an independent laboratory using PLM method. The laboratory utilizes dispersion staining techniques according to US EPA method 600/M4-82-020 incorporating visual estimates of identified material percentages.

### **C. Regulatory Review:**

According to NESHAP's standards (40 CFR 61.141), Asbestos Containing Building Materials are classified into three categories: Category I - Nonfriable asbestos-containing material (ACM), Category II – other Nonfriable ACM, and Regulated asbestos-containing material (RACM). ACMs are classified into three categories according to EPA-AHERA/ASHARA's standards (40 CFR Part 763): Surfacing material, Thermal System Insulation (TSI) and Miscellaneous material.

Once the inspector has identified the ACM in a building, he or she must perform a physical assessment of TSI and friable material. Under § 763.88 of the AHERA Rule, the physical assessment of ACBM involve classifying the material into one of the following seven Categories: Damaged or significantly damaged TSI ACM; Damaged friable surfacing ACM; Significantly damaged friable surfacing ACM; Damaged or significantly damaged friable miscellaneous ACM; ACBM with potential for damage; ACBM with potential for significant damage; and Any remaining friable ACBM or friable suspected ACBM.

The PRDNER- former Environmental Quality Board (Regulation for the Control of Atmospheric Pollution-Rule 422) enacted in 1995, required all commercial and public building, including industries to identify asbestos containing building materials in their structures and take appropriate actions to control the release of asbestos fiber. Asbestos inspection is part of the permitting application process for any future project in the buildings which may include renovation or demolition activities regulated by the PR State/Municipal Offices. To obtain demolition permits in Puerto Rico is necessary to include a certification (OGP-PGC-009 or equivalent) stating that there is not asbestos containing material in the project.

### **D. Survey Areas – Extent of Survey Coverage:**

The survey included a detailed structure inspection providing a general sense of the overall location, type, quantity, and condition of potential ACMs present. The survey was thorough in the interior or exterior accessible functional spaces, and bulk samples were taken of suspect materials observed. The presence of asbestos in suspect materials was assumed or presumed in some cases without bulk samples being collected or analyzed (when applicable). This was





necessary for locations where materials were inaccessible or areas that were unsafe to access (e.g., elevated heights, energized equipment, confined spaces, etc.). For those areas that were not safely accessible, suspect materials observed or presumed to be present were documented and assumed as ACMs. The survey did not include intrusive and/or exploratory testing.

**Areas Not Included in Survey and Service Constraints:** All professional opinions presented in this report are based on information made available either by review of data provided by others or data gathered by Nortol personnel. Nortol affirms that data gathered and presented by Nortol in this report was collected in an appropriate manner in accordance with accepted methods and practices. Any energized utilities/services, including electricity, water and heat were assumed to be active. Materials associated with these items were determined to not be safely accessible and were not sampled. Suspect ACMs associated with these items should be assumed ACM until the systems can be de-energized and safely sampled. The survey did not include access or inspection of confined spaces or subsurface/underground areas including piping, conduits, building footings and soils (surficial or otherwise).

#### **E. Findings**

Nortol identified a total of 4 HA, of which 12 suspect ACM bulk samples were collected and submitted for laboratory analysis. The bulk samples collected as part of this survey were reported by the laboratory as "None Detected" or <1%. The client always has the alternative to request alternative analysis methods (i.e., TEM or Point counting) to get a more precise result. Furthermore, no additional suspect material was observed during the visual assessment that needed to be assumed as ACM. Table of asbestos summary findings is included as **Attachment 2**.

**Attachment 3** includes Representative Pictures\Photograph Log, while the laboratory results, and field chain of custody are included as **Attachment 4**. Laboratory Certificates are included in **Attachment 5**. A basic diagram with the approximated sampling locations is included as **Attachment 6**. Certification of Non-Presence of Asbestos (PGC-009) is included as **Attachment 7**.



### III. CONCLUSION

The ACM survey was conducted for the project identified with the header ID. Nortol identified SACMs and bulk samples were collected and submitted for laboratory analysis. Findings are described in Section II part E. Table of asbestos summary is also included as **Attachment 2**.

Any conditions or materials that could not be visually identified or were out-of-the SOW, were not inspected and may differ from those conditions or materials noted. It was not within the scope of the activity to remove surface materials to investigate portions of the structure or materials that may lay beneath the surface. Nortol's selection of sample locations and frequency of sampling was based on Nortol's observations and the assumption that similar materials in the same area are homogeneous in content.

The report is designed to aid the building owner, architect, construction manager, general contractors, and potential asbestos or lead abatement contractors in locating ACM. Under no circumstances is the report to be utilized solely as a bidding document or as a project specification document.





**Attachment 1**  
**Inspector's Credential**



# EMANUEL ORTIZ

## Puerto Rico

### Asbestos Inspector



**ASB-0123-0061-SI**

Número de Registro

**19-ene-2024**

Fecha de vencimiento

TARJETA DE REGISTRO  
PARA LA REMOCION DE ASBESTO

Esta tarjeta autoriza a:

***Emanuel Ortiz Vega***

**Inspector**

A trabajar en la remoción de asbesto en  
Puerto Rico. Esta persona **NO** es un  
empleado del DRNA.



Firma Autorizada - Departamento  
Recursos Naturales y Ambientales



**Attachment 2**  
**Table Asbestos Summary Findings**



## Table Asbestos Summary Findings

Bulk Sample Results for Asbestos  
Project: **EARLY HEADSTART & ESCUELA AMIGA BUILDING**  
Address: Casa de la Juventud, Calle Méndez Vigo, Dorado PR 00646

Project ID	Municipality	NA No.	Material Type	Material Primary Color	Material Texture	Asbestos Results	Floor Designation	Material Location	Location	Condition	Quantity *	Units	Sample ID	Sample Location	Sample Content	Asbestos Type	Plebe	Sample Date	Consultant	Method	Lab
Early Headstart & Escuela Amiga Building	Dorado	1	Roof Membrane	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good	3,600	SF	EHSEAD-HA1-EO-01	Roof/Top	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	1	Roof Membrane	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good		SF	EHSEAD-HA1-EO-02	Roof/Top	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	1	Roof Membrane	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good		SF	EHSEAD-HA1-EO-03	Roof/Top	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	2	Roof Flashing	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good	1,450	SF	EHSEAD-HA2-EO-04	Roof/Top	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	2	Roof Flashing	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good		SF	EHSEAD-HA2-EO-05	Roof/Top	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	2	Roof Flashing	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good		SF	EHSEAD-HA2-EO-06	Roof/Top	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	3	Insulation	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good	150	SF	EHSEAD-HA3-EO-07	Roof A/C DUCT	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	3	Insulation	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good		SF	EHSEAD-HA3-EO-08	Roof A/C DUCT	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	3	Insulation	Gray	Rough	NAD (Non-Asbestos Detected)	First Floor	Roof	Roof	Good		SF	EHSEAD-HA3-EO-09	Roof A/C DUCT	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	No	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
Early Headstart & Escuela Amiga Building	Dorado	4	Ceiling Stucco	White	Smooth	NAD (Non-Asbestos Detected)	First Floor & Second Floor	Ceiling	Ceiling	Good											
Early Headstart & Escuela Amiga Building	Dorado	4	Ceiling Stucco	White	Smooth	NAD (Non-Asbestos Detected)	First Floor & Second Floor	Ceiling	Ceiling	Good											



## Table Asbestos Summary Findings

Bulk Sample Results for Asbestos  
Project: **EARLY HEADSTART & ESCUELA AMIGA BUILDING**  
Address: Casa de la Juventud, Calle Méndez Vigo, Dorado PR 00646

Project ID	Municipality	HA No.	Material Type	Material Primary Color	Material Texture	Asbestos Results	Floor Designation	Material Location	Location	Condition	Quantity *	Units	Sample ID	Sample Location	Sample Content	Asbestos Type	Preble	Sample Date	Consultant	Method	Lab
Early Headstart & Escuela Amiga Building	Dorado	4	Ceiling Stucco	White	Smooth	NAD (Non-Asbestos Detected)	First Floor & Second Floor	INTERIOR BUILDING 1, ROOM 1, (ROOM 1), ROOM 2, (ROOM 2), ROOM 3, (ROOM 3), ROOM 4, (ROOM 4), ROOM 5, (ROOM 5), STAIRS 4)	Ceiling	Good	2,750	SF	EHSEAD-HM4-EQ-11	First floor room 1 (room 1)	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	Yes	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
								AREA (ROOM 4), BATHROOM 1 (ROOM 6) & BATHROOM 2 (ROOM 7)													
Early Headstart & Escuela Amiga Building	Dorado	4	Ceiling Stucco	White	Smooth	NAD (Non-Asbestos Detected)	First Floor & Second Floor	INTERIOR BUILDING 1, ROOM 1, (ROOM 1), ROOM 2, (ROOM 2), ROOM 3, (ROOM 3), ROOM 4, (ROOM 4), ROOM 5, (ROOM 5), STAIRS 4)	Ceiling	Good		SF	EHSEAD-HM4-EQ-12	Second floor room 4 (room 5)	NAD (Non-Asbestos Detected)	NAD (Non-Asbestos Detected)	Yes	4/26/23	NORTOL	PLM	Eurofins EPK Built Environment Testing
								AREA (ROOM 4), BATHROOM 1 (ROOM 6) & BATHROOM 2 (ROOM 7)													

\* abatement contractors are responsible to confirm this estimate on site.

**Attachment 3**  
**Representative Pictures\Photograph Log**





Emanuel Ortiz

Nortol. Environmental & Occupational Safety, Inc.

## **EARLY HEADSTART & ESCUELA AMIGA BUILDING -ACM SURVEY PHOTO LOG**

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**1985**

**Wednesday, April 26, 2023**

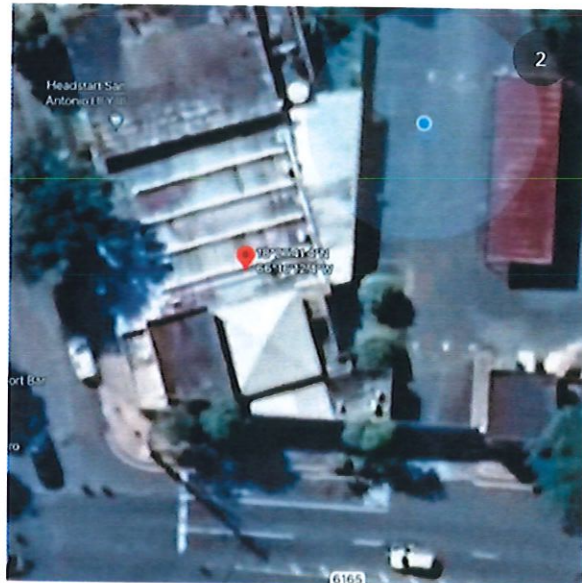
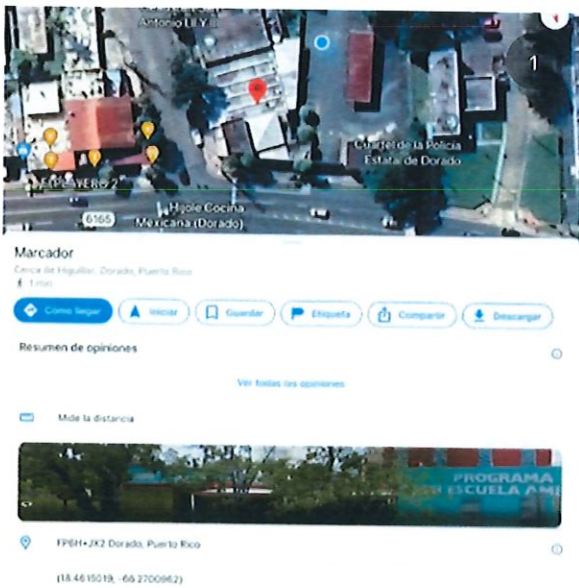
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**Casa de la Juventud, calle Méndez Vigo Dorado, Puerto Rico 00646**



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**COORDINATES:**  
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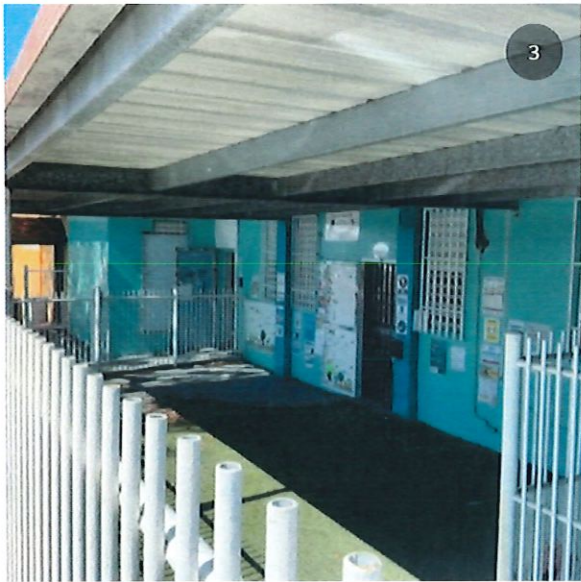
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**EXTERIOR GENERAL VIEWS:**



EXTERIOR GENERAL VIEWS:

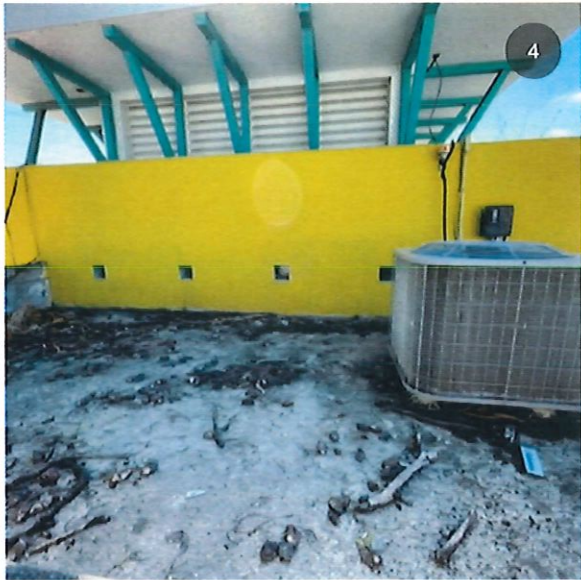




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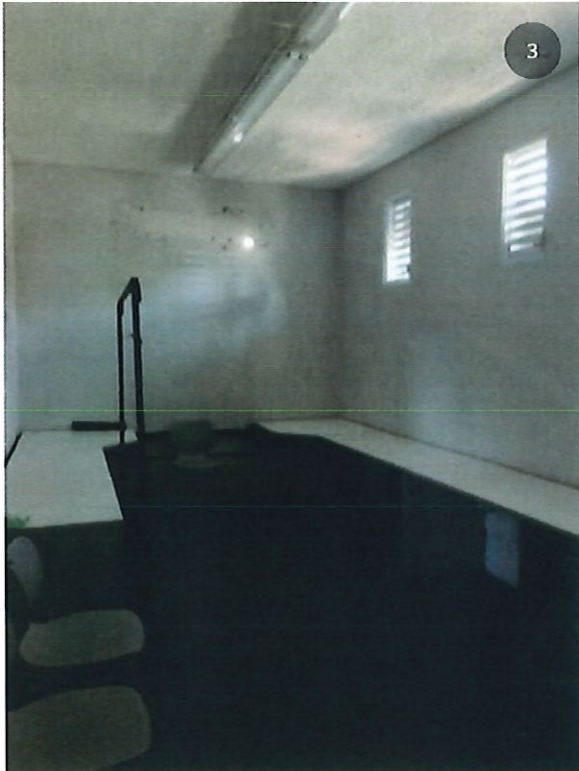


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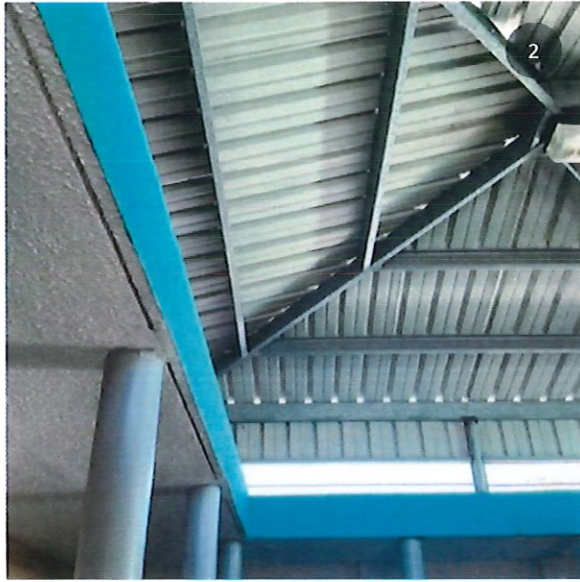
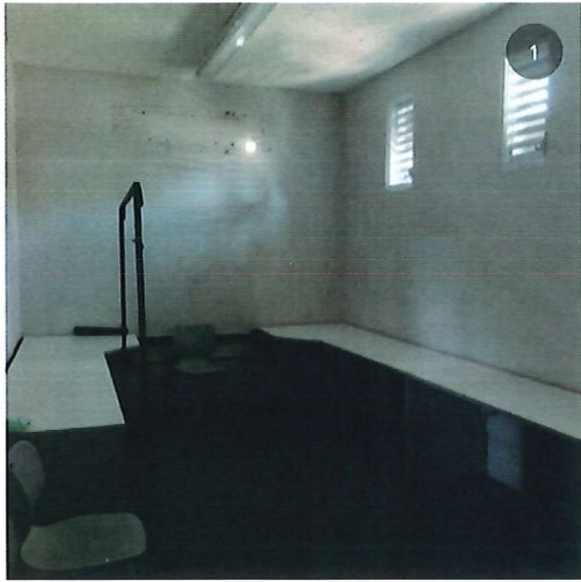




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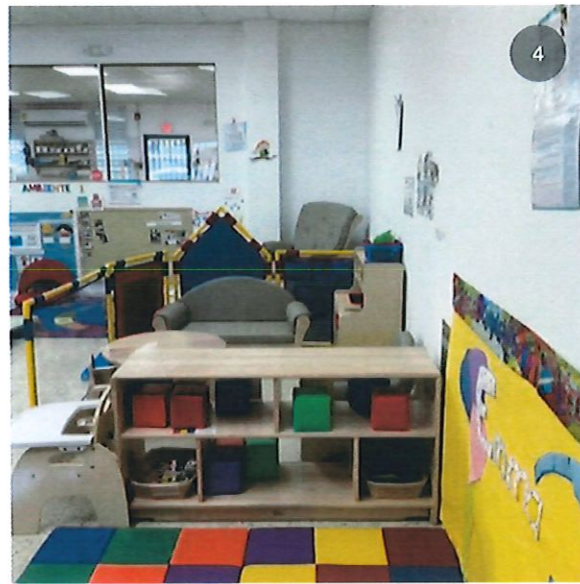
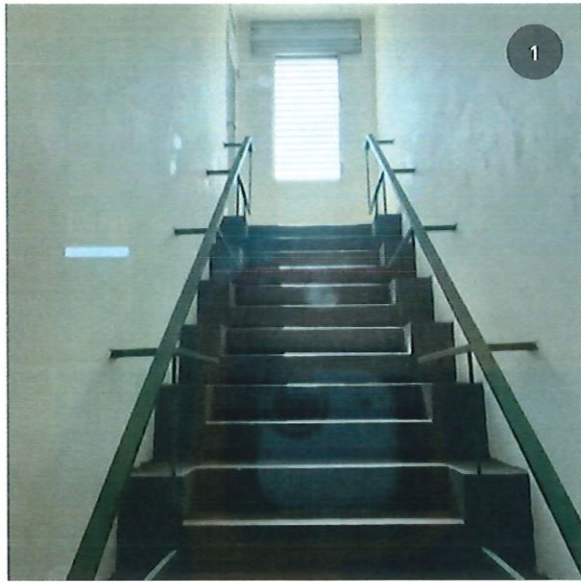


## INTERIOR GENERAL VIEWS:

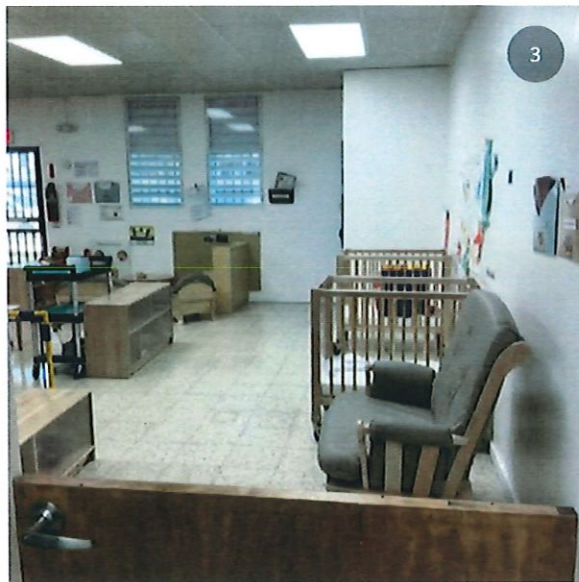
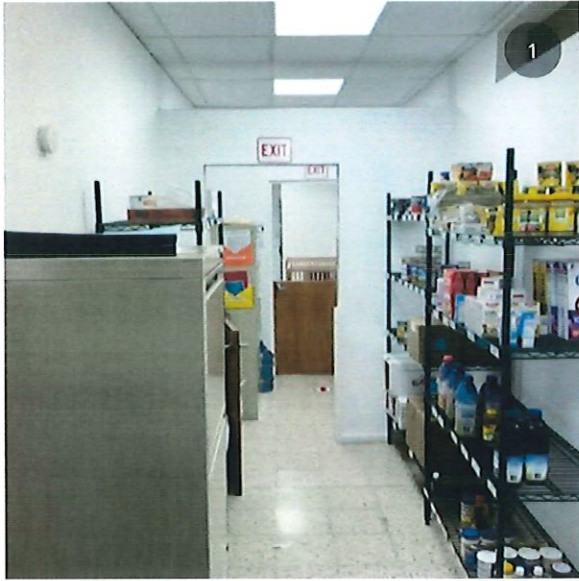




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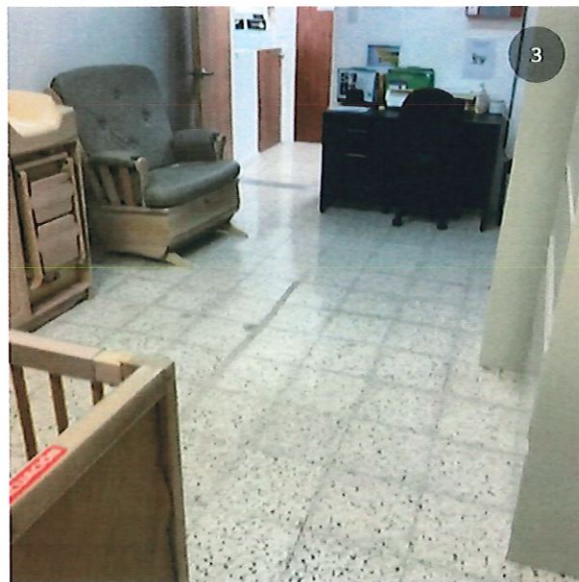
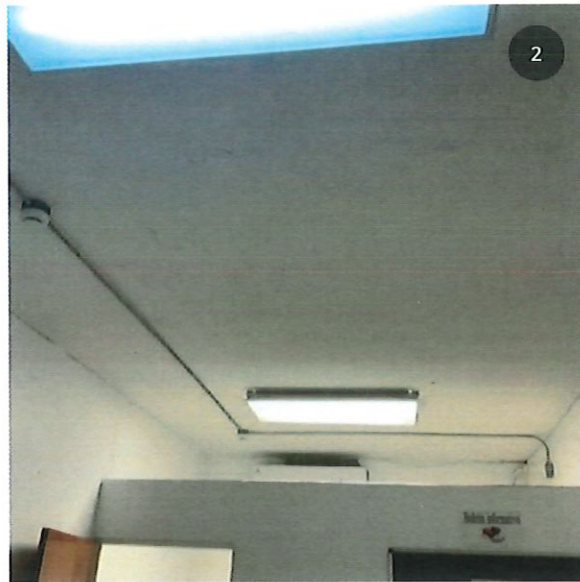


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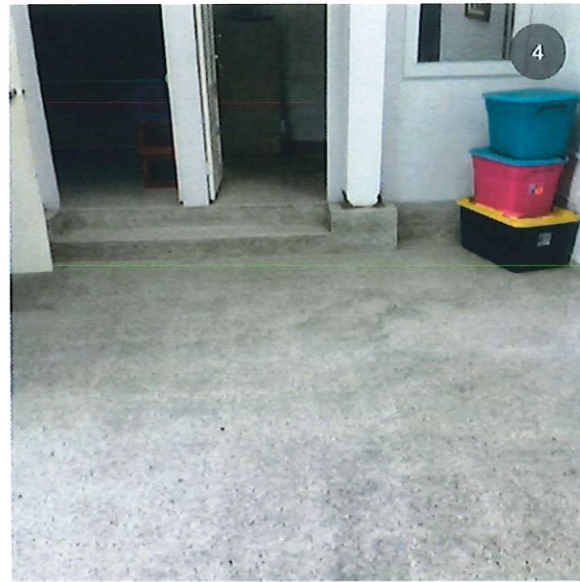
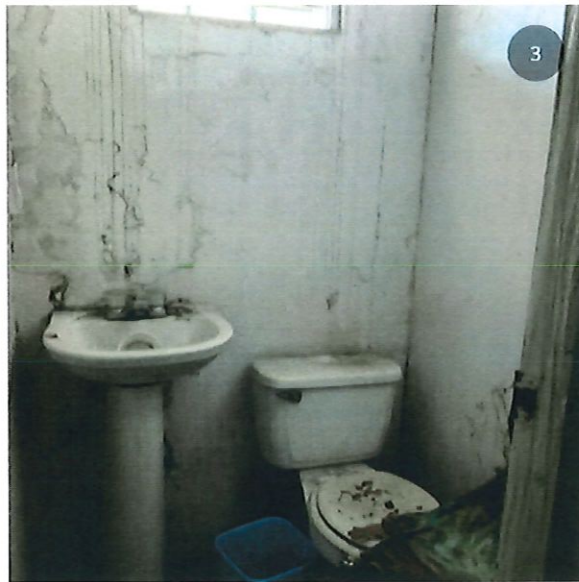




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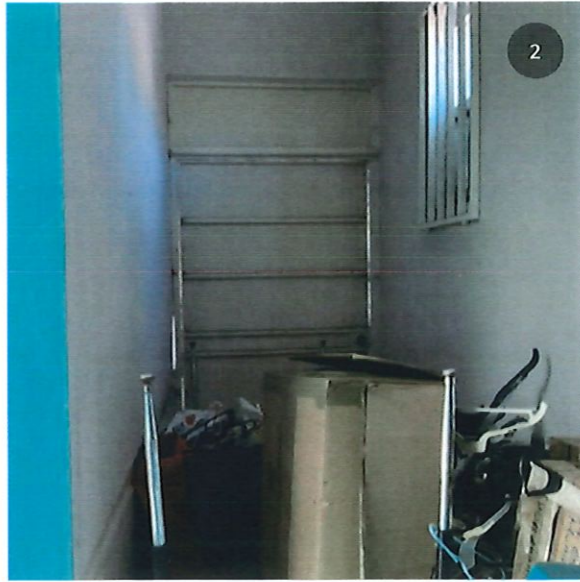
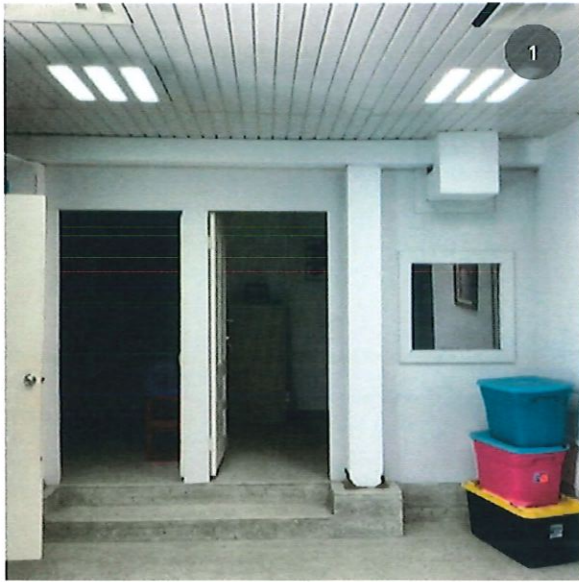


## INTERIOR GENERAL VIEWS:





## INTERIOR GENERAL VIEWS:



INTERIOR GENERAL VIEWS:

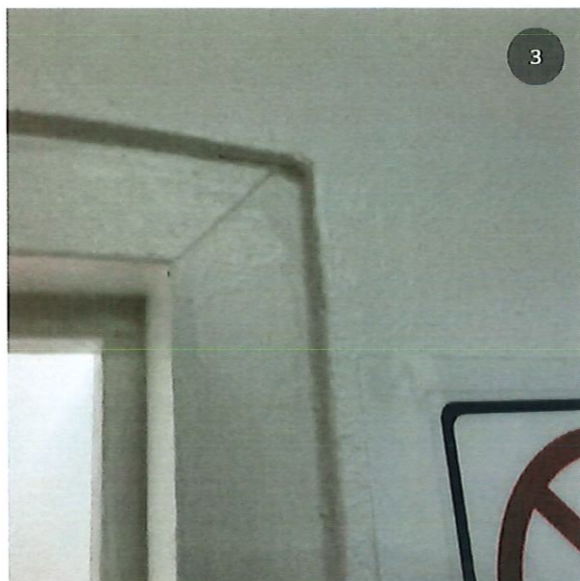




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## WINDOW/DOOR CAULKING:

SACM caulking was not found visible at the moment of the inspection.



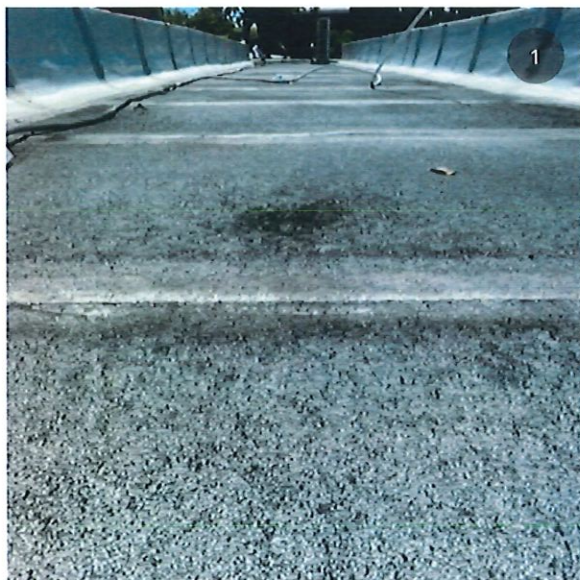
---

## SACM VISIBLE? ROOF TOP

3 samples were taken from gray roof membrane (qty. 3,600 SF Approx.)

Condition: acceptable

EHSEAD-HA1-EO-#01, #02 & #03 **Asbestos was not detected**





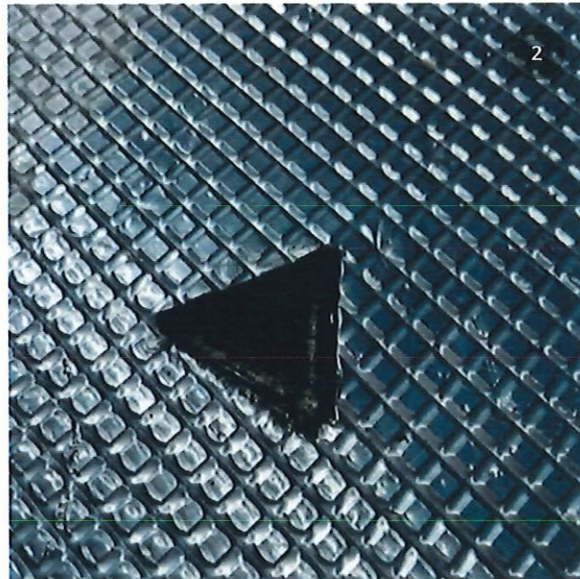
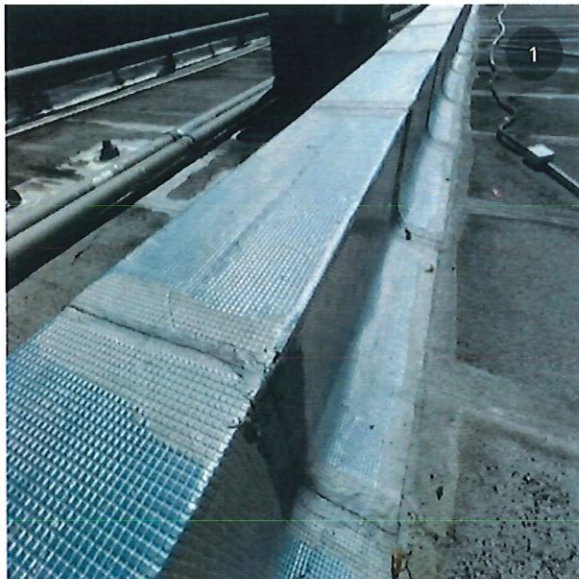
---

## SACM VISIBLE? ROOF TOP

3 samples were taken from gray roof flashing (qty. 1,450 SF Approx.)

Condition: acceptable

EHSEAD-HA2-EO-#04, #05 & #06 **Asbestos was not detected**



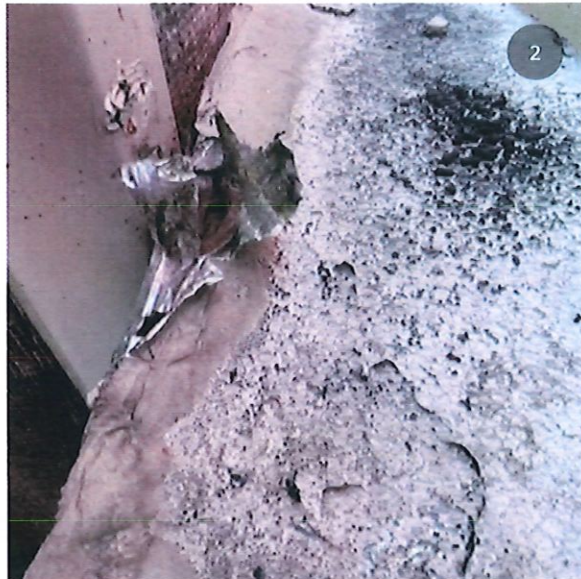
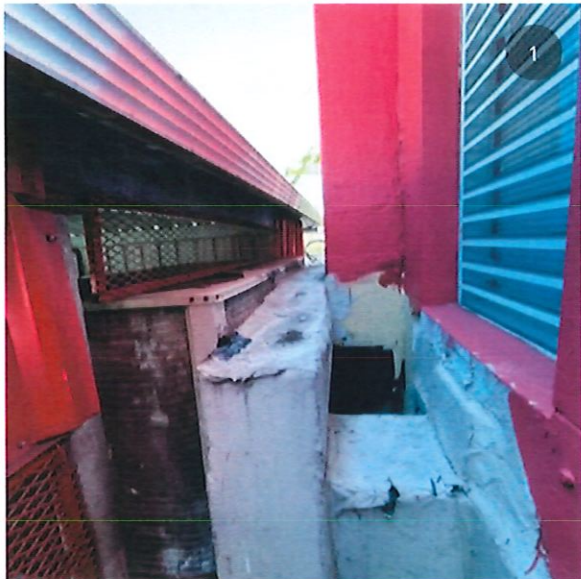
---

## SACM VISIBLE? ROOF TOP A/C DUCT

3 samples were taken from gray insulation material with mastic  
(qty. 150 SF Approx.)

Condition: acceptable

EHSEAD-HA3-EO-#07, #08 & #09 **Asbestos was not detected**





---

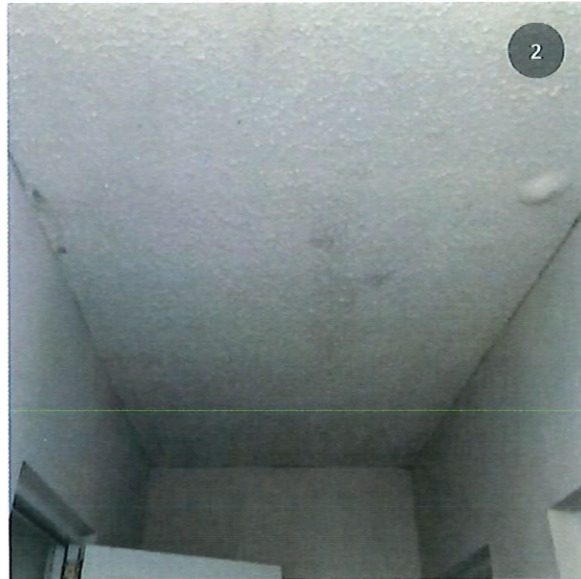
**SACM VISIBLE? INTERIOR BUILDING 1, ROOM 1 (ROOM 1), ROOM 2 (ROOM 2), ROOM 3 (ROOM 3), ROOM 4 (ROOM 5), STAIRS AREA (ROOM 4) BATHROOM 1 (ROOM 6) BATHROOM 2 (ROOM 7)**

3 samples were taken from white ceiling stucco

(qty. 2,750 SF Approx.)

Condition: acceptable

EHSEAD-HA4-EO-#10, #11 & #12 **Asbestos was not detected**



**Attachment 4**  
**Asbestos Laboratory Report and Chain of Custody**





Built Environment Testing

Report for:

**Norma Torres**  
**Nortol Env & Occupational Safety Inc**  
PO BOX 366457  
San Juan, PR 00936-6457

---

Regarding: Eurofins EPK Built Environment Testing, LLC  
Project: Early Headstart Escuela Amiga; Bldg  
EML ID: 3242059

Approved by:

Approved Signatory  
Balu Krishnan

Dates of Analysis:  
Asbestos PLM: 04-27-2023

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)  
NVLAP Lab Code 200738-0

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins EPK Built Environment Testing, LLC ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Nortol Env & Occupational Safety Inc  
C/O: Norma Torres  
Re: Early Headstart Escuela Amiga; Bldg

Date of Sampling: 04-26-2023  
Date of Receipt: 04-27-2023  
Date of Report: 04-27-2023

## ASBESTOS PLM REPORT

**Total Samples Submitted:** 12  
**Total Samples Analyzed:** 12  
**Total Samples with Layer Asbestos Content > 1%:** 0

### Location: EHSEAD-HA1-E0-01, Roof Membrane

Lab ID-Version†: 15714134-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Pebbles	ND
Black Tar	ND
<b>Composite Non-Asbestos Content:</b>	5% Nylon 3% Glass Fibers
<b>Sample Composite Homogeneity:</b>	Moderate

### Location: HAI-E0-02, Roof Membrane

Lab ID-Version†: 15714135-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Pebbles	ND
Black Tar	ND
<b>Composite Non-Asbestos Content:</b>	5% Nylon 3% Glass Fibers
<b>Sample Composite Homogeneity:</b>	Moderate

### Location: HAI-E0-03, Roof Membrane

Lab ID-Version†: 15714136-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Pebbles	ND
Black Tar	ND
<b>Composite Non-Asbestos Content:</b>	5% Nylon 3% Glass Fibers
<b>Sample Composite Homogeneity:</b>	Moderate

### Location: HA2-E0-04, Roof Flashing

Lab ID-Version†: 15714137-1

Sample Layers	Asbestos Content
Black Roof Flashing with Silver Foil	ND
<b>Composite Non-Asbestos Content:</b>	3% Glass Fibers
<b>Sample Composite Homogeneity:</b>	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

† A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



Client: Nortol Env & Occupational Safety Inc  
C/O: Norma Torres  
Re: Early Headstart Escuela Amiga; Bldg

Date of Sampling: 04-26-2023  
Date of Receipt: 04-27-2023  
Date of Report: 04-27-2023

## ASBESTOS PLM REPORT

**Location: HA2-E0-05, Roof Flashing**

Lab ID-Version‡: 15714138-1

Sample Layers	Asbestos Content
Black Roof Flashing with Silver Foil	ND
<b>Composite Non-Asbestos Content:</b>	3% Glass Fibers
<b>Sample Composite Homogeneity:</b>	Moderate

**Location: HA2-E0-06, Roof Flashing**

Lab ID-Version‡: 15714139-1

Sample Layers	Asbestos Content
Black Roof Flashing with Silver Foil	ND
<b>Composite Non-Asbestos Content:</b>	3% Glass Fibers
<b>Sample Composite Homogeneity:</b>	Moderate

**Location: HA3-E0-07, Insulation Material**

Lab ID-Version‡: 15714140-1

Sample Layers	Asbestos Content
White Mastic	ND
Silver Wrap	ND
Brown Insulation	ND
<b>Composite Non-Asbestos Content:</b>	45% Mineral Wool 5% Cellulose
<b>Sample Composite Homogeneity:</b>	Moderate

**Location: HA3-E0-08, Insulation Material**

Lab ID-Version‡: 15714141-1

Sample Layers	Asbestos Content
White Mastic	ND
Silver Wrap	ND
Brown Insulation	ND
<b>Composite Non-Asbestos Content:</b>	45% Mineral Wool 5% Cellulose
<b>Sample Composite Homogeneity:</b>	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Nortol Env & Occupational Safety Inc  
C/O: Norma Torres  
Re: Early Headstart Escuela Amiga; Bldg

Date of Sampling: 04-26-2023  
Date of Receipt: 04-27-2023  
Date of Report: 04-27-2023

## ASBESTOS PLM REPORT

**Location: HA3-E0-09, Insulation Material**

Lab ID-Version†: 15714142-1

Sample Layers	Asbestos Content
White Mastic	ND
Silver Wrap	ND
Brown Insulation	ND
<b>Composite Non-Asbestos Content:</b>	45% Mineral Wool 5% Cellulose
<b>Sample Composite Homogeneity:</b>	Moderate

**Location: HA4-E0-10, Ceiling Stucco**

Lab ID-Version†: 15714143-1

Sample Layers	Asbestos Content
White Popcorn Ceiling Texture with Paint	ND
<b>Sample Composite Homogeneity:</b>	Good

**Location: HA4-E0-11, Ceiling Stucco**

Lab ID-Version†: 15714144-1

Sample Layers	Asbestos Content
White Popcorn Ceiling Texture with Paint	ND
<b>Sample Composite Homogeneity:</b>	Good

**Location: HA4-E0-12, Ceiling Stucco**

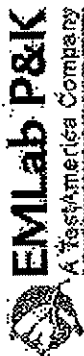
Lab ID-Version†: 15714145-1

Sample Layers	Asbestos Content
White Popcorn Ceiling Texture with Paint	ND
<b>Sample Composite Homogeneity:</b>	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

† A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



**EMLab P&K**  
A Research Company

New Jersey | Local Drug Enforcement, Suite A, Marlton, NJ 08053 • (866) 871-1984

2006-07-27 15:00:00 2006-07-27 15:00:00 2006-07-27 15:00:00

[illegible]

Layer	Weather	Fog	Rain	Snow	Wind	Clear
	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Heavy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**REQUEST**  
Use check

Use check 003242059

Non-Culturable		Cult.		Other Requests	
Spore Trap	Spore Trap Bulk	BioCassette™, Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates			
Fungi - Spore Trap Analysis					
Spore Trap Analysis - What particles					
Direct Microscopic Exam (Qualitative)					
Quantitative Spore Count Direct Exam					
		1. Media Surface Fungi (Genus ID + Asp. spp.)			
		2. Media Surface Fungi (Genus ID + Asp. spp.)			
		3. Media Surface Fungi (Genus ID + Asp. spp.)			
		Culturable Air Fungi (Genus ID + Asp. spp.)			
		Gram Stain & Counts (Culturable Air & Surface Bacteria)			
		Legionella culture			
		Total Coliform, E. coli (Presumptive/Confirm)			
		Membrane Filtered (specify organism);			
		MPN Bacteria (specify organism);			
		Quantify - Sewage Screen			
		Asbestos Analysis - PCM Asbestos Fiber Count (NIOSH 7400)			
		Asbestos Analysis - PLM (EPA method 8007-93-116)			
		PCR (specify test)			

### CONTACT INFORMATION

Company:	Nortel Env. & Occup. Sfty, Inc.	Address: PO Box 366457, San Juan, PR 00936-6457
Contact:	Norma Torres	Special Instructions:
Phone:	787-420-0220	

## PROJECT INFORMATION

Project ID:	Early Headstart Escuela Amiga			STD - Standard (DEFAULT)	<p>Rushes received after 2 pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.</p>
Project Description:	BLDG			ND - Next Business Day	
Project Zip Code:	Dorado, PR			<input checked="" type="radio"/> Same Business Day Rush <input type="radio"/>	
PO Number:				WH - Weekend / Holiday	
		Sampling Date & Time:	APR 21 2013 11:00pm		
		Sampled By:	E. Ortiz		

## TURN AROUND TIME CODES (TAT)

**Rushes received after 2 PM or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.**

<b>STD - Standard (Default)</b>	
<b>ND - Next Business Day</b>	
<b>S<del>B</del> - Same Business Day Rush</b>	
<b>WH - Weekend / Holiday</b>	

Sample ID	Description	Sample Type (Below)	TAT (above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)
ENSEAD-HA1-E0-01	ROOF Membrane	B	SD	N/A	ROOF
HA1-E0-02	ROOF Membrane	B	SD		
HA1-E0-03	ROOF Membrane	B	SD		
HA2-E0-04	ROOF Flashing	B	SD		
HA2-E0-05	ROOF Flashing	B	SD		
HA2-E0-06	ROOF Flashing	B	SD		ROOF
HA3-E0-07	Insulation Material	B	SD		ROOF A/C Duct
HA3-E0-08	Insulation Material	B	SD		
HA3-E0-09	Insulation Material	B	SD		ROOF A/C Duct
HA4-E0-10	Painting Surface	B	SD		BEDS 1 - Room 1
HA4-E0-11	Ceiling Surface	B	SD		- Room 1
HA4-E0-12	Ceiling Surface	B	SD	N/A	- Room 1

SAMPLE TYPE CODES		RELINQUISHED BY		DATE & TIME	RECEIVED BY	DATE & TIME
		W		W		
EC - Bio-Cassette™	ST - Spore Trap; Zefon,	T - Tape	D - Dust			
AFS - Anderson	Allington, Burkard, ...	SW - Swab	SD - Soil			
SAS - Surface Air Sampler	P - Potable Water	<input checked="" type="checkbox"/> B - Bulk		E. Ortiz	APP/26/23	KL
CP - Contact Plate	NP - Non-Potable Water	Q - Other:			5:00pm	

By affirming its Chain of Custody, your garage is bound by the terms and conditions set forth at <http://www.aaep.com/go/consignment/serwisgarage.html>.

Copyright © 2015 ENLAB P2K

**Attachment 5**  
**Laboratory Certificates**





United States Department of Commerce  
National Institute of Standards and Technology



# Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200738-0

**Eurofins EMLab P&K**  
Fort Lauderdale, FL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:

## Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2023-01-01 through 2023-12-31

Effective Dates



A handwritten signature in blue ink, reading "Peter S. Saman", is written over a horizontal line.

For the National Voluntary Laboratory Accreditation Program

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**


**Eurofins EMLab P&K**  
6301 NW 5th Way, Suite 1410  
Fort Lauderdale, FL 33309  
Mrs. Tracy Garcia  
Phone: 770-368-2171  
Email: [tracy.garcia@et.eurofinsus.com](mailto:tracy.garcia@et.eurofinsus.com)  
<http://www.emlab.com>

**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 200738-0**

**Bulk Asbestos Analysis**

<u><b>Code</b></u>	<u><b>Description</b></u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

  
\_\_\_\_\_  
For the National Voluntary Laboratory Accreditation Program

**Attachment 6**  
**Diagram**  
**Bulk Sample's Approximated Location**



# EARLY HEADSTART & ESCUELA AMIGA BUILDING

## INTERIOR SACM DIAGRAM

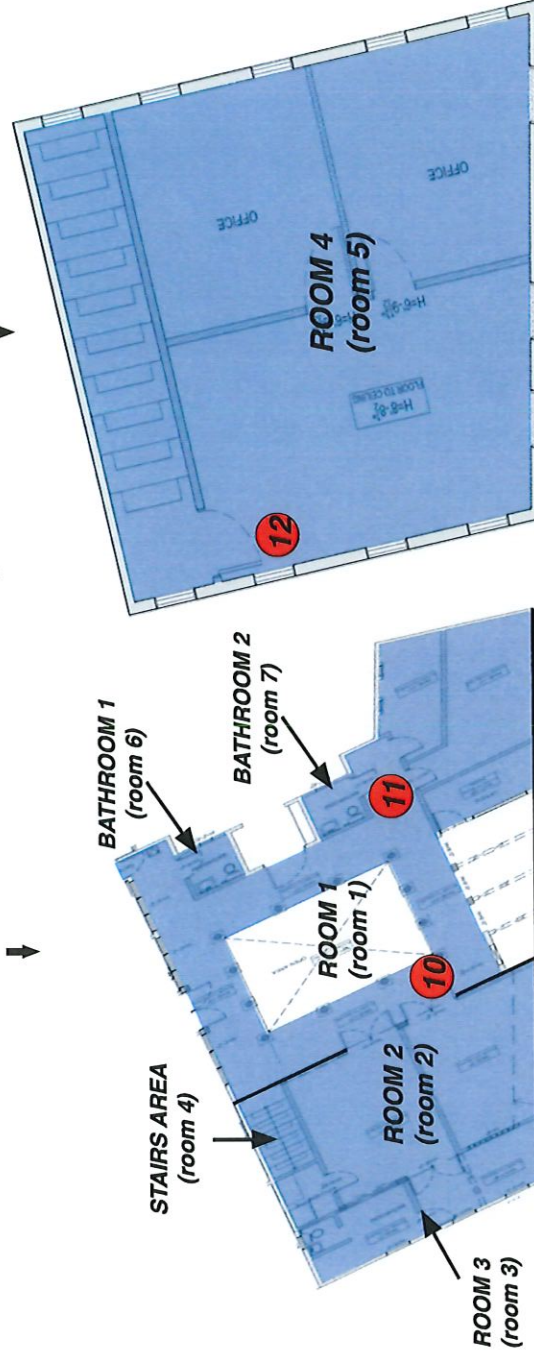
Asbestos was not detected

→ HOMOGENEOUS AREA 4 WHITE CEILING STUCCO  
(2,750 SF APPROX.)

→ AREA WHERE SAMPLES WERE TAKEN

FIRST FLOOR

SECOND FLOOR







Casa de la Juventud, calle Méndez Vigo  
Dorado, Puerto Rico. 00646

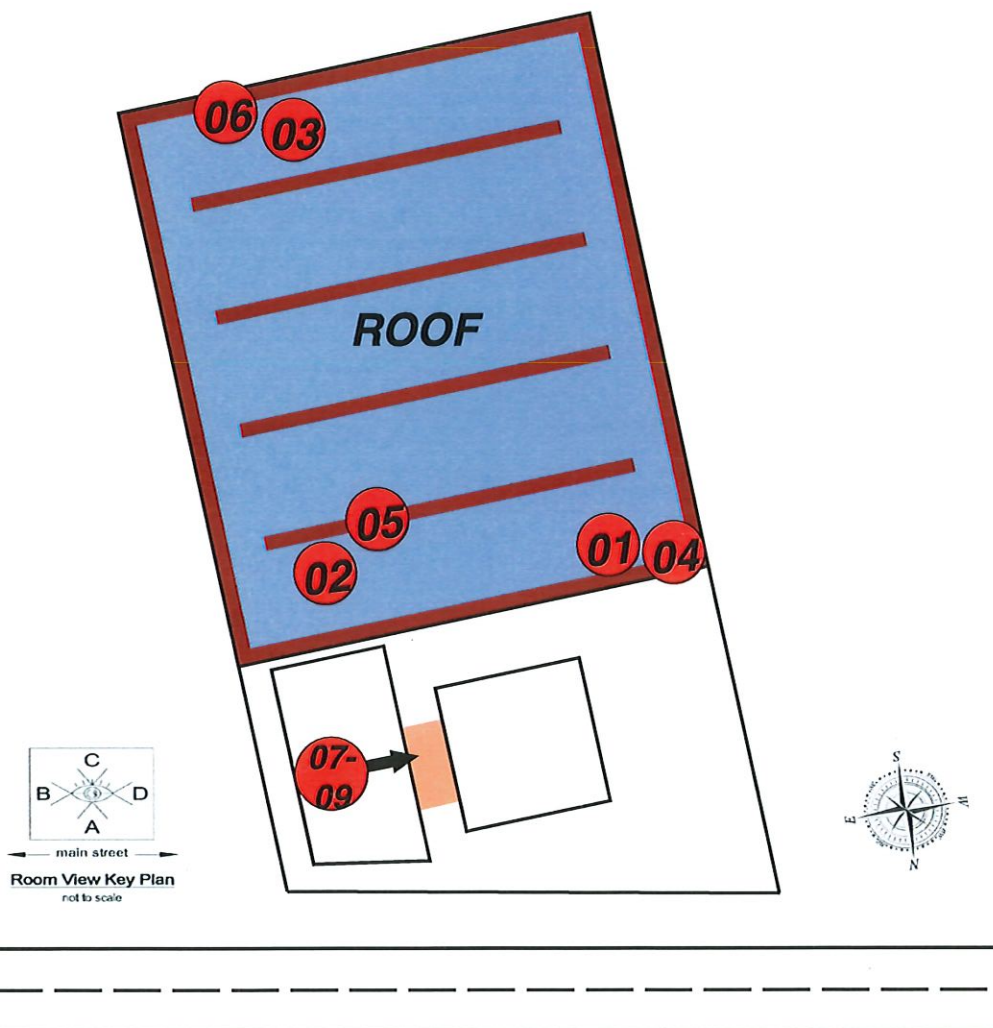


# EARLY HEADSTART & ESCUELA AMIGA BUILDING

## ROOF SACM DIAGRAM

**Asbestos was not detected**

-  ➔ **HOMOGENEOUS AREA 1 GRAY ROOF MEMBRANE**  
(3,600 SF APPROX.)
-  ➔ **HOMOGENEOUS AREA 2 GRAY ROOF FLASHING**  
(1,450 SF APPROX.)
-  ➔ **HOMOGENEOUS AREA 3 GRAY INSULATION MATERIAL WITH MASTIC**  
(150 SF APPROX.)
-  ➔ **AREA WHERE SAMPLES WERE TAKEN**



**Casa de la Juventud, calle Méndez Vigo  
Dorado, Puerto Rico. 00646**

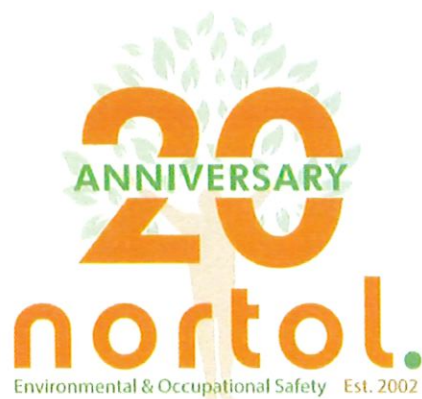
**Attachment 7**  
**Certification Non-Presence of Asbestos (PGC-009)**





**CERTIFICACION DE NO PRESENCIA DE ASBESTO  
EN ESTRUCTURAS A DEMOLERSE**  
(Deberá completarse en letra de molde o impresa)

**SUBMITTED AS SEPARATE  
DOCUMENT**



[www.nortolpr.com](http://www.nortolpr.com) | [info@nortolpr.com](mailto:info@nortolpr.com) | 787.420.0220  
PO Box 366457, San Juan, PR 00936-6457



**Attachment 17: Escuela Amiga LBP Test Results**



**CERTIFICACION DE NO PRESENCIA DE PINTURA CON BASE DE PLOMO  
EN ESTRUCTURAS A DEMOLERSE**

(Deberá completarse en letra de molde o impresa)

PGC-\_\_\_\_\_  
PARA USO OFICIAL

Yo, Emanuel Ortiz Vega, mayor de edad, casado, y vecino de Guaynabo, Puerto Rico  
(Inspector o Evaluador de Riesgos) (Estado Civil) (Municipio)

Dirección Postal: P.O. Box 366457, San Juan PR 00936-6457  
(Pueblo) (Zip Code)

Teléfonos: Residencial (939) 273-9898 Oficina (787) 420-0220  
Fax (787) N/A

**Certifico que:**

1. Estoy certificado por la Junta de Calidad Ambiental como ( ☒ Inspector / ☐ Evaluador de Riesgos) con Número de Certificación LBPI-23622-249, la cual se encuentra vigente.
2. La estructura "Early Headstart & Escuela Amiga" localizada en Casa De la Juventud, Calle Méndez Vigo, Dorado, P.R., la cual será objeto de una demolición se encuentra libre de pintura con base de plomo. (\*Excluye los encintados "curbs" exteriores en el parking)
3. La información antes indicada es cierta y correcta.
4. Afirmo y reconozco las consecuencias de incluir y someter información falsa en este documento.
5. Para que así conste, firmo la presente certificación en Caguas de Puerto Rico,  
(Municipio)  
hoy día 1ro de mayo de 2023.

Firma del Inspector o Evaluador de Riesgos (en original)

**Nota : Deberá someter evidencia de la tarjeta o certificado provista por la JCA.**



Emanuel Ortiz Vega

Puerto Rico

Lead-based Paint Inspector and Company Accreditations





# LEAD-BASED PAINT SURVEY

## EARLY HEADSTART & MI ESCUELA AMIGA BUILDING

Casa de Juventud, Calle Méndez Vigo

Dorado, Puerto Rico 00646



Inspection Date: April 26, 2023

Prepared for: SEM AE Design

Prepared by: Nortol Environmental & Occupational Safety, Inc.

Inspector:

Emanuel Ortiz  
Lead Inspector  
LBP I.D. # LBPI-23622-249



*NORTOL has performed this survey in a thorough and professional manner consistent with commonly accepted industry standards.*

*This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.*



## Table of Contents

Acronyms .....	3
Introduction .....	4
Lead Based Paint Survey Report .....	4
Lead Based Paint Findings	
Survey Protocol and Sampling Procedures	
LBP Background and Regulatory review	
Conclusion .....	7

Attachment 1 – Company Credentials

Attachment 2 – Inspector’s Credentials

Attachment 3 – Positive LBP XRF Tabulated Readings

Attachment 4 – LBP XRF Tabulated Readings

Attachment 5 – LBP Diagram

Attachment 6 – Representative Pictures\Photograph Log

Attachment 7 – XRF Performance Characteristic Sheet



## **Acronyms**

A/C	=	Air Conditioning
CFR	=	Code of Federal Regulations
CPSC	=	Consumer Product Safety Commission
EPA	=	Environmental Protection Agency
Ft <sup>2</sup>	=	square feet
HA	=	Homogeneous Area
HUD	=	Department of Housing and Urban Development
LBP	=	Lead-based Paint
LF	=	Linear Feet
mg/cm <sup>2</sup>	=	milligrams per square centimeter
NESHAP'S	=	National Emission Standards for Hazardous Air Pollutants
NIOSH	=	National Institute for Occupational Safety and Health
OSHA	=	Occupational Safety and Health Administration
PRDOH	=	Puerto Rico Department of Housing
PRDNER	=	Puerto Rico Department of Natural and Environmental Resources
SOW	=	Scope of Work
XRF	=	X-Ray Fluorescent



## I. INTRODUCTION

As part of the environmental due diligence, this survey is intended to assess the general presence, quantity, and location of LBP and lead-glazed ceramic components above allowable levels at the *Early Headstart & Mi Escuela Amiga Building* property located at Casa De la Juventud, Calle Méndez Vigo, Dorado, P.R.

The LBP survey, conforming to Housing Urban Development (HUD) Guidelines for the Evaluation and Control of Lead Based Paint in Housing, was conducted on April 26, 2023, by Mr. Emanuel Ortíz (Lead inspector number: LBPI-23622-249) from Nortol. Copy of Nortol's registration with the PRDNER as registered corporation is included in **Attachment 1**. Inspector's credential is included in **Attachment 2**. Nortol's survey areas and report are limited to the details provided in Section II part D.

Based on the results of the survey, 336 XRF readings were performed using an XRF analyzer on the identified and accessible surfaces in the interior and/or exterior of the subject structure. LBP was identified above the regulatory level of 1.0 mg/cm<sup>2</sup> on the **exterior curbs**. No additional LBP was found in the building.

There is concrete, metal, drywall, and wood structural components. The floors have terrazzo/ceramic tiles, rubber, painted or are bare concrete. Also, ceramic tiles are present on some walls.

## II. LEAD BASED PAINT SURVEY REPORT

### A. Lead Based Paint Findings:

LBP was found on the ***exterior concrete curbs located in the parking lot (about 165 Ft2)***. The data from XRF analyzer testing is included in **Attachment 3 and 4** with positive readings marked in red or bold. **Attachment 5** includes the approximated location of identified LBP or lead-glazes at the subject structure. Representative Pictures\Photograph Log of identified LBP surfaces and/or lead-glazed ceramic components within the structure are provided in **Attachment 6**.

### B. Survey Protocol and Sampling Procedure:

The survey was conducted following the *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision, Chapter 7)*. The technique used for assessing the painted components was the XRF instrument. The following guidelines were used to perform LBP testing:

1. Achieve inventory of painted surfaces





2. Select areas to be assessed.
3. Perform XRF testing.
4. Review and evaluate the data.
5. Report findings

The XRF instrument was set at Standard Paint Mode showing reading “Positive” or “Negative” with a 95% confident reading. The result is reported in mg/cm<sup>2</sup>. **Attachment 7** includes the XRF Performance Characteristic Sheet (PCS) of the analyzer.

The **letters A, B, C, and D** used in the survey refers to:

- A ⇒ Main entrance side orientation (to street)
- B ⇒ Left side orientation
- C ⇒ Rear side orientation
- D ⇒ Right side orientation

### **C. Lead Based Paint Background and Regulatory Review:**

Overexposure to lead is one of the most common situations found in industry. It is also a major potential public health risk. Lead poisoning is the leading environmentally induced illness in children. At greatest risk are children under the age of six because they are undergoing rapid neurological and physical development. In general population, lead may be present at hazardous concentrations in food, water, and air. Sources include LBP, urban soil, dust, and drinking water.

Lead is commonly added to industrial paints because of its characteristic to resist corrosion. Industries with particularly high potential exposures include construction work involving welding, cutting, brazing, blasting, etc., on lead paint surfaces; most smelter operations either as a trace contaminant or as a major product; secondary lead smelters where lead is recovered from batteries; radiator repair shops; and firing ranges. Oral ingestion may represent a major route of exposure in contaminated workplaces. Once in the blood, lead is distributed primarily among three routes - blood, soft tissue (kidney, bone marrow, liver, and brain) and mineralizing tissue (bones and teeth).

Hazard of lead in paint has been defined by the Department of Housing and Urban Development as 1.0 mg/cm<sup>2</sup> as measured by an XRF instrument, or Atomic Absorption Spectroscopy (AAS); or 0.5% by weight (or 5,000 ppm) as measured by AAS, or Inductive Coupled Plasma (ICP). The same level was adopted by EPA regulations published in 1992, under Title X.





Although OSHA regulations for occupational lead exposure have been in effect since 1971 for the construction and general industries, the agency recognized the need to provide better protection and revised the regulations for general industry in 1978. The 1978 lead standard, however, excluded the construction industry from coverage because of insufficient information regarding lead use in construction.

In 1990, NIOSH set a national goal to eliminate worker exposures resulting in blood lead concentrations greater than 25 micrograms per deciliter (25 µg/dl) of whole blood. Consequently, OSHA began developing a proposal for a comprehensive standard regulating occupational exposure to lead in construction. In October 1992, the Congress passed Section 1031 of Title X of the Housing and Community Development Act of 1992 (P. L. 102-550) requiring OSHA to issue an interim final lead standard for the construction industry, effective until OSHA issues a final standard. The interim final rule, published on May 4, 1993, amends the OSHA standards for occupational health and environmental controls in Subpart D of Title 29 CFR 1926 by adding a new section 1926.62, containing employee protection requirements for construction workers exposed to lead.

On July 1998, the PRDNER - former PR Environmental Quality Board regulations regarding to LBP was created to issue activity permits, accredit institutions, and certificate persons involved in LBP activities in Puerto Rico. Local regulations require all lead to be managed as a special waste. On August 2019 this regulation was replaced by the new *Reglamento para el Manejo Adecuado de Actividades de Pintura con Base de Plomo*. To obtain a demolition permit in Puerto Rico is necessary to include a certification (OGP-PGC-010 or equivalent) stating that there is no LBP in the project.

#### **D. Survey Areas – Extent of Survey Coverage:**

The survey included a detailed structure inspection providing a general sense of the overall location, type, quantity, and condition of LBP and lead-glazed ceramic components. The LBP survey was performed to ready accessible components and surfaces. If any suspect coated surface or ceramic components that could contain lead are encountered underneath current installed tiles or other construction material during demolition and/or renovation activities which differ from materials tested during the LBP survey, these should be assumed to be Lead containing until testing/analysis confirmed otherwise. The survey was unobtrusive as samples were not taken where doing so would have resulted in objectionable damage to surfaces. Therefore, the survey did not include destructive, intrusive and/or exploratory testing.

**Areas Not Included in Survey and Service Constraints:** All professional opinions presented in this report are based on information made available either by review of data provided by others or



data gathered by Nortol's personnel. Nortol affirms that data gathered and presented by Nortol in this report was collected in an appropriate manner in accordance with generally accepted methods and practices. Any energized utilities/services, including electricity, water and heat were assumed to be active. Materials associated with these items were determined to not be safely accessible and were not sampled. The survey did not include access or inspection of confined spaces or subsurface/underground areas including piping, conduits, building footings and soils (surficial or otherwise).

### **III. CONCLUSION**

LBP survey was conducted for the project identified with the header ID. LBP or lead-glaze was identified above the regulatory level of 1.0 mg/cm<sup>2</sup> at selective areas of the subject structure.

Data from XRF analyzer testing is included in **Attachment 3 and 4** with positive readings marked in red or bold. **Attachment 5** includes the approximated location of identified LBP or lead-glazes at the subject structure. Representative Pictures\Photograph Log of identified LBP surfaces and/or lead-glazed ceramic components within the structure are provided in **Attachment 6**.

Any conditions or materials that could not be visually identified or were out-of-the SOW, was not inspected and may differ from those conditions or materials noted. It was not within the scope of the activity to remove surface materials to investigate portions of the structure or materials that may lay beneath the surface. Nortol's selection of sample locations and frequency of sampling was based on Nortol's observations and the assumption that similar materials in the same area are homogeneous in content.

The report is designed to aid the building owner, architect, construction manager, general contractors, and potential asbestos or lead abatement contractors in locating LBP or lead-glaze. Under no circumstances is the report to be utilized solely as a bidding document or as a project specification document.



**Attachment 1**  
**Company Credentials**







**NAT-F121771-2**



## **Attachment 2**

### **Inspector's Credentials**



**EMANUEL ORTIZ**  
**Puerto Rico**  
**Lead-based Paint Inspector**



**Attachment 3**  
**Positive LBP XRF Tabulated Readings**



# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF POSITIVE SHEET

Heuresis Corp.																	
Company	PB200i																
Model	XRF Lead Paint Analyzer																
Type	2279																
Serial Num.	PB200i-S.2.0																
App Version																	
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	9	3.4	mg/cm2	Positive	1	4/26/2023	10:43:30	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	165 L.F. Approx.
Early Headstart & Escuela Amiga Building	10	4.7	mg/cm2	Positive	1	4/26/2023	10:44:07	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	
Early Headstart & Escuela Amiga Building	11	1.5	mg/cm2	Positive	1	4/26/2023	10:45:31	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	
Early Headstart & Escuela Amiga Building	12	2	mg/cm2	Positive	1	4/26/2023	10:46:18	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	





**Attachment 4**  
**LBP XRF Tabulated Readings**



# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.															
Model	PB200i																
Type	XRF Lead Paint Analyzer																
Serial Num.	2279																
App Version	PB200i-S.2.0																
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	1	0.9	mg/cm2	Negative	-	4/26/2023	10:06:04	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	2	1	mg/cm2	Positive	-	4/26/2023	10:06:19	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	3	0.9	mg/cm2	Negative	-	4/26/2023	10:06:56	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	4	0.2	mg/cm2	Negative	1	4/26/2023	10:40:09	E. Ortiz	679	Exterior	Parking Lot	Floor Mark	Asphalt	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	5	0.1	mg/cm2	Negative	1	4/26/2023	10:40:43	E. Ortiz	679	Exterior	Parking Lot	Floor Mark	Asphalt	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	6	0.2	mg/cm2	Negative	1	4/26/2023	10:41:04	E. Ortiz	679	Exterior	Parking Lot	Floor Mark	Asphalt	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	7	0.2	mg/cm2	Negative	1	4/26/2023	10:41:47	E. Ortiz	679	Exterior	Parking Lot	Floor Mark	Asphalt	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	8	0.4	mg/cm2	Negative	1	4/26/2023	10:43:01	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	9	3.4	mg/cm2	Positive	1	4/26/2023	10:43:30	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	165 L.F. Approx.
Early Headstart & Escuela Amiga Building	10	4.7	mg/cm2	Positive	1	4/26/2023	10:44:07	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	
Early Headstart & Escuela Amiga Building	11	1.5	mg/cm2	Positive	1	4/26/2023	10:45:31	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	
Early Headstart & Escuela Amiga Building	12	2	mg/cm2	Positive	1	4/26/2023	10:46:18	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Yellow	Deteriorated	
Early Headstart & Escuela Amiga Building	13	0.4	mg/cm2	Negative	1	4/26/2023	10:47:09	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Blue	Deteriorated	
Early Headstart & Escuela Amiga Building	14	0.1	mg/cm2	Negative	1	4/26/2023	10:48:08	E. Ortiz	679	Exterior	Parking Lot	Curb	Concrete	-	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	15	0.1	mg/cm2	Negative	1	4/26/2023	10:50:30	E. Ortiz	679	Exterior	Building	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	16	0	mg/cm2	Negative	1	4/26/2023	10:51:12	E. Ortiz	679	Exterior	Building	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	17	0	mg/cm2	Negative	1	4/26/2023	10:51:54	E. Ortiz	679	Exterior	Building	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	18	0	mg/cm2	Negative	1	4/26/2023	10:52:22	E. Ortiz	679	Exterior	Building	Wall	Concrete	A	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	19	0	mg/cm2	Negative	1	4/26/2023	10:52:46	E. Ortiz	679	Exterior	Building	Wall	Concrete	A	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	20	0.2	mg/cm2	Negative	1	4/26/2023	10:53:19	E. Ortiz	679	Exterior	Building	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	21	0.2	mg/cm2	Negative	1	4/26/2023	10:53:39	E. Ortiz	679	Exterior	Building	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	22	0	mg/cm2	Negative	1	4/26/2023	10:54:57	E. Ortiz	679	Exterior	Building	Gate Door	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	23	0.1	mg/cm2	Negative	1	4/26/2023	10:55:09	E. Ortiz	679	Exterior	Building	Gate Door Frame	Metal	A	White	Deteriorated	-





# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.																
Model	PB200i																	
Type	XRF Lead Paint Analyzer																	
Serial Num.	2279																	
App Version	PB200i-S.2.0																	
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.	
Early Headstart & Escuela Amiga Building	24	0.1	mg/cm2	Negative	1	4/26/2023	10:55:37	E. Ortiz	679	Exterior	Building	Gate Door	Metal	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	25	0.1	mg/cm2	Negative	1	4/26/2023	10:55:49	E. Ortiz	679	Exterior	Building	Gate Door Frame	Metal	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	26	0.2	mg/cm2	Negative	1	4/26/2023	10:56:14	E. Ortiz	679	Exterior	Building	Burglar Fence	Metal	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	27	0.1	mg/cm2	Negative	1	4/26/2023	10:56:27	E. Ortiz	679	Exterior	Building	Burglar Fence	Metal	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	28	0	mg/cm2	Negative	1	4/26/2023	10:57:45	E. Ortiz	679	Exterior	Building	Wall	Concrete	B	Blue	Deteriorated	-	
Early Headstart & Escuela Amiga Building	29	0.2	mg/cm2	Negative	1	4/26/2023	10:58:01	E. Ortiz	679	Exterior	Building	Wall	Concrete	B	Blue	Deteriorated	-	
Early Headstart & Escuela Amiga Building	30	0	mg/cm2	Negative	1	4/26/2023	10:58:22	E. Ortiz	679	Exterior	Building	Wall	Concrete	B	Yellow	Deteriorated	-	
Early Headstart & Escuela Amiga Building	31	0.1	mg/cm2	Negative	1	4/26/2023	10:59:10	E. Ortiz	679	Exterior	Building	Fence	Metal	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	32	0	mg/cm2	Negative	1	4/26/2023	10:59:30	E. Ortiz	679	Exterior	Building	Fence	Metal	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	33	0	mg/cm2	Negative	1	4/26/2023	10:59:46	E. Ortiz	679	Exterior	Building	Fence	Metal	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	34	0.1	mg/cm2	Negative	1	4/26/2023	11:00:38	E. Ortiz	679	Exterior	Building	Burglar Fence	Metal	B	Gray	Deteriorated	-	
Early Headstart & Escuela Amiga Building	35	0	mg/cm2	Negative	1	4/26/2023	11:02:30	E. Ortiz	679	Exterior	Building	Fence	Metal	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	36	0.1	mg/cm2	Negative	1	4/26/2023	11:02:41	E. Ortiz	679	Exterior	Building	Fence	Metal	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	37	0	mg/cm2	Negative	1	4/26/2023	11:03:17	E. Ortiz	679	Exterior	Building	Wall	Concrete	D	Blue	Deteriorated	-	
Early Headstart & Escuela Amiga Building	38	0	mg/cm2	Negative	1	4/26/2023	11:03:37	E. Ortiz	679	Exterior	Building	Wall	Concrete	D	Blue	Deteriorated	-	
Early Headstart & Escuela Amiga Building	39	0	mg/cm2	Negative	1	4/26/2023	11:04:02	E. Ortiz	679	Exterior	Building	Wall	Concrete	D	Blue	Deteriorated	-	
Early Headstart & Escuela Amiga Building	40	0	mg/cm2	Negative	1	4/26/2023	11:04:26	E. Ortiz	679	Exterior	Building	Wall	Concrete	D	Blue	Deteriorated	-	
Early Headstart & Escuela Amiga Building	41	0	mg/cm2	Negative	1	4/26/2023	11:04:52	E. Ortiz	679	Exterior	Building	Wall	Concrete	D	Yellow	Deteriorated	-	
Early Headstart & Escuela Amiga Building	42	0	mg/cm2	Negative	1	4/26/2023	11:05:04	E. Ortiz	679	Exterior	Building	Wall	Concrete	D	Yellow	Deteriorated	-	
Early Headstart & Escuela Amiga Building	43	0.1	mg/cm2	Negative	1	4/26/2023	11:05:45	E. Ortiz	679	Exterior	Building	Curb	Concrete	-	Yellow	Deteriorated	-	
Early Headstart & Escuela Amiga Building	44	0	mg/cm2	Negative	1	4/26/2023	11:06:04	E. Ortiz	679	Exterior	Building	Curb	Concrete	-	Yellow	Deteriorated	-	
Early Headstart & Escuela Amiga Building	45	0	mg/cm2	Negative	1	4/26/2023	11:06:58	E. Ortiz	679	Exterior	Building	Sidewalk	Concrete	-	Pink	Deteriorated	-	
Early Headstart & Escuela Amiga Building	46	0	mg/cm2	Negative	1	4/26/2023	11:07:15	E. Ortiz	679	Exterior	Building	Sidewalk	Concrete	-	Pink	Deteriorated	-	





**EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET**

Company		Heuresis Corp.															
Model	PB200i																
Type	XRF Lead Paint Analyzer																
Serial Num.	2279																
App Version	PB200i-S.2.0																
Job id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	47	0	mg/cm2	Negative	1	4/26/2023	11:07:57	E. Ortiz	679	Exterior	Building	Gate	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	48	0.2	mg/cm2	Negative	1	4/26/2023	11:08:14	E. Ortiz	679	Exterior	Building	Gate Frame	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	49	0	mg/cm2	Negative	1	4/26/2023	11:08:37	E. Ortiz	679	Exterior	Building	Burglar Fence	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	50	0	mg/cm2	Negative	1	4/26/2023	11:10:06	E. Ortiz	679	Exterior	Building	Burglar Fence	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	51	0	mg/cm2	Negative	1	4/26/2023	11:12:14	E. Ortiz	679	Exterior	Building	Wall	Concrete	D	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	52	0	mg/cm2	Negative	1	4/26/2023	11:12:52	E. Ortiz	679	Exterior	Building	Bench	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	53	0.1	mg/cm2	Negative	1	4/26/2023	11:13:07	E. Ortiz	679	Exterior	Building	Bench	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	54	0.2	mg/cm2	Negative	1	4/26/2023	11:13:57	E. Ortiz	679	Exterior	Building	Door	Metal	D	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	55	0.1	mg/cm2	Negative	1	4/26/2023	11:14:10	E. Ortiz	679	Exterior	Building	Door Frame	Metal	D	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	56	0	mg/cm2	Negative	1	4/26/2023	11:15:26	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	57	0	mg/cm2	Negative	1	4/26/2023	11:16:12	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	58	0.1	mg/cm2	Negative	1	4/26/2023	11:16:45	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	59	0	mg/cm2	Negative	1	4/26/2023	11:17:01	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	60	0.1	mg/cm2	Negative	1	4/26/2023	11:18:15	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	B	Orange	Deteriorated	-
Early Headstart & Escuela Amiga Building	61	0	mg/cm2	Negative	1	4/26/2023	11:18:37	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	B	Orange	Deteriorated	-
Early Headstart & Escuela Amiga Building	62	0	mg/cm2	Negative	1	4/26/2023	11:19:08	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	B	Orange	Deteriorated	-
Early Headstart & Escuela Amiga Building	63	0	mg/cm2	Negative	1	4/26/2023	11:19:45	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	64	0	mg/cm2	Negative	1	4/26/2023	11:20:08	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	65	0	mg/cm2	Negative	1	4/26/2023	11:21:05	E. Ortiz	679	Interior Bldg. 1	Room 1	Gate	Metal	C	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	66	0	mg/cm2	Negative	1	4/26/2023	11:21:13	E. Ortiz	679	Interior Bldg. 1	Room 1	Gate	Metal	C	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	67	0	mg/cm2	Negative	1	4/26/2023	11:21:36	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	68	0.1	mg/cm2	Negative	1	4/26/2023	11:21:53	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	69	0	mg/cm2	Negative	1	4/26/2023	11:22:13	E. Ortiz	679	Interior Bldg. 1	Room 1	Wall	Concrete	D	White	Deteriorated	-





# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.																			
Model	PB200i																				
Type	XRF Lead Paint Analyzer																				
Serial Num.	2279																				
App Version	PB200i-5.2.0																				
Job id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.				
Early Headstart & Escuela Amiga Building	70	0.1	mg/cm2	Negative	1	4/26/2023	11:23:54	E. Ortiz	679	Interior Bldg. 1	Room 1	Door	Metal	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	71	0	mg/cm2	Negative	1	4/26/2023	11:24:04	E. Ortiz	679	Interior Bldg. 1	Room 1	Door Frame	Metal	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	72	0.2	mg/cm2	Negative	1	4/26/2023	11:24:29	E. Ortiz	679	Interior Bldg. 1	Room 1	Door	Metal	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	73	0.1	mg/cm2	Negative	1	4/26/2023	11:24:39	E. Ortiz	679	Interior Bldg. 1	Room 1	Door Frame	Metal	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	74	0	mg/cm2	Negative	1	4/26/2023	11:25:33	E. Ortiz	679	Interior Bldg. 1	Room 1	Column	Metal	-	Gray	Deteriorated	-				
Early Headstart & Escuela Amiga Building	75	0.1	mg/cm2	Negative	1	4/26/2023	11:25:48	E. Ortiz	679	Interior Bldg. 1	Room 1	Column	Metal	-	Gray	Deteriorated	-				
Early Headstart & Escuela Amiga Building	76	0	mg/cm2	Negative	1	4/26/2023	11:26:41	E. Ortiz	679	Interior Bldg. 1	Room 1	Floor	Ceramic	-	Brown	Deteriorated	-				
Early Headstart & Escuela Amiga Building	77	0.1	mg/cm2	Negative	1	4/26/2023	11:27:16	E. Ortiz	679	Interior Bldg. 1	Room 1	Baseboard	Ceramic	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	78	0.1	mg/cm2	Negative	1	4/26/2023	11:27:45	E. Ortiz	679	Interior Bldg. 1	Room 1	Ceiling	Concrete	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	79	0	mg/cm2	Negative	1	4/26/2023	11:28:42	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Ceiling	Concrete	-	Gray	Deteriorated	-				
Early Headstart & Escuela Amiga Building	80	0.2	mg/cm2	Negative	1	4/26/2023	11:29:16	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Floor	Ceramic	-	Brown	Deteriorated	-				
Early Headstart & Escuela Amiga Building	81	0.1	mg/cm2	Negative	1	4/26/2023	11:30:10	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Sink	Porcelain	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	82	0.1	mg/cm2	Negative	1	4/26/2023	11:30:19	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Toilet	Porcelain	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	83	0.2	mg/cm2	Negative	1	4/26/2023	11:30:50	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	A	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	84	0.1	mg/cm2	Negative	1	4/26/2023	11:31:10	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	B	Blue	Deteriorated	-				
Early Headstart & Escuela Amiga Building	85	0	mg/cm2	Negative	1	4/26/2023	11:31:32	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	C	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	86	0	mg/cm2	Negative	1	4/26/2023	11:31:51	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	87	0.1	mg/cm2	Negative	1	4/26/2023	11:32:24	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Window	Metal	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	88	0	mg/cm2	Negative	1	4/26/2023	11:32:34	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Window Frame	Metal	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	89	0.2	mg/cm2	Negative	1	4/26/2023	11:33:11	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Ceramic	B	Blue	Deteriorated	-				
Early Headstart & Escuela Amiga Building	90	0.2	mg/cm2	Negative	1	4/26/2023	11:33:51	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Wall	Ceramic	B	Blue	Deteriorated	-				
Early Headstart & Escuela Amiga Building	91	0	mg/cm2	Negative	1	4/26/2023	11:34:18	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Wall	Concrete	A	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	92	0.3	mg/cm2	Negative	1	4/26/2023	11:34:46	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Wall	Concrete	B	Blue	Deteriorated	-				



EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company				Heuresis Corp.																	
Model	PB200i			XRF Lead Paint Analyzer																	
Type	Serial Num.			2279																	
App Version	PB200i-S.2.0																				
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.				
Early Headstart & Escuela Amiga Building	93	0	mg/cm2	Negative	1	4/26/2023	11:35:08	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Wall	Concrete	C	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	94	0.1	mg/cm2	Negative	1	4/26/2023	11:35:24	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Wall	Concrete	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	95	0.2	mg/cm2	Negative	1	4/26/2023	11:35:54	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Sink	Porcelain	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	96	0.2	mg/cm2	Negative	1	4/26/2023	11:36:07	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Toilet	Porcelain	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	97	0.2	mg/cm2	Negative	1	4/26/2023	11:36:36	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Floor	Ceramic	-	Brown	Deteriorated	-				
Early Headstart & Escuela Amiga Building	98	0.1	mg/cm2	Negative	1	4/26/2023	11:37:06	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Door	Metal	A	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	99	0.1	mg/cm2	Negative	1	4/26/2023	11:37:15	E. Ortiz	679	Interior Bldg. 1	Bathroom 2	Door Frame	Metal	A	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	100	0	mg/cm2	Negative	1	4/26/2023	11:38:04	E. Ortiz	679	Interior Bldg. 1	Room 2	Door	Metal	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	101	0.1	mg/cm2	Negative	1	4/26/2023	11:38:23	E. Ortiz	679	Interior Bldg. 1	Room 2	Door Frame	Metal	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	102	0	mg/cm2	Negative	1	4/26/2023	11:38:59	E. Ortiz	679	Interior Bldg. 1	Room 2	Wall	Concrete	A	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	103	0	mg/cm2	Negative	1	4/26/2023	11:39:12	E. Ortiz	679	Interior Bldg. 1	Room 2	Wall	Concrete	A	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	104	0	mg/cm2	Negative	1	4/26/2023	11:39:57	E. Ortiz	679	Interior Bldg. 1	Room 2	Wall	Concrete	B	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	105	0	mg/cm2	Negative	1	4/26/2023	11:40:23	E. Ortiz	679	Interior Bldg. 1	Room 2	Column	Concrete	B	Orange	Deteriorated	-				
Early Headstart & Escuela Amiga Building	106	0	mg/cm2	Negative	1	4/26/2023	11:40:49	E. Ortiz	679	Interior Bldg. 1	Room 2	Wall	Concrete	C	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	107	0.1	mg/cm2	Negative	1	4/26/2023	11:41:06	E. Ortiz	679	Interior Bldg. 1	Room 2	Wall	Concrete	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	108	0	mg/cm2	Negative	1	4/26/2023	11:41:31	E. Ortiz	679	Interior Bldg. 1	Room 2	Column	Concrete	D	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	109	0.2	mg/cm2	Negative	1	4/26/2023	11:42:02	E. Ortiz	679	Interior Bldg. 1	Room 2	Floor	Terrazzo	-	Beige	Deteriorated	-				
Early Headstart & Escuela Amiga Building	110	0.2	mg/cm2	Negative	1	4/26/2023	11:42:30	E. Ortiz	679	Interior Bldg. 1	Room 2	Ceiling	Concrete	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	111	0	mg/cm2	Negative	1	4/26/2023	11:43:55	E. Ortiz	679	Interior Bldg. 1	Kitchen	Ceiling	Concrete	-	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	112	0.2	mg/cm2	Negative	1	4/26/2023	11:44:22	E. Ortiz	679	Interior Bldg. 1	Kitchen	Floor	Ceramic	-	Gray	Deteriorated	-				
Early Headstart & Escuela Amiga Building	113	0	mg/cm2	Negative	1	4/26/2023	11:45:01	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Concrete	A	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	114	0	mg/cm2	Negative	1	4/26/2023	11:45:11	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Concrete	B	White	Deteriorated	-				
Early Headstart & Escuela Amiga Building	115	0	mg/cm2	Negative	1	4/26/2023	11:45:24	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Concrete	C	White	Deteriorated	-				



# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.															
Model	PB200i																
Type	XRF Lead Paint Analyzer																
Serial Num.	2279																
App Version	PB200i-5.2.0																
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	116	0	mg/cm2	Negative	1	4/26/2023	11:45:38	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	117	0.1	mg/cm2	Negative	1	4/26/2023	11:46:01	E. Ortiz	679	Interior Bldg. 1	Kitchen	Door	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	118	0.2	mg/cm2	Negative	1	4/26/2023	11:46:13	E. Ortiz	679	Interior Bldg. 1	Kitchen	Door Frame	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	119	0	mg/cm2	Negative	1	4/26/2023	11:49:17	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	120	0	mg/cm2	Negative	1	4/26/2023	11:49:30	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	121	0.1	mg/cm2	Negative	1	4/26/2023	11:49:47	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	B	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	122	0.1	mg/cm2	Negative	1	4/26/2023	11:50:09	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	B	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	123	0	mg/cm2	Negative	1	4/26/2023	11:50:46	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	B	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	124	0.1	mg/cm2	Negative	1	4/26/2023	11:51:17	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Window	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	125	0.1	mg/cm2	Negative	1	4/26/2023	11:51:27	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Window Frame	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	126	0.1	mg/cm2	Negative	1	4/26/2023	11:51:36	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Burglar Fence	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	127	0	mg/cm2	Negative	1	4/26/2023	11:52:11	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	C	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	128	0.2	mg/cm2	Negative	1	4/26/2023	11:52:24	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	C	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	129	0.1	mg/cm2	Negative	1	4/26/2023	11:52:59	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Fence	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	130	0	mg/cm2	Negative	1	4/26/2023	11:53:29	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Fence	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	131	0.2	mg/cm2	Negative	1	4/26/2023	11:53:58	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	132	0	mg/cm2	Negative	1	4/26/2023	11:54:25	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Wall	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	133	0.3	mg/cm2	Negative	1	4/26/2023	11:54:54	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Floor	Rubber	-	Brown	Deteriorated	-
Early Headstart & Escuela Amiga Building	134	0.3	mg/cm2	Negative	1	4/26/2023	11:55:10	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Floor	Rubber	-	Brown	Deteriorated	-
Early Headstart & Escuela Amiga Building	135	0.1	mg/cm2	Negative	1	4/26/2023	11:55:37	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Floor Mark	Rubber	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	136	0.3	mg/cm2	Negative	1	4/26/2023	11:55:52	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Floor Mark	Rubber	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	137	0.1	mg/cm2	Negative	1	4/26/2023	11:56:36	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Ceiling	Metal	-	Unpainted	Deteriorated	-
Early Headstart & Escuela Amiga Building	138	0.1	mg/cm2	Negative	1	4/26/2023	11:57:16	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Handrail	Metal	-	White	Deteriorated	-



EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.															
Model		PB200i															
Type		XRF Lead Paint Analyzer															
Serial Num.		2279															
App Version		PB200i-S.2.0															
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	139	0.1	mg/cm2	Negative	1	4/26/2023	11:57:25	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Handrail	Metal	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	140	0.2	mg/cm2	Negative	1	4/26/2023	11:58:50	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Tread	Concrete	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	141	0.1	mg/cm2	Negative	1	4/26/2023	11:59:02	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Riser	Concrete	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	142	0	mg/cm2	Negative	1	4/26/2023	12:00:19	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Door	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	143	0	mg/cm2	Negative	1	4/26/2023	12:01:52	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Door Frame	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	144	0.1	mg/cm2	Negative	1	4/26/2023	12:03:30	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Gate Door	Metal	B	Black	Deteriorated	-
Early Headstart & Escuela Amiga Building	145	0	mg/cm2	Negative	1	4/26/2023	12:03:45	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Gate Frame	Metal	B	Black	Deteriorated	-
Early Headstart & Escuela Amiga Building	146	0	mg/cm2	Negative	1	4/26/2023	12:04:28	E. Ortiz	679	Exterior Bldg. 2	Court Yard	Frame	Wood	B	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	147	1	mg/cm2	Positive	1	4/26/2023	12:08:52	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	148	0.7	mg/cm2	Negative	1	4/26/2023	12:09:08	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	149	0.8	mg/cm2	Negative	1	4/26/2023	12:09:22	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	150	0	mg/cm2	Negative	1	4/26/2023	12:10:52	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	151	0	mg/cm2	Negative	1	4/26/2023	12:11:51	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	152	0.3	mg/cm2	Negative	1	4/26/2023	12:12:12	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Wood	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	153	0	mg/cm2	Negative	1	4/26/2023	12:12:49	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Drywall	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	154	0	mg/cm2	Negative	1	4/26/2023	12:13:14	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Drywall	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	155	0	mg/cm2	Negative	1	4/26/2023	12:13:38	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Column	Concrete	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	156	0.1	mg/cm2	Negative	1	4/26/2023	12:13:48	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Column	Concrete	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	157	0	mg/cm2	Negative	1	4/26/2023	12:14:16	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Drywall	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	158	0.1	mg/cm2	Negative	1	4/26/2023	12:14:41	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Drywall	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	159	0.1	mg/cm2	Negative	1	4/26/2023	12:15:28	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	160	0.2	mg/cm2	Negative	1	4/26/2023	12:15:40	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	161	0.1	mg/cm2	Negative	1	4/26/2023	12:16:06	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Door	Wood	A	Brown	Deteriorated	-





# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.																
Model	PB200i																	
Type	XRF Lead Paint Analyzer																	
Serial Num.	2279																	
App Version	PB200i-S.2.0																	
Job id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.	
Early Headstart & Escuela Amiga Building	162	0.1	mg/cm2	Negative	1	4/26/2023	12:16:16	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Door Frame	Wood	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	163	0.1	mg/cm2	Negative	1	4/26/2023	12:17:09	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Floor	Terrazzo	-	Beige	Deteriorated	-	
Early Headstart & Escuela Amiga Building	164	0.2	mg/cm2	Negative	1	4/26/2023	12:17:39	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Baseboard	Terrazzo	-	Beige	Deteriorated	-	
Early Headstart & Escuela Amiga Building	165	0	mg/cm2	Negative	1	4/26/2023	12:18:19	E. Ortiz	679	Interior Bldg. 1	Classroom 1	Ceiling	Concrete	-	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	166	0	mg/cm2	Negative	1	4/26/2023	12:19:36	E. Ortiz	679	Interior Bldg. 1	Infirmary	Ceiling	Concrete	-	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	167	0	mg/cm2	Negative	1	4/26/2023	12:20:10	E. Ortiz	679	Interior Bldg. 1	Infirmary	Door	Wood	-	Brown	Deteriorated	-	
Early Headstart & Escuela Amiga Building	168	0.1	mg/cm2	Negative	1	4/26/2023	12:20:30	E. Ortiz	679	Interior Bldg. 1	Infirmary	Door Frame	Wood	-	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	169	0.2	mg/cm2	Negative	1	4/26/2023	12:21:26	E. Ortiz	679	Interior Bldg. 1	Infirmary	Floor	Terrazzo	-	Beige	Deteriorated	-	
Early Headstart & Escuela Amiga Building	170	0	mg/cm2	Negative	1	4/26/2023	12:21:40	E. Ortiz	679	Interior Bldg. 1	Infirmary	Floor	Terrazzo	-	Beige	Deteriorated	-	
Early Headstart & Escuela Amiga Building	171	0.2	mg/cm2	Negative	1	4/26/2023	12:22:20	E. Ortiz	679	Interior Bldg. 1	Infirmary	Wall	Concrete	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	172	0.1	mg/cm2	Negative	1	4/26/2023	12:22:40	E. Ortiz	679	Interior Bldg. 1	Infirmary	Wall	Concrete	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	173	0	mg/cm2	Negative	1	4/26/2023	12:23:17	E. Ortiz	679	Interior Bldg. 1	Infirmary	Wall	Concrete	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	174	0	mg/cm2	Negative	1	4/26/2023	12:23:38	E. Ortiz	679	Interior Bldg. 1	Infirmary	Wall	Concrete	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	175	0.1	mg/cm2	Negative	1	4/26/2023	12:24:07	E. Ortiz	679	Interior Bldg. 1	Infirmary	Wall	Concrete	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	176	0	mg/cm2	Negative	1	4/26/2023	12:24:25	E. Ortiz	679	Interior Bldg. 1	Infirmary	Wall	Concrete	D	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	177	0.2	mg/cm2	Negative	1	4/26/2023	12:24:43	E. Ortiz	679	Interior Bldg. 1	Infirmary	Wall	Concrete	D	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	178	0	mg/cm2	Negative	1	4/26/2023	12:25:41	E. Ortiz	679	Interior Bldg. 1	Infirmary	Window	Metal	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	179	0	mg/cm2	Negative	1	4/26/2023	12:25:52	E. Ortiz	679	Interior Bldg. 1	Infirmary	Window Frame	Metal	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	180	0	mg/cm2	Negative	1	4/26/2023	12:26:01	E. Ortiz	679	Interior Bldg. 1	Infirmary	Window Frame	Wood	D	Brown	Deteriorated	-	
Early Headstart & Escuela Amiga Building	181	0	mg/cm2	Negative	1	4/26/2023	12:27:03	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Door	Wood	B	Brown	Deteriorated	-	
Early Headstart & Escuela Amiga Building	182	0	mg/cm2	Negative	1	4/26/2023	12:27:13	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Door Frame	Wood	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	183	0.2	mg/cm2	Negative	1	4/26/2023	12:27:52	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Floor	Terrazzo	-	Beige	Deteriorated	-	
Early Headstart & Escuela Amiga Building	184	0.1	mg/cm2	Negative	1	4/26/2023	12:28:23	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Ceiling	Concrete	-	White	Deteriorated	-	



**EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET**

Company		Heuresis Corp.																
Model	PB200i																	
Type	XRF Lead Paint Analyzer																	
Serial Num.	2279																	
App Version	PB200i-S.2.0																	
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.	
Early Headstart & Escuela Amiga Building	185	0.2	mg/cm2	Negative	1	4/26/2023	12:28:42	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	186	0	mg/cm2	Negative	1	4/26/2023	12:28:54	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	187	0.2	mg/cm2	Negative	1	4/26/2023	12:29:04	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	188	0.1	mg/cm2	Negative	1	4/26/2023	12:29:14	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	Concrete	D	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	189	0.3	mg/cm2	Negative	1	4/26/2023	12:29:44	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	PVC	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	190	0.4	mg/cm2	Negative	1	4/26/2023	12:29:58	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Wall	PVC	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	191	0	mg/cm2	Negative	1	4/26/2023	12:30:29	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Sink	Porcelain	-	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	192	0.4	mg/cm2	Negative	1	4/26/2023	12:30:41	E. Ortiz	679	Interior Bldg. 1	Bathroom 1	Toilet	Porcelain	-	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	193	0	mg/cm2	Negative	1	4/26/2023	12:32:04	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Wall	Concrete	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	194	0	mg/cm2	Negative	1	4/26/2023	12:32:26	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Wall	Concrete	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	195	0	mg/cm2	Negative	1	4/26/2023	12:32:52	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Wall	Drywall	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	196	0	mg/cm2	Negative	1	4/26/2023	12:33:33	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Wall	Concrete	C	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	197	0.1	mg/cm2	Negative	1	4/26/2023	12:33:57	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Wall	Drywall	D	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	198	0.1	mg/cm2	Negative	1	4/26/2023	12:34:35	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Gate Door	Metal	C	Black	Deteriorated	-	
Early Headstart & Escuela Amiga Building	199	0	mg/cm2	Negative	1	4/26/2023	12:34:45	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Gate Frame	Metal	C	Black	Deteriorated	-	
Early Headstart & Escuela Amiga Building	200	0	mg/cm2	Negative	1	4/26/2023	12:35:13	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Window	Metal	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	201	0.2	mg/cm2	Negative	1	4/26/2023	12:35:39	E. Ortiz	679	Interior Bldg. 1	Classroom 2	Window Frame	Metal	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	202	0	mg/cm2	Negative	1	4/26/2023	12:36:38	E. Ortiz	679	Interior Bldg. 1	Kitchen	Door	Wood	D	Brown	Deteriorated	-	
Early Headstart & Escuela Amiga Building	203	0	mg/cm2	Negative	1	4/26/2023	12:36:48	E. Ortiz	679	Interior Bldg. 1	Kitchen	Door Frame	Wood	D	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	204	0	mg/cm2	Negative	1	4/26/2023	12:37:57	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Drywall	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	205	0	mg/cm2	Negative	1	4/26/2023	12:38:12	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Drywall	A	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	206	0	mg/cm2	Negative	1	4/26/2023	12:38:27	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Drywall	B	White	Deteriorated	-	
Early Headstart & Escuela Amiga Building	207	0	mg/cm2	Negative	1	4/26/2023	12:39:34	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Concrete	C	White	Deteriorated	-	



# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.															
Model	PB200i																
Type	XRF Lead Paint Analyzer																
Serial Num.	2279																
App Version	PB200i-S.2.0																
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	208	0	mg/cm2	Negative	1	4/26/2023	12:39:42	E. Ortiz	679	Interior Bldg. 1	Kitchen	Wall	Concrete	D	White	Deteriorated	-
	209	0	mg/cm2	Negative	1	4/26/2023	12:40:15	E. Ortiz	679	Interior Bldg. 1	Kitchen	Floor	Terrazzo	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building	210	0	mg/cm2	Negative	1	4/26/2023	12:40:38	E. Ortiz	679	Interior Bldg. 1	Kitchen	Baseboard	Wood	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	211	0	mg/cm2	Negative	1	4/26/2023	12:40:48	E. Ortiz	679	Interior Bldg. 1	Kitchen	Baseboard	Wood	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	212	0	mg/cm2	Negative	1	4/26/2023	12:41:25	E. Ortiz	679	Interior Bldg. 1	Kitchen	Ceiling	Concrete	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	213	0.1	mg/cm2	Negative	1	4/26/2023	12:41:43	E. Ortiz	679	Interior Bldg. 1	Kitchen	Column	Concrete	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	214	0	mg/cm2	Negative	1	4/26/2023	12:42:08	E. Ortiz	679	Interior Bldg. 1	Kitchen	Window	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	215	0	mg/cm2	Negative	1	4/26/2023	12:42:18	E. Ortiz	679	Interior Bldg. 1	Kitchen	Window Frame	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	216	0.1	mg/cm2	Negative	1	4/26/2023	12:42:47	E. Ortiz	679	Interior Bldg. 1	Kitchen	Door Frame	Wood	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	217	0	mg/cm2	Negative	1	4/26/2023	12:44:21	E. Ortiz	679	Exterior Bldg. 2	Playground	Door	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	218	0	mg/cm2	Negative	1	4/26/2023	12:44:48	E. Ortiz	679	Exterior Bldg. 2	Playground	Door Frame	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	219	0	mg/cm2	Negative	1	4/26/2023	12:47:17	E. Ortiz	679	Exterior Bldg. 2	Playground	Wall	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	220	0	mg/cm2	Negative	1	4/26/2023	12:47:29	E. Ortiz	679	Exterior Bldg. 2	Playground	Wall	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	221	0.1	mg/cm2	Negative	1	4/26/2023	12:47:51	E. Ortiz	679	Exterior Bldg. 2	Playground	Column	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	222	0	mg/cm2	Negative	1	4/26/2023	12:48:01	E. Ortiz	679	Exterior Bldg. 2	Playground	Column	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	223	0	mg/cm2	Negative	1	4/26/2023	12:48:36	E. Ortiz	679	Exterior Bldg. 2	Playground	Burglar Fence	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	224	0.3	mg/cm2	Negative	1	4/26/2023	12:48:46	E. Ortiz	679	Exterior Bldg. 2	Playground	Burglar Fence	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	225	0	mg/cm2	Negative	1	4/26/2023	12:49:32	E. Ortiz	679	Exterior Bldg. 2	Playground	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	226	0.1	mg/cm2	Negative	1	4/26/2023	12:49:57	E. Ortiz	679	Exterior Bldg. 2	Playground	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	227	0.1	mg/cm2	Negative	1	4/26/2023	12:50:28	E. Ortiz	679	Exterior Bldg. 2	Playground	Column	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	228	0	mg/cm2	Negative	1	4/26/2023	12:50:45	E. Ortiz	679	Exterior Bldg. 2	Playground	Column	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	229	0	mg/cm2	Negative	1	4/26/2023	12:51:09	E. Ortiz	679	Exterior Bldg. 2	Playground	Fence	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	230	0.1	mg/cm2	Negative	1	4/26/2023	12:51:25	E. Ortiz	679	Exterior Bldg. 2	Playground	Fence	Metal	C	White	Deteriorated	-



# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET


Company		Heuresis Corp.															
Model	PB200i																
Type	XRF Lead Paint Analyzer																
Serial Num.	2279																
App Version	PB200i-S.2.0																
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	231	0	mg/cm2	Negative	1	4/26/2023	12:52:11	E. Ortiz	679	Exterior Bldg. 2	Playground	Ceiling	Metal	-	Unpainted	Deteriorated	-
Early Headstart & Escuela Amiga Building	232	0	mg/cm2	Negative	1	4/26/2023	12:52:33	E. Ortiz	679	Exterior Bldg. 2	Playground	Ceiling	Concrete	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	233	0	mg/cm2	Negative	1	4/26/2023	12:53:03	E. Ortiz	679	Exterior Bldg. 2	Playground	Floor	Concrete	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	234	0.2	mg/cm2	Negative	1	4/26/2023	12:53:22	E. Ortiz	679	Exterior Bldg. 2	Playground	Floor	Concrete	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	235	0	mg/cm2	Negative	1	4/26/2023	12:54:50	E. Ortiz	679	Interior Bldg. 2	Storage	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	236	0.1	mg/cm2	Negative	1	4/26/2023	12:55:00	E. Ortiz	679	Interior Bldg. 2	Storage	Wall	Concrete	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	237	0.1	mg/cm2	Negative	1	4/26/2023	12:55:32	E. Ortiz	679	Interior Bldg. 2	Storage	Wall	Concrete	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	238	0.2	mg/cm2	Negative	1	4/26/2023	12:55:44	E. Ortiz	679	Interior Bldg. 2	Storage	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	239	0	mg/cm2	Negative	1	4/26/2023	12:56:11	E. Ortiz	679	Interior Bldg. 2	Storage	Door	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	240	0	mg/cm2	Negative	1	4/26/2023	12:56:21	E. Ortiz	679	Interior Bldg. 2	Storage	Door Frame	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	241	0	mg/cm2	Negative	1	4/26/2023	13:03:49	E. Ortiz	679	Interior Bldg. 1	Room 3	Door	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	242	0.1	mg/cm2	Negative	1	4/26/2023	13:03:58	E. Ortiz	679	Interior Bldg. 1	Room 3	Door Frame	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	243	0.2	mg/cm2	Negative	1	4/26/2023	13:04:37	E. Ortiz	679	Interior Bldg. 1	Room 3	Burglar Fence	Metal	B	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	244	0.2	mg/cm2	Negative	1	4/26/2023	13:05:06	E. Ortiz	679	Interior Bldg. 1	Room 3	Floor	Concrete	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	245	0	mg/cm2	Negative	1	4/26/2023	13:05:48	E. Ortiz	679	Interior Bldg. 1	Room 3	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	246	0	mg/cm2	Negative	1	4/26/2023	13:06:13	E. Ortiz	679	Interior Bldg. 1	Room 3	Wall	Concrete	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	247	0	mg/cm2	Negative	1	4/26/2023	13:06:25	E. Ortiz	679	Interior Bldg. 1	Room 3	Wall	Concrete	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	248	0.1	mg/cm2	Negative	1	4/26/2023	13:07:01	E. Ortiz	679	Interior Bldg. 1	Room 3	Sink	Porcelain	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	249	0.1	mg/cm2	Negative	1	4/26/2023	13:07:10	E. Ortiz	679	Interior Bldg. 1	Room 3	Toilet	Porcelain	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	250	0.9	mg/cm2	Negative	1	4/26/2023	14:43:05	E. Ortiz	679	Exterior	Calibration	-	-	-	-	Deteriorated	-
Early Headstart & Escuela Amiga Building	251	0.7	mg/cm2	Negative	1	4/26/2023	14:43:22	E. Ortiz	679	Exterior	Calibration	-	-	-	-	Deteriorated	-
Early Headstart & Escuela Amiga Building	252	1	mg/cm2	Positive	1	4/26/2023	14:44:04	E. Ortiz	679	Exterior	Calibration	-	-	-	-	Deteriorated	-
Early Headstart & Escuela Amiga Building	253	0	mg/cm2	Negative	1	4/26/2023	14:45:55	E. Ortiz	679	Interior Annex	Room 1	Wall	Concrete	A	White	Deteriorated	-





# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.																
Model		PB200i																
Type		XRF Lead Paint Analyzer																
Serial Num.		2279																
App Version		PB200i-5.2.0																
	Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building		254	0.1	mg/cm2	Negative	1	4/26/2023	14:46:10	E. Ortiz	679	Interior Annex	Room 1	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		255	0	mg/cm2	Negative	1	4/26/2023	14:47:05	E. Ortiz	679	Interior Annex	Room 1	Window Frame	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		256	0.1	mg/cm2	Negative	1	4/26/2023	14:47:38	E. Ortiz	679	Interior Annex	Room 1	Door	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		257	0.1	mg/cm2	Negative	1	4/26/2023	14:47:48	E. Ortiz	679	Interior Annex	Room 1	Door Frame	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		258	0.1	mg/cm2	Negative	1	4/26/2023	14:48:14	E. Ortiz	679	Interior Annex	Room 1	Wall	Concrete	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		259	0	mg/cm2	Negative	1	4/26/2023	14:48:31	E. Ortiz	679	Interior Annex	Room 1	Wall	Concrete	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		260	0	mg/cm2	Negative	1	4/26/2023	14:49:11	E. Ortiz	679	Interior Annex	Room 1	Wall	Concrete	D	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building		261	0	mg/cm2	Negative	1	4/26/2023	14:49:32	E. Ortiz	679	Interior Annex	Room 1	Wall	Concrete	-	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building		262	0	mg/cm2	Negative	1	4/26/2023	14:50:01	E. Ortiz	679	Interior Annex	Room 1	Column	Concrete	-	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building		263	0	mg/cm2	Negative	1	4/26/2023	14:50:15	E. Ortiz	679	Interior Annex	Room 1	Column	Concrete	-	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building		264	0	mg/cm2	Negative	1	4/26/2023	14:51:05	E. Ortiz	679	Interior Annex	Room 1	Door	Wood	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building		265	0	mg/cm2	Negative	1	4/26/2023	14:51:20	E. Ortiz	679	Interior Annex	Room 1	Door Frame	Wood	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building		266	0	mg/cm2	Negative	1	4/26/2023	14:51:34	E. Ortiz	679	Interior Annex	Room 1	Door	Wood	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building		267	0	mg/cm2	Negative	1	4/26/2023	14:51:43	E. Ortiz	679	Interior Annex	Room 1	Door Frame	Wood	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building		268	0.3	mg/cm2	Negative	1	4/26/2023	14:52:22	E. Ortiz	679	Interior Annex	Room 1	Floor	Terrazzo	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building		269	0.2	mg/cm2	Negative	1	4/26/2023	14:52:30	E. Ortiz	679	Interior Annex	Room 1	Floor	Baseboard	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building		270	0.2	mg/cm2	Negative	1	4/26/2023	14:53:15	E. Ortiz	679	Interior Annex	Bathroom	Floor	Ceramic	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building		271	0	mg/cm2	Negative	1	4/26/2023	14:53:58	E. Ortiz	679	Interior Annex	Bathroom	Ceiling	Wood	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		272	0.1	mg/cm2	Negative	1	4/26/2023	14:54:12	E. Ortiz	679	Interior Annex	Bathroom	Ceiling	Wood	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		273	0	mg/cm2	Negative	1	4/26/2023	14:54:51	E. Ortiz	679	Interior Annex	Bathroom	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		274	0	mg/cm2	Negative	1	4/26/2023	14:55:01	E. Ortiz	679	Interior Annex	Bathroom	Wall	Concrete	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		275	0.1	mg/cm2	Negative	1	4/26/2023	14:55:11	E. Ortiz	679	Interior Annex	Bathroom	Wall	Concrete	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building		276	0	mg/cm2	Negative	1	4/26/2023	14:55:35	E. Ortiz	679	Interior Annex	Bathroom	Wall	Wood	D	White	Deteriorated	-

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# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.															
Model	PB200i																
Type	XRF Lead Paint Analyzer																
Serial Num.	2279																
App Version	PB200i-S.2.0																
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	277	0.3	mg/cm2	Negative	1	4/26/2023	14:56:10	E. Ortiz	679	Interior Annex	Bathroom	Sink	Porcelain	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	278	0	mg/cm2	Negative	1	4/26/2023	14:56:20	E. Ortiz	679	Interior Annex	Bathroom	Toilet	Porcelain	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	279	0	mg/cm2	Negative	1	4/26/2023	14:56:57	E. Ortiz	679	Interior Annex	Bathroom	Door	Wood	A	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building	280	0	mg/cm2	Negative	1	4/26/2023	14:57:08	E. Ortiz	679	Interior Annex	Bathroom	Door Frame	Wood	A	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building	281	0.1	mg/cm2	Negative	1	4/26/2023	14:58:09	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	A	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	282	0	mg/cm2	Negative	1	4/26/2023	14:58:24	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	A	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	283	0	mg/cm2	Negative	1	4/26/2023	14:58:44	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	A	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	284	0	mg/cm2	Negative	1	4/26/2023	14:59:13	E. Ortiz	679	Exterior Annex	Building	Door	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	285	0	mg/cm2	Negative	1	4/26/2023	14:59:22	E. Ortiz	679	Exterior Annex	Building	Door Frame	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	286	0.2	mg/cm2	Negative	1	4/26/2023	14:59:56	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	B	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	287	0.1	mg/cm2	Negative	1	4/26/2023	15:00:17	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	B	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	288	0	mg/cm2	Negative	1	4/26/2023	15:00:57	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	C	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	289	0.1	mg/cm2	Negative	1	4/26/2023	15:01:26	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	C	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	290	0	mg/cm2	Negative	1	4/26/2023	15:01:47	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	-	Yellow	Deteriorated	-
Early Headstart & Escuela Amiga Building	291	0	mg/cm2	Negative	1	4/26/2023	15:02:07	E. Ortiz	679	Exterior Annex	Building	Wall	Concrete	-	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building	292	0.1	mg/cm2	Negative	1	4/26/2023	15:02:40	E. Ortiz	679	Exterior Annex	Building	Handrail	Metal	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	293	0.1	mg/cm2	Negative	1	4/26/2023	15:02:51	E. Ortiz	679	Exterior Annex	Building	Handrail	Metal	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	294	0.2	mg/cm2	Negative	1	4/26/2023	15:03:22	E. Ortiz	679	Exterior Annex	Building	Door	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	295	0.1	mg/cm2	Negative	1	4/26/2023	15:03:39	E. Ortiz	679	Exterior Annex	Building	Door Frame	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	296	0	mg/cm2	Negative	1	4/26/2023	15:03:51	E. Ortiz	679	Exterior Annex	Building	Gate	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	297	0	mg/cm2	Negative	1	4/26/2023	15:05:30	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Floor	Concrete	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	298	0.1	mg/cm2	Negative	1	4/26/2023	15:05:39	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Floor	Concrete	-	Gray	Deteriorated	-
Early Headstart & Escuela Amiga Building	299	0	mg/cm2	Negative	1	4/26/2023	15:06:23	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Door	Metal	D	White	Deteriorated	-





# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.																			
Model	Type	Serial Num.	App Version	Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	PB200i	XRF Lead Paint Analyzer	2279		300	0.1	mg/cm2	Negative	1	4/26/2023	15:06:32	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Door Frame	Metal	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					301	0	mg/cm2	Negative	1	4/26/2023	15:07:18	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					302	0	mg/cm2	Negative	1	4/26/2023	15:07:34	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					303	0.1	mg/cm2	Negative	1	4/26/2023	15:08:15	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Window	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					304	0.1	mg/cm2	Negative	1	4/26/2023	15:08:26	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Window	Metal	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					305	0.1	mg/cm2	Negative	1	4/26/2023	15:09:07	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Wall	Concrete	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					306	0	mg/cm2	Negative	1	4/26/2023	15:09:15	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					307	0	mg/cm2	Negative	1	4/26/2023	15:09:53	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Handrail	Concrete	-	Green	Deteriorated	-
Early Headstart & Escuela Amiga Building					308	0	mg/cm2	Negative	1	4/26/2023	15:10:06	E. Ortiz	679	Interior Bldg. 1	Stairs Area	Handrail	Concrete	-	Green	Deteriorated	-
Early Headstart & Escuela Amiga Building					309	0.1	mg/cm2	Negative	2	4/26/2023	15:11:04	E. Ortiz	679	Interior Bldg. 1	Room 4	Wall	Concrete	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					310	0.2	mg/cm2	Negative	2	4/26/2023	15:11:19	E. Ortiz	679	Interior Bldg. 1	Room 4	Wall	Concrete	B	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					311	0.2	mg/cm2	Negative	2	4/26/2023	15:11:43	E. Ortiz	679	Interior Bldg. 1	Room 4	Wall	Concrete	C	Blue	Deteriorated	-
Early Headstart & Escuela Amiga Building					312	0	mg/cm2	Negative	2	4/26/2023	15:12:04	E. Ortiz	679	Interior Bldg. 1	Room 4	Wall	Concrete	D	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					313	0	mg/cm2	Negative	2	4/26/2023	15:12:34	E. Ortiz	679	Interior Bldg. 1	Room 4	Wall	Drywall	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					314	0	mg/cm2	Negative	2	4/26/2023	15:13:21	E. Ortiz	679	Interior Bldg. 1	Room 4	Window	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					315	0	mg/cm2	Negative	2	4/26/2023	15:13:31	E. Ortiz	679	Interior Bldg. 1	Room 4	Window Frame	Metal	A	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					316	0	mg/cm2	Negative	2	4/26/2023	15:13:47	E. Ortiz	679	Interior Bldg. 1	Room 4	Window	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					317	0.2	mg/cm2	Negative	2	4/26/2023	15:14:05	E. Ortiz	679	Interior Bldg. 1	Room 4	Window Frame	Metal	C	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					318	0.1	mg/cm2	Negative	2	4/26/2023	15:14:27	E. Ortiz	679	Interior Bldg. 1	Room 4	Door	Metal	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					319	0.1	mg/cm2	Negative	2	4/26/2023	15:14:45	E. Ortiz	679	Interior Bldg. 1	Room 4	Door Frame	Metal	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building					320	0.1	mg/cm2	Negative	2	4/26/2023	15:17:12	E. Ortiz	679	Interior Bldg. 1	Room 4	Floor	Terrazzo	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building					321	0.1	mg/cm2	Negative	2	4/26/2023	15:17:21	E. Ortiz	679	Interior Bldg. 1	Room 4	Baseboard	Terrazzo	-	Beige	Deteriorated	-
Early Headstart & Escuela Amiga Building					322	0	mg/cm2	Negative	2	4/26/2023	15:20:29	E. Ortiz	679	Interior Bldg. 1	Room 4	Ceiling	Concrete	-	White	Deteriorated	-

# EARLY HEADSTART & ESCUELA AMIGA BUILDING - DORADO PR. XRF SHEET

Company		Heuresis Corp.															
Model		PB200i															
Type		XRF Lead Paint Analyzer															
Serial Num.		2279															
App Version		PB200i-5.2.0															
Job Id	Reading #	Concentration	Units	Result	Level	Date	Time	Inspector	Job	Room	Structure	Component	Substrate	Wall	Color	Condition	Approx. Qty.
Early Headstart & Escuela Amiga Building	323	0	mg/cm2	Negative	2	4/26/2023	15:21:10	E. Ortiz	679	Interior Bldg. 1	Room 4	Ceiling	Concrete	-	White	Deteriorated	-
Early Headstart & Escuela Amiga Building	324	0	mg/cm2	Negative	2	4/26/2023	15:26:24	E. Ortiz	679	Interior Bldg. 1	Room 4	Window	Metal	A	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	325	0	mg/cm2	Negative	2	4/26/2023	15:26:34	E. Ortiz	679	Interior Bldg. 1	Room 4	Window Frame	Metal	A	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	326	0	mg/cm2	Negative	2	4/26/2023	15:26:43	E. Ortiz	679	Interior Bldg. 1	Room 4	Window	Metal	C	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	327	0	mg/cm2	Negative	2	4/26/2023	15:26:52	E. Ortiz	679	Interior Bldg. 1	Room 4	Window Frame	Metal	C	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	328	0	mg/cm2	Negative	2	4/26/2023	15:27:01	E. Ortiz	679	Interior Bldg. 1	Room 4	Door	Metal	-	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	329	0	mg/cm2	Negative	2	4/26/2023	15:27:10	E. Ortiz	679	Interior Bldg. 1	Room 4	Door Frame	Metal	-	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	330	0	mg/cm2	Negative	2	4/26/2023	15:27:19	E. Ortiz	679	Interior Bldg. 1	Room 4	Floor	Terrazo	-	Beige	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	331	0	mg/cm2	Negative	2	4/26/2023	15:27:28	E. Ortiz	679	Interior Bldg. 1	Room 4	Baseboard	Terrazo	-	Beige	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	332	0	mg/cm2	Negative	2	4/26/2023	15:27:36	E. Ortiz	679	Interior Bldg. 1	Room 4	Ceiling	Concrete	-	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	333	0	mg/cm2	Negative	2	4/26/2023	15:27:44	E. Ortiz	679	Interior Bldg. 1	Room 4	Ceiling	Concrete	-	White	Deteriorated	Duplicate Readings
Early Headstart & Escuela Amiga Building	334	1.1	mg/cm2	Positive	-	4/26/2023	15:28:14	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	335	1.2	mg/cm2	Positive	-	4/26/2023	15:28:30	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-
Early Headstart & Escuela Amiga Building	336	1.2	mg/cm2	Positive	-	4/26/2023	15:28:47	E. Ortiz	679	Exterior	Calibration	-	-	-	-	-	-



## **Attachment 5**

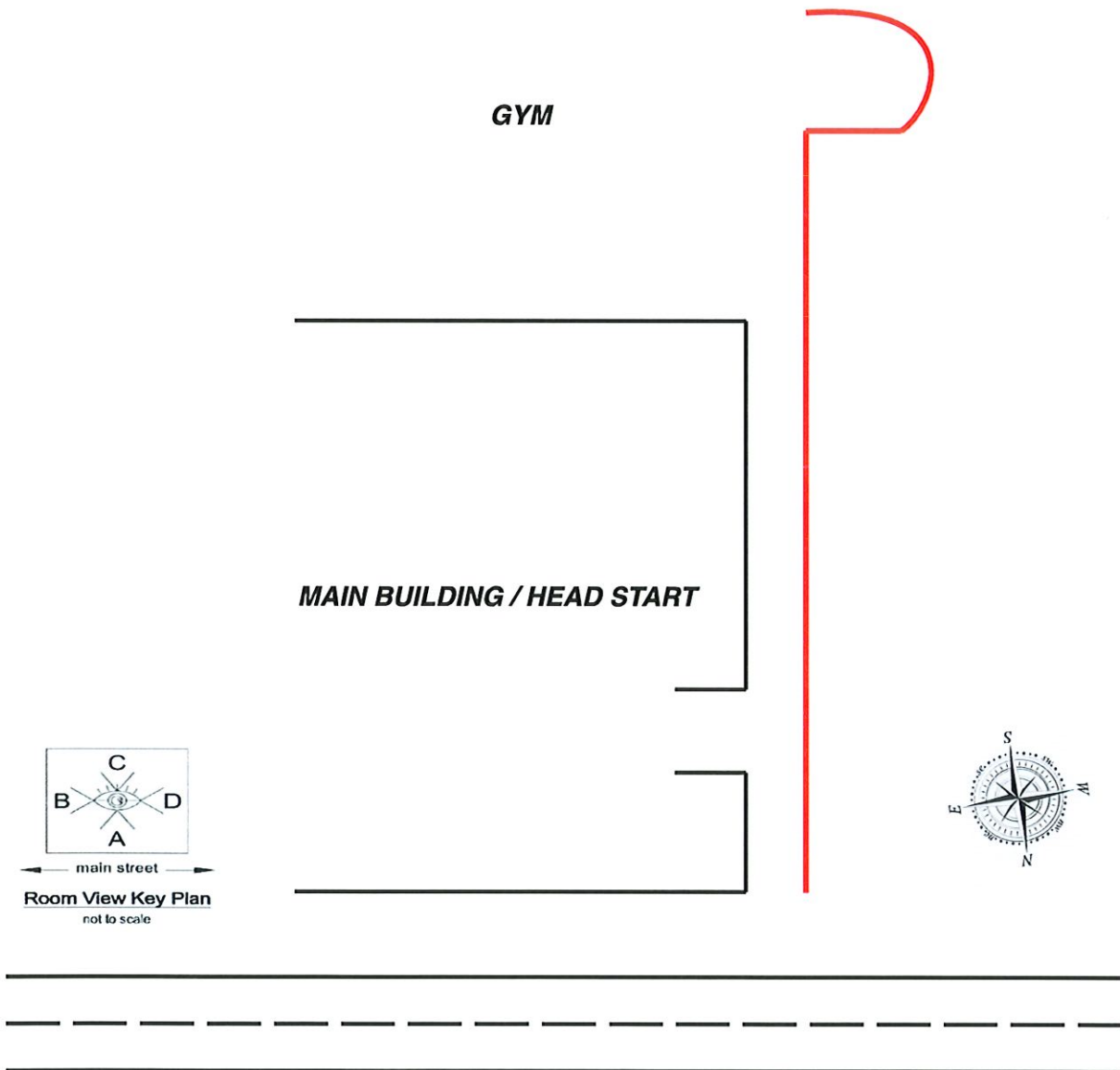
### **LBP Diagram**



# **EARLY HEADSTART & ESCUELA AMIGA BUILDING**

## **LEAD-BASED PAINT DIAGRAM**

 ➔ **POSITIVE YELLOW LEAD-BASED PAINT CONCRETE CURB**



***Casa de la Juventud, calle Méndez Vigo  
Dorado, Puerto Rico. 00646***

**Attachment 6**  
**Representative Pictures\Photograph Log**





*LPB*

Emanuel Ortiz

Nortol. Environmental & Occupational Safety, Inc.

## **EARLY HEADSTART & ESCUELA AMIGA BUILDING -LBP SURVEY PHOTO LOG**

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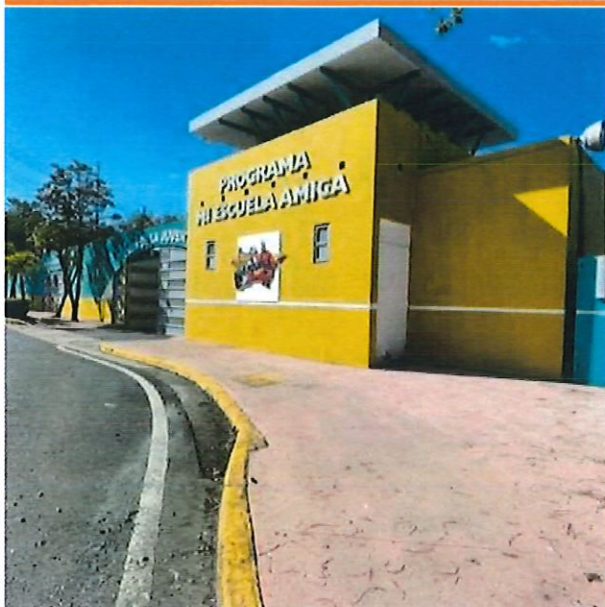
**1985**

**Wednesday, April 26, 2023**

**Prepared For SEM AE Design**

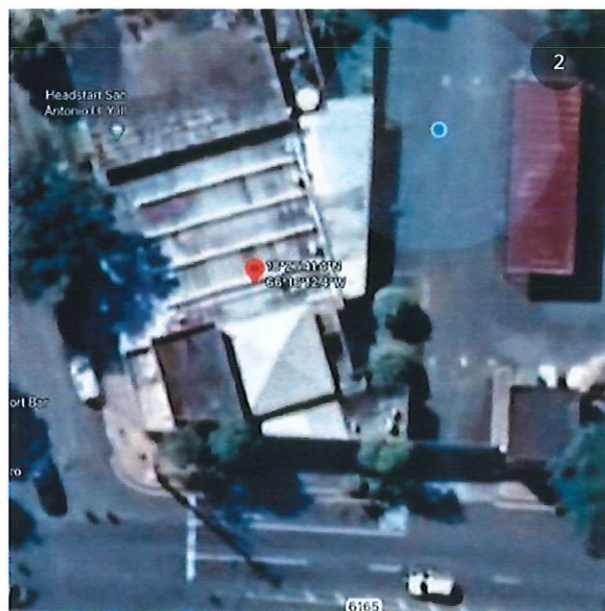
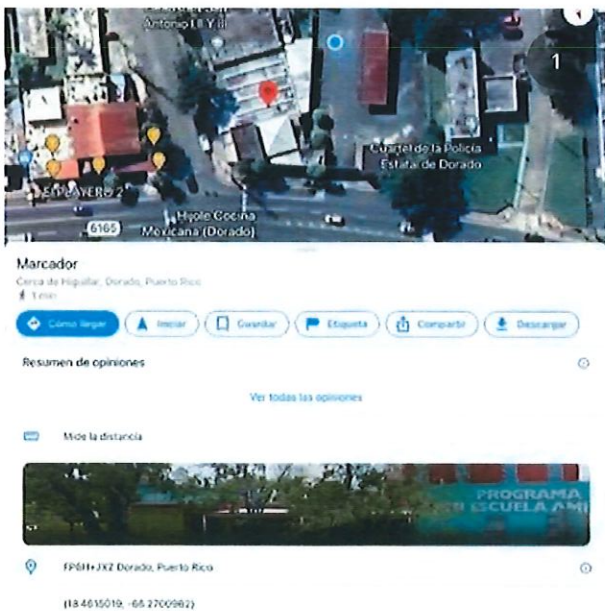
**Casa de la Juventud, calle Méndez Vigo Dorado, Puerto Rico 00646**





**FRONT VIEW:**  
(18.4615019, -66.2700962)

**COORDINATES:**  
(18.4615019, -66.2700962)





## SCOPE OF WORK:

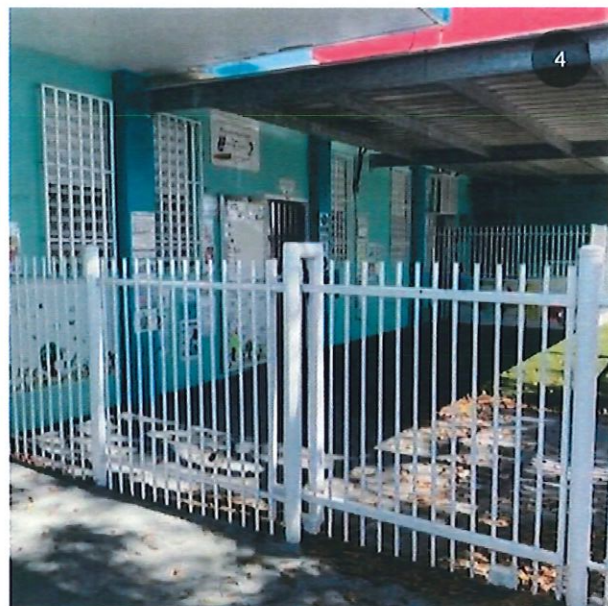
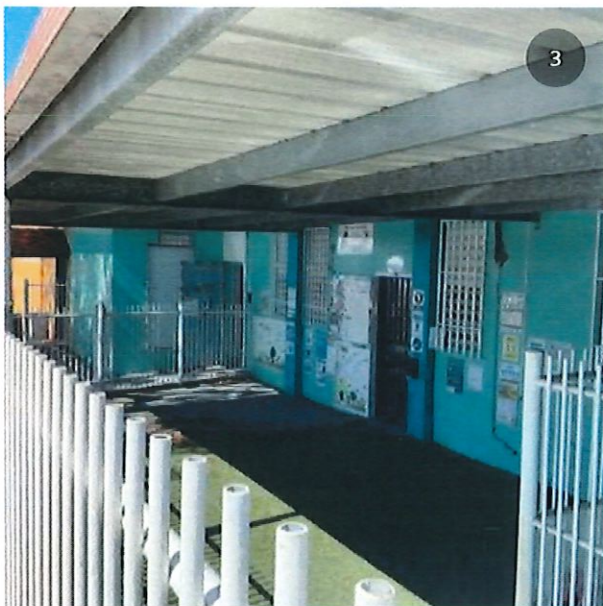
Full A/L inspection.

## EXTERIOR GENERAL VIEWS:



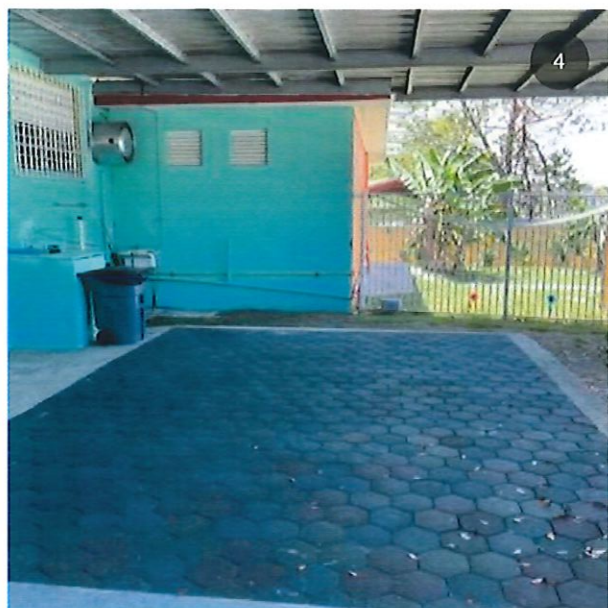
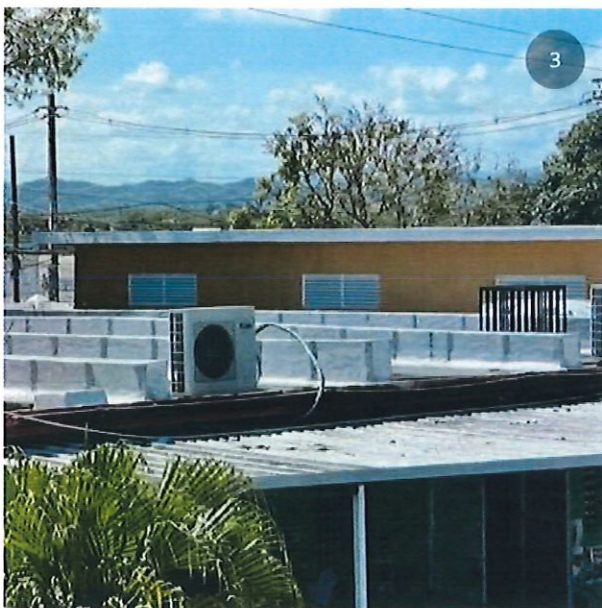
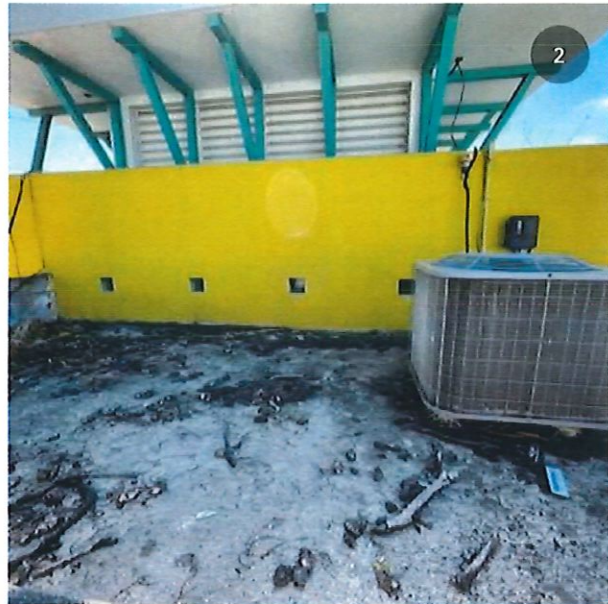


## EXTERIOR GENERAL VIEWS:



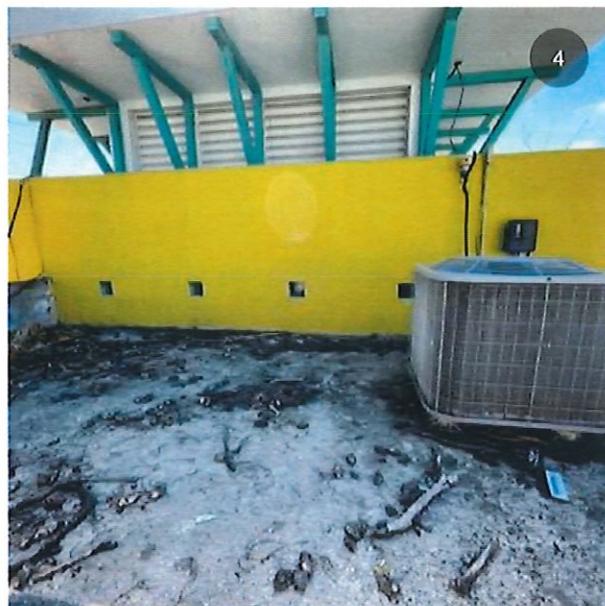
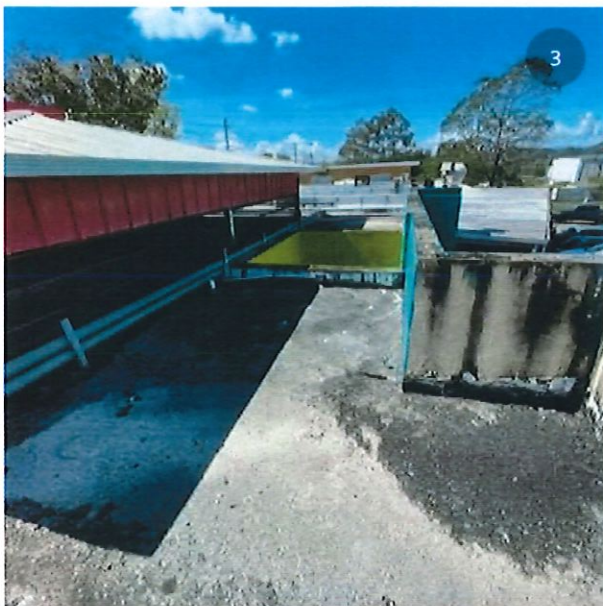
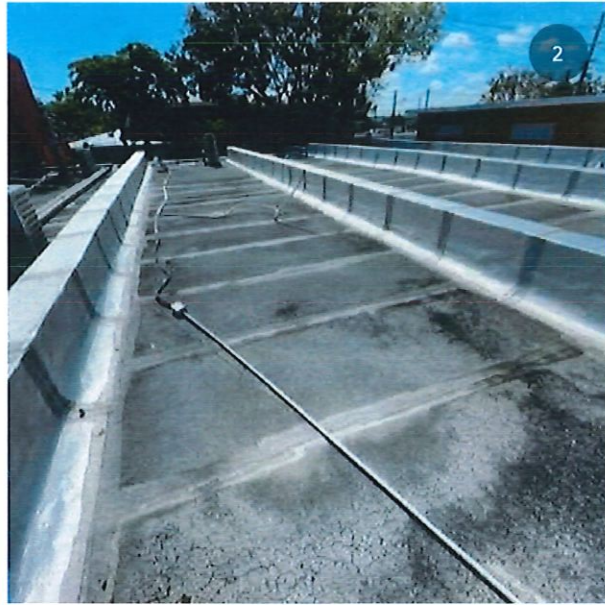
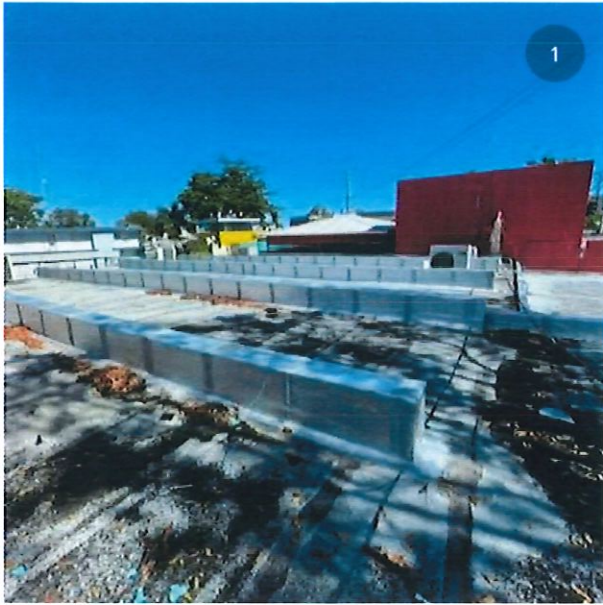


## EXTERIOR GENERAL VIEWS:

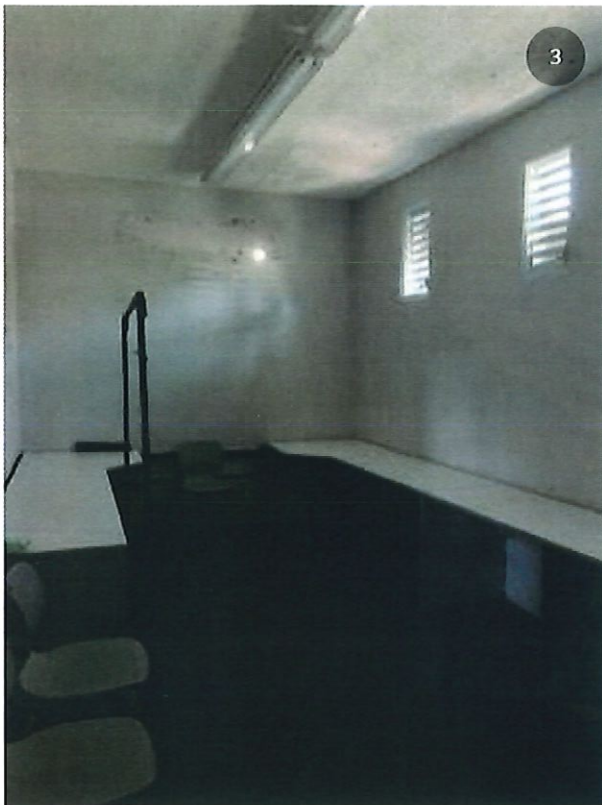




## EXTERIOR GENERAL VIEWS: ROOF

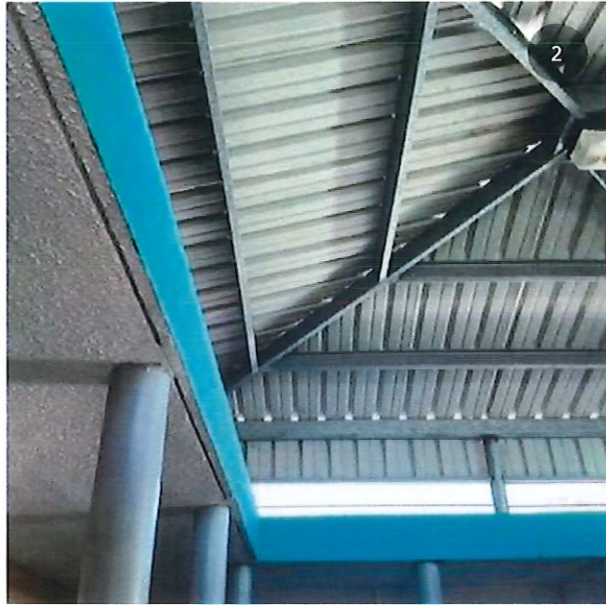
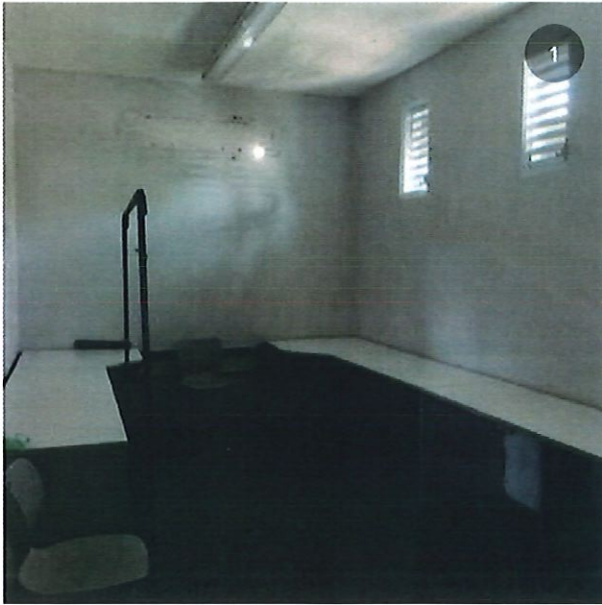


## INTERIOR GENERAL VIEWS:

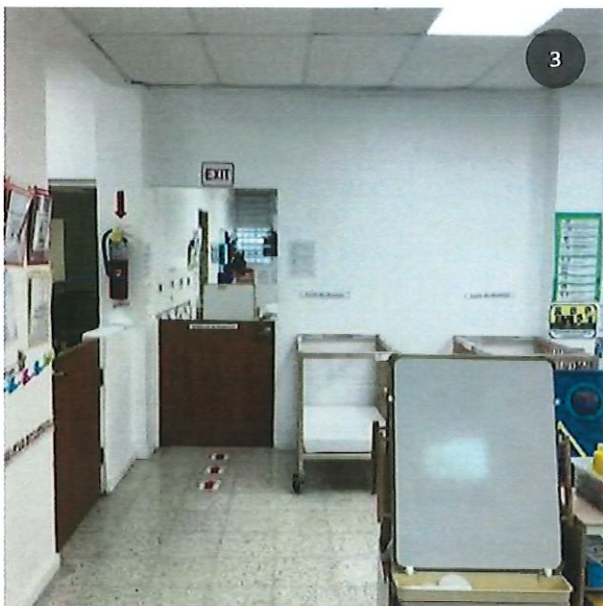
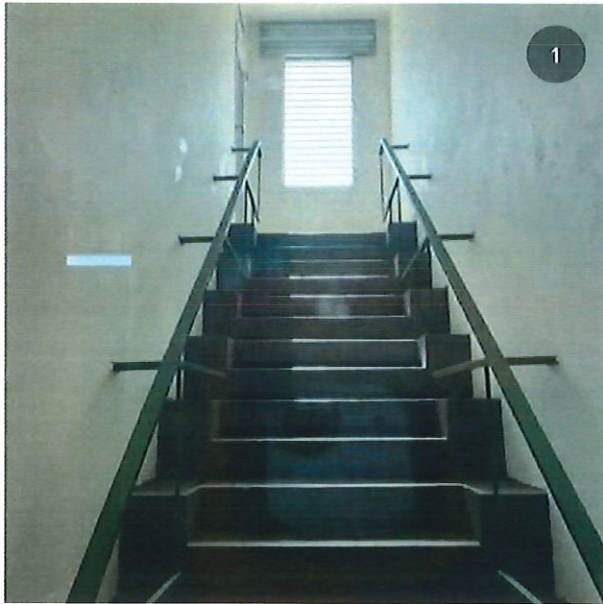




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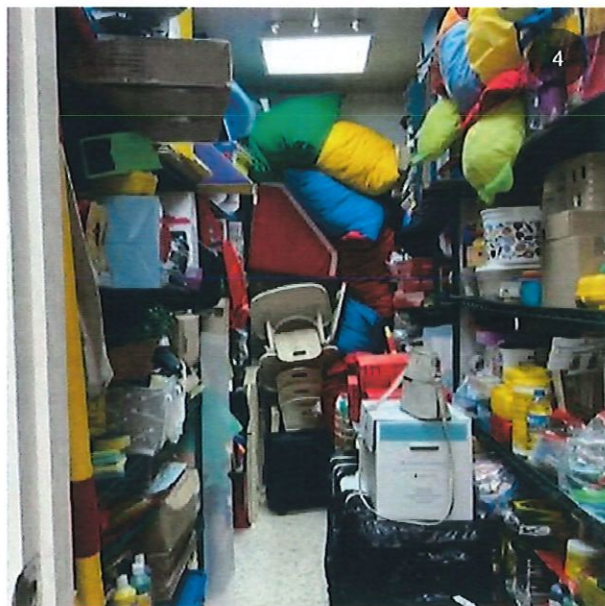
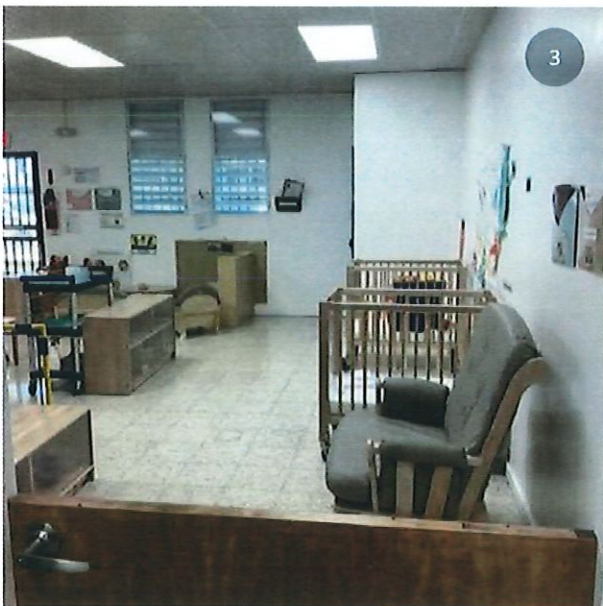
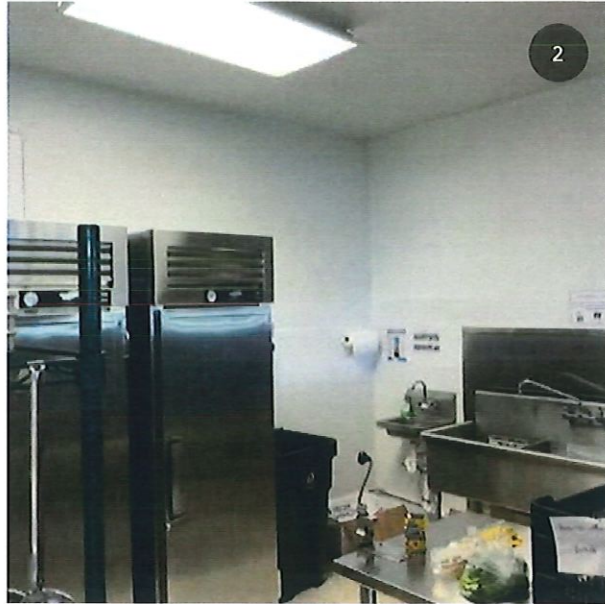


## INTERIOR GENERAL VIEWS:

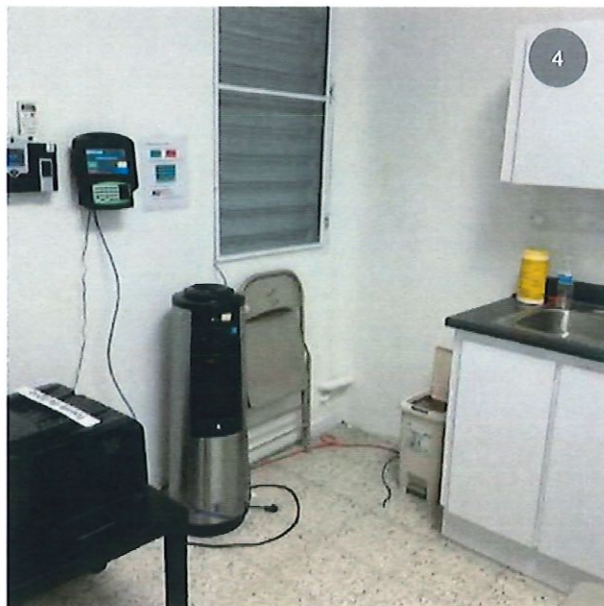
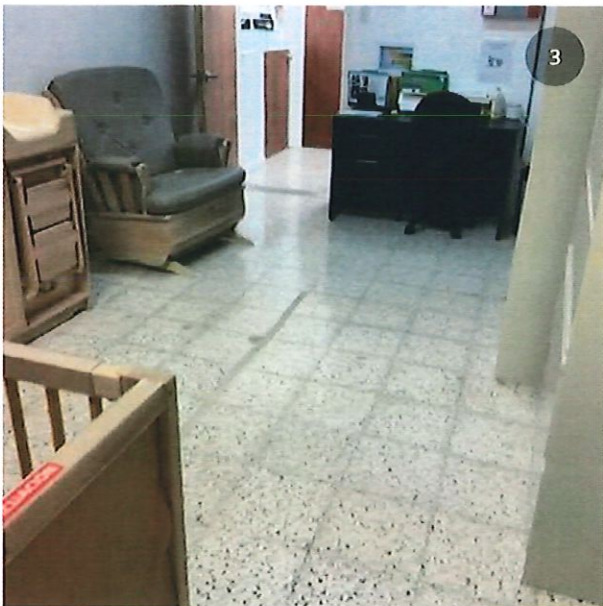
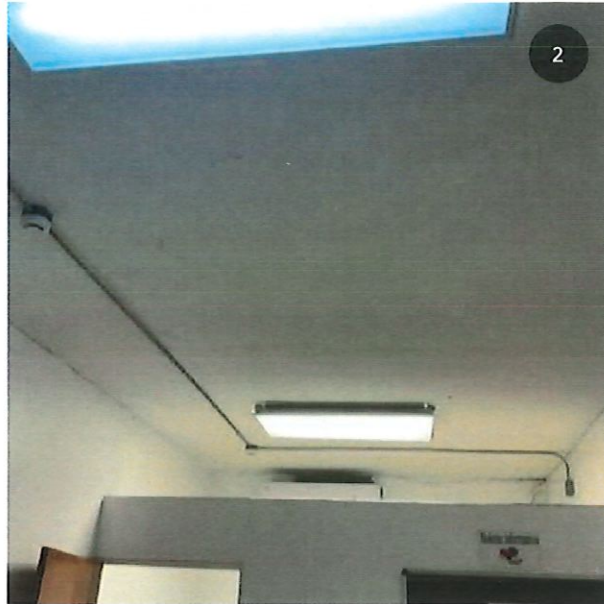




## INTERIOR GENERAL VIEWS:

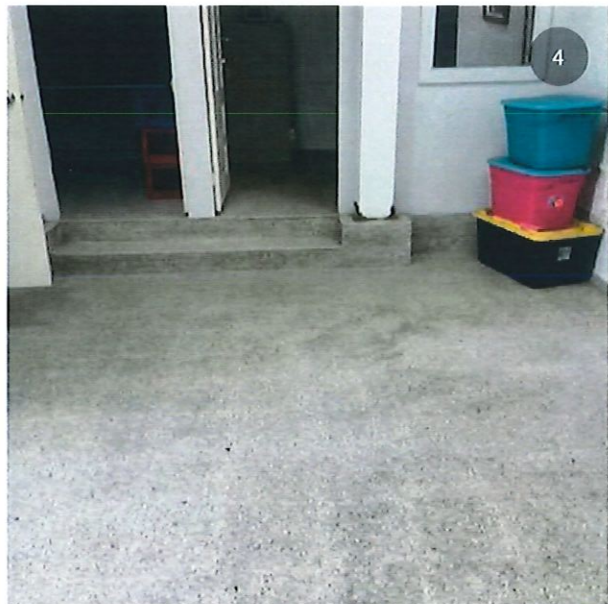
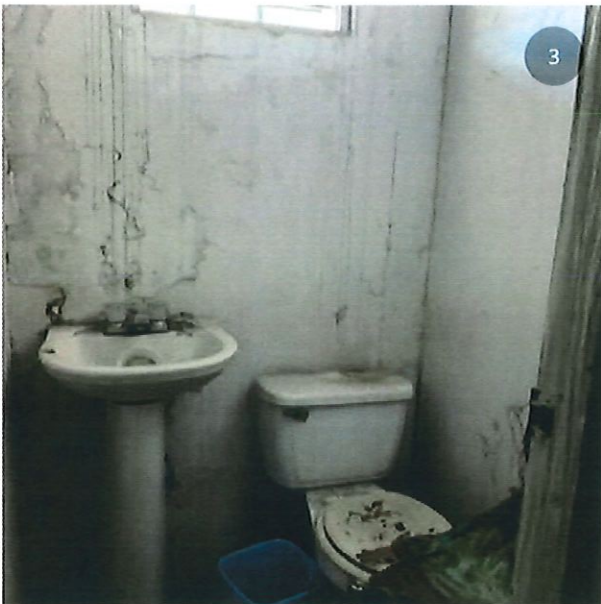


## INTERIOR GENERAL VIEWS:

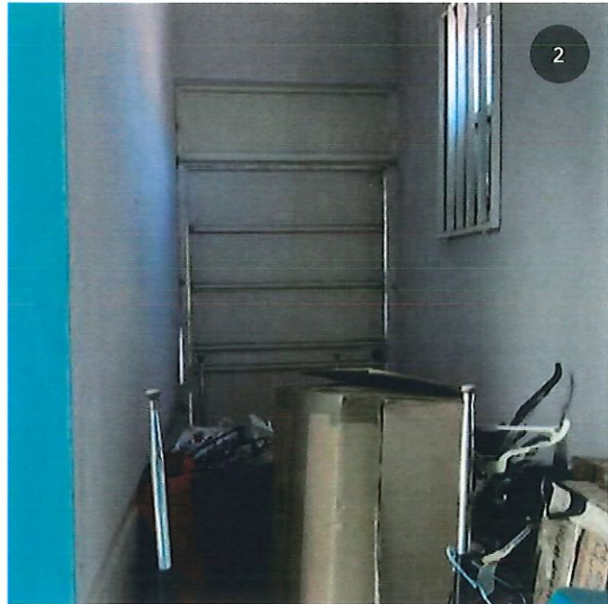




## INTERIOR GENERAL VIEWS:



## INTERIOR GENERAL VIEWS:



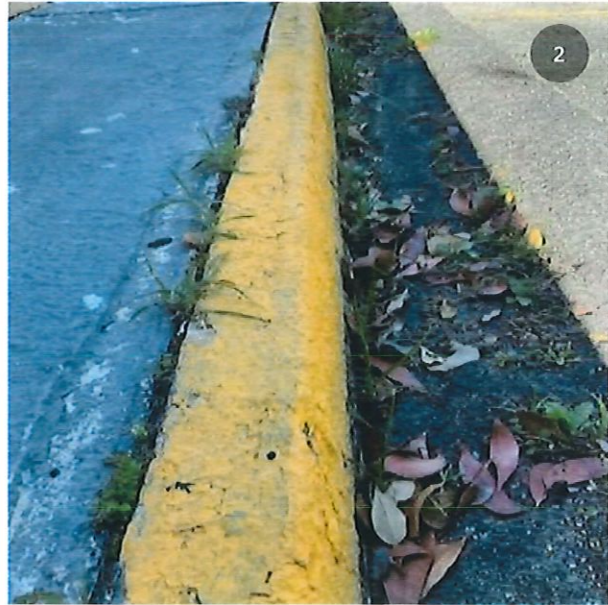
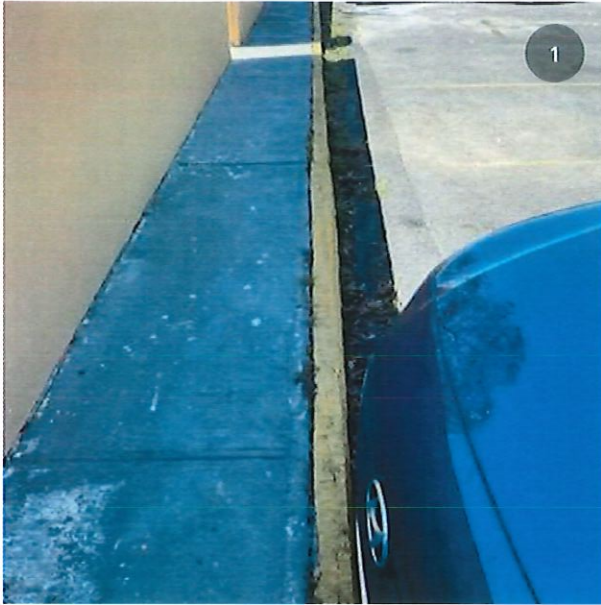


## INTERIOR GENERAL VIEWS:



## LBP DETECTED? PARKING LOT

Exterior, Readings from #09 to #12, yellow concrete curb, between 1.5 to 4.7 mg/cm<sup>2</sup>, (qty. 165 LF Approx.)



**Attachment 7**  
**XRF Performance Characteristic Sheet**



## Performance Characteristic Sheet

**EFFECTIVE DATE:** September 1, 2022

**MANUFACTURER AND MODEL:**

Make: *Heuresis*  
Models: *Model Pb200i, Pb200e*  
Source: *<sup>57</sup>Co, 5 mCi (nominal – new source)*

### FIELD OPERATION GUIDANCE

**OPERATING PARAMETERS:**

Action Level 1.0 mg/cm<sup>2</sup>

**XRF CALIBRATION CHECK LIMITS:**

0.8 to 1.2 mg/cm <sup>2</sup> (inclusive)
---

**SUBSTRATE CORRECTION:**

Not applicable

**INCONCLUSIVE RANGE OR THRESHOLD:**

ACTION LEVEL MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0



## BACKGROUND INFORMATION

### EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in November 2015, with two separate instruments running software version 2.1-2 in Action Level test mode. The actual source strength of each instrument on the day of testing was approximately 2.0 mCi; source ages were approximately one year.

### OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

### XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> film).

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

### SUBSTRATE CORRECTION VALUE COMPUTATION:

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm<sup>2</sup> for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm<sup>2</sup> at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm<sup>2</sup>. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm<sup>2</sup> NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1\text{st} + 2\text{nd} + 3\text{rd} + 4\text{th} + 5\text{th} + 6\text{th Reading})/6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

### EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below. Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and the retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

Compute the average of all ten re-test XRF readings.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

#### TESTING TIMES:

In the Action Level paint test mode, the instrument takes the longest time to complete readings close to the Federal standard of 1.0 mg/cm<sup>2</sup>. The table below shows the mean and standard deviation of actual reading times by reading level for paint samples during the November 2015 archive testing. The tested instruments reported readings to one decimal place. No significant differences in reading times by substrate were observed. These times apply only to instruments with the same source strength as those tested (2.0 mCi). Instruments with stronger sources will have shorter reading times and those with weaker sources, longer reading times, than those in the table.

Mean and Standard Deviation of Reading Times in Action Level Mode by Reading Level		
Reading (mg/cm <sup>2</sup> )	Mean Reading Time (seconds)	Standard Deviation (seconds)
< 0.7	3.48	0.47
0.7	7.29	1.92
0.8	13.95	1.78
0.9 – 1.2	15.25	0.66
1.3 – 1.4	6.08	2.50
≥ 1.5	3.32	0.05

#### **CLASSIFICATION OF RESULTS:**

XRF results are classified as **positive** if they are **greater than or equal** to the stated threshold for the instrument (1.0 mg/cm<sup>2</sup>), and *negative* if they are *less than* the threshold.

#### **DOCUMENTATION:**

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at <http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997>.

This XRF Performance Characteristic Sheet (PCS) was developed by QuanTech, Inc., under a contract with the XRF manufacturer.



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**Attachment 18: Zoning Map**

# ZONING / ALLOWABLE USES

## ■ DT-G = Dotacional General ("General Endowment")

### SECCIÓN 6.1.20.2 USOS

Los usos a considerar en este distrito serán compatibles con los propósitos de éste y con las disposiciones de esta Sección, tales como:

Tabla 6.74 – Usos a considerar en Distrito D-G

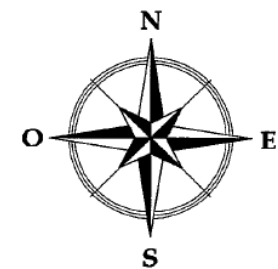
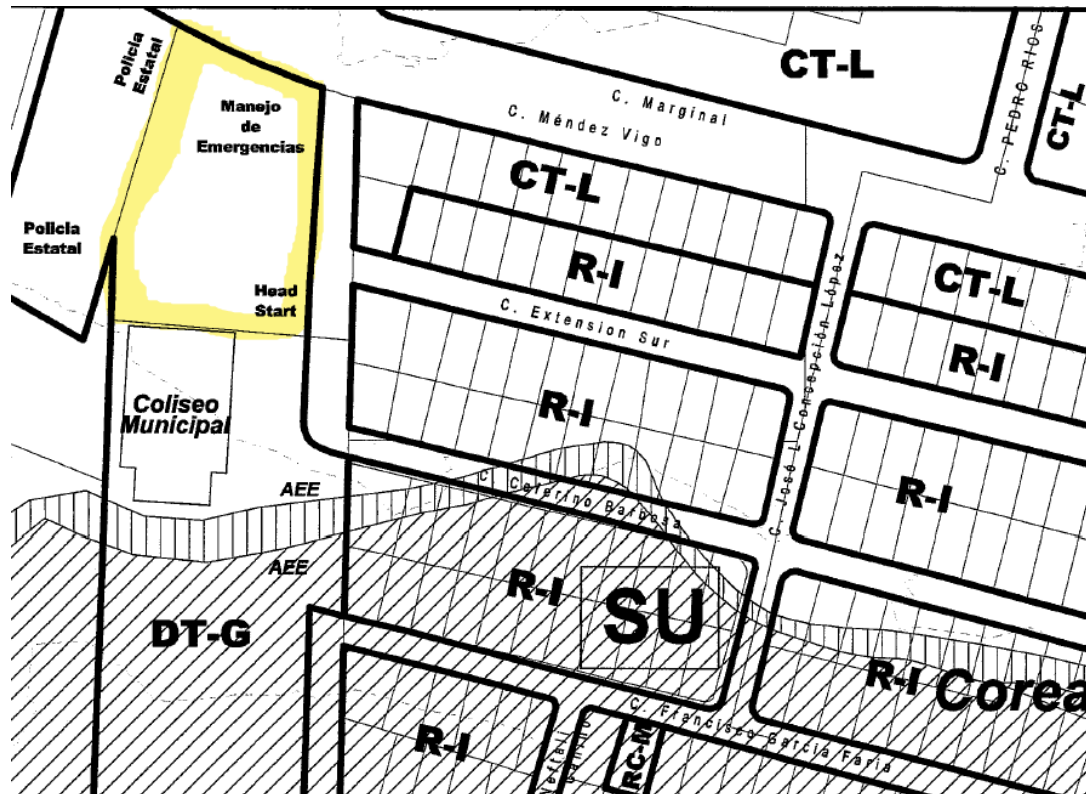
SERVICIOS	HOSPEDERÍAS Y RESIDENCIALES	COMERCIAL	OTROS
Empresas municipales	Hotel	Microempresas	Aeropuerto
Iglesias y templos	Hospedajes	Restaurantes	Artesanal
Cementerio	Hospederías	Comercios	Cívico
Oficinas	Hospedajes especializados	Instalaciones comerciales	Cultural
Usos turísticos	Vivienda unifamiliar y multifamiliar	Farmacia	Servicios de infraestructura
Estacionamiento	Alojamiento y desayuno ("Bed & Breakfast")		Institucionales
Hospital para tratamiento de animales, a prueba de ruidos y no se mantengan animales fuera del edificio.			Museo
			Recreativos
			Conglomerado de empresas emergentes ("startup" empresas incubadoras)
			Proyectos de energía renovable
			Hospital, hospital de medicina general, casa de salud, sanatorio e institución para tratamiento de dementes.



Source: <https://gis.jp.pr.gov/mipr/>



■ DT-G



Escala Aproximada  
1 : 2,000

### Calificación de Suelos

AD	AREA DESARROLLADA
A-G	AGRÍCOLA GENERAL
A-P	AGRÍCOLA PRODUCTIVO
B-Q	BOSQUE
C-I	COMERCIAL INTERMEDIO
CR	CONSERVACIÓN DE RECURSOS
CT-I	COMERCIAL TURÍSTICO INTERMEDIO
CT-L	COMERCIAL TURÍSTICO LIVIANO
DT-G	DOTACIONAL GENERAL



### MAPA DE CALIFICACIÓN DE SUELO MUNICIPIO DE DORADO



16	17	18
26	27	28
34	35	36





Tabla 6.1 - Equivalencias Distritos de Calificación

DISTRITOS PREVIO 2008	DISTRITOS A 2010	DESCRIPCIÓN	DISTRITOS A 2020	NOMBRE DEL DISTRITO
DS	D-S	Desarrollo Selectivo		
R-0	U-R	Terrenos Urbanizables		
LT-AD	LT-AD	Laguna Tortuguero - Área Desarrollada		
A-4	R-G	Rural General	R-G	Rural General
LT-A4	LT-A4	Laguna Tortuguero – Rural General		
R-0	U-R	Terrenos Urbanizables		
A-3 y A-2	A-G	Agrícola General	A-G	Agrícola General
AR-2	AR-2	Agrícola en Reserva Dos		
PM	P-M	Pesca y Maricultura		
LT-A2 y LT-A3	LT-A2 y LT-A3	Laguna Tortuguero - Agrícola General y Agrícola Tres		
R-0	U-R	Terrenos Urbanizables		
A-1	A-P	Agrícola Productivo	A-P	Agrícola Productivo
AR-1	AR-1	Agrícola en Reserva Uno		
LT-A-1	LT-A-1	Laguna Tortuguero - Agrícola Mecanizable		
R-0	U-R	Terrenos Urbanizables		
P	DT-G	Dotacional General	D-G	Dotacional General
	DT-P	Dotacional Parque	D-A	Dotacional Área Abierta

# REGULATION CALIFICATION EQUIVALENCIES

- Reglamento Conjunto 2020





# DOTACIONAL GENERAL — ALLOWED ACTIVITIES

## 2015 Reg Conjunto:

63. Dotaciones Generales- Conjunto de los elementos fundamentales que integran la estructura general del territorio, según lo establece el Plan Territorial, integrada por los elementos determinantes del desarrollo urbano y, en particular por el sistema de comunicaciones, el de áreas abiertas destinadas a parques públicos y zonas verdes, equipamientos comunitarios, **redes arteriales**, grandes abastecimientos, suministros de energía y otros análogos.

## 2010 Reg Conjunto:

61. Dotaciones Generales- Conjunto de los elementos fundamentales que integran la estructura general del territorio, según lo establece el Plan Territorial, integrada por los elementos determinantes del desarrollo urbano y, en particular por el sistema de comunicaciones, el de áreas abiertas destinadas a parques públicos y zonas verdes, equipamientos comunitarios, **redes arteriales**, grandes abastecimientos, suministros de energía y otros análogos.

## 2020 Reg Conjunto:

20. Uso Dotacional - Toda instalación física para proveer a una comunidad de los servicios básicos para su desenvolvimiento y bienestar general. Estas instalaciones podrán comprender, entre otras, establecimientos, planteles o instalaciones educativas, culturales, recreativas, deportivas, de salud, seguridad, transporte, mantenimiento de los asentamientos, recogido de desperdicios sólidos y limpieza de vías públicas, así como de servicios de infraestructura, tales como: agua, alcantarillado, **red vial**, teléfono y electricidad. De estos usos dotacionales se distinguen los que atienden las necesidades del municipio en general y que se identifican como dotaciones generales.



**Attachment 19: Carcongroup Traffic Study**



# CARCONGROUP

ENGINEERING P.S.C.  
PLANIFICACION • GERENCIA • INGENIERIA

17 de Noviembre de 2023

## Memorial Explicativo

### Estudios de Transito Proyecto Mejoras Reconstrucción Rotonda en la Intersección de la Carretera PR-693 y la PR-698, en Dorado

El estudio de tránsito hecho en el 2009 se hizo para determinar las mejoras operacionales de tránsito, intersección carretera PR-693 con la PR-696 y la PR-698, en el Municipio de Dorado. Esta fase se realizó en la construcción de la Fase IV. La revisión del Estudio de Transito hecho en el 2014 se hizo para la Rotonda Intersección Calle Méndez Vigo (PR-693) y la PR-698 y el carril exclusivo de viraje a la derecha en el acceso noreste de la marginal en la calle Méndez Vigo PR-693 con la PR-698. Este se esta incorporando en los planos del proyecto de la rotonda de referencia.

El ingeniero José J Parejo Cohen hizo ambos estudios y lamentablemente falleció.

  
Dr. Jorge L. Bigas Mulero

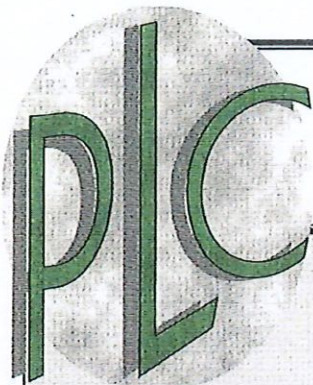


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## TRAFFIC CONSULTING ENGINEERS & PLANNERS

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**JOSÉ J. PAREJO COHÉN, P. E., PTOE**  
*Traffic and Transportation Engineer*

10 de septiembre de 2014

Dr. Jorge L. Bigas Mulero  
CARCONGROUP ENGINEERING, P.S.C.  
PMB 225, 138 Ave. Winston Churchill  
San Juan, Puerto Rico 00926-6023

**RE: ROTONDA INTERSECCIÓN CALLE MÉNDEZ VIGO (PR-693) Y CALLE  
CEFERINO BARBOSA (PR-698)**

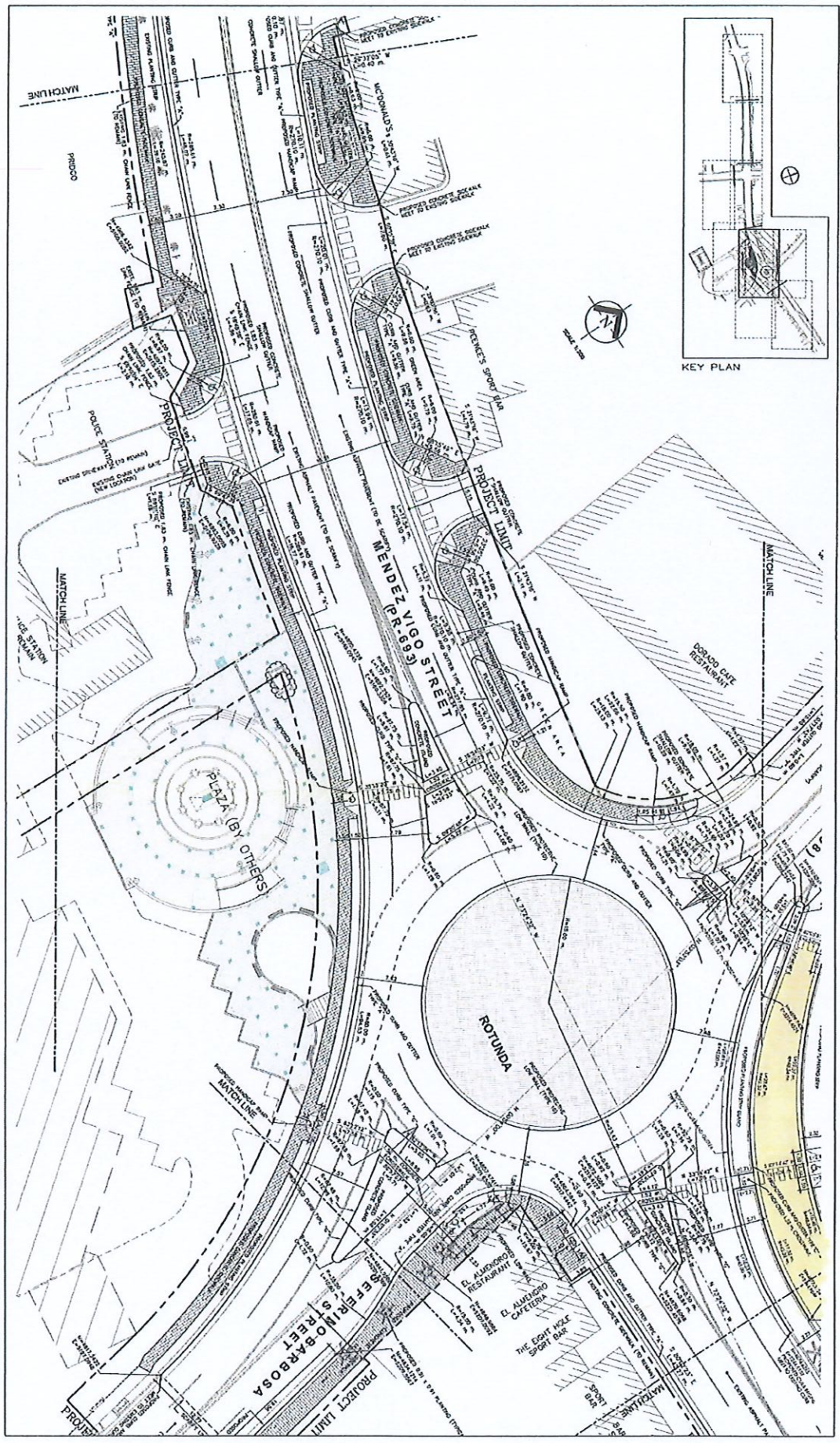
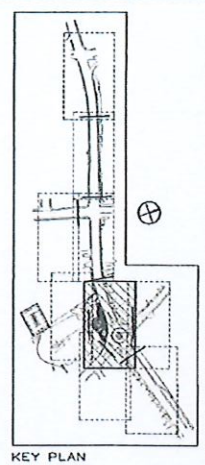
Estimada doctor Bigas:

He revisado la información sobre la rotonda en referencia con relación al carril exclusivo de viraje a la derecha en el acceso noreste de la misma. Le informo que este carril resultará en beneficio de la intersección ya que el tránsito que vira hacia la derecha lo hará de forma directa sin necesidad de llegar a la rotonda. El beneficio de este cambio geométrico se reflejará en la reducción de demoras y aumento en seguridad vial.

Cordialmente,

José J. Parejo, P.E., PTOE





**GEOMETRIC PLAN**

PR-693 AND PR-698 INTERSECTION

DORADO, PUERTO RICO

**CARCON GROUP**

Frank Collopy

SI-1:

*Estudio para Determinar Mejoras Operacionales de  
Transito Tránsito Intersección de la Carretera PR 693 con  
la PR 696 en Dorado y PR- 698*

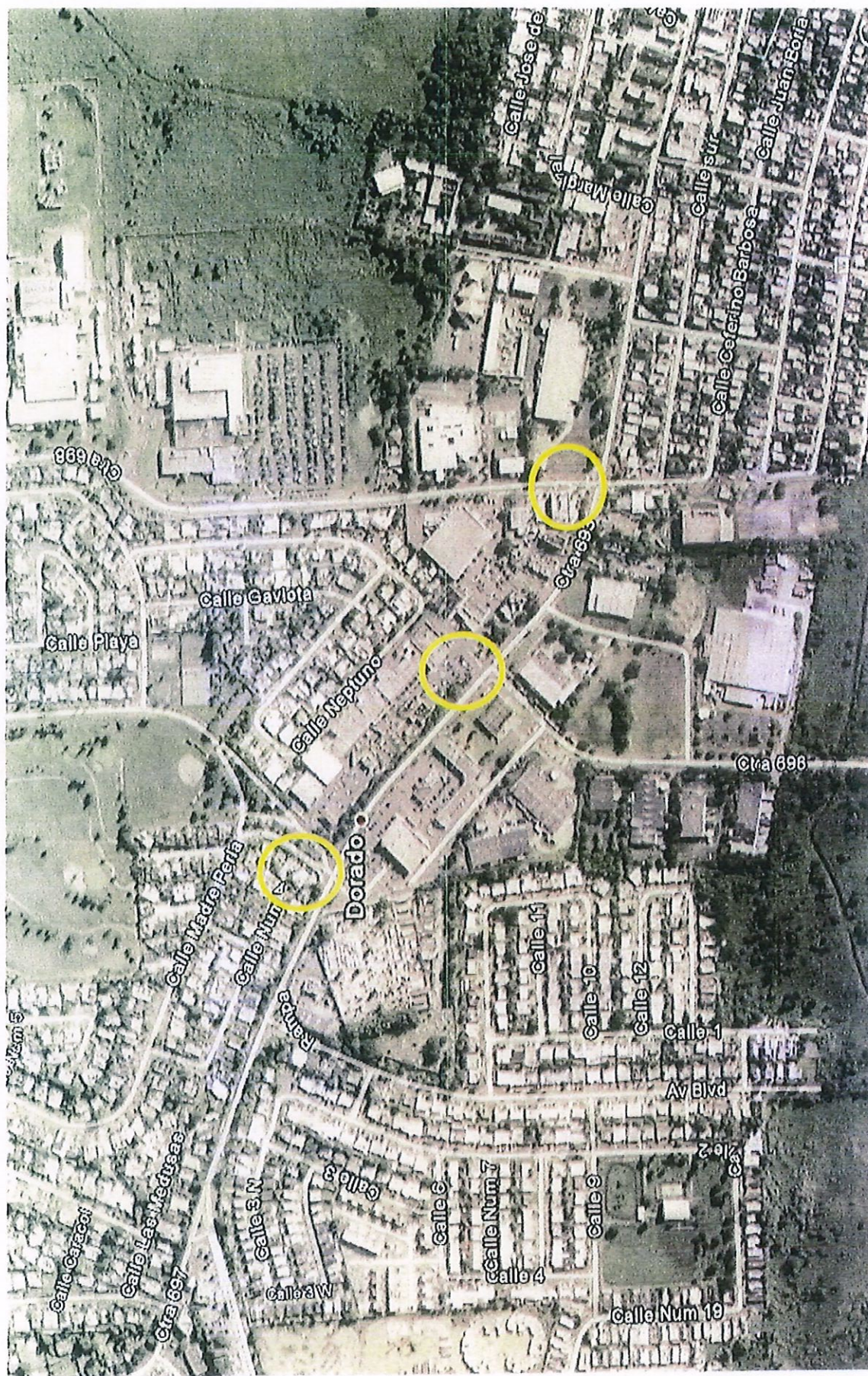
*PLC Traffic Consulting Engineers*

## I. INTRODUCCIÓN

A petición de la Autoridad de Carreteras y Transportación en su comunicación del 11 de febrero de 2009, se añade la Intersección de la Avenida Boulevard con la Carretera PR-693 al **Estudio para Determinar Mejoras Operacionales de Tránsito, Intersección Carretera PR-693 con PR-696 y PR-698**, en el Municipio de Dorado, Puerto Rico. La Figura Núm. 1 muestra las intersecciones a estudiarse.

El objetivo de este informe es estudiar la circulación de vehículos en las Intersecciones Avenida Boulevard con la Carretera PR-693, las Carreteras PR-696 con PR-693 y PR-698 con PR-693. Se analizará la capacidad de estas tres (3) intersecciones y se determinarán las mejoras operacionales necesarias para obtener un flujo de vehículos seguro y eficiente.





LOCALIZACIÓN DE LAS INTERSECCIONES A ESTUDIARSE  
FIGURA 1



## **II AFLUENCIA DE VEHÍCULOS**

## **II. AFLUENCIA DE VEHÍCULOS**

### **Intersección Avenida Boulevard & Carretera PR-693**

#### **Condiciones existentes – Observaciones de Campo**

Durante las inspecciones de campo realizadas, se observó lo siguiente:

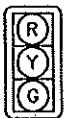
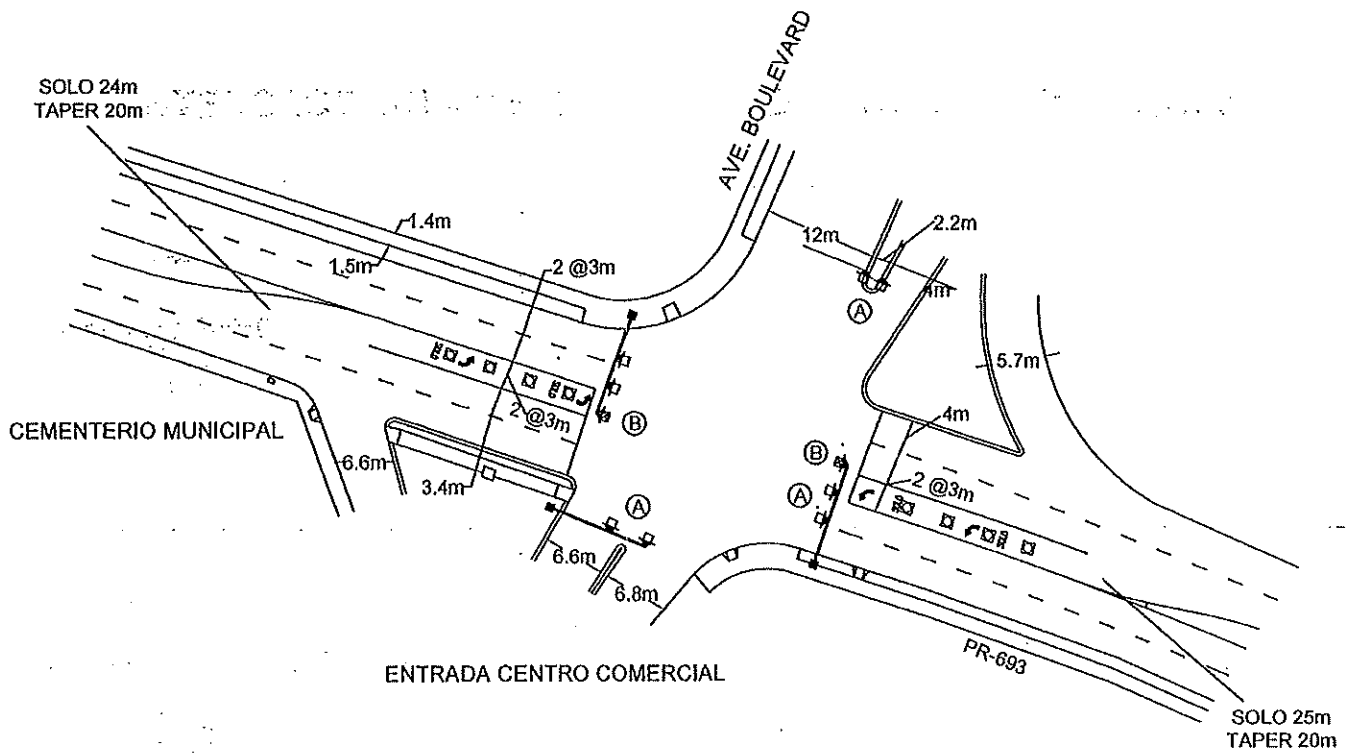
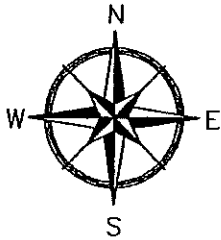
1. Esta intersección está controlada por un sistema de semáforos accionado por los vehículos.
2. El acceso norte es la entrada al Hotel Embassy Suites y la Urbanización Dorado del Mar. Este acceso tiene tres (3) carriles de salida y dos (2) carriles de entrada.
3. El acceso sur es la entrada al Centro Comercial Mahi Mahi. Este acceso tiene dos (2) carriles de entrada y dos (2) carriles de salida.
4. El acceso este (Carretera PR-693) tiene dos (2) carriles para el movimiento recto, un (1) carril de viraje a la izquierda, un (1) carril de viraje a la derecha y dos (2) carriles de entrada.
5. El acceso oeste (Carretera PR-693) tiene dos (2) carriles para el movimiento recto, un (1) carril de viraje a la izquierda y dos (2) carriles de entrada.

#### **Sistema de semáforos y fases**

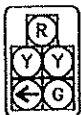
En las Figuras Núm. 2 y 3 se muestran la localización del sistema de semáforos y sus fases, respectivamente.

# INTERSECCIÓN AVE. BOULEVARD & CARRETERA PR-693

FIGURA 2



SIGNAL HEAD (A)



SIGNAL HEAD (B)

NO A ESCALA



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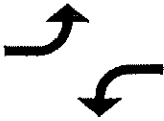
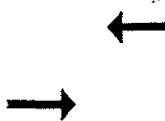


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# INTERSECCIÓN AVE. BOULEVARD & CARRETERA PR-693

## FASES SISTEMA DE SÉMAFOROS

FIGURA 3

MOVIMIENTO 1 MOVIMIENTO 2 MOVIMIENTO 3 MOVIMIENTO 4

 V-20 S. A-3 S.	 V-50 S. A-3 S.	 V-20 S. A-3 S.	 V-20 S. A-3 S.
---	---	--	---

TODO ROJO = 1 S.



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**Afluencia de vehículos**

En la Figura Núm. 4, que aparece en el Apéndice A, se muestran las afluencias de vehículos en esta intersección desde las 12:00 a.m. hasta las 12:00 p.m. el día 26 de marzo de 2009. En las mismas aparecen los volúmenes por acceso, mostrando cada uno de los movimientos. También aparecen resúmenes de los flujos de vehículos en esta intersección; vía principal y vía secundaria durante las horas máximas, así como también las horas pico, los cuatro (4) intervalos de quince (15) minutos y el factor de hora pico.

III

ANÁLISIS DE TRÁNSITO

### III. ANÁLISIS DE TRÁNSITO

Para determinar el tránsito que actualmente discurre a través de las Intersecciones Avenida Boulevard & Carretera PR-693, las Carreteras PR-696 & PR-693 y PR-698 & PR-693, se realizó un análisis del flujo de vehículos.

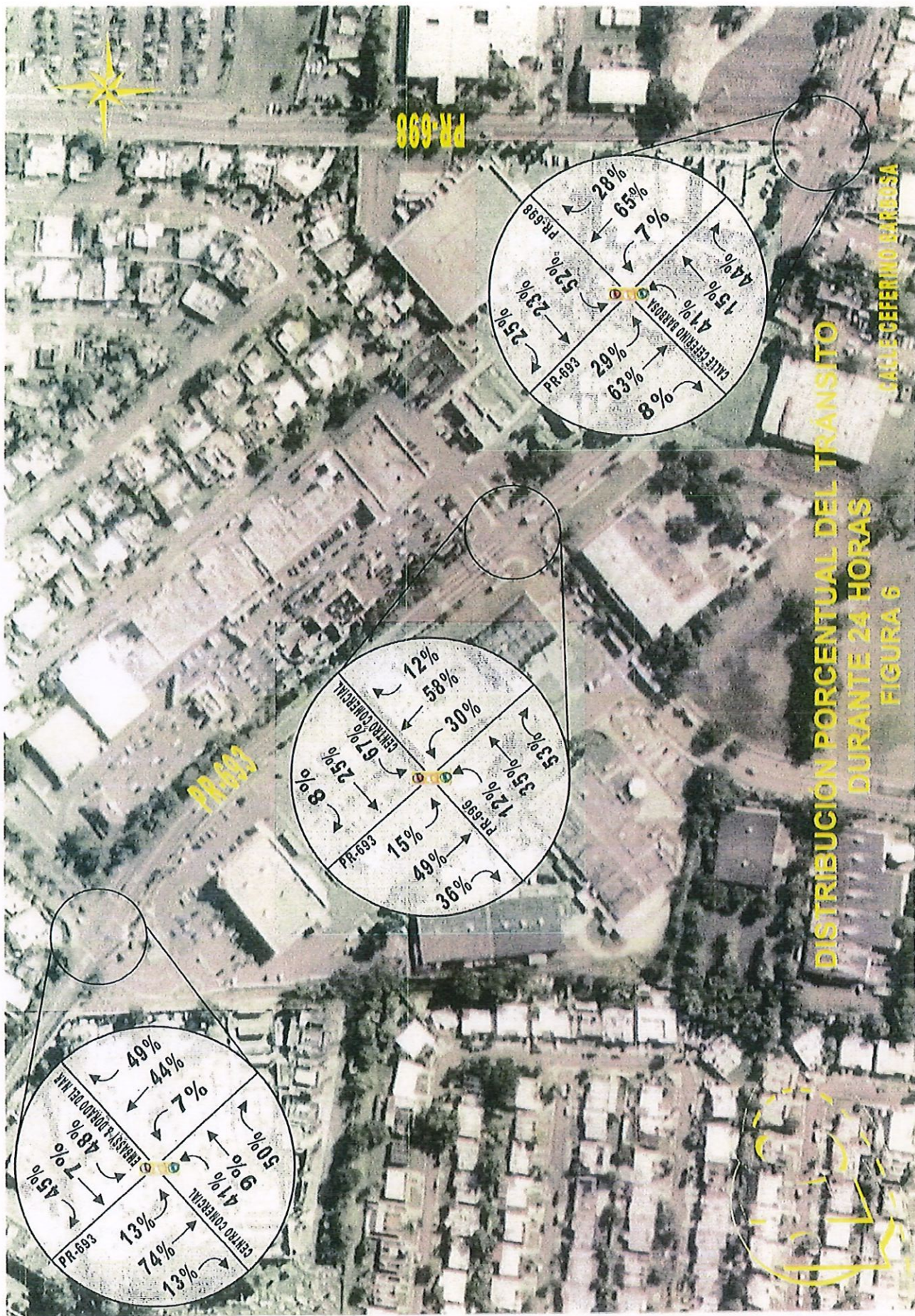
En la Figura Núm. 5 se presenta la distribución del tránsito que actualmente discurre en cada una de las intersecciones estudiadas. En la Figura Núm. 6 se presenta la distribución porcentual del tránsito que actualmente discurre en cada una de las intersecciones estudiadas. Para realizar los cálculos indicados en la Figura Núm. 6 se tomó el total de viajes hacia cada uno de los puntos indicados durante 24 horas y se obtuvieron los por cientos para cada uno de los mismos.

En la Figura Núm. 7 se presenta la gráfica de volumen de vehículos por accesos y tiempo (durante 24 horas), para la Intersecciones Avenida Boulevard & la Carretera PR-693.



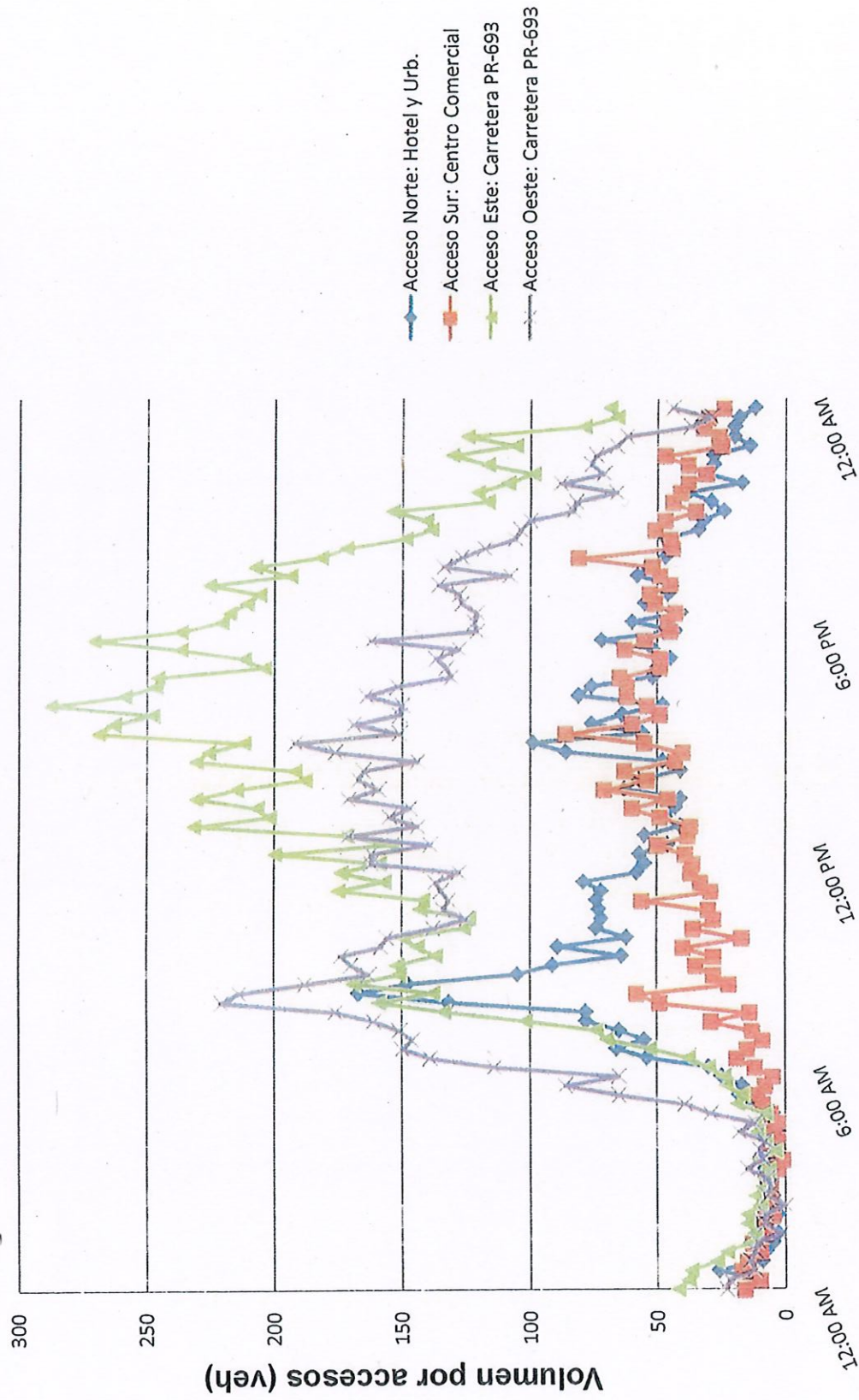








**Figura 7: Gráfica de Volumen vs Tiempo  
Intersección Ave. Boulevard y Carretera PR-693**



Tiempo 24 Horas

#### IV

#### ANÁLISIS DE CAPACIDAD

#### **IV. ANÁLISIS DE CAPACIDAD**

En la Tabla Núm. 1 se presenta un resumen del flujo de vehículos en las intersección Avenida Boulevard y Carretera PR-693 y la proyección de este tránsito al año 2013, según el incremento de 1.0 % calculado en el Proyecto Mejoras Operacionales de Tránsito.

##### **Condiciones Existentes** **Hora Máxima de la Mañana**

##### **Intersección Avenida Boulevard y Carretera PR-693**

En la Figura Núm. 8, que aparece en el Apéndice B, se presenta el análisis de capacidad para la intersección de referencia. Al observar la Figura Núm. 8 notamos lo siguiente:

- a. Esta intersección está operando con un nivel de servicio D.

##### **Condiciones Existentes** **Hora Máxima de la Tarde**

##### **Intersección Avenida Boulevard y Carretera PR-693**

En la Figura Núm. 9, que aparece en el Apéndice B, se presenta el análisis de capacidad para la intersección de referencia. Al observar la Figura Núm. 9 notamos lo siguiente:

- a. Esta intersección está operando con un nivel de servicio C.



## INTERSECTION TOTAL FLOW SUMMARY

Intersection: Avenida Boulevard &amp; Carretera PR-693

Date: 26 de marzo de 2009.

A.M. PEAK HOUR	Entrada Centro Comercial				Entrada Hotel y Urb.				Carretera PR-693			
	NB-L	NB-T	NB-R	SB-L	SB-T	SB-R	EB-L	EB-T	EB-R	WB-L	WB-T	WB-R
PEAK HOUR VOLUME	128	8	96	276	32	360	72	708	76	12	252	288
ANNUAL GROWTH (YEAR 2013)	5	0	4	11	1	15	3	29	3	0	10	12
TOTAL	133	8	100	287	33	375	75	737	79	12	262	300
P.M. PEAK HOUR	Entrada Centro Comercial				Entrada Hotel y Urb.				Carretera PR-693			
	NB-L	NB-T	NB-R	SB-L	SB-T	SB-R	EB-L	EB-T	EB-R	WB-L	WB-T	WB-R
PEAK HOUR VOLUME	88	20	132	168	20	116	116	464	96	104	516	432
ANNUAL GROWTH (YEAR 2013)	4	1	5	7	1	5	5	19	4	4	21	18
TOTAL	92	21	137	175	21	121	121	483	100	108	537	450

TABLA 1

**Análisis de capacidad incluyendo mejoras recomendadas y por ciento de crecimiento para el año 2013****Hora Máxima de la Mañana****Intersección Avenida Boulevard y Carretera PR-693**

En la Figura Núm. 10, que aparece en el Apéndice B, se presenta el análisis de capacidad para la intersección de referencia. Al observar la Figura Núm. 10 notamos lo siguiente:

- a. Esta intersección estará operando con un nivel de servicio C.

**Análisis de capacidad incluyendo mejoras recomendadas y por ciento de crecimiento para el año 2013****Hora Máxima de la Tarde****Intersección Avenida Boulevard y Carretera PR-693**

En la Figura Núm. 11, que aparece en el Apéndice B, se presenta el análisis de capacidad para la intersección de referencia. Al observar la Figura Núm. 11 notamos lo siguiente:

- a. Esta intersección estará operando con un nivel de servicio C.

**Micro-simulación**

En las Figuras Núm. 12 y 13, que aparecen en el Apéndice C, se muestran los modelos de micro-simulación de la red para las intersecciones que fueron estudiadas durante las horas máximas de la mañana y de la tarde.

**Modelos de micro-simulación, Condiciones Futuras 2013****Hora Máxima de la Mañana**

En la Figura Núm. 12, que aparece en el Apéndice C, se presenta los modelos de micro-simulación para la red estudiada. En la Figura Núm. 12 se observa lo siguiente:

1. Esta red estará operando con una demora promedio de 30.5 segundos por vehículo.
2. La velocidad promedio de la red es de 15 millas por hora.

**Modelos de micro-simulación, Condiciones Futuras 2013****Hora Máxima de la Tarde**

En la Figura Núm. 13, que aparece en el Apéndice C, se presenta los modelos de micro-simulación para la red estudiada. En la Figura Núm. 13 se observa lo siguiente:

1. Esta red estará operando con una demora promedio de 43.2 segundos por vehículo.
2. La velocidad promedio de la red es de 12.4 millas por hora.

**V**

**CONCLUSIONES Y RECOMENDACIONES**



## **V. CONCLUSIONES Y RECOMENDACIONES**

Como resultado del estudio de tránsito realizado al sistema vial, se ha determinado que las intersecciones estudiadas mejorarán considerablemente si se realizan las mejoras geométricas y optimización de los sistemas de semáforos que se indicarán en este capítulo.

A continuación se presentan las recomendaciones para las intersecciones estudiadas. Se deberán tomar en consideración estas recomendaciones para mejorar las mismas y producir un flujo de vehículos seguro y eficiente.

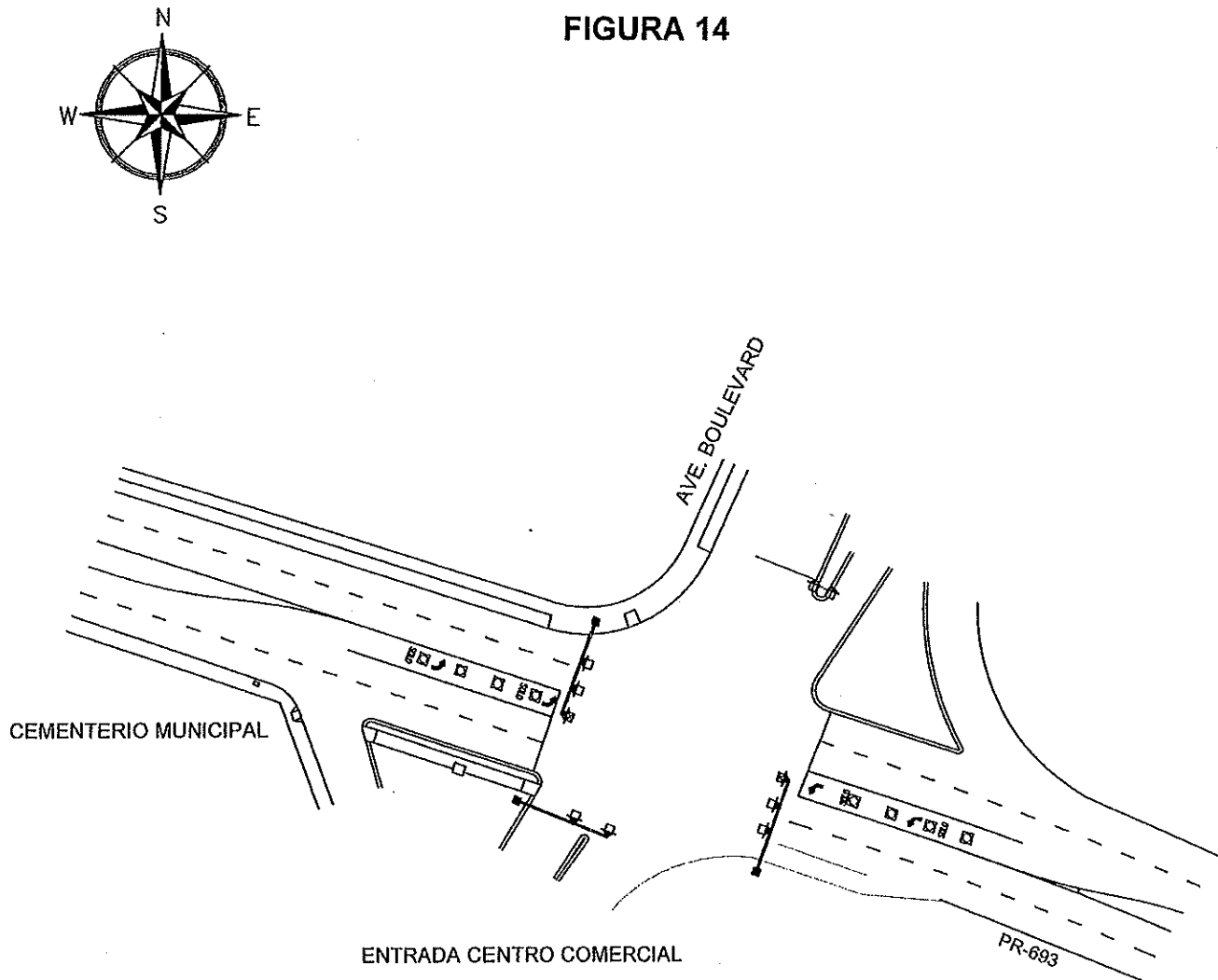
### **Recomendaciones**

#### **Intersección Avenida Boulevard & Carretera PR-693**

- 1- Se recomienda añadir un carril de aceleración en el acceso este. Ver Figura Núm. 14.
- 2- Se recomienda cambiar las fases del sistema de semáforos como se muestra en las Figuras Núm. 10 y 11 (Apéndice B), para las horas máximas de la mañana y de la tarde, respectivamente.

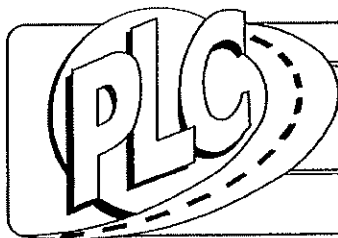
# MEJORAS PROPUESTAS INTERSECCIÓN AVE. BOULEVARD & CARRETERA PR-693

FIGURA 14



MEJORAS PROPUESTAS

NO A ESCALA



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**Intersección Entrada a Centro Comercial, Carreteras PR-696 & PR-693**

- 1- Se recomienda eliminar uno de los carriles de "SOLO" a la derecha del acceso norte, para que el mismo sea utilizado como carril recto. Ver Figura Núm. 15.
- 2- Se recomienda añadir un carril de "SOLO" a la derecha en el acceso oeste, como se muestra en la Figura Núm. 16.
- 3- Se recomienda añadir un carril de entrada en el acceso sur, como se muestra en la Figura Núm. 17.
- 4- Se recomienda cambiar las fases del sistema de semáforos como se muestra en las Figuras Núm. 18 y 19, para las horas máximas de la mañana y de la tarde, respectivamente.

**Intersección Carretera PR-698, Calle Ceferino Barbosa & Carretera PR-693**

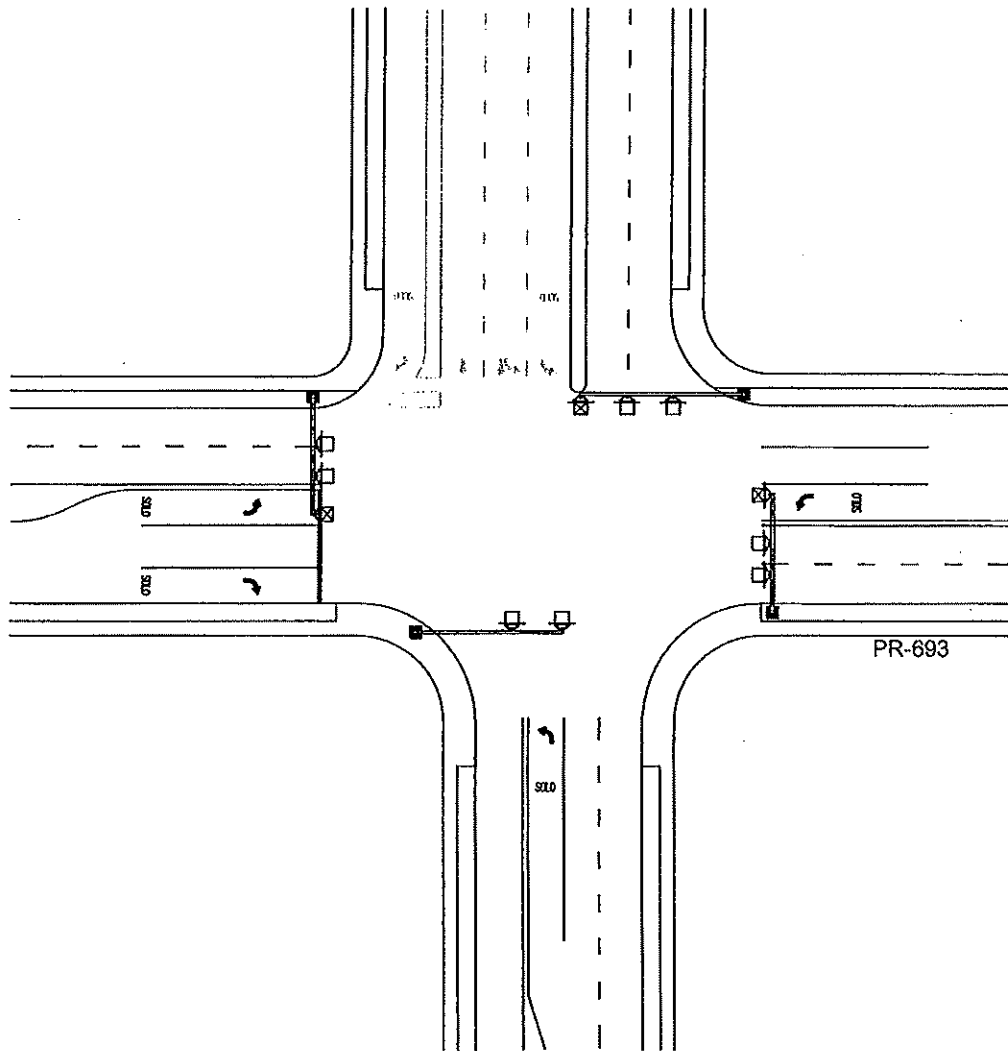
- 1- Se recomienda sustituir el sistema de semáforos por una rotonda de dos carriles, la cual mejorará considerablemente el flujo de vehículos en esta intersección. Ver Figura Núm. 20.
- 2- En el acceso norte de la Carretera PR-698 se recomienda añadir un carril de salida y un carril de entrada. Ver Figura Núm. 20.
- 3- Se recomienda eliminar el estacionamiento de vehículos en la vía de rodaje.
- 4- Se recomienda relocalizar la Parada de Trolley que está en el acceso oeste para que el tránsito pueda fluir seguro y eficientemente.

**RECOMENDACIÓN #1: ACCESO NORTE**  
**INTERSECCIÓN ENTRADA A CENTRO COMERCIAL Y**  
**CARRETERAS PR-696 & PR-693**

**FIGURA 15**



ENTRADA CENTRO COMERCIAL



RECOMENDACIONES

PR-696

NO A ESCALA



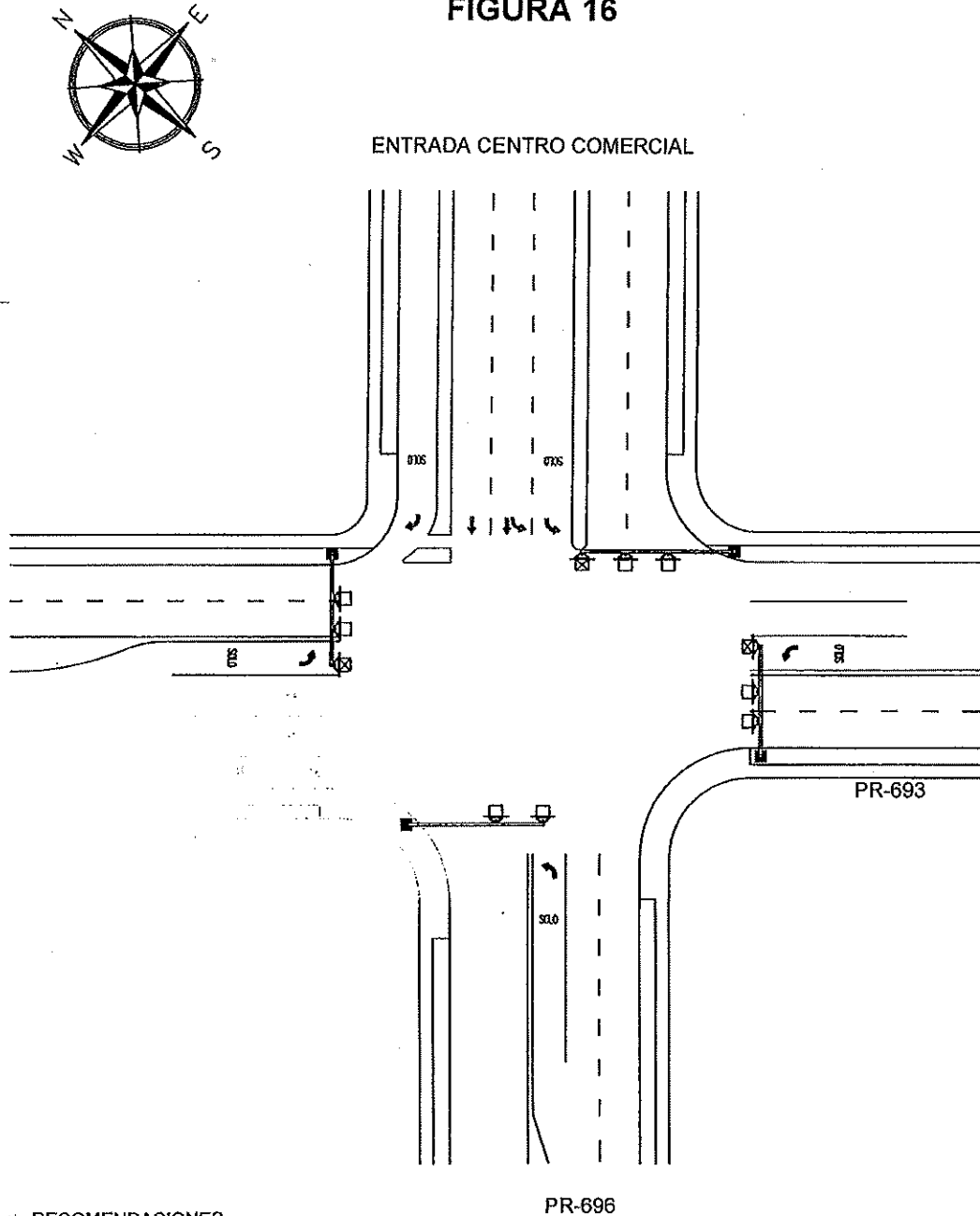
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**RECOMENDACIÓN #2: ACCESO OESTE**  
**INTERSECCIÓN ENTRADA A CENTRO COMERCIAL Y**  
**CARRETERAS PR-696 & PR-693**

**FIGURA 16**



NO A ESCALA

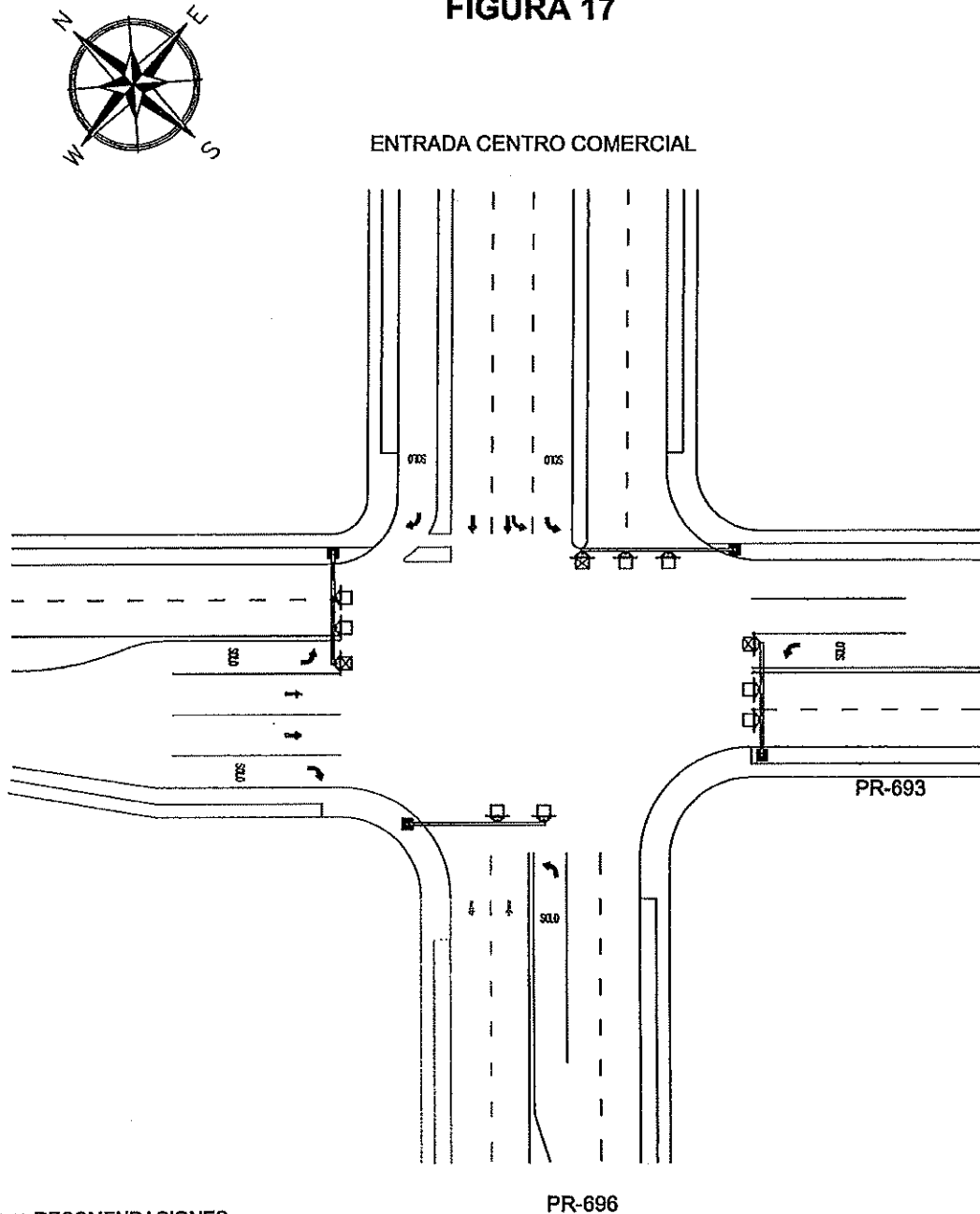


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# RECOMENDACIÓN #3: ACCESO SUR INTERSECCIÓN ENTRADA A CENTRO COMERCIAL Y CARRETERAS PR-696 & PR-693

FIGURA 17



RECOMENDACIONES

PR-696

NO A ESCALA


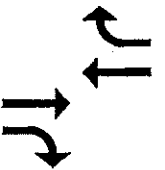





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# **RECOMENDACIÓN #4: CAMBIO DE FASES (AM) INTERSECCIÓN ENTRADA A CENTRO COMERCIAL Y CARRETERAS PR-696 & PR-693**

**FIGURA 18**

MOVIMIENTO 1	MOVIMIENTO 2	MOVIMIENTO 3	MOVIMIENTO 4	MOVIMIENTO 5
				
V-13 S. A-3 S.	V-7 S. A-3 S.	V-14 S. A-3 S.	V-42 S. A-3 S.	V-14 S. A-3 S.

TODO ROJO = 1 S.


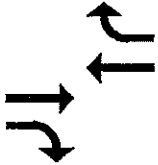





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# **RECOMENDACIÓN #5: CAMBIO DE FASES (PM)** **INTERSECCIÓN ENTRADA A CENTRO COMERCIAL Y** **CARRETERAS PR-696 & PR-693**

**FIGURA 19**

MOVIMIENTO 1	MOVIMIENTO 2	MOVIMIENTO 3	MOVIMIENTO 4	MOVIMIENTO 5
				
V-19 S. A-3 S.	V-6 S. A-3 S.	V-14 S. A-3 S.	V-25 S. A-3 S.	V-26 S. A-3 S.

TODO ROJO = 1 S.



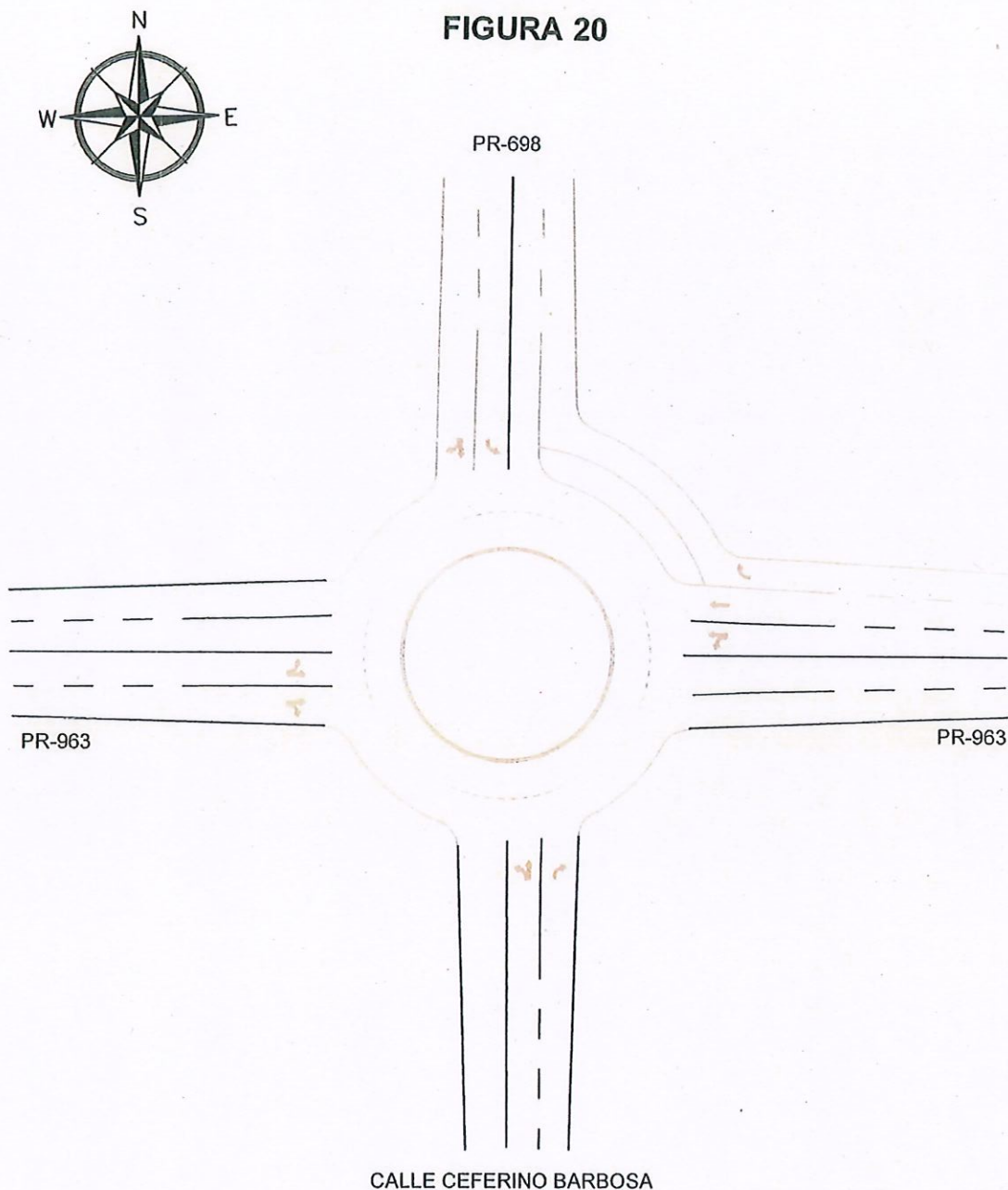
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**RECOMENDACIÓN #1: ROTONDA**  
**INTERSECCIÓN CARRETERA PR-698,**  
**CALLE CEFERINO BARBOSA & CARRETERA PR-693**

**FIGURA 20**



 **RECOMENDACIONES**

NO A ESCALA



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**Attachment 20: PTRC/CLARO Endorsements**

## Memorial Explicativo

### Proyecto Mejoras Reconstrucción Rotonda en la Intersección de la Carretera PR-693 y la PR-698, en Dorado

Reconstrucción de aceras y encintados para hacer mejoras geométricas tipo rotonda en la vía pública existente en la intersección de la carretera PR-693 y la PR-698, en Dorado.

Esta reconstrucción y mejoras geométricas se harán en la vía pública existente en la carretera PR-693 y la intersección de la PR-698. Este proyecto fue aprobado anteriormente por PRTC/CLARO. Se incluyen los planos aprobados anteriormente. Se harán mejoras y reconstrucción a la carretera existente, mejoras a las utilidades eléctricas y al sistema pluvial. La cabida de los terrenos envueltos es de aproximadamente 8,000 metros cuadrados y tiene una zonificación P. El proyecto es uno publico por el Municipio de Dorado y se hará por contratación privada



Jorge  
L Bigas

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by Jorge L  
Bigas  
Date:  
2024.01.08  
10:57:23 -04'00'

## Memorial Explicativo

### Proyecto Mejoras Reconstrucción Rotonda en la Intersección de la Carretera PR-693 y la PR-698, en Dorado

Reconstrucción de aceras y encintados para hacer mejoras geométricas tipo rotonda en la vía pública existente en la intersección de la carretera PR-693 y la PR-698, en Dorado.

Esta reconstrucción y mejoras geométricas se harán en la vía pública existente en la carretera PR-693 y la intersección de la PR-698. Este proyecto fue aprobado anteriormente por Liberty. Se incluyen los planos aprobados anteriormente. Se harán mejoras y reconstrucción a la carretera existente, mejoras a las utilidades eléctricas y al sistema pluvial. La cabida de los terrenos envueltos es de aproximadamente 8,000 metros cuadrados y tiene una zonificación P. El proyecto es uno publico por el Municipio de Dorado y se hará por contratación privada



Jorge L. Bigas

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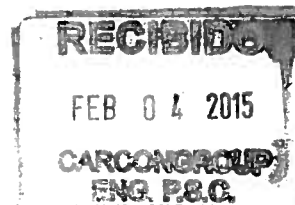
**NOTIFICACION DE APROBACION PARA CONSTRUCCION  
(LEY DE CERTIFICACION DE PLANOS)**

8 de febrero de 2015

AWB-emf

Ing. Jorge L. Bigas  
867 Ave. Muñoz Rivera, Suite B-302  
San Juan, PR 00925

**CONSTRUCCIÓN PASEO MENDEZ VIGO FASE IV  
CARRETERA PR-693 DESDE PR-696 HASTA PR-698  
BO. MAMEYAL  
DORADO, PUERTO RICO  
NUM. RAD.: 15-11-001-02 MF**



Estimado ingeniero Bigas:

Por medio de esta notificación se le informa la aprobación de su solicitud de construcción. Se procederá a expedir dicha aprobación en la Oficina Regional de Arecibo tan pronto cumpla con las condiciones señaladas a continuación:

- (XX) 1. Presente la fianza para garantizar la ejecución de las obras requeridas por la cantidad de: \$700,000.00
- ( ) 2. Someta la declaración adjunta, forma DTOP-184, debidamente cumplimentada, firmada y sellada por el Ingeniero o Arquitecto que ha de inspeccionar la obra (cuatro copias en original).
- (XX) 3. Presentar copia de la póliza de responsabilidad pública, en la cual libera al DTOP de responsabilidad alguna y asegura daños causados a terceros.
- (XX) 4. Deberá radicar copia de la autorización del Centro de Excavaciones de la Comisión de Servicio Público.

**ES DE ENTENDERSE QUE ESTA NOTIFICACION NO ES AUTORIZACION, NI PERMISO PARA INICIAR LAS OBRAS DE CONSTRUCCION. ESTA NOTIFICACION QUEDARA SIN EFECTO AL AÑO DE SU EXPEDICION.**

Cordialmente

Ing. Ángel W. Brioso Texidor  
Jefe Conservación de Carreteras Int.

DTOP REGIONAL DE ARECIBO  
Apartado 425, Manatí, Puerto Rico 00674  
Tel: (787) 854-1010  
Fax: (787) 854-6832  
www.dtop.gov.pr

